UCISA REPORT

2016 Survey of Technology Enhanced Learning for higher education in the UK

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Universities and Colleges
Information Systems Association

2016 Survey of Technology Enhanced Learning for higher education in the UK

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SURVEY

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Executive Summary

This report records the results from a national survey, undertaken by UCISA, into the management and support of technology enhanced learning (TEL) in UK higher education institutions. It builds upon similar surveys in 2001, 2003, 2005, 2008, 2010, 2012 and 2014, permitting a longitudinal view of how TEL has evolved over the last 15 years.

Our definition of TEL is: *Any online facility or system that directly supports learning and teaching. This may include a formal VLE, e-assessment or e-portfolio software, or lecture capture system, mobile app or collaborative tool that supports student learning. This includes any system that has been developed in-house, as well as commercial or open source tools.*

This definition was updated from the one used in 2014 to incorporate the wide range of learning technologies that now form part of the institutional TEL suite of services. The principal focus – that of tracking institutional engagement with technologies in support of learning and teaching activities – remains unchanged from previous years. This report presents the results from the Survey and, where appropriate, offers a longitudinal view of results for questions which have been retained across previous Surveys.

The different Surveys have taken place within a changing national context – the 2014 Survey sought to track the adjustments that institutions were making in response to the tougher economic climate of the post-Browne review era[1], with attention to efficiency savings as a result of restricted budgets realised through voluntary redundancies, reorganisations and more selective staff development activities. The Survey investigated institutional responses to these challenges and their impact on staffing levels, whilst also considering new areas of investment such as distance and open online course delivery (e.g. MOOCs) and the expansion of mobile learning provision, looking at their impact on institutional policies, service provision and pedagogic practice.

The 2016 Survey continued to track organisational adjustments in staffing and budgets, whilst also exploring new TEL service developments since 2014. Investment in new student-centred TEL provision has been driven partly as a response to the more competitive marketplace for student recruitment that has emerged across the sector, but has also been given additional impetus through national changes to legal guidance for higher education providers. One such example is the publication by the Competition and Markets Authority of consumer protection law advice[2],which has encouraged English institutions to clarify their *offer* to students and recognise them as consumers and/or partners in educational development, with a greater say in the scope and quality of services that are provided. The 2016 questions aimed to assess the impact of these student-centred developments on institutional TEL strategy, policy and tools provision, monitoring in particular the development of new services such as lecture capture and learning analytics and the optimisation of access to existing online learning and teaching services for mobile devices.

The Report reflects on the progress that UK higher education institutions have made in developing their services and enhancing the student learning experience through the provision of flexible and online learning opportunities. A summary of the key findings is as follows.

Enhancing the quality of learning and teaching continues to be the primary driver for considering using TEL. *Meeting student expectations* retains its position in second place and the new response option *Improving student satisfaction (e.g. NSS scores)* is returned as the third most common driver for institutional TEL provision.

Availability of TEL support staff returns to the position it occupied in the 2012 Survey as the leading factor encouraging the development of TEL. *Feedback from students* – which topped the list in the 2014 Survey – is in second place, followed by *Availability and access to tools* and *School/departmental senior management support* in joint third place in the rankings.

Lack of time remains the leading barrier to TEL development, consolidating its position at the top of the list which it has held since the 2005 Survey. Culture continues to be a key barrier, with *Departmental/school culture* moving up to second place and *Institutional culture* staying in the Top 5. Internal funding is also identified as an important financial barrier with *Lack of internal sources of funding to support development* ranked third in the list.

Institutional strategies continue to influence TEL development, with *Teaching, Learning and Assessment* continuing to be the leading internal strategy cited by respondents. The key change since 2014 has been the rise to prominence of the *Student learning experience/student engagement strategy*, which now occupies second place in the list of strategies influencing TEL development, ahead of *Corporate strategy* and *Library and Learning Resources*. The remaining strategies are each cited by less than half of the respondents to the 2016 Survey.

The identity of the main institutional VLE remains largely a choice between *Blackboard* and *Moodle*. The two platforms have the same combined percentage of use as they did in 2014, although there has been a narrowing in market share, with the 2016 data revealing a near equal split between the two.

1 *Browne Report – Securing a sustainable future for higher education: http://www.delni.gov.uk/browne-report-student-fees*

2 *CMA's consumer protection law advice for higher education providers (2014–2016): https://www.gov.uk/cma-cases/consumer-protection-review-of-higher-education*

Looking at the big picture of VLE usage at an institutional (central) and departmental/school (local) level, Moodle remains the most commonly used platform across the sector, but its coverage is less than in 2014, and this decline may be attributed to the rising adoption of alternative systems such as *Canvas* by Instructure, as well as the entry of new platforms such as *Joule* by Moodlerooms to the market. In contrast, the number of institutions using *SharePoint* has rapidly declined from the figure recorded in 2014, with less than half the number now using the system.

There has been a notable increase in the number of institutions using open learning platforms such as *FutureLearn* and Blackboard's *Open Education* system since the last Survey. The figure for FutureLearn has trebled since 2014, with Russell Group institutions accounting for the highest number of adoptees from the mission groups.

There has been little change since the last Survey in terms of the range of online services that institutions are optimising for access by mobile devices. Access to *course announcements*, *email services* and *course materials and learning resources* remain the three leading services which are being optimised for mobile devices, provided by 60% of responding institutions. The one new development since 2014 has been the rise in mobile optimisation of *library services*, with Russell Group institutions leading the way with 69% of their members improving access in this area. The percentage of institutions optimising access to *lecture recordings* has stayed at the same level as 2014, despite the steady investment in lecture capture systems which has been taking place across the sector. The most common ways in which institutions are promoting the use of mobile devices are through the establishment of a *bring your own device* (BYOD) policy and by loaning out devices to staff and students. Funding for mobile learning projects has reduced in scale across the sector from the 31 institutions supporting this activity in 2014 to 23 institutions in 2016.

Evaluation activity in reviewing VLE provision is now well established across the sector, with over half of the institutions which responded to the 2016 Survey having conducted reviews over the last two years. This activity is evenly spread across the university mission groups, with the exception of Million+ institutions which were more active in the period leading up to the 2014 Survey. The focus of Million+ institutions has instead been on other TEL services such as lecture capture during this time, which is the second most commonly reviewed service by all mission groups over the last two years.

Looking beyond the VLE, *e-submission tools* now sit in second place in the list of the most common centrally-supported software in use across the sector, ahead of *text matching tools* such as Turnitin, SafeAssign and Urkund. *Formative* and *summative e-assessment tools* both feature in the Top 5, along with *asynchronous communication tools*, which was introduced as a new response option this year. The other key change from 2014 has been the rapid increase in the adoption of *document sharing tools* across the sector and the steady rise in the use of *lecture capture tools*. In contrast, podcasting tools continue to decline in popularity and the new response items *electronic exams* and *learning analytics* appear not to be well established at all as institutional services, with only a handful of institutions currently supporting services in these areas.

Social networking, *document sharing* and *blog tools* are the most common non-centrally supported tools in use across the sector. However, there has been a notable decline in the extent of use of non-centrally supported document sharing and blog tools, which might well reflect the investment in institutional services and the growing adoption of centrally supported alternatives by staff and students.

The overall picture of how TEL tools are being used to support module delivery across the sector is similar to that presented in the 2014 Survey Report. *Blended learning delivery* based on the provision of supplementary learning resources remains the most common use of TEL. Only a small number of institutions actually require students to engage in active learning online across all of their programmes of study, with levels of blended learning activity commonly varying between schools and departments. One of the key developments since 2014 has been the increasing institutional engagement in the delivery of *fully online courses*, with over half of 2016 respondents now involved in some form of fully online delivery through their schools or departments. This is in contrast to *open learning course delivery*, which currently has a much lower level of institutional engagement; notwithstanding the growing adoption of MOOC platforms by institutions, less than half of respondents are pursuing open course delivery.

The level of evaluation activity on the impact of TEL tools and systems on the student learning experience has fallen since the last Survey. This is also true for the level of institutional evaluation on pedagogic practices. Pre-92 universities have the highest percentage of institutions actually engaged in this activity and these evaluations are largely being conducted to assess levels of student satisfaction with TEL services, and to identify gaps in provision.

The number of units providing support for TEL has decreased since the last Survey, but looking back this appears to fluctuate every two years, which could indicate that TEL support provision is still evolving. This is reflected by the continuing changes in TEL staffing and provision with just under half of respondents reporting some form of restructure of their department or TEL provision. The 2016 findings also suggest a continued period of growth in TEL staffing with 51% of respondents reporting an increase in the number of staff in the past two years. This trend looks set to increase with the majority of institutions foreseeing further changes, primarily relating to rising numbers of staff and further restructuring of their TEL services.

Outsourcing of institutional services continues to grow, primarily for student email, e-portfolio systems, VLEs and staff email. The type of outsourcing model is dependent on the platform being outsourced, such that institutions are more likely to use a *Software as a Service* (SaaS) cloud-based model for email services, and to use an institutionally managed, externally hosted model for TEL related tools, such as e-portfolios and the VLE for blended and fully online courses.

There has been little change in the nature of training and development activities promoted to TEL support staff, although Jisc events now appear as the most common development activity across the sector. National conferences/ seminars and internal staff development all remain as key development activities. The 2016 Survey reports a further increase in the promotion of accreditation activities, in particular for HEA and CMALT accreditation.

Electronic Management of Assessment (EMA) has moved to the top of the list of items making the most demand on TEL support teams. *Lecture capture* and *Mobile technologies* remain in the top three list, although there has been a notable decrease for mobile technologies, perhaps indicating that they are becoming more embedded within institutions. The demand from *learning analytics* and from *distance learning/fully online courses* continues to increase, albeit slowly. A new entry which might be expected to make more demands in the future is *accessibility*; in particular, demands made by changes to the Disabled Students' Allowance in the English higher education sector, where the primary focus from respondents is on lecture capture and captioning provision for students.

The Top 5 challenges facing institutions are largely unchanged from 2014, although the order of priorities appears to have shifted. *Staff Development* is now the most commonly cited challenge, moving up into first place, followed by *Electronic Management of Assessment*. *Lecture capture/recording* continues to move up the rankings to joint third place with *Technical infrastructure*, and is linked to the return of *Legal/policy issues* as a Top 5 challenge. *Lack of support staff/ specialist skills/resources* has moved down the rankings to fifth place from first and *Mobile technologies/learning* also sees a decline.

Acknowledgements

The following have all made invaluable contributions to the preparation, conduct or analysis of the Survey. It is customary in such circumstances to acknowledge their advice but to absolve them of blame for any subsequent inadequacies and imperfections. We gladly and appreciatively do both.

Heads of e-Learning Forum (HeLF) members, especially Kyriaki Anagnostopoulou, Xavier Briche, John Hill, Brian Irwin, Andy Jaffrey, Barbara Newland, Fiona Strawbridge, David Walker and Neil Witt

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Preface

The changing language of past Surveys neatly reflects the evolving development of support provision for TEL tools across the sector. From an initial focus on Virtual Learning Environment (VLE) and Managed Learning Environment (MLE) platforms (2001 and 2003 Surveys respectively), the Survey broadened its focus to take account of e-learning (2005) and then a much wider coverage of technology enhanced learning tools (2008, 2010, 2012 and 2014). For the 2016 Survey, this focus was retained, but an attempt was made to update questions and response options to capture new realities in TEL support and provision across the UK higher education sector.

Background

The 2016 Survey is a continuation of those conducted between 2001 and 2014 but it also endeavours to capture contemporary issues that have emerged since the 2014 Survey. Whilst the challenges within the sector are constantly evolving, the rationale for the UCISA community remains the same. The following text was written in the Report for the 2001 Survey and despite the passage of time it still remains apposite: (replace VLEs with TEL):

> *"UCISA is aware that a number of issues relating to VLEs are having a significant impact on Computing/Information Services. They also represent cultural challenges for both academic staff and students in how they engage with their learning and teaching. Issues relate to choosing a VLE, its implementation, technical support and a whole range of support, training and pedagogic issues relating to its use."*

The primary target, or stakeholder community, i.e. UCISA, is a very broad constituency, including managers, learning technologists, educational developers and technical and administrative staff. Institutionally they can be found centrally or devolved in schools and departments. They may be in an IT unit or the Library, in training and educational development units, in specialist e-learning units, in academic departments or indeed in any combination of them all!

The Reports for the seven previous Surveys are available on the UCISA website[3]. A short peer reviewed paper on the key messages from the 2014 Survey was presented to international delegates at ascilite 2014 in Dunedin New Zealand[4], and presentations were also made to national audiences at ALT-C 2014[5] and to members of the Management of Small Higher Education Institutions Network in 2015[6]. The results were also discussed at a poster presentation at EDUCAUSE 2014[7] and through a podcast which was published on the web in 2014[8].

The UCISA community has valued the oversight that the Survey reports provide of trends within UK higher education and may use them to assess the position of their own institution in relation to them. However, we continue to caution against using the statistics as benchmarks or performance indicators. There are different perspectives on where an institution may wish to be located across the spectrum of options and there is no single path of uniform development in provision and support for learning technologies.

The focus of respondents' attention is firmly on institution-level concerns, which is unsurprising given the nature of the Survey and the fact that the respondents are typically those in leadership roles at institutional level. The support community may sometimes feel that they are at the end of this food chain, but the effectiveness of their role is highly dependent upon the cultural environment in which they are asked to operate. Technological advances have continued to be rapid since the 2014 Survey, bringing new educational opportunities and additional support headaches! It is these new challenges which the 2016 Survey wished to capture. Also, although many members of UCISA may indeed have some institutional influence in determining strategies, it is the implementation of the infrastructures and services to sustain those strategies that are of particular importance and relevance to the support community, i.e. the core UCISA constituency.

3 *Reports on the UCISA surveys are available at: http://www.ucisa.ac.uk/bestpractice/surveys/tel/tel.aspx*

4 *Jenkins, M., Walker, R., & Voce, J. (2014). Achieving flexibility? The rhetoric and reality of the role of learning technologies in UK higher education. ascilite2014, Dunedin, New Zealand. http://www.ascilite.org/conferences/dunedin2014/files/concisepapers/161-Jenkins.pdf*

5 *Walker, R., & Voce, J. (2014). Ground swells and breaking waves: Findings from the 2014 UCISA TEL survey on learning technology trends, developments and fads. ALT-C 2014, University of Warwick.*

6 *Walker, R. (2015). Technology Enhanced Learning for HE in the UK: Reflections on the 2014 UCISA Survey and Issues Arising for Small Institutions Looking Forward to the 2016 Survey. Key Issues Awareness Programme: Leading Technology Enhanced Learning in Small and Specialist Institutions. MASHEIN (Management of Small Higher Education Institutions Network), London.*

7 *http://www.educause.edu/annual-conference/2014/current-and-emerging-support-challenges-technology-enhanced-learning-across-uk-higher-education-sector*

8 *http://www.ucisa.ac.uk/~/media/groups/dsdg/asg/UCISA_2014_TEL_Survey_Podcast.ashx*

We were encouraged by feedback from the support communities on the value of the Survey reports, most notably those represented by the UK Heads of e-Learning Forum. Crucially we also received financial backing from the UCISA Executive to go ahead with another project in 2016.

Factors influencing the design of the 2016 Survey

The design of the question-set for the Survey has purposely evolved over the years, seeking to reflect current technology themes and challenges whilst retaining an eye on longitudinal developments. Survey design choices are naturally strongly influenced by sector developments in the policy and management of TEL and we have closely monitored TEL practices both nationally and internationally to inform our thinking.

Since the last Survey we have observed how the institutional focus on e-assessment provision has continued to grow. The enhancement of assessment and feedback processes through technology has been a key area of interest for the UK Heads of e-learning Forum (HeLF), which has been tracking institutional developments for the full lifecycle from e-submission to return of marks to students since 2012 through its own survey work, with its most recent survey results published in June of this year[9]. Jisc has also been helping institutions to consider how best to integrate assessment technologies and track progress for both formative and summative work through its assessment and feedback lifecycle model[10], which it first published in October 2015.

Another area of interest for the sector has been in learning analytics, with HeLF publishing another survey report on institutional provision in this area[11]. Indeed the Association for Learning Technology (ALT) has identified the theme of connecting data and analytics to enhance learning and teaching as one of the central discussion points for its 2016 annual conference[12]. The growing interest by HE providers in metrics for tracking the quality of learning no doubt is partly connected to discussions around the Teaching Excellence Framework (TEF) and its impending introduction to the English HE sector and possible adoption by institutions from other national HE sectors[13], with a focus on generating information on teaching quality and the structure of courses which may help to support decisions on teaching funding. Jisc is currently working with more than 50 universities and colleges to support the development of a sector-wide learning analytics solution, with the project due to be completed by the end of July 2017[14] and we may anticipate further developments in analytics provision in the future.

Investment in new student-centred TEL provision such as lecture capture, mobile services and supporting infrastructure has also gathered momentum over the past two years. This has been driven partly as a response by HE providers to the more competitive marketplace for student recruitment that has emerged across the sector, helping to demonstrate the quality of the learning environment to prospective students and in this way support both the recruitment and the retention of existing students. The publication by the Competition and Markets Authority of consumer protection law advice[15] has also encouraged English institutions to clarify their *offer* to students and recognise them as consumers and/or partners in educational development, with a greater voice on the scope and quality of services that are provided for them. Student feedback may also be encouraging greater investment in TEL services.

We have also kept a watchful eye on TEL developments overseas, tracking the work of the European Universities Association (EUA) which published its own survey report on e-learning developments across Europe in October 2014[16]. The Survey findings highlighted the strong adoption of e-learning services by institutions and the high percentage of institutions which are now delivering fully online courses. This latter finding offers an interesting point of comparison with the UK, where fully online delivery has traditionally been seen as a niche activity, although as we reported in the 2014 case studies on technology enhanced learning[17], the picture may now be changing with some HE institutions declaring a commitment to scale up their provision of distance learning programmes and increase student enrolments through online learning.

9 *Newland, B. (2016). HeLF UK HE Research on Electronic Management of Assessment 2016. http://www.slideshare.net/barbaranewland/helf-uk-he-research-on-electronic-management-of-assessment-2016*

10 *Jisc (2015). Guide: The assessment and feedback lifecycle. https://www.jisc.ac.uk/guides/transforming-assessment-and-feedback/lifecycle*

11 *Newland, B., Martin, L. & Ringan, N. (2015). Learning Analytics in UK HE 2015. A HeLF Survey Report. http://tinyurl.com/HeLF-learning-analytics*

12 *ALT Annual Conference 2016: Connect, Collaborate, Create. https://altc.alt.ac.uk/2016/*

13 *The UK Government's Department for Business, Innovation & Skills published a white paper for consultation on the proposed teaching excellence framework in November 2015. Further details are available at: https://www.gov.uk/government/consultations/higher-education-teaching-excellence-social-mobility-and-student-choice*

14 *Jisc project (2015–2017): Effective learning analytics. https://www.jisc.ac.uk/rd/projects/effective-learning-analytics*

15 *CMA's consumer protection law advice for higher education providers (2014–2016): https://www.gov.uk/cma-cases/consumer-protection-review-of-higher-education*

16 *Gaebel, M., Kupriyanova, V., Morais, R., & Colucci, E. (2014). E-learning in European Higher Education Institutions: Results of a mapping survey conducted in October-December 2013. European University Association Publications. http://www.eua.be/Libraries/publication/e-learning_survey*

17 *UCISA (2014). 2014 Survey of Technology Enhanced Learning: case studies. http://www.ucisa.ac.uk/~/media/groups/dsdg/asg/TEL%20Survey%202014_Case%20Studies_12Nov14.ashx*

18 *ICEF Monitor (2016). http://monitor.icef.com/2016/01/mooc-enrolment-surpassed-35-million-in-2015/*

The EUA report also highlighted in great detail the growing interest of European universities in MOOCs, with almost half of responding institutions to the 2013 EUA survey planning to develop open courses of this type in the near future. The recent growth in MOOCs has been well documented with worldwide enrolments reportedly exceeding 35 million in 2015[18], but in a new departure we are now starting to see studies of MOOC pedagogy[19], with the prospect of transformational pedagogic practices being developed which may fully exploit the capabilities of learning technologies for large cohorts of students. This may offer transferable staff development benefits and opportunities to apply innovative online pedagogic practices to blended courses. The perceived need for the upskilling of academic staff to drive innovative pedagogic practice was a key theme in the 2014 UCISA Digital Capabilities Survey[20] and this has formed a key area of Jisc activity over the past two years through their *Building digital capability* project work[21].

We have sought to address all of these themes in the design of the 2016 question-set. As with any continuing survey, there is a balancing act to be negotiated in the design of the instrument in maintaining continuity with previous surveys by retaining past questions, whilst not collecting merely stagnant data and also keeping pace with new developments. The approach that we have taken has been to retain the core of the questionnaire from previous years to enable longitudinal analysis, whilst adding new response options to some questions to ensure that the Survey remains up to date with sector developments. For instance, the list of driving factors for developing TEL was extended to include options on improving student satisfaction (e.g. National Student Survey scores) and assisting and improving the retention of students. In the question on institutional strategies which inform the development of TEL we also included a new option on the Competition and Markets Authority to reflect the rising importance of consumer protection and legal advice to institutions. Additional component questions were introduced on the role of the main institutional VLE in supporting blended, distance and open learning course delivery, and a broader interpretation of TEL reviews was employed in this year's Survey, extending beyond the review of virtual learning environments to include evaluations of MOOCs, mobile learning and learning analytics provision. A similar approach was taken for the question on the evaluation of TEL on pedagogic practices to include response options on staff digital fluency, flipped learning design and use of learning analytics. We also took the decision to update the classification framework for types of courses using TEL, retiring the supplemented and dependent modes of course delivery as descriptors and using instead the more widely understood categories of blended, fully online and open modes of delivery, adapting the classification scheme employed in the 2013 EUA Survey.

Through feedback and suggestions that we received on the 2014 Survey Report we were also encouraged to introduce completely new questions on areas of institutional TEL activity, such as on TEL governance and the committees and working groups involved in overseeing TEL developments. Other new questions focused on lecture capture systems integration, the outsourcing of TEL provision and the adoption of cloud-based Software as a Service (SaaS) for key services. The addition of these questions was carefully managed to ensure that the Survey did not become excessively long and so affect the completion rate. Consequently we also sought to remove unproductive questions, such as the 2014 question on the identification of discontinued TEL services that have not stood the test of time, and to *prune* other question-sets, such as the group of questions in Section 4 of the 2014 Survey on staff development and budget considerations, so that the volume of the questions in the 2016 Survey remained broadly equivalent to previous years.

Circulation and completion of the 2016 Survey

Following on from the success of the online approach which was first introduced in 2012, institutional Heads of e-Learning were invited to complete the Survey via UCISA's online survey instrument in mid-January 2016 and an email message was also posted on the Heads of eLearning Forum JISC listserv inviting colleagues to complete their institutional returns. UCISA contacts were approached for those institutions without a recognised Head of e-Learning. The online survey tool was eventually closed to submissions in the first week of March 2016.

The workers

The Survey was conducted by UCISA, through the work of Richard Walker (University of York), Julie Voce (Imperial College London), Elaine Swift, (Nottingham Trent University), Jebar Ahmed (University of Huddersfield), Martin Jenkins (Coventry University) and Phil Vincent (York St John University) and with support from UCISA's Academic Support Group. The project team worked in collaboration with The Research Partnership (an independent survey organisation).

The real workers were, of course, all those who completed the Survey.

19 *Laurillard, D. (2014). Anatomy of a MOOC for Teacher CPD. Institute of Education, UCL. http://www.lkl.ac.uk/cms/files/jce/reports/anatomy_of_a_mooc_for_teacher_cpd_ucl-ioe.pdf*

20 *UCISA (2014). Digital Capabilities Survey 2014. http://www.ucisa.ac.uk/digcap*

21 *Jisc (2014–16). Building digital capability. https://www.jisc.ac.uk/rd/projects/building-digital-capability*

22 *For the full list of Universities UK members, please see: http://www.universitiesuk.ac.uk/about/Pages/member-institutions.aspx*

Institutions surveyed

All 133 members of the Universities UK list[22] were invited to complete the Survey, along with 27 other higher education institutions, forming a total population of 160 higher education providers in receipt of public funding via one of the UK funding councils[23]. This is broadly equivalent to the 158 HE institutions which we targeted in 2014.

Presentation of data

The presentation of the data is in four main parts. The Report commentary will focus on results from the 2016 Survey and where appropriate, will be presented in tabular or graphical form. In most cases only the leading responses for each question will be given in the tables within the main report (e.g. the Top 5 responses). The full tabular data for each question for 2016 is presented in Appendix A of the Report. Repeating the approach taken in the 2014 Survey, a breakdown of the data is also available by university mission groups, and this is presented in Appendix B. Where longitudinal analysis can be performed, any presentation of that data is in Appendix C. In most instances, this will only be shown since 2003 because the removal and modification of questions since 2001 seldom warrants detailed comparison with that first Survey. As part of the general narrative, any longitudinal analysis will be in the main text. We have not produced tables for longitudinal analyses of mission group data comparing 2016 results with 2014 and 2012, due to the big changes in membership between 2012 and 2014 (e.g. movement of some institutions from the now defunct 1994 Group to the Russell Group), but key developments in mission group activity from previous Surveys are identified in the main commentary where they are worthy of discussion.

The classification of respondents as higher education colleges has been dropped from this year's Survey, as this term is no longer in currency and many of the former HE Colleges now have full degree awarding powers. The descriptor *Other* has been used to capture those specialist higher education providers such as art institutions and business schools whose courses are validated by universities with full degree-awarding powers. This change aside, we have followed the same approach as in previous Surveys in presenting the data, based on type (Pre-92, Post-92 and Other) and country (England, Wales, Scotland, Northern Ireland), along with the additional layer of data by mission group. Note that the membership of mission groups is based on the make-up of these groups in February/March 2016, when the Survey was being completed and, therefore, does not reflect any subsequent changes in group membership.

Although 110 institutions responded to the Survey, not all questions were attempted by all respondents. Completion totals are therefore presented at the bottom of each table to indicate the number of responses received per question. It is worth noting that some country and group populations are relatively small (e.g. Wales, n=4; Northern Ireland, n=2; Million+ institutions, n=9; HE Other, n=9) and, therefore, susceptible to dramatic swings in percentage scores when the number of respondents in these groups is reduced for particular questions. Care is therefore needed in drawing comparisons between these and other groups, based on the percentage scores recorded for those questions where the response level is much reduced.

In terms of the presentation of data within the Report, percentages have been rounded up (>/ = to 0.5) or down (< 0.5) to whole numbers, so a column of values will not necessarily add up to 100%. Where new response options have been added to established questions used in previous Surveys, they have been highlighted to the reader with an asterisk at the end of the response option in the table or figure where they appear. New questions for the 2016 Survey are identified in the main text accompanying each section of the Report, with an explanation of any changes to the organisation of the section since the 2014 Survey. Similarly any changes to the wording of response options to specific questions, such as the rewording of plagiarism detection tools to text matching tools in question 3.10 in Section 3, have been noted in the commentary.

To assist with longitudinal analysis and the reading of TEL developments across Survey reports, we have retained the numbers for question items used in previous Surveys and have not adjusted the numbering order in sections where we have removed unproductive questions from previous years. Consequently some gaps will appear in the Report, such as in Section 3, where the 2014 questions 3.4 and 3.5 have been removed and the commentary transitions from question 3.3b on outcomes of TEL reviews to 3.6 on TEL reviews to be undertaken in the next two years.

As previously noted, full tables for all of the data are presented in the appendices to the main report. Please note that for the mission group data in Appendix B, we have omitted a data column for unclassified institutions which do not belong to a mission group, as this unaffiliated set of institutions is not meaningful as a combined group. (Unaffiliated institutions as a group account for 48% of the response sample, as displayed in Table C below.) Please note though that the totals that are presented for each table in Appendix B relate to the total number of respondents to the question and not to the mission groups that are represented in the table, which are a subset of that total.

23 For further details on UK higher education numbers, see the Education UK web page: http://www.educationuk.org/global/articles/higher-education-universities-colleges/

24 HESA no longer provides definitive figures for total populations by institutional type. Therefore, in this table, the number of responding institutions

This report focuses primarily on presenting the data in a manner that will enable institutions to position themselves in relation to sector trends. It is not the main purpose of this report to provide detailed interpretation of the data, although some trends will be highlighted. However, in response to feedback received for the 2008 report on the need for clearer lines of interpretation for certain areas of the data, additional qualitative research will continue to be conducted through a series of case study interviews with institutions which volunteered to share their approaches to TEL developments and support provision. These case studies will be presented in a companion report which will be published by UCISA later on in the year.

Response rate

Survey returns were received from 110 of the 160 HE institutions targeted – an impressive response rate of 69% (compared with 61% in 2014), continuing the growth in the number of responses since 2008 (44%). The profile of those taking part is again representative of sector institutions in terms of type of institution, geographic spread and mission group – as shown by Tables A, B and C.

Table A: Type of institution

Type	Total possible[24]	No. responding	% responding	Universe	Sample
Pre-92	-	49	-	-	45%
Post-92	-	52	-	-	47%
Other	-	9	-	-	8%
Total	160	110	69%		100%

Table B: UK Country

Country	Total possible[25]	No. responding	% responding	Universe	Sample
England	132	91	69%	83%	83%
Wales	10	4	40%	6%	4%
Scotland	15	13	87%	9%	12%
Northern Ireland	3	2	67%	2%	1%
Total	160	110	69%	100%	100%

Table C: Mission Group

Country	Total possible[26]	No. responding	% responding	Universe	Sample
Russell Group	24	18	75%	15%	16%
University Alliance	19	17	89%	12%	15%
GuildHE	28	13	46%	18%	12%
Million+	18	9	50%	11%	8%
Unclassified	71	53	75%	44%	48%
Total	160	110	69%	100%	100%

Table D provides a breakdown of institutional responses to this year's Survey and the previous six that have preceded it, namely 2003, 2005, 2008, 2010, 2012 and 2014. The table presents the different combinations of Survey returns that we have received over the years.

and sample percentages are presented only.

25 *The figures are drawn from national funding council lists as published in 2014: e.g. HEFCE http://www.hefce.ac.uk/workprovide/unicoll/*

26 *The numbers are based on membership of the university mission groups in February/March 2014 when the Survey was being completed by institutions.*

Table D: institutional responses for the last seven Surveys

	Surveys	No.
2016 and:	2014 + 2012 + 2010 + 2008 + 2005 + 2003	10
2016	2014 + 2012 + 2010 + 2008 + 2003	5
2016	2014 + 2012 + 2010 + 2005	5
2016	2014 + 2012 + 2003	5
2016	2014 + 2012 + 2010	4
2016	2014 + 2012 + 2010 + 2003	3
2016	2014 + 2012 + 2005 + 2003	3
2016	2014 + 2012 + 2005	2
2016	2014 + 2010 + 2008 + 2005	2
2016	2014 + 2010 + 2008 + 2003	2
2016	2014 + 2008 + 2005 + 2003	2
2016	2014 + 2010 + 2008 + 2003	2
2016	2012 + 2010 + 2005 + 2003	2
2016	2014 + 2012 + 2008	1
2016	2014 + 2010 + 2008 + 2005 + 2003	1
2016	2014 + 2012 + 2008 + 2005 + 2003	2
2016	2014 + 2012 + 2010 + 2005 + 2003	2
2016	2014 + 2012 + 2010 + 2008 + 2005	2
2016	2014 + 2012 + 2010 + 2008	5
2016	2014 + 2012 + 2008 + 2003	1
2016	2014 + 2012 + 2008 + 2005	1
2016	2014 + 2012	2
2016	2014	0
2016	2012 + 2010 + 2008 + 2005 + 2003	2
2016 only	-	7
2016 and:	Other combinations with at least one other Survey completed	37
Total		110

Table E: Total number of Surveys completed by institutions responding to the 2016 Survey

	No.
Seven Surveys completed	10
Six Surveys completed	14
Five Surveys completed	28
Four Surveys completed	24
Three Surveys completed	19
Two Surveys completed	8
One Survey completed	7
Total	110

Tables D and E show that there has been an uneven pattern to Survey completion over the years. Only 10 of the 110 institutions that responded to the 2016 Survey have also responded to the 2014, 2012, 2010, 2008, 2005 and 2003 Surveys[27]. Nevertheless, a consistent longitudinal story is evident in the following analysis, suggesting that the responses are not merely an artefact of receiving returns from the same institutions.

27 This number excludes institutions which have recently merged or formed new institutional identities, which may have incorporated parts of their new organisation which did previously respond to Surveys. The figure may therefore be higher than ten institutions.

Response scales

For the Surveys conducted up to 2005 inclusive, a Likert scale of 1–5 was used. However, the middle option, which is invariably construed as being neither important/unimportant was deemed to be uninformative. So, from 2008, this option was removed to, in effect, encourage the respondents to make a more explicit choice. Therefore, a four point scale was used, namely:

1 = Not at all important

2 = Not very important

3 = Fairly important

4 = Very important

Regarding longitudinal analysis, it is reasonable to compare rankings between Surveys, but with different scales being used it would clearly be unwise to compare means between, before and after 2008. In some cases, the questions compared do not have exactly the same wording. The wording of the question as recorded for each Survey is given in Appendix D.

Summary of conclusions

1. *Enhancing the quality of learning and teaching* continues to be the primary driver for considering using TEL. *Meeting student expectations* retains its position in second place and the new response option *Improving student satisfaction (e.g. NSS scores)* is returned as the third most common driver for institutional TEL provision.

2. *Availability of TEL support staff* returns to the position it occupied in the 2012 Survey as the leading factor encouraging the development of TEL. *Feedback from students* – which topped the list in the 2014 Survey – is in second place, followed by *Availability and access to tools* and *School/departmental senior management support* in joint third place in the rankings.

3. *Lack of time* remains the leading barrier to TEL development, consolidating its position at the top of the list which it has held since the 2005 Survey. Culture continues to be a key barrier, with *Departmental\school culture* moving up to second place and *Institutional culture* staying in the Top 5. Internal funding is also identified as an important financial barrier with *Lack of internal sources of funding to support development* ranked third in the list.

4. Institutional strategies continue to influence TEL development, with *Teaching, Learning and Assessment* consolidating its position as the leading internal strategy cited by respondents. The key change since 2014 has been the rise to prominence of the *Student learning experience/student engagement strategy*, which now occupies second place in the list of strategies influencing TEL development, ahead of *Corporate strategy* and *Library and Learning Resources*. The remaining strategies are each cited by less than half of the respondents to the 2016 Survey.

5. The identity of the main institutional VLE remains largely a choice between *Blackboard* and *Moodle*. The two have the same combined percentage of use as they did in 2014, although there has been a narrowing in market share, with the 2016 data revealing a near equal split between the two. When looking at combined figures for central and local VLE provision, Moodle remains the most commonly used platform across the sector, but its coverage is less than in 2014, and this decline may be attributed to the rising adoption of alternative systems such as *Canvas* by Instructure, as well as the entry of new platforms such as *Joule* by Moodlerooms to the market. In contrast, the number of institutions using *SharePoint* has rapidly declined from the figure recorded in 2014, with less than half the number now using the system.

   There has been a notable increase in the number of institutions using open learning platforms such as *FutureLearn* and Blackboard's *Open Education* system since the last Survey. The figure for FutureLearn has trebled since 2014, with Russell Group institutions accounting for the highest number of adoptees from the mission groups.

6. Evaluation activity in reviewing VLE provision is now well established across the sector, with over half of the institutions which responded to the 2016 Survey having conducted reviews over the last two years. This activity is evenly spread across the university mission groups, with the exception of Million+ institutions which were more active in the period leading up to the 2014 Survey. The focus of Million+ institutions has instead been on other TEL services such as lecture capture during this time, which is the second most commonly reviewed service by all mission groups over the last two years.

7. Looking beyond the VLE, *e-submission tools* now sit in second place in the list of the most common centrally-supported software in use across the sector, ahead of *text matching tools* such as Turnitin, SafeAssign and Urkund. *Formative* and *summative e-assessment tools* both feature in the Top 5, along with *asynchronous communication tools*, which was introduced as a new response option this year. The other key change from 2014 has been the rapid increase in the adoption of *document sharing tools* across the sector and the steady rise in the use of *lecture capture tools*. In contrast, *podcasting tools* continue to decline in popularity and the new response items *electronic exams* and *learning analytics* appear not to be well established at all as institutional services, with only a handful of institutions currently supporting services in these areas.

8. *Social networking*, *document sharing* and *blog tools* are the most common non-centrally supported tools in use across the sector. However, there has been a notable decline in the extent of use of non-centrally supported document sharing and blog tools, which might well reflect the investment in institutional services and the growing adoption of centrally supported alternatives by staff and students.

9. The overall picture of how TEL tools are being used to support module delivery across the sector is similar to that presented in the 2014 Survey Report. *Blended learning delivery* based on the provision of supplementary learning resources remains the most common use of TEL. Only a small number of institutions actually require students to engage in active learning online across all of their programmes of study, with levels of blended learning activity commonly varying between schools and departments. One of the key developments since 2014 has been the increasing institutional engagement in the delivery of *fully online courses*, with over half of 2016 respondents now involved in some form of fully online delivery through their schools or departments. This is in contrast to *open learning course* delivery, which currently has a much lower level of institutional engagement; notwithstanding the growing adoption of MOOC platforms by institutions, less than half of respondents are pursuing open course delivery.

10. There has been little change since the last Survey in terms of the range of online services that higher education institutions are optimising for access by mobile devices. Access to *course announcements*, *email services* and *course materials and learning resources* remain the three leading services which are being optimised for mobile devices, with the same level of activity as before, with 60% of responding institutions having done so. The one development since 2014 has been the rise in the number of institutions optimising *library services*, with Russell Group institutions leading the way with 69% of their members improving access in this area. The percentage of institutions optimising access to *lecture recordings* has stayed at the same level as 2014, despite the steady investment in lecture capture systems which has been taking place across the sector. The most common ways in which institutions are promoting the use of mobile devices are through the establishment of a *bring your own device* (BYOD) policy and by loaning out devices to staff and students. Funding for mobile learning projects has reduced in scale across the sector from the 31 institutions supporting this activity in 2014 to 23 institutions in 2016.

11. The level of evaluation activity on the impact of TEL tools and systems on the student learning experience has fallen since the last Survey. This is also true for the level of institutional evaluation on pedagogic practices. Pre-92 universities have the highest percentage of institutions actually engaged in this activity and these evaluations are largely being conducted to assess levels of student satisfaction with TEL services, and to identify gaps in provision.

12. The number of units providing support for TEL has decreased since the last Survey, but this appears to fluctuate every two years, which could indicate that TEL support provision is still evolving. This is reflected by the continuing changes in TEL staffing and provision with just under half of respondents reporting some form of restructure of their department or TEL provision. The 2016 findings also suggest a continued period of growth in TEL staffing with 51% of respondents reporting an increase in the number of staff in the past two years. This trend looks set to increase with the majority of institutions foreseeing further changes, primarily relating to increasing numbers of staff and restructuring of their services.

13. Outsourcing of institutional services continues to grow, primarily for student email, e-Portfolio systems, VLEs and staff email. The type of outsourcing model is dependent on the platform being outsourced, such that institutions are more likely to use a Software as a Service (SaaS) cloud-based model for email services, and to use an institutionally managed, externally hosted model for TEL related tools, such as e-Portfolios and the VLE for blended and fully online courses.

14. There has been little change in the nature of training and development activities promoted to TEL support staff, although Jisc events now appear as the most common development activity across the sector. National conferences/seminars and internal staff development all remain as key development activities. The 2016 Survey reports a further increase in the promotion of accreditation activities, in particular for HEA and CMALT accreditation.

15. *Electronic Management of Assessment (EMA)* has moved to the top of the list of items making the most demand on TEL support teams. *Lecture capture* and *Mobile technologies* remain in the top three list, although there has been a notable decrease for mobile technologies, perhaps indicating that they are becoming more embedded within institutions. The demand from *Learning Analytics* and from *distance learning/fully online courses* continues to increase, albeit slowly. A new entry which might be expected to make more demands in the future is *Accessibility*; in particular, demands made by changes to the Disabled Students' Allowance in the English higher education sector, where the primary focus from respondents is on lecture capture and captioning provision for students.

16. The Top 5 challenges facing institutions are largely unchanged from 2014, although the order of priorities appears to have shifted. *Staff Development* is now the most commonly cited challenge, moving up into first place, followed by *Electronic Management of Assessment*. *Lecture capture/recording* continues to move up the rankings to joint third place with *Technical infrastructure*, and is linked to the return of *Legal/policy issues* as a Top 5 challenge. *Lack of support staff/specialist skills/resources* has moved down the rankings to fifth place from first and *Mobile technologies/learning* also sees a decline.

Section 1: Factors encouraging development of technology enhanced learning

Section 1 of the Survey looked at the factors promoting the development of TEL within higher education institutions and retained the same set of questions that were used in the 2014 Survey. However the response options were updated to reflect key changes since the last Survey, such as the increasing importance of student satisfaction, as captured through the National Student Survey (NSS), as well as the withdrawal of the Disabled Students' Allowance within the English higher education sector and its influence on TEL developments. Respondents were asked to consider the factors encouraging strategic development for TEL within their institution.

Question 1.1: How important, if at all, have each of the following *driving factors* been for developing TEL and the processes that promote it in to date?

Table 1.1a: Driving factors for TEL development (Mean values and Ranks for ALL and Type)

Rank2016	Driving factors	All	Pre-92		Post-92		Other	
Top 5			Mean	Rank	Mean	Rank	Mean	Rank
1	Enhancing the quality of learning and teaching in general	3.82	3.77	1	3.86	1	3.88	1
2	Meeting student expectations in the use of technology	3.60	3.62	2	3.56	3	3.75	2=
3	Improving student satisfaction e.g. NSS scores*	3.57	3.55	3	3.64	2	3.25	4=
4	To help create a common user experience	3.32	3.26	5	3.32	4	3.75	2=
5	Improving access to online/blended learning for campus-based students	3.23	3.28	4	3.18	7	3.25	4=

Note: n=105 for Table 1.1a

Table 1.1b: Driving factors for TEL development (Mean values and Ranks for ALL and Country)

Rank2016	Driving factors	All	Eng		Wal		Sco		NI	
Top 5			Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1	Enhancing the quality of learning and teaching in general	3.82	3.82	1	3.50	=4	3.92	1	4.00	=1
2	Meeting student expectations in the use of technology	3.60	3.59	2	4.00	1	3.58	4	3.50	=9
3	Improving student satisfaction e.g. NSS scores*	3.57	3.54	3	3.50	=4	3.75	2	4.00	=1
4	To help create a common user experience	3.32	3.29	4	3.75	=2	3.42	7	3.50	=9
5	Improving access to online/blended learning for campus-based students	3.23	3.18	6	3.50	=4	3.33	11	4.00	=1

Note: n=105 for Table 1.1b

Tables 1.1a and 1.1b summarise the returns for Question 1.1 showing the Top 5 rankings for all the data, ordering them according to their mean values. The mean values were calculated from the number of responses given for each option within the response scale. The individual rankings by type of university are given in Table 1.1a and by country in Table 1.1b. A breakdown of results by mission group is available in Table B1.1 in the Appendix to this report.

The Top 2 drivers for TEL development remain unchanged since the 2008 Survey, with *Enhancing the quality of learning and teaching* again leading the list and *Meeting student expectations in the use of technology* in second place. *Improving student satisfaction*, a new response item in this year's Survey, is ranked third in the list, emphasising the importance of student satisfaction as a driving factor for TEL. *Helping create a common user experience* remains in the Top 5, moving up from fifth to fourth place.

Improving access to online/blended learning for campus-based students ranks fifth overall, however this is not a key driving factor for University Alliance institutions where it is ranked 21st with a mean of 2.88. Likewise, it is less of a driver for Scottish institutions (ranked 11th), where there is a stronger focus on distance learners with *Improving access to learning for distance learners* ranked in third place with a mean of 3.67. Scottish institutions also give greater attention to *Attracting new markets* (mean of 3.50), compared with English (2.87) institutions. The low number of respondents from Northern Ireland means that there are a large number response items with a mean of either 4 or 3.5.

Supporting flexible/blended curriculum development, a new response item in this year's Survey, is perceived very differently across the mission groups with GuildHE institutions ranking it in second place, with a mean of 3.62, whilst University Alliance members ranked it 19th, with a mean of 2.94. *Widening participation/inclusiveness* also varies across the mission groups with GuildHE institutions ranking it fifth, whilst Million+ institutions ranked it 22nd.

Considering the reference to the retention of students within the UK Government's Teaching Excellence Framework (TEF) White Paper, it is surprising to see that *Assisting and improving the retention of students* is not a key driving factor for Pre-92 and Russell Group institutions, which rank this item 18th and 25th respectively.

Improving access to learning through the provision of open education resources and *Improving access to learning through the provision of open education courses (e.g. MOOCs)* continue to be ranked as the least important of all the driving factors for developing TEL. Of the mission groups, Million+ respondents provided the highest mean score (2.38) for *Improving access to learning through the provision of open education resources*, and Russell Group universities continue to provide the highest mean score (2.53) for *Improving access to learning through the provision of open education courses (e.g. MOOCs)*.

Question 1.2: Are there any other *driving factors* in your institution?

Table 1.2: Other driving factors for TEL development

Top 6 factors identified	Frequency
Enhancing the student experience	5
Institutional strategies	5
External influences	3
Facilitating online/distance learning	3
Achieve cost/efficiency savings	2
Flexibility and inclusivity	2

This was an open question inviting respondents to identify additional driving factors for the development of TEL. Table 1.2 captures the leading list of additional driving factors that were identified by respondents. The full set of results is presented in Table A1.2. Some of the responses reflected the pre-coded response options in Question 1.1, such as enhancing the student learning experience and facilitating online/distance learning. Five institutions noted driving factors related to institutional strategies and strategic priorities, which are the focus of Question 2.1.

Question 1.3: How important, if at all, are the following factors in *encouraging* the development of TEL and the processes that promote it?

Table 1.3a: Factors encouraging development of TEL (Mean values and Ranks for ALL and Type)

Rank2016	Encouraging factors	All	Pre-92		Post-92		Other	
Top 5			Mean	Rank	Mean	Rank	Mean	Rank
1	Availability of technology enhanced learning support staff	3.70	3.77	1	3.64	1	3.63	=1
2	Feedback from students	3.52	3.57	2	3.46	2	3.63	=1
=3	Availability and access to tools across the institution	3.44	3.51	3	3.38	3	3.38	3
=3	School/departmental senior management support	3.44	3.55	4	3.32	4	3.25	4
5	Central university senior management support	3.31	3.40	5	3.28	5	3.00	5

Note: n=105 for Table 1.3a

Table 1.3b: Factors encouraging development of TEL (Mean values and Ranks for ALL and Country)

Rank2016	Driving factors	All	Eng		Wal		Sco		NI	
Top 5			Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1	Availability of technology enhanced learning support staff	3.70	3.67	1	3.75	=1	3.83	1	4.00	=1
2	Feedback from students	3.52	3.53	2	3.75	=1	3.42	6	3.50	=5
=3	Availability and access to tools across the institution	3.44	3.39	4	3.75	=1	3.58	5	4.00	=1
=3	School/departmental senior management support	3.44	3.40	3	3.25	=6	3.75	=2	3.50	=5
5	Central university senior management support	3.31	3.24	5	3.25	=6	3.75	=2	4.00	=1

Note: n=105 for Table 1.3b

Tables 1.3a and 1.3b summarise the returns for Question 1.3, showing the Top 5 rankings for all the data, ordering them according to their mean values. A breakdown of results by mission group is available in Table B1.3.

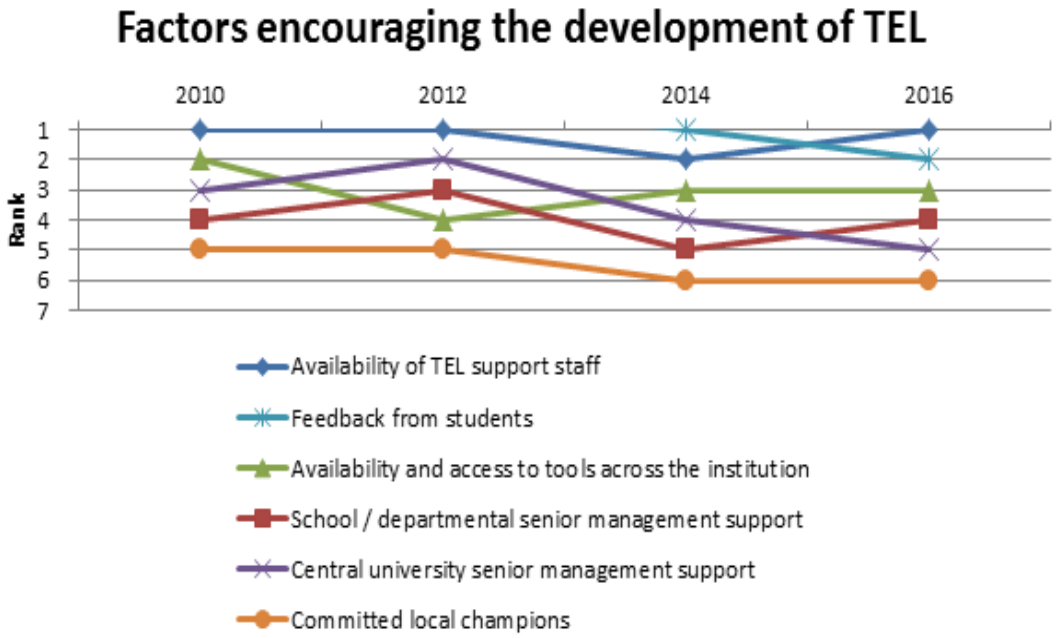

Figure 1.3: Longitudinal view of the Top 6 factors encouraging development of TEL

Figure 1.3 shows that the Top 6 encouraging factors have changed very little over the past six years with the only changes being in the rank order. For 2016, *Availability of TEL support staff* has returned to the top spot with *Feedback from students* dropping to 2nd place. *Central university senior management support* continues to move down the rankings, whilst *School/departmental senior management support* has moved back up to 4th place.

Considering the different institution types, there is little variation between them and with the overall rankings. The only exception is Other HE providers, which have ranked *Availability of internal project funding* in joint 3rd place.

Availability of TEL support staff is the leading encouraging factor for all the countries, however only English and Welsh institutions ranked *Feedback from students* in second place. For Scottish institutions, senior management support at both a central and school/department level was ranked as the second most encouraging factor. Another notable difference was that Welsh institutions ranked *Availability of external project funding* in 5th place, with a mean of 3.50, which was much higher than the other countries and the overall means recorded for this factor.

Table B1.3 presents the scores for university mission groups. It is interesting to observe that the top encouraging factor, *Availability of TEL support staff*, is consistent across all mission groups, unlike in 2014 when the groups had identified different leading encouraging factors. Both University Alliance and Million+ institutions ranked *School/department senior management support* as their second most important encouraging factor, whilst GuildHE and Russell Group ranked *Feedback from students* in second place.

Availability of external project funding is the lowest ranked factor for 2016, perhaps reflecting the continued lack of availability of such funding opportunities across the sector.

Question 1.4: Are there any *other* factors in your institution that encourage the development of technology enhanced learning and the processes that promote it?

Table 1.4: *Other* factors that encourage TEL development

Top 6 factors identified	Frequency
Internal communities of practice	4
Internal and external frameworks and strategies	4
Teaching awards or other incentives	4
Administrative policies and processes	3
Curriculum design	2
Staff-student partnerships	2

Table 1.4 captures the most commonly referenced *other factors* encouraging the development of TEL that were identified by respondents. For this question there was once again some confusion between factors *encouraging* development of TEL and *enabling* use of TEL – a focus for Question 2.6. Responses which articulated factors enabling use of TEL were discounted for this question.

Availability of internal communities of practice in support of TEL development was again the most commonly cited *other factor* by respondents, as it was in 2014. Respondents also highlighted the presence of *Internal and external frameworks and strategies* and *Teaching awards and other incentives* as encouraging factors for TEL development across an institution. The full set of results for this question is captured in Table A1.4.

Section 2: Strategic questions

Section 2 of the Survey assessed the importance of internal and external strategies in influencing the development of TEL tools and services. This section was revised from the 2014 Survey, with new questions exploring the linkage between institutional TEL strategies and overarching digital and data management practices and teaching and learning initiatives. A new question was introduced on TEL governance and how this is managed within institutions. The 2014 question on the impact of strategies on TEL development was refined, with a distinction made between internal and external strategies and their influence on TEL activities. Response options were updated across all of the questions, with the question on institutional strategies including an option on the Competition and Markets Authority (CMA) for the first time.

Question 2.1: Which, if any, *institutional strategies* inform the development of technology enhanced learning in your institution?

Table 2.1a: Institutional strategies that have informed TEL development

Top 6	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Teaching, Learning and Assessment strategy	96	91%	83%	96%	100%	91%	100%	83%	100%
Student learning experience/ student engagement strategy	61	58%	57%	59%	56%	58%	50%	50%	100%
Corporate strategy	59	56%	46%	63%	67%	53%	75%	58%	100%
Library/Learning Resources strategy	56	53%	48%	57%	56%	52%	50%	58%	50%
Technology Enhanced Learning or eLearning strategy	51	48%	57%	43%	33%	48%	75%	33%	100%
Information and Communication Technology (ICT) strategy	51	48%	54%	45%	33%	47%	50%	50%	100%

Note: n=106 for Table 2.1a

Question 2.1 was retained from previous Surveys, enabling a comparison of rankings for institutional strategies informing TEL development across the years. (See Table C2.1 for the complete list of rankings and totals for previous years).

Table 2.1a shows that the *Teaching, Learning and Assessment Strategy* tops the list and remains the most commonly cited strategy (91%) informing TEL development across institutional type, country and mission group categories.

Since its introduction in the 2012 Survey, *Student learning experience/student engagement strategy* (58%) has steadily increased in importance as a strategy informing TEL (from 44% in 2012 to 58% in 2016), now moving into second place above *Corporate Strategy* (56%). It is notable that *Student learning experience/student engagement strategy* is cited by around three-quarters of University Alliance members (71%) and Million+ (75%) institutions compared with just under half of Russell Group institutions (47%) and around a third of GuildHE institutions (31%).

Both *Corporate Strategy* and *Library/Learning Resources strategy* had declined in influence between 2012 and 2014, but have seen a slight increase between 2014 to 2016. Just under half of responding institutions cited a *Technology Enhanced Learning or eLearning strategy* (48%) and these were predominantly Russell Group institutions (71%) and institutions in Wales (75%) and Northern Ireland (100%).

Only 25% of institutions reported that their *International strategy* had informed TEL development. However, this was much higher for Scottish institutions (67%). This links back to the finding in Question 1.1 where Scottish institutions cited *Attracting new markets* and *Improving access to learning for distance learners* as key driving factors for TEL development.

Half of Post-92 institutions and 75% of Million+ institutions cited a link between TEL development and an *Employability strategy*, compared with 26% of Pre-92 institutions and 29% of Russell Group institutions.

Question 2.1b: Are these strategies linked to an overarching institutional approach to *digital and data management practices*?

Table 2.1b: Institutional strategies linked to digital and data management practices

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes it is/they are – please enter brief details	21	20%	21%	20%	22%	20%	0%	25%	50%
Not currently, but under consideration	47	45%	43%	47%	44%	45%	50%	50%	0%
No, it isn't/they aren't	35	34%	36%	31%	33%	34%	50%	25%	50%
Not answered	1	1%	0%	2%	0%	1%	0%	0%	0%

Note: n=104 for Table 2.1b

Question 2.1b was a new addition to the Survey for 2016. Only 20% responded to say that strategies are linked to an overarching institutional approach to digital and data management practices, with a further 45% considering it. Table 2.1b(i) summarises the details provided about how these strategies are linked to digital and data management practices. The majority of respondents cited a link to the overall Corporate Strategy or Strategic Plan for the institution or a link to other policies and strategies.

Table 2.1b(i): Details of where the strategies cited in Question 2.1 are linked to an overarching institutional approach to digital and data management practices.

Strategy/policy	No.
Corporate Strategy/Strategic Plan	7
Digital Strategy	4
IT Strategy	3
Education Strategy	1
Business Intelligence	1
Curriculum Management processes	1
Research Data Management Policy	1

Question 2.1c: Are these strategies linked to an overarching institutional approach to a *particular teaching and learning initiative* (with a TEL focus)?

Table 2.1c: Institutional strategies linked to teaching and learning initiative

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes it is/they are – please enter brief details	44	42%	39%	47%	33%	44%	0%	42%	50%
Not currently, but under consideration	36	35%	34%	35%	33%	33%	75%	33%	50%
No, it isn't/they aren't	22	21%	27%	16%	22%	21%	25%	25%	0%
Not answered	2	2%	0%	2%	11%	2%	0%	0%	0%

Note: n=104 for Table 2.1c

Question 2.1c was also new for 2016 and asked about the links between strategies and particular teaching and learning initiatives. In response, 42% confirmed that strategies were linked to an overarching institutional approach to a particular teaching and learning initiative (with a TEL focus), with a further 35% considering it. When asked to enter details, most respondents named the Learning, Teaching and Assessment strategy (n=15), Corporate plan (n=10) or TEL strategy (n=7) rather than naming specific initiatives. Three respondents mentioned a student experience initiative. Specific initiatives included:

- Employing digital learning design apprentices
- Professional development for teaching and learning
- An aim to develop digital competency among staff
- Meeting the needs of dispersed campuses
- Development of online postgraduate and undergraduate courses
- Student-centred learning and the flipped classroom
- An *Extended Classroom* initiative

Question 2.1d: How is TEL governance managed within your institution? Do you have any of the following committees/working groups with an *institutional remit*, looking at TEL activity across the institution?

Question 2.1d was introduced for the first time in 2016 and invited respondents to comment on how the governance of TEL activities within their institution was managed. Table 2.1d presents the total responses and those for institutional type and country. Table 2.1d (i) provides an overview of the type of governance body that has an oversight over the different areas of TEL activity.

Table 2.1d: Management of TEL governance within institutions

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Other committees/working groups (1)	52	51%	58%	45%	50%	49%	50%	67%	50%
TEL/e-learning/blended learning	49	48%	42%	55%	38%	45%	75%	50%	100%
Other committees/working groups (2)	30	29%	38%	25%	13%	25%	50%	50%	50%
Don't have committees/working groups with an institutional remit looking at TEL	20	20%	16%	22%	25%	23%	0%	8%	0%
Distance Learning	19	19%	24%	14%	13%	16%	25%	25%	100%
Open learning/MOOC development	17	17%	31%	6%	0%	14%	25%	17%	100%
Other committees/working groups (3)	11	11%	11%	10%	13%	6%	25%	33%	50%
Mobile learning	3	3%	4%	2%	0%	1%	0%	8%	50%
Other committees/working groups (4)	3	3%	0%	6%	0%	2%	0%	8%	0%

Note: n=102 for Table A2.1d

Table 2.1d (i): Management of TEL governance within institutions – a breakdown of the type of governance structures/committees

	No.	Total	Reporting to					
			Executive	Senate/ Academic Board	Committee	Sub-Committee	Faculty/ Department	Other
Other committees/ working groups (1)	52	51%	14	15	19	2	0	2
TEL/e-learning/blended learning	49	48%	11	5	23	3	2	4
Other committees/ working groups (2)	30	29%	9	4	8	1	1	7
Distance learning	19	19%	3	0	11	1	0	3
Open learning/MOOC development	17	17%	4	1	8	1	0	3
Other committees/ working groups (3)	11	11%	5	0	3	0	0	2
Mobile learning	3	3%	0	0	3	0	0	0
Other committees/ working groups (4)	3	3%	1	0	2	0	0	0

Note: n=102 for Table 2.1d (i)

Question 2.1d invited respondents to confirm the governance arrangements within their institution for TEL activities including distance learning, open learning and mobile learning. The results in Table 2.1d show that 48% of respondents have institutional-level committees governing TEL/e-learning/blended learning, the large majority of which are Learning and Teaching committees.

Only a small number of respondents reported that they have institutional-level committees or other structures governing Distance, Open or Mobile learning. However, it is notable that 35% of Russell Group institutions and 31% of Pre-92 institutions reported having a committee or working group with an institutional remit for *Open learning/MOOC development*. This links to Question 1.1 where Russell Group institutions were more focused than the other mission groups on *Improving access to learning through the provision of open education courses (e.g. MOOCs)*.

Of the other committees/working groups (1) and (2) Learning and Teaching committees dominated the responses, with Student Experience committees, VLE committees/groups, and Digital Capability/Futures groups also present.

Twenty institutions reported that they do not have institutional-level committees or working groups looking at TEL.

Question 2.2: Which, if any, external strategy documents inform the development of technology enhanced learning in your institution?

Table 2.2: External strategy documents that have informed the development of TEL

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Jisc strategies	72	71%	69%	71%	88%	71%	75%	67%	100%
HEFCE eLearning strategy (2005 and 2009)	51	50%	42%	56%	63%	54%	25%	25%	100%
Strategies from professional bodies or agencies	29	29%	36%	25%	13%	25%	50%	42%	50%
Other HEFCE strategy documents	17	17%	13%	21%	13%	19%	0%	0%	50%
Enhancing Learning and Teaching through Technology: Refreshing the HEFCW strategy 2011	16	16%	18%	13%	25%	12%	100%	8%	50%

Note: n=101 for Table 2.2

Table 2.2 provides a summary of the leading external strategy documents which inform TEL development. *Jisc strategies* (71%) have replaced *HEFCE strategies* (50%) as the leading category among all institution types and mission groups. Similar to the picture recorded in 2012, there are strong national variations in the reception of external strategy documents, with the *Department for Employment and Learning Northern Ireland (DELNI)* unsurprisingly quoted by all Northern Irish institutions, and 75% of Scottish institutions citing their own national e-learning report as an influential TEL document.

Other notable documents that were mentioned by respondents included *QAA Benchmark Statements*, and the Higher Education Academy UK Professional Standards Framework (UKPSF).

A longitudinal picture of responses for external strategy documents is available in Table C2.2. The results recorded for 2016 reflect a slight increase in percentage scores for external strategies following back to back dips in 2012 and 2014, and this trend is underscored by a slight decrease in responses for the answer *No external strategy documents inform development*, which was selected by 11 institutions.

Question 2.3: Which, if any, external reports or documents inform the development of technology enhanced learning in your institution?

Table 2.3: External reports or documents that have informed the development of TEL

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Jisc: Developing Digital Literacies (2012)	73	73%	66%	83%	50%	71%	67%	83%	100%
UCISA Survey of Technology Enhanced Learning for higher education	61	61%	55%	73%	25%	61%	100%	42%	100%
Changing the Learning Landscape Report (2012–14)*	58	58%	55%	60%	63%	58%	67%	50%	100%
Jisc: Enhancing the student digital experience: a strategic approach (2014)*	57	57%	52%	60%	63%	55%	%67%	67%	50%
Jisc: Enhancing curriculum design with technology (2013)*	56	56%	50%	63%	50%	52%	100%	67%	100%

Note: n=100 for Table 2.3

This question was retained from the 2014 Survey, with the intention of tracking the influence of other reports (not strategies) informing the development of TEL. The response items were updated from the 2014 Survey with the removal of reports published prior to 2010, and the addition of reports published since the 2014 Survey.

Table 2.3 shows the Top 5 reports or documents informing the development of TEL, with the majority having been published in the last four years. The list is dominated by the new response items. The *UCISA TEL Survey for higher education* has dropped to second place overall (61%), and is replaced by *Jisc: Developing Digital Literacies* (73%), which was only ranked highest by GuildHE institutions in 2014.

MOOCs and Open Education: Implications for Higher Education has dropped out of the Top 5, being cited by only 30% of respondents overall. Contrary to some of the other data about MOOCs and open education, the number of Russell Group institutions citing this report has dropped from 65% to 53%. However, there has been an increase in the number of Million+ institutions highlighting the Report (up from 30% in 2014 to 43% in 2016), perhaps indicating this could be a new area of focus for Million+ institutions over the coming few years.

Million+ institutions also seem to have a key focus on pedagogy and student engagement, having cited more reports relating to these areas than the other mission groups; e.g. The Open University: Innovation Pedagogy Report (2014) (71%), NUS report: Radical interventions in teaching and learning (2014) (57%), BIS: Students at the Heart of the System (2011) (43%) and Jisc: Developing successful student-staff partnerships (2015) (57%).

No respondents from the Other HE Providers or from Welsh institutions cited the two reports relating to Learning Analytics.

Question 2.4: To what extent, if at all, do any internal or external strategies on the development of technology enhanced learning influence the implementation of the various tools in practice?

Table 2.4: The extent to which *internal* strategies on the development of TEL have influenced the implementation of the various tools in practice

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Internal strategies have a great influence on implementation	30	30%	36%	23%	38%	28%	50%	33%	50%
Internal strategies influence implementation	59	58%	51%	67%	50%	59%	50%	58%	50%
Internal strategies have limited influence on implementation	9	9%	11%	6%	13%	10%	0%	8%	0%
Don't have internal strategies on the development of technology enhanced learning	3	3%	2%	4%	0%	4%	0%	0%	0%

Note: n=101 for Table 2.4

Table 2.4a: The extent to which *external* strategies on the development of TEL have influenced the implementation of the various tools in practice

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
External strategies have a great influence on implementation	3	3%	4%	2%	0%	2%	25%	0%	0%
External strategies influence implementation	48	48%	42%	52%	50%	46%	50%	50%	100%
External strategies have limited influence on implementation	44	44%	49%	40%	38%	45%	25%	50%	0%
External strategies have no influence on implementation	6	6%	4%	6%	13%	7%	0%	0%	0%

Note: n=101 for Table 2.4a

For the 2016 Survey, Question 2.4 was refined to explore the relative influence that internal and external strategies have on TEL development. The results in Tables 2.4 and 2.4a show that internal and external strategies are still felt to have an influence on TEL implementation across the sector, with the exception of three respondents (all GuildHE institutions) who do not have internal strategies for TEL development, and six respondents who indicated that external strategies have no influence at all.

In total, 88% of respondents agreed that internal strategies have an influence or a great influence on implementation, and 51% indicated that external strategies have an influence or great influence on implementation.

Table B2.4b reveals some notable variations in the results by university mission groups; for example, 58% of GuildHE respondents and 53% of Russell Group respondents reported that external strategies have limited or no influence on their implementation of TEL tools.

Question 2.5: What institutional policies, if any, link strategy and implementation of technology enhanced learning tools?

Table 2.5: Institutional policies which link strategy with implementation of TEL tools

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Learning, Teaching and Assessment strategy	71	70%	60%	77%	88%	67%	100%	75%	100%
VLE usage policy (minimum requirements)	69	68%	56%	63%	88%	73%	75%	33%	50%
Faculty or departmental/school plans	63	62%	71%	54%	63%	63%	50%	58%	100%
VLE guidelines/description of VLE service	61	60%	56%	63%	75%	64%	25%	42%	100%
Electronic Management of Assessment (e-Assessment/e-Submission) policy	50	50%	44%	60%	13%	53%	75%	25%	0%

Note: n=101 for Table 2.5

Question 2.5 was converted from a free-text question to a multiple choice format in 2014, with pre-coded options based on the responses recorded from the 2012 Survey. It was retained for 2016 and respondents were invited to identify any policies that link institutional strategies with the implementation of TEL tools. Of the policies that were mentioned, *Learning, Teaching and Assessment* strategies were again the most frequently cited (70%). However, only 41% of respondents from Russell Group institutions and 33% of Scottish institutions cited *VLE usage policy* as a policy linking strategy to implementation of TEL tools. The full list of policies mentioned by respondents is set out in Tables A2.5a and A2.5b.

Lecture capture guidelines/policy has appeared for the first time, with 44% of responding institutions having an institutional policy, although there is a notable difference between GuildHE (25%) and Russell Group (76%) institutions in this respect, which perhaps reflects the different stages in the adoption and embedding of lecture capture provision which these institutions find themselves in.

Question 2.6: How is the adoption and use of technology enhanced learning tools *enabled* within your institution?

Table 2.6: Enabling approaches for the adoption and use of TEL tools within an institution

Top 6	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Providing support and training to academic staff	92	91%	89%	92%	100%	90%	100%	92%	100%
Providing platforms for sharing good practice (e.g. networks; show and tell meetings)	81	80%	78%	81%	88%	81%	75%	83%	50%
Delivery of PGCert Training & Learning/Academic Practice programme for academic staff	74	73%	73%	81%	25%	72%	100%	67%	100%
Provision of case studies*	53	52%	53%	54%	38%	49%	100%	58%	50%
Allowing academic staff development time	35	35%	29%	35%	63%	37%	25%	25%	0%
Provision of student internships/ partnerships	35	35%	33%	42%	0%	35%	25%	42%	0%

Note: n=101 for Table 2.6

Question 2.6 has been included in various guises in all previous Surveys dating back to 2001, although the response options have evolved over time. For the 2016 Survey, five new response items were added (as indicated in Table A2.6), however only one of them, *Provision of case studies*, made it into the Top 6 responses.

Providing support and training to academic staff (91%) remains the primary way of enabling the adoption of TEL tools, a position it has held since it was introduced in the 2010 Survey.

Providing platforms for sharing good practice (80%) and *Delivery of PGCert programmes* retain second and third places respectively.

The increasing focus on regarding students as partners in curriculum design processes, or partners in content creation, is reflected in the results, with *Provision of student internships/partnerships* featuring quite highly across all mission groups and institution types in the data for this question.

Of the longstanding response items, *Allowing academic staff development time* and *Allowing support staff development time* were both cited by respondents, and this reflects a consistent trend across the years.

Of the *Other* enabling approaches that were mentioned, there is some overlap here with the encouraging factors which were considered in Question 1.3, with references made to delivery of non-accredited training and dedicated project funding for TEL developments among others. A summary of the *Other* approaches is presented in Table 2.6a.

Table 2.6a: Other approaches enabling the adoption and use of technology enhanced tools

Other approaches	Frequency
Staff training and development	5
Availability of learning and teaching/e-learning staff	3
Awards or financial incentives	3
Internal conferences and events	2
Internal communities of practice	2

Question 2.7: In what ways, if any, have you sought to raise awareness amongst staff of the benefits of using technology enhanced learning tools, engaging them in greater use of technology in their teaching and assessment?

Table 2.7: Approaches to raise awareness amongst staff of the benefits of using technology enhanced learning tools

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Staff development for teaching and learning qualification (e.g.PGCert Teaching & Learning/ Academic Practice)*	85	84%	80%	92%	63%	84%	75%	83%	100%
Staff development programme	85	84%	80%	90%	75%	84%	100%	75%	100%
Dissemination channels for TEL practices (e.g. internal conferences, show and tell, newsletters)	83	82%	76%	90%	75%	80%	100%	100%	50%
TEL website and online training resources	79	78%	87%	83%	0%	76%	75%	92%	100%
Provision of case studies featuring innovative TEL practice*	63	62%	69%	60%	38%	60%	75%	67%	100%

Note: n=101 for Table 2.7

Question 2.7 was introduced for the first time in the 2014 Survey, inviting respondents to consider the approaches that institutions employ to raise awareness amongst their staff of the benefits of using TEL tools. For 2016, a number of new pre-coded response options were added to reflect free-text comments which had been recorded in the 2014 Survey returns.

Staff development programme and *Staff development for teaching and learning qualification* (both 84%) were the top responses given by the majority of institution types, mission groups and countries, with the marginal exception of Russell Group institutions, which cited *TEL website and online training resources* as their favoured approach. It is notable that none of the Other HE Providers cited *TEL website and online training resources*, given this was one of the Top 5 ways of raising awareness.

Two of the new response options, *Staff development for teaching and learning qualification (e.g. PGCert Teaching & Learning/Academic Practice)* and *Provision of case studies featuring innovative TEL practice* featured in the Top 5. However, there was a divide amongst the mission groups for *Provision of case studies*, with this being more prevalent in Million+ and Russell Group institutions. *Teaching prizes and awards* also received a mixed reception, with 65% of Russell Group institutions favouring this approach compared with 25% of GuildHE. Million+ institutions reported a key focus on *Professional accreditation* schemes.

Considering some of the other new response options, *Engagement in MOOCs* was more prevalent in Pre-92 institutions (47%) than in Post-92 institutions (19%) and Other HE Providers (0%). *Badges* were ranked at the bottom of the table of specified response options and were only mentioned by English institutions (12%).

Eight respondents had indicated other approaches to raising awareness; some of these corresponded to the specified response options. Two institutions noted student awards for staff. Other approaches included attending School/ Department meetings and one-to-one consultancy.

Section 3: Technology enhanced learning currently in use

Section 3 of the Survey focused on details of the TEL tools that are being used by institutions to support learning, teaching and assessment activities.

This section has been expanded since the 2014 Survey, enabling more detailed responses to be provided to existing questions, such as on the role of the main institutional VLE in supporting blended, distance and open learning course delivery. This year's Survey also invited a wider set of responses to the question on TEL reviews, touching on areas of institutional provision ranging from e-assessment to MOOC developments. The classification of course delivery supported through TEL tools was updated to reflect the different modes of open learning provision which are now being supported across the sector. Additional response options were also introduced to reflect new developments, such as the emerging role of Software as a Service (SaaS) providers in hosting institutional TEL services.

Question 3.1: Is there a VLE *currently* in use in your institution?

Table 3.1: Institutional VLE currently in use

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	106	100%	100%	100%	100%	100%	100%	100%	100%
No	0	0%	0%	0%	0%	0%	0%	0%	0%

Note: n=106 for Table 3.1

Confirming the findings reported in the 2014 Survey, all respondents to Question 3.1 reported that they had at least one virtual learning environment in use within their institution.

Table 3.1a: VLEs currently used

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Moodle	56	53%	60%	40%	88%	53%	50%	54%	50%
Blackboard Learn	49	46%	48%	52%	0%	43%	50%	69%	50%
FutureLearn	25	24%	50%	2%	0%	23%	0%	31%	50%
Other VLE developed *in-house*	13	12%	15%	10%	13%	10%	0%	31%	0%
Open Education (by Blackboard)*	9	9%	6%	12%	0%	8%	0%	15%	0%

Note: n=106 for Table 3.1a

Table 3.1a reveals the most common platforms in use across the sector, with the full results presented in Table A3.1a. Moodle and Blackboard lead the way as they did in 2014, albeit with reduced percentages across the sector; notably the figure for institutions using Moodle is down from 62% in 2014 to 53% in 2016. The 2016 results reveal a broader range of platforms in use with the key change from 2014 being the growing adoption by institutions of MOOC platforms. The number of institutions adopting the FutureLearn platform has trebled as this open learning initiative has gathered pace, with Russell Group institutions accounting for the main community of users (see Table B3.1a for the mission group breakdown). Open Education by Blackboard was a new response option for this year's Survey, with nine institutions using the platform to support their open learning course delivery.

Other notable changes from 2014 include an increase in the number of institutions using the Canvas platform from one to seven, the decline in usage of SharePoint from eleven to five institutions and the re-emergence of Blackboard Classic in the results. This last development may well be attributed to a data entry error by the respondent, as Blackboard has moved its client base away from Classic (version 8 or earlier) and on to the next generation Learn 9.1 platform.

Blackboard's hosted service for Moodle, Joule by Moodlerooms, was introduced as a new response option in the list of commercial platforms in this year's Survey and three institutions confirm that they are using it. Of the other commercial platforms that are mentioned, Corpu, Joomla, Pearson MyLabs courses and WordPress are all listed, and these platforms are also included in the list of VLE responses to Question 3.10 (see Table A3.10a). There is also a small number of bespoke platforms referenced by respondents, which have been developed by departments and schools to support specific disciplines such as business and medicine.

Taken as a whole, the results show that the VLE landscape is still in flux and we may anticipate further changes over future years with further growth in MOOC provision and the retirement of some open and commercial platforms. Pearson has already announced that *LearningStudio* (which includes eCollege) will be withdrawn from the VLE market in 2018. The continuing pace of VLE reviews (see Question 3.6a) may also lead to a further rationalisation of institutional choices over platforms for accredited and open course delivery.

Table 3.1b: The *main* VLE in use

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Learn	48	45%	48%	50%	0%	41%	50%	69%	50%
Moodle	47	43%	44%	38%	88%	47%	50%	31%	0%
Brightspace (by Desire2Learn)	2	2%	2%	2%	0%	2%	0%	0%	0%
Canvas (by Instructure)	2	2%	2%	2%	0%	2%	0%	0%	0%
SharePoint	2	2%	2%	2%	0%	1%	0%	0%	1%

Note: n=106 for Table 3.1b

In contrast to the diverse range of VLEs in use across the sector, the identity of the *main* institutional platforms remains largely a choice between Blackboard and Moodle. Table 3.1b shows that Blackboard and Moodle have the same combined percentage of use (88%) as they did in 2014, although there has been a narrowing in market share, with the 2016 data revealing an almost even split between these two solutions. The number of institutions citing Moodle as their main institutional VLE platform has increased from n=37 to n=47. In comparison, the other VLEs have made little headway as alternative main institutional platforms with little change in terms of adoption patterns since 2014 (see Table C3.1b for a breakdown of results by main institutional platform over the years).

Question 3.1c: Is the main VLE used for each of the following or not?

Question 3.1c was introduced for the first time in this year's Survey, with the intention of learning more about the role of the main institutional VLE in supporting different modes of course delivery, ranging from support for blended learning for campus-based courses through to open online course delivery.

Table 3.1c (i): The *main* VLE and blended learning (campus-based courses)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	105	99%	98%	100%	100%	99%	100%	100%	100%
No. Another VLE is used	0	0%	0%	0%	0%	0%	0%	0%	0%
No. Mode of delivery not supported *using a VLE*	0	0%	0%	0%	0%	0%	0%	0%	0%
No. Mode of delivery not supported	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n=106 for Table 3.1c (i)

Table 3.1c (i) confirms that the main VLE platform is used by all institutions that are engaged in blended learning course delivery.

Table 3.1c (ii): The *main* VLE and distance learning

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	91	86%	92%	86%	50%	84%	100%	100%	50%
No. Another VLE is used	6	4%	4%	8%	0%	6%	0%	0%	50%
No. Mode of delivery not supported *using a VLE*	1	1%	0%	0%	13%	1%	0%	0%	0%
No. Mode of delivery not supported	8	8%	4%	6%	38%	9%	0%	0%	0%

Note: n=106 for Table 3.1c (ii)

Table 3.1c (ii) reveals both the extent of distance learning across the sector (90% of responding institutions are delivering courses of this type) and the reliance on the main institutional VLE to support this activity. Of the six institutions which have opted to use a different platform, four institutions use Moodle, one uses Blackboard Learn and another institution has partnered with John Wiley to deliver courses on the vendor's platform.

Table 3.1c (iii): The *main* VLE and open online learning

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	18	17%	17%	18%	13%	16%	50%	8%	50%
No. Another VLE is used	28	26%	38%	20%	0%	23%	0%	54%	50%
No. Mode of delivery not supported *using a VLE*	13	12%	15%	10%	13%	14%	0%	8%	0%
No. Mode of delivery not supported	47	44%	31%	52%	75%	47%	50%	31%	0%

Note: n=106 for Table 3.1c (iii)

Open online learning activities appear to be far less developed across the sector compared with blended and distance learning delivery. Table 3.1 c (iii) shows that 44% of institutions are not engaged in any form of open online delivery at all; of this group of institutions (n=47) nearly all are English institutions (n=41). Only 18 institutions use their main VLE platform for open online learning, with 28 opting to use a different delivery platform to support this activity. Unsurprisingly, dedicated MOOC platforms account for the majority of alternative VLEs in use for open learning, with 13 institutions using FutureLearn's platform and six using Open Education by Blackboard. Other MOOC platforms that are referenced include Coursera, PebblePad and the Canvas Network.

Question 3.2: Thinking about the (main) VLE in use, which of the following best describes how your platform is technically managed?

Table 3.2: Hosting results for *main* institutional VLE

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally hosted and managed	60	57%	67%	48%	50%	54%	75%	62%	100%
Institutionally managed but hosted by third party	39	37%	29%	44%	38%	38%	25%	39%	0%
Cloud-based Software as a Service/multi-tenant service*	7	7%	%4%	8%	13%	8%	0%	0%	0%

Note: n=106 for Table 3.2

This question was first introduced in the 2012 Survey and aimed to determine the extent to which VLE provision is being outsourced by higher education institutions. In this year's Survey, an additional response option was included to capture the emergence of Software as a Service (SaaS) hosting arrangements for the main VLE and track how prevalent this arrangement is across the sector. Table 3.2 reveals that the percentage of institutionally hosted main VLE services has reduced from the 67% recorded in 2014 to 57%, although in absolute numbers there is little difference from the 2014 results. There is, though, an emerging group of English institutions (n=7) which are using a SaaS provider and the overall number of institutions which are now using an external host for their VLE service has increased from 31 in 2014 to 46 in 2016.

For further details on hosting arrangements for specific VLE-supported activities such as blended learning and open learning course delivery, please view the data for question 5.3a in Section 5 of the Report.

Table 3.2 (i): Hosting results per platform for *main* institutional VLE

Top 5	Institutionally hosted and managed		Institutionally managed but hosted by third party		Cloud-based Software as a Service/multi-tenant service*		Total
	No.	%	No.	%	No.	%	No.
Blackboard Learn	26	54%	20	4%	2	4%	48
Moodle	28	60%	18	38%	1	2%	47
Brightspace (by Desire2Learn)	2	100%	0	0%	0	0%	2
Canvas (by Instructure)	0	0%	0	0%	2	100%	2
SharePoint	2	100%	0	0%	0	0%	2

Note: n=106 for Table 3.2 (i)

Table 3.2 (i) provides a breakdown of results per platform, performed through a cross-tabulation of data for *main institutional VLE* (Table 3.1b) and *whether hosting is taking place* (Table 3.2). The results show that the institutions using Canvas are based exclusively on SaaS services. Table C3.2 (i) in the Appendix compares 2016 hosting results with the picture reported in 2014, and reveals that there has been no change in terms of the percentage breakdown of local and externally hosted arrangements for Moodle users. There has, however, been a shift in Blackboard hosting, with a greater percentage (46%) moving to an external hosting service.

Question 3.2a: Who is the external provider that hosts your (main) VLE?

Table 3.2a: External hosting provider for *main* institutional VLE

External hosting provider	Main institutional VLE		Total
Top 4	**VLE**	**No.**	**No.**
Blackboard Managed Hosting	Blackboard Learn	22	23
	Blackboard Classic	1	
University of London Computing Centre (ULCC)	Moodle	16	16
Instructure	Canvas	2	2
Synergy Learning	Moodle	2	2

Note: n=46 for Table 3.2a

Question 3.2a was a new addition to the Survey and invited respondents using an externally hosted service for their main institutional VLE to reveal the identity of their service provider. The results show that Blackboard Managed Hosting exclusively supports Blackboard client institutions and University of London Computing Centre accounts for the majority of Moodle users.

Question 3.3: Have you undertaken a review of a major institutional TEL facility or system in the *last two years*?

The next set of questions (3.3 – 3.6a) was adapted from previous Surveys to include a broader focus on TEL review activities. In 2012 and 2014, the question-set focused exclusively on VLE review activity, but in this year's Survey participants were invited to report on any TEL facility or system that they had reviewed, including MOOC platforms, lecture capture provision and learning analytics developments.

Table 3.3: Institutional review of TEL facility or system in last two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	57	54%	46%	56%	88%	55%	50%	39%	100%
No	49	46%	54%	44%	12%	45%	50%	61%	0%

Note: n=106 for Table 3.3

Table 3.3 confirms that TEL review activity is well established across the sector, with over half of the institutions which responded to the Survey having conducted some form of TEL review in the last two years. Table 3.3a reveals that the number of institutions conducting VLE reviews remains at almost the same level as that reported in 2014 (n=48), and is the most common form of TEL review activity that institutions are engaged in. Table B3.3a in the Appendix shows that VLE review activity is fairly evenly spread across the sector with nearly all mission groups involved. Million+ institutions prove the exception though to this rule. After leading the way in 2014 with the highest percentage of members conducting VLE reviews (70%), no Million+ institutions have done so over the past two years: their focus has been on other TEL services including lecture capture, which is indeed the second most commonly reviewed TEL service across the sector.

Question 3.3a: Which major TEL facilities or systems have you reviewed in the *last two years*?

Table 3.3a: TEL facilities or systems that have been reviewed in the last two years

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
VLE	47	83%	91%	71%	100%	83%	100%	60%	100%
Lecture capture	27	47%	36%	61%	29%	46%	100%	60%	0%
E-assessment	20	35%	36%	32%	43%	38%	50%	20%	0%
E-portfolio	17	30%	27%	29%	43%	31%	0%	40%	0%
Learning analytics	15	26%	23%	36%	0%	27%	0%	40%	0%

Note: n=57 for Table 3.3a

Table 3.3a (i): Cross tabulation of *main institutional VLE* with *VLE review conducted in the last two years*

Main institutional VLE	Conducted review in last two years		
	No.	*Main VLE total (3.1b)*	%
Moodle	26	*47*	55%
Blackboard Learn	14	*48*	29%
Canvas (by Instructure)	2	*2*	100%
Blackboard Classic	1	*1*	100%
Joule (by Moodlerooms)	1	*1*	100%
Other *open source* VLE	1	*1*	100%
Sakai	1	*1*	100%
SharePoint	1	*2*	50%

Note: n=47 for Table 3.3a (i)

Table 3.3a (i) provides a breakdown of results per platform, performed through a cross-tabulation of data for *main institutional VLE* (Table 3.1b) and *whether a review of the VLE has taken place in the last two years* (Table 3.3a). Whilst we cannot be absolutely sure that the reviews have taken place for the platforms mentioned in Table 3.1b – note that evaluations may have focused on predecessor systems and the current systems may reflect the VLE platforms that institutions have subsequently moved to – the results suggest that institutions using Moodle as their main VLE have recorded the highest level of evaluation activity (55%) for their platform, in comparison with other VLE groups reflected in the Survey data. This reflects a reversal of the position reported in 2014, when institutions with Blackboard Learn as their main institutional VLE had the highest percentage of reviews (59%), with only 13 Moodle institutions (35%) having done so. The 2016 results suggest that a cycle of VLE review activity is taking place across the sector, and no doubt this is prompted by specific drivers, such as the Blackboard WebCT merger which encouraged former WebCT institutions to review their platform over the previous two year period (2012–2014).

Table 3.3b (i) below summarises the outcomes of the VLE reviews that have taken place and Table C3.3b (i) presents a comparison of outcomes between 2014 and 2016. The tables show that the decision to switch institutional platforms is far less commonly adopted in 2016, with Moodle institutions in particular looking to continue with their platform and upgrade it to the latest software release.

Table 3.3b (i): Outcomes of the VLE review

Top 5	Frequency
Continue with the same VLE platform	**13**
• Blackboard Learn	(6)
• Moodle	(5)
• Canvas (by Instructure)	(1)
• WordPress	(1)
Continue with the same platform and upgrade to latest version	**9**
• Moodle	(9)
Review process not yet completed	**9**
• Blackboard Learn	(4)
• Moodle	(4)
• SharePoint	(1)
Switch to external hosting for same VLE platform	**6**
• Move to Blackboard Managed Hosting (for Blackboard Learn)	(3)
• Move to external hosting provider (for Moodle)	(2)
• Move to Moodlerooms (for Joule)	(1)
Switch to a different VLE platform	**4**
• From Moodle to Canvas (by Instructure)	(2)
• From Sakai to Canvas (by Instructure)	(1)
• From Blackboard to Moodle	(1)

Note: n=45 for Table 3.3b (i)

Tables 3.3b (ii) – (vii) summarise the outcomes from the TEL systems that have been reviewed. Table 3.3.b (ii) shows that MOOC reviews have focused on the identification of the appropriate platform to support open learning courses and have considered how best to implement MOOC delivery. Table 3.3 (v) reveals a similar picture for e-portfolio provision, with decision making again focused on the most appropriate platform to support this activity. For lecture capture and e-assessment reviews the picture is less clear, with reviews still in progress or in the case of learning analytics, institutions undertaking a readiness review as a preliminary activity before thinking about the type of service that they wish to implement.

Table 3.3b (ii): Outcomes of the MOOC platform review

Outcomes	Frequency
Recommended adoption of MOOC platform	**6**
• FutureLearn	(2)
• Open edX	(2)
• Blackboard Open Education	(1)
• Canvas	(1)
Development planning and implementation of MOOCs	**2**
• Using FutureLearn	(1)
• Using FutureLearn for accredited courses	(1)
Switch from in-house pilot to other MOOC platform	**1**

Note: n=9 for Table 3.3b (ii)

Table 3.3b (iii): Outcomes of the E-Assessment review

Top 4	Frequency
Review process not yet completed	**5**
Make use of existing tool-set (Blackboard/Turnitin/WebPA) and other online tools	**3**
Implement full lifecycle for electronic assessment (submission, marking and feedback)	**2**
Reviewed Turnitin service and decide to stay with Turnitin	**2**

Note: n=20 for Table 3.3b (iii)

Table 3.3b (iv): Outcomes of the Lecture Capture review

Top 3	Frequency
Review process not yet completed	**4**
Install and develop Panopto • Introduce Panopto • Adopt across institution	**3** (2) (1)
Conduct trial of Panopto • Extend pilot with 10-licence subscription • Pilot solution with intention to adopt across the institution	**2** (1) (1)

Note: n=26 for Table 3.3b (iv)

Table 3.3b (v): Outcomes of the e-Portfolio review

Top 5	Frequency
Switch platform to new solution • Move to Moodlerooms • Replace Mahara with new bespoke student/staff portal • Move from Campus Pack to Blackboard e-portfolio tool	**3** (1) (1) (1)
Review process not yet completed	**3**
Stay with existing solution • Stay with PebblePad • Stay with unnamed solution	**2** (1) (1)
Upgrade current solution • Upgrade Mahara, with plans to pilot PebblePad • Upgrade current system (unnamed)	**2** (1) (1)
Introduce PebblePad • Trial PebblePad (v.5) • Introduce PebblePad for admissions	**2** (1) (1)

Note: n=16 for Table 3.3b (v)

Table 3.3b (vi): Outcomes of the Learning Analytics review

Outcomes	Frequency
Undertaken review in readiness to implement learning analytics service • Engaged with Jisc discovery project • Decision taken to extend internal systems • Decision taken to prioritise use of Canvas data • Decision taken to join Jisc network and engage in platform development • Assessing readiness to adopt some form of tool	**5** (2) (1) (1) (1) (1)
Review process not yet completed	**3**
Have implemented learning analytics solution • Have created bespoke student dashboard using IBM Cognos • Blackboard Analytics service introduced	**2** (1) (1)
Not implementing learning analytics solution • Decision taken not to implement a solution at present • Have explored options and decided to halt activity for now	**2** (1) (1)
Currently implementing project to pilot and develop learning analytics solution	**1**

Note: n=13 for Table 3.3b (vi)

Table 3.3b (vii): Outcomes of the Mobile Learning review

Outcomes	Frequency
Develop App and Portal provision	**2**
Promote Blackboard/Turnitin/Panopto/ResponseWare tools	**1**
Launch Blackboard Mobile app when moving to Managed Hosting	**1**
Look to increase mobile provision	**1**
Introduce iPad provision for selected programmes	**1**

Note: n=6 for Table 3.3b (vii)

Question 3.6: Are you planning to undertake a review of a major institutional TEL facility or system within the next two years?

Table 3.6: Institutional review of TEL facility or system in next two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Planning a review in the next year	34	32%	27%	35%	50%	35%	0%	23%	50%
Planning a review in the next two years	33	31%	38%	26%	25%	27%	50%	62%	0%
Not planning a review in the next two years	38	36%	35%	39%	25%	38%	50%	15%	50%

Note: n=105 for Table 3.6

Table 3.6 shows that nearly two-thirds of the institutions which responded to the Survey are planning to conduct TEL reviews over the next two years. Table B3.6 reveals that this planning activity is evenly spread across all of the mission groups. The primary focus again appears to be on VLE reviews, with e-assessment also featuring prominently in institutional review plans. Indeed e-assessment appears as the most common TEL service for Russell Group institutions (n=10) to review in the coming years. Of the other TEL systems that are candidates for review, learning analytics, lecture capture and e-portfolio all feature along with polling/audience response tools provision, which were mentioned in free-text responses to this question.

Question 3.6a: Which major TEL facilities or systems are you planning on reviewing in the next two years?

Table 3.6a: TEL facilities or systems to be reviewed in the next two years

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
VLE	47	70%	74%	73%	33%	68%	100%	73%	100%
E-assessment	35	52%	68%	43%	17%	51%	0%	64%	100%
Learning analytics	29	43%	36%	57%	17%	40%	100%	55%	0%
Lecture capture	29	43%	55%	37%	17%	40%	50%	55%	100%
E-portfolio	27	40%	42%	40%	33%	40%	0%	55%	0%

Note: n=67 for Table 3.6a

Table 3.6a (i): Cross tabulation of *main institutional VLE* with *VLE review to be conducted in the next two years*

Main institutional VLE	VLE review to be conducted in next two years		
	No.	*Main VLE total (3.1b)*	%
Blackboard Learn	24	*48*	50%
Moodle	16	*47*	34%
Brightspace (by Desire2Learn)	2	*2*	100%
SharePoint	2	*2*	100%
Blackboard Classic	1	*1*	100%
Other *open source* VLE	1	*1*	100%
Pearson eCollege	1	*1*	100%

Note: n=47 for Table 3.6a (i)

Table 3.6a (i) provides a breakdown of results per platform, performed through a cross-tabulation of data for *main institutional VLE* (Table 3.1b) and *whether a review of the VLE is to be conducted over the next two years* (Table 3.6a). The results show that institutions using Blackboard Learn as their main VLE record the highest frequency (n= 24) and top the list of platforms which will be reviewed over the next two years, as was the case in 2014.

Question 3.8: Are there *departments* within your institution using a VLE in addition to the *main* centrally provided VLE?

Table 3.8: Departmental VLEs in use

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	29	28%	42%	16%	13%	26%	25%	39%	50%
No	76	72%	58%	84%	87%	74%	75%	61%	50%

Note: n=105 for Table 3.8

Questions 3.8 and 3.9 were first introduced in the 2010 Survey and aim to track the management of VLE platforms at a departmental or school level. The results in Table 3.8 on one level are similar to those recorded in 2010, 2012 and 2014 in showing that Pre-92 institutions most commonly possess departmental platforms in addition to the main institutional VLE. Table B3.8 reveals that 56% of the Russell Group institutions responding to Question 3.8 fit this profile, with their departments running VLE platforms independently of the main centrally supported system. However, Table C3.8 shows that the overall picture across the sector is indeed changing, with the overall percentage of institutions with departmental VLEs declining from 39% in 2014 to 28% in 2016.

Table 3.9 below confirms that the leading reason for departments to employ their own VLE platform is related to pedagogical concerns. Interestingly Table B3.9 shows that Russell Group institutions represent the only group to cite a devolved management structure as a reason for their departments to deploy their own software, and for the sector as whole this factor is much reduced as a consequence – down from 32% in 2014 to 10% in 2016.

Question 3.9: What is the context for this localised provision?

Table 3.9: Context for hosting of VLEs within departments

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
A case has been made for the departmental VLE based on *pedagogical* reasons	9	31%	30%	38%	0%	23%	100%	40%	100%
The departmental VLE predates introduction of institutional VLE	8	28%	35%	13%	0%	27%	0%	40%	0%
A case has been made for the departmental VLE based on *commercial* reasons	6	21%	15%	38%	0%	27%	0%	0%	0%
The institution has a devolved management structure that permits departments to deploy their own software	3	10%	15%	0%	0%	9%	0%	20%	%0%
Other context	8	28%	25%	25%	100%	27%	0%	40%	0%

Note: n=29 for Table 3.9

Question 3.10: Which, if any, *centrally-supported* technology enhanced learning software tools are used by *students* in your institution?

Question 3.10 invited institutions to identify the range of software tools that are centrally provided for students. This question has been used in previous surveys dating back to 2008, but asynchronous communication tools, synchronous collaborative tools, webinars, electronic exams, mobile apps and learning analytics tools were all added as new response options for 2016, reflecting the rise to prominence of these tools and services in supporting student learning. A distinction was also made between formative and summative e-assessment tools, with the latter presented as a new response option. The new items are marked with an asterisk so that they can be easily identified in the tables below. One further change was made to the list with the renaming of plagiarism detection tools to *text matching tools* to reflect this more common description for them.

Table 3.10: Centrally-supported software tools used by students

Top 10	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
VLE	104	99%	100%	98%	100%	98%	100%	100%	100%
E-submission tools (assignment)	98	93%	94%	94%	88%	92%	100%	100%	100%
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	94	90%	94%	92%	50%	88%	100%	100%	50%
Formative e-assessment tool (e.g. quizzes)	91	87%	88%	90%	63%	84%	100%	100%	100%
Asynchronous communication tools (e.g. discussion forums)*	89	85%	79%	92%	75%	85%	75%	92%	50%
Summative e-assessment tools (e.g. quizzes)*	85	81%	81%	84%	63%	77%	100%	100%	100%
Blog	80	76%	75%	82%	50%	74%	75%	92%	50%
Document sharing tool (e.g. Google Docs, Office 365)	80	76%	73%	84%	50%	72%	75%	100%	100%
E-portfolio	78	74%	65%	88%	50%	74%	50%	77%	100%
Media streaming system	77	73%	65%	86%	50%	73%	100%	69%	50%

Note: n=105 for Table 3.10

Table 3.10 shows the results for the ten centrally-supported tools most commonly used by students. The Top 3 tools remain the same as they were in 2014, albeit in a different order with e-submission tools rising to second place and increasing from 85% usage in 2014 to 93% in this year's Survey. The key change has been in the rise of e-assessment software in the table. In 2014 71% of institutions confirmed that they were supporting e-assessment tools, but the 2016 data reveals that 87% are using them for formative assessment and 85% are using them in a summative capacity. This practice appears to be commonplace across mission groups and the sector as a whole.

The other key change from 2014 has been the rapid increase in the adoption of document sharing tools across the sector, rising from 45% in 2014 to 76% in 2016. There has also been a steady rise in the use of lecture capture tools from 63% in 2014 to 71%. The 2014 Survey Report noted how Russell Group institutions were leading on investment in

lecture capture solutions, but all mission groups have at least 50% of their members supporting a system in this year's results and there is little difference now between Pre-92 and Post-92 institutions in terms of percentage figures for lecture capture support.

Table A3.10 in the Appendix captures the full set of results for this question and Table C3.10 presents the longitudinal picture dating back to 2008. Table C3.10 shows that whilst lecture capture tools are becoming widely adopted across the sector, podcasting tools are going in the opposite direction – down from 46% in 2014 to 35% – and this is likely due to lecture capture and media streaming services offering richer alternatives to staff and students. Of the other new response items, learning analytics (19%) and electronic exams (14%) do not appear to be well established as services across the sector, despite the well documented interest in them, as reflected in recent calls for presentations on their use at learning technology conferences such as ALT-C 2016.

In addition to indicating the types of tools that are centrally supported, respondents were invited to identify the specific tools that they are using. A selection of the tables for the leading tools (n= 10 or more responses) is presented below and the full set of results is available in Tables A3.10a – z. Please note that the percentage scores are calculated based on the total number of respondents for the question, rather than the total population for the Survey. The results show that Blackboard and Moodle are the most common solutions for VLE platforms – confirming the results for Question 3.1b, with their platforms including provision for formative and summative e-assessment tools and asynchronous communication tools for which they are also the most popular solutions. Blackboard remains the leading supplier for a range of software including blogs, wikis, mobile apps and synchronous collaboration tools. MS Office 365 is the leading document sharing solution, with almost double the number of institutions that are using it (n=55) compared with the next leading solution – Google Docs (n=28). Turnitin represents the most commonly used e-submission tool for assignments and has an astonishing 96% of the market for text matching usage across the UK higher education sector, a level of adoption for a specific software tool or service which is unsurpassed by any other vendor.

Of the other tools, Panopto continues to grow in popularity as a lecture capture solution, increasing from the 19 institutions using it in 2014 to 34 in 2016, placing it well ahead of Echo360 (n=17) which remains at a similar level to 2014. However, there are no leading solutions for media streaming and screen casting and this is similarly the case for learning analytics, which is still emerging as a centrally supported service.

Table 3.10a: Centrally-supported virtual learning environment

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Learn	48	46%	50%	48%	13%	41%	75%	69%	50%
Moodle	46	44%	50%	31%	88%	46%	50%	38%	0%

Note: n =104 for Table 3.10a

Table 3.10b: Centrally-supported e-submission (assignment) tool

Top 3	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Turnitin	60	61%	71%	54%	43%	61%	75%	62%	50%
Blackboard	32	33%	33%	37%	0%	33%	25%	31%	50%
Moodle	30	31%	24%	28%	87%	32%	25%	31%	0%

Note: n =98 for Table 3.10b

Table 3.10c: Centrally-supported text matching tool

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Turnitin	90	96%	98%	89%	100%	96%	100%	85%	100%
SafeAssign	10	11%	11%	11%	0%	9%	0%	23%	0%

Note: n =94 for Table 3.10c

Table 3.10d: Centrally-supported formative e-assessment tool

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	43	47%	52%	48%	0%	47%	75%	38%	50%
Moodle	33	36%	36%	32%	80%	40%	50%	15%	0%

Note: n =91 for Table 3.10d

Table 3.10e: Centrally-supported asynchronous communication tools*

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	39	44%	50%	42%	17%	42%	67%	42%	100%
Moodle	35	39%	39%	31%	100%	42%	33%	25%	0%

Note: n =89 for Table 3.10e

Table 3.10f: Centrally-supported summative e-assessment tool*

Top 3	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	37	44%	44%	49%	0%	45%	25%	38%	50%
Moodle	26	31%	26%	29%	80%	32%	50%	23%	0%
QuestionMark Perception	13	15%	26%	7%	0%	12%	25%	23%	50%

Note: n =85 for Table 3.10f

Table 3.10g: Centrally-supported blog

Top 4	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	29	36%	36%	38%	25%	33%	67%	42%	100%
WordPress	24	30%	28%	30%	50%	34%	33%	8%	0%
Campus Pack	11	14%	19%	10%	0%	13%	33%	17%	0%
Moodle	11	14%	11%	15%	25%	14%	33%	8%	0%

Note: n =80 for Table 3.10g

Table 3.10h: Centrally-supported document sharing tool

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Office 365	55	69%	63%	73%	75%	61%	100%	85%	100%
Google Docs	28	35%	37%	29%	75%	39%	0%	31%	0%

Note: n =80 for Table 3.10h

Table 3.10i: Centrally-supported e-portfolio

Top 3	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Mahara	33	42%	39%	40%	100%	42%	100%	40%	0%
PebblePad	23	29%	35%	28%	0%	31%	0%	30%	0%
Blackboard	13	17%	13%	19%	25%	14%	0%	0%	50%

Note: n =78 for Table 3.10i

Table 3.10j: Centrally-supported media streaming system

Top 3	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Helix	18	23%	19%	29%	0%	21%	75%	22%	0%
Panopto	12	16%	6%	19%	50%	19%	0%	0%	0%
Kaltura Mediaspace	11	14%	23%	10%	0%	13%	0%	33%	0%

Note: n =77 for Table 3.10j

Table 3.10k: Centrally-supported lecture capture tool

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Panopto	34	45%	42%	43%	100%	46%	100%	11%	0%
Echo360	17	23%	37%	9%	0%	23%	0%	33%	0%

Note: n =75 for Table 3.10k

Table 3.10l: Centrally-supported personal response system

Top solution	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
TurningPoint (by Turning Technologies)	40	56%	61%	48%	0%	57%	100%	33%	100%

Note: n =71 for Table 3.10l

Table 3.10m: Centrally-supported reading list management software

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Talis Aspire	44	64%	81%	51%	33%	59%	100%	83%	100%
rebus:list	10	14%	10%	20%	0%	17%	0%	0%	0%

Note: n =69 for Table 3.10m

Table 3.10n: Centrally-supported wiki tool

Top 3	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Learn	28	42%	39%	44%	100%	41%	67%	45%	0%
Moodle	15	23%	19%	24%	100%	22%	33%	27%	0%
Campus Pack (Learning Objects)	10	15%	16%	15%	0%	14%	33%	18%	0%

Note: n =66 for Table 3.10n

Table 3.10o: Centrally-supported mobile apps*

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Mobile Learn	28	43%	48%	41%	0%	42%	0%	40%	50%
In-house developed student app	15	23%	28%	21%	0%	23%	0%	20%	50%

Note: n =65 for Table 3.10o

Table 3.10p: Centrally-supported webinar tool*

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Collaborate	27	43%	48%	41%	0%	40%	50%	50%	100%
Adobe Connect	26	41%	31%	47%	100%	42%	50%	38%	0%

Note: n =63 for Table 3.10p

Table 3.10q: Centrally-supported synchronous collaborative tool*

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Collaborate	29	50%	65%	42%	0%	51%	0%	50%	100%
Adobe Connect	20	34%	35%	33%	50%	33%	100%	30%	0%

Note: n =58 for Table 3.10q

Table 3.10r: Centrally-supported screen casting tool

Top solution	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Camtasia Studio	15	29%	41%	17%	75%	29%	0%	38%	0%

Note: n =51 for Table 3.10r

Table 3.10u: Centrally-supported content management system

Top solution	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	14	41%	31%	45%	100%	37%	0%	67%	0%

Note: n =34 for Table 3.10u

Question 3.11: And which, if any, technology enhanced learning tools that are used by students are *not* centrally-supported? For example, those used by particular departments or even individuals.

Question 3.11 invited institutions to identify the range of software tools that students are using which are not centrally supported by institutions. This question has been used in previous Surveys dating back to 2008, but new response options were added for 2016 mirroring the changes made to the response items for Question 3.10.

Table 3.11: Software tools used by students which are *not* centrally-supported

Top 10	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Social networking	62	59%	52%	67%	50%	56%	75%	77%	50%
Document sharing tool (e.g. Google Docs, Office 365)	46	44%	38%	51%	38%	41%	75%	54%	50%
Blog	41	39%	31%	45%	50%	36%	75%	46%	50%
Mobile apps*	31	30%	33%	27%	25%	27%	25%	54%	0%
Personal response systems	27	26%	25%	29%	13%	29%	0%	15%	0%
Screen casting	23	22%	21%	25%	13%	22%	50%	15%	0%
Media streaming system	22	21%	19%	25%	13%	19%	50%	31%	0%
Social bookmarking/content curation tools	21	20%	13%	29%	13%	17%	25%	39%	0%
Synchronous collaborative tools (e.g. virtual classroom)*	20	19%	17%	25%	0%	20%	25%	15%	0%
Asynchronous communication tools (e.g. discussion forums)*	19	18%	10%	25%	25%	16%	50%	23%	0%

Note: n=105 for Table 3.11

Data for this question requires some circumspection, as the results reflect the perspectives of respondents (generally e-learning managers) on the range of tools that they believe students to be using as a supplement to the centrally supported tool-set. A comparison with results from 2014 (Table C3.11) shows that the Top 3 non centrally-supported solutions remain the same as they were then, with social networking tools as the most common ones, followed by document sharing tools and blogs. Comparing the percentage of institutions reporting use of non centrally-supported solutions, there has been a decrease from the figures recorded in 2014, with document sharing down from 62% (n=53) in 2014 to 44% (n=46) in 2016, and blog usage down from 59% (n=50) to 39% (n=41). In the case of document sharing, the investment in centrally supported services may well have led to the declining use of non centrally-supported solutions.

In addition to indicating the types of non-centrally supported tools that students are using, respondents were again invited to identify the specific packages in use. A selection of tables for the leading tools (n=10 or more responses) cited by respondents is set out below and the full set of results is available in Tables A3.11a – z. Please note that the percentage scores are calculated based on the total number of respondents for the question, rather than the total population for the Survey.

Table 3.11a: Non centrally-supported social networking tool

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Facebook	44	71%	84%	64%	50%	71%	100%	60%	100%
Twitter	33	53%	52%	55%	50%	52%	100%	40%	100%

Note: n=62 for Table 3.11a

Table 3.11b: Non centrally-supported document sharing tool

Top 2	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Google Docs/Drive	30	65%	61%	68%	67%	66%	100%	43%	100%
Dropbox	19	41%	28%	52%	33%	49%	0%	29%	0%

Note: n=46 for Table 3.11b

Table 3.11c: Non centrally-supported blog tool

Leading solution	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
WordPress	26	63%	73%	68%	0%	61%	100%	50%	100%

Note: n=41 for Table 3.11c

Table 3.11e: Non centrally-supported personal response system

Leading solution	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Socrative	11	41%	33%	50%	0%	40%	0%	50%	0%

Note: n=27 for Table 3.11e

Table 3.11g: Non centrally-supported media streaming tool

Leading solution	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
YouTube	16	73%	77%	75%	0%	75%	100%	50%	0%

Note: n=22 for Table 3.11g

Question 3.12: Does your institution offer any of the following types of courses?

Question 3.12 was redesigned in this year's Survey to reflect the different types of courses which institutions deliver through the use of learning technologies. The classification framework for types of courses was updated to incorporate the more commonly understood categories of *blended, fully online* and *open* modes of delivery. The question invited respondents to indicate how technology enhanced learning is being used for each mode of course delivery, estimating the extent to which this activity is taking place across their institution. The results are displayed in Figure 3.12 below.

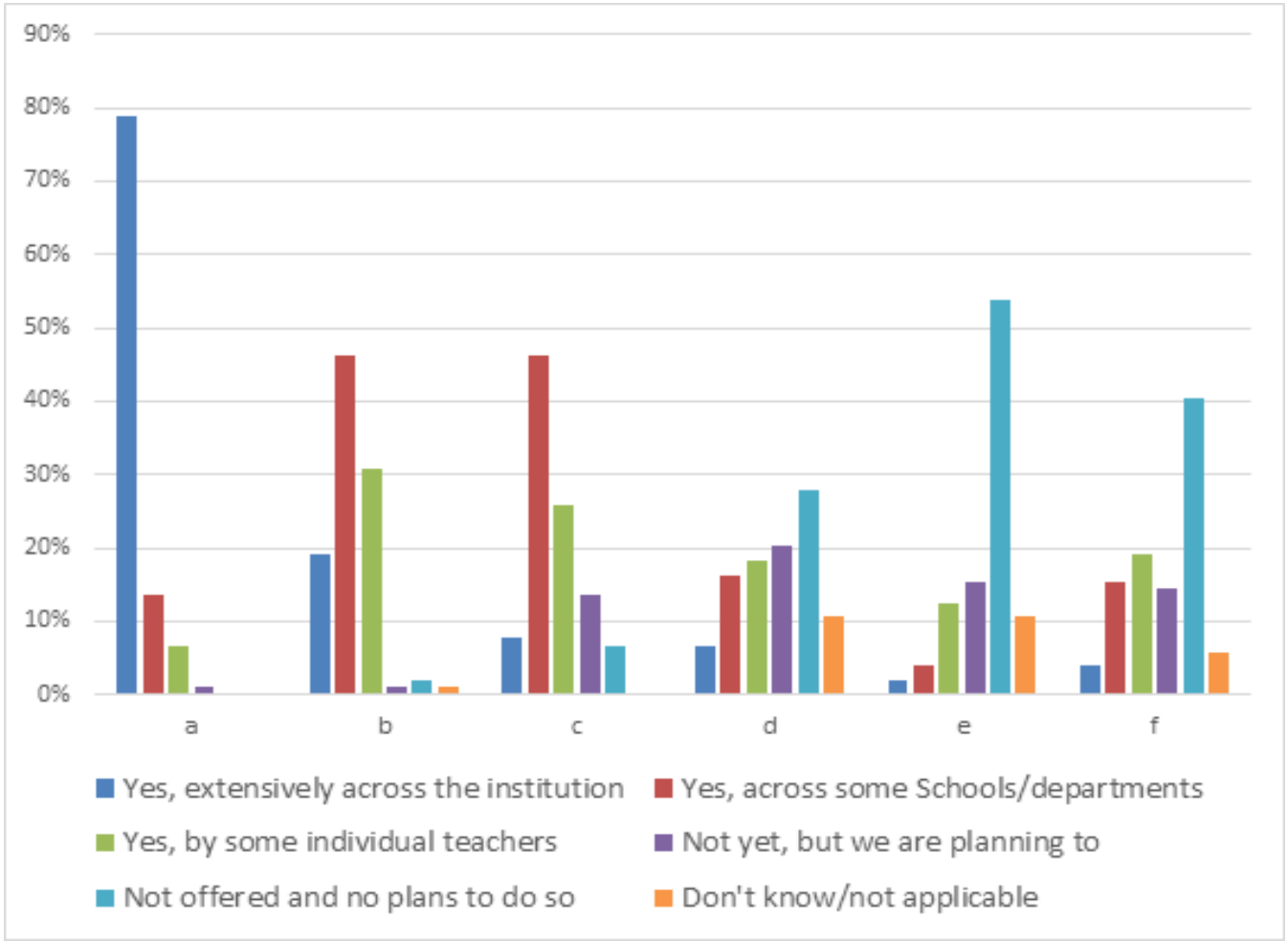

Figure 3.12: Proportion of all modules or units of study in the TEL environment in use

The categories of course delivery were adapted from the classification scheme employed in the 2013 European Universities Association Survey of e-learning in European higher education institutions. They are described as follows:

a. **Blended learning**: lecture notes and supplementary resources for courses studied in class are available;
b. **Blended learning**: parts of the course are studied in class and other parts require students to engage in active learning online (e.g. engaging in collaborative or assessed tasks);
c. **Fully online courses**;
d. **Open online learning courses for all students at your institution**: internal access only;
e. **Open online boundary courses**: free external access to the course materials for the public, but assessment restricted to students registered at your institution only;
f. **Open online learning courses for public**: free external access;
g. **Other** – free-text responses.

The results show that *blended learning* delivery focusing on the provision of lecture notes and supplementary resources to students (*category a.*) is the most commonly supported activity with 79% of respondents indicating that this is offered extensively across their institution and a further 13% confirming that it is supported across some schools and departments. Whilst we cannot make a direct comparison between the 2016 results and previous Surveys due to changes in the question design for 2016, parallels may be made with the TEL supplemented mode of 2014, which was the most popular category in 2014.

The second most common course delivery type is *blended learning* (*category b.*), where parts of the course are studied in class and other parts require students to engage in active learning online (e.g. engaging in collaborative or assessed tasks). However, only a small number of institutions actually require students to engage in active learning online across all of their programmes of study – 19% of respondents reported extensive blended delivery of this type across their institution – with 46% confirming that some schools/departments adopt this approach.

The third most common category was *fully online modules* (*category c.*). Parallels may be made with previous Surveys for this course delivery type, which has traditionally been a niche activity conducted by specialist distance learning providers across the sector. The 2016 results suggest that since the last Survey there has been increasing institutional engagement in the delivery of *fully online courses*, with over half of 2016 respondents now involved in some form of fully online delivery through their schools or departments. This activity appears to be led by Pre- and Post-92 universities, with 8% of each organisational group reporting extensive delivery of this type of course across their institutions. We may cross reference the results here with responses for Question 1.1, for which 70% of respondents stated *that improving access for distance learning* was *fairly important* or *very important* as a driver for TEL services at their institution.

There is a marked contrast between the increasing interest of institutions in fully online delivery and their levels of engagement with *open learning course delivery* (*categories d.*, *e.* and *f.*). Notwithstanding the growing adoption of MOOC platforms by institutions, less than half of the total number of respondents actually confirmed that open course delivery is being pursued within their institution. The most popular open delivery format is *open online learning courses for all students at an institution* (*category d.*), for which 46% of Post-92 institutions reported some level of activity. Of *open online courses for public* (*category f.*), whilst sector engagement at any level is below 50%, Pre-92 universities are far more engaged with over 50% offering some form of course delivery; Russell Group institutions are the most active mission group with 61% (n=11) offering some level of course delivery. This should not come as a surprise, given the high adoption levels of the FutureLearn platform as a channel for open learning course delivery by this mission group, as revealed in Question 3.1a.

Of the other categories of course delivery that are supported by TEL across institutions, respondents highlighted free CPD courses for primary school teachers, revenue generating CPD courses and paid for but non-accredited CPD courses in their free-text responses.

Tables 3.12a – 3.12d show the results for the four most popular course delivery approaches using TEL, with the full results available in Tables A3.12a – A3.12g.

Table 3.12a: Blended learning: lecture notes and supplementary resources for courses studied in class are available

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, extensively across the institution	82	79%	81%	81%	50%	79%	75%	77%	100%
Yes, across some schools/ departments	14	13%	13%	13%	25%	12%	25%	23%	0%
Yes, by some individual teachers	7	7%	4%	6%	25%	8%	0%	0%	0%
Not yet, but we are planning to	0	0%	0%	0%	0%	0%	0%	0%	0%
Not offered and no plans to do so	0	0%	0%	0%	0%	0%	0%	0%	0%
Don't know/not applicable	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n = 104 for Table 3.12a

Table 3.12b: Blended learning: parts of the course are studied in class and other parts require students to engage in active learning online (e.g. engaging in collaborative or assessed tasks)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, extensively across the institution	20	19%	21%	21%	0%	20%	0%	15%	50%
Yes, across some schools/ departments	48	46%	44%	50%	38%	42%	75%	69%	0%
Yes, by some individual teachers	32	31%	33%	27%	38%	33%	25%	15%	50%
Not yet, but we are planning to	1	1%	0%	0%	13%	1%	0%	0%	0%
Not offered and no plans to do so	2	2%	%0%	2%	13%	2%	0%	0%	0%
Don't know/not applicable	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n = 104 for Table 3.12b

Table 3.12c: Fully online courses

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, extensively across the institution	8	8%	8%	8%	0%	9%	0%	0%	0%
Yes, across some schools/ departments	48	46%	50%	48%	13%	38%	100%	85%	50%
Yes, by some individual teachers	27	26%	29%	27%	0%	31%	0%	0%	50%
Not yet, but we are planning to	14	13%	8%	10%	63%	14%	0%	15%	0%
Not offered and no plans to do so	7	7%	4%	6%	25%	8%	0%	0%	0%
Don't know/not applicable	0	0%	0%	0%	0%	0%	0%	0%	0%

Note: n = 104 for Table 3.12c

Table 3.12d: Open online learning courses for all students at your institution (internal access only)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, extensively across the institution	7	7%	4%	6%	25%	7%	0%	8%	0%
Yes, across some schools/ departments	17	16%	19%	15%	13%	18%	25%	8%	0%
Yes, by some individual teachers	19	18%	15%	25%	0%	18%	25%	23%	0%
Not yet, but we are planning to	21	20%	21%	21%	13%	21%	0%	23%	0%
Not offered and no plans to do so	29	28%	29%	23%	50%	29%	0%	23%	50%
Don't know/not applicable	11	11%	13%	10%	0%	7%	50%	15%	50%

Note: n = 104 for Table 3.12d

Question: 3.13: Are there any particular subject areas that make *more extensive* use of technology enhanced learning tools than your institutional norm?

Questions 3.13 followed the same format as in 2014 and invited respondents to confirm whether there are any disciplines within their institution which make extensive use of TEL tools, above and beyond the institutional norm for technology usage.

Table 3.13: Subjects that make *more extensive* use of technology enhanced learning tools than the institutional norm

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	59	57%	63%	52%	50%	53%	100%	69%	50%
No	45	43%	38%	48%	50%	47%	0%	31%	50%

Note: n = 104 for Table 3.13

Table 3.13 shows that 57% of respondents confirmed that there are subject areas which exceed the institutional norm. This percentage is much reduced from the 71% that confirmed that this was the case in 2014, as revealed in Table C3.13, which may suggest that institutions are moving towards a more standardised use of TEL tools in programme delivery.

Question 3.13a: Please select *up to three* subject areas and explain in what way they make more use of technology enhanced learning tools and why you think that this is so.

Questions 3.13a invited respondents to identify those subject areas which exceed the institutional norm in terms of their use of TEL tools. For this year's Survey, the design of the question was modified from a free-text response format to one in which a series of options were provided for respondents to select from, highlighting subject categories derived from previous Survey feedback.

Table 3.13a: Subject areas that make *more extensive* use of technology enhanced learning tools than the institutional norm

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Medical sciences (Medicine, Nursing, Health)	32	54%	60%	56%	0%	53%	25%	67%	100%
Business and management	19	32%	40%	28%	0%	38%	25%	11%	0%
Other subject 1	16	27%	10%	40%	75%	29%	25%	22%	0%
Education, teacher training	15	25%	20%	36%	0%	22%	0%	56%	0%
Computing	11	19%	17%	20%	25%	18%	50%	11%	0%

Note: n = 59 for Table 3.13a

The change in the design of this question through the use of pre-coded options may well have influenced the responses that we have received in 2016 and caution is needed when comparing percentage figures for disciplines over the years. However, the longitudinal picture, as presented in Table C3.13a, shows that there has been consistency in the identification of the leading disciplines, with *Medical sciences* and *Business and management* topping the list of subject areas making more extensive use of TEL tools than the institutional norm, reflecting a similar pattern to previous Surveys (2014, 2012, 2010 and 2008) when equivalent categories of disciplines were identified by respondents.

54% of respondents identified *Medical sciences* as making extensive use of TEL; of this number, 83% of the Russell Group, 80% Million+ and 68% of University Alliance institutions confirmed that extensive use of TEL was taking place in this discipline. The reasons given for the extensive use of TEL ranged from the adoption of simulations to the provision of online support for students working off-site, whilst on placement or working across multiple sites. The adoption of tablets and smartphones was also mentioned, with instructors demonstrating a willingness to experiment with blended and distance learning course delivery and different pedagogic approaches.

Business and management related courses were identified by 32% of respondents. Qualitative responses indicated that this subject area makes extensive use of collaborative tools, electronic submission and quizzes. Distance learning was highlighted as the most popular driver for the adoption of these tools and an established delivery mode for this subject category.

Figure 3.13b: Word cloud showing most commonly mentioned words from reasons for more extensive use of TEL

Figure 3.13b illustrates the most common words that were used by respondents to explain why subjects make more extensive use of TEL then the institutional norm.

Table 3.13b below provides a summary of the leading explanations for extensive use of TEL with sample quotations from respondents. Explanations are wide ranging, from a stronger focus on blended delivery and provision of digital resources to the adoption of flipped classroom approaches, and support for work-based learning and collaboration.

Table 3.13b: Reasons for more extensive use of TEL

Category	Sample quotation
Driven by local strategies	*MBA Courses/modules developed in the institution. Department digital strategy decision.*
Use by Champions	*The abundance of support from their own IT team and several colleagues in TEL support roles. Over a period of time, this had led to the Health Faculty becoming almost self-sufficient from the rest of the University. Differences in funding and the competitive demands of medical education often necessitate being at the forefront of TEL. The practical/competency based nature of medical sciences can also lend themselves to an easier application of TEL.*
Subject driven	*Digital marketing teaching and assignments – the subject area requires students to understand web design and how to sell products online.*
Use of specific technology	*Share resources with students. Extensive use of e-assessment, including assignment submission, quizzes for formative and summative assessment. In both Engineering and Communications Technology students are taught to become proficient in non-centrally supported software, e.g. CAD, Adobe CS Master Suite, and use these to complete course work and assessment tasks.*
Staff skills	*The level of digital expertise is higher amongst both academic staff and students, leading to less issues around adoption and support. Also, the ability to develop new technologies or augment existing systems due to the skills that naturally exist in this area.*
Increasing provision	*Provide a number of distance learning courses and open learning modules and make significant use of lecture capture, online group work and web conferencing tools.*
Standardisation	*Fully integrated into the curriculum delivery model and problem based learning approach.*

One theme discernible from the free-text comments is the level of support that is being made available to encourage the use of TEL. This is consistent with the results received for Question 1.3, where *availability of TEL support staff* tops the list of factors encouraging the development of TEL. The nature of the support includes strategic drivers and top-down strategic decision-making focusing on the expansion of online delivery options for courses, through to dedicated *in school* technical support to academic staff. Reference is also made though to the more *technically capable staff and students* for these disciplines, who share a natural interest in the use of technology.

Question 3.14: Are there any particular subject areas that make *less extensive* use of technology enhanced learning tools than your institutional norm?

Table 3.14: Subjects that make less extensive use of technology enhanced learning tools than the institutional norm

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	47	46%	47%	50%	13%	44%	75%	54%	0%
No	56	54%	53%	50%	88%	56%	25%	46%	100%

Note: n = 104 for Table 3.14

Questions 3.14 and 3.14a invited respondents to confirm whether any subject areas make less extensive use of TEL tools. Table 3.14 shows that 46% of respondents confirmed that there are subject areas which do fall below the institutional norm. This percentage is slightly down from the 52% that reported that this was the case in 2014, as revealed in Table C3.14, although the number of respondents is almost identical, with 46 institutions indicating that there were subjects making less extensive use of TEL tools in 2014 and 47 confirming that this is the case in 2016.

Question 3.14a: Please select *up to three* subject areas and explain in what way they make less use of technology enhanced learning tools and why you think that this is so.

Table 3.14a: Subject areas that make *less extensive* use of technology enhanced learning tools than the institutional norm

Top 6	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Art and Design	21	45%	23%	67%	0%	46%	33%	43%	0%
Humanities (Geography, History)	16	34%	41%	29%	0%	32%	100%	14%	0%
Other subject 1	12	26%	27%	21%	100%	30%	0%	14%	0%
Mathematics	7	15%	18%	13%	0%	19%	0%	0%	0%
Social sciences	5	11%	18%	4%	0%	11%	33%	0%	0%
Education, teacher training	4	9%	9%	8%	0%	8%	0%	14%	0%

Note: n = 47 for Table 3.14a

Table 3.14a captures the leading responses for subject areas that make less extensive use of TEL tools. Similar to 3.13a, the design of the question was modified from a free-text response format to one in which a series of options were provided for respondents to select from, highlighting subject categories derived from previous Survey feedback. *Art and Design* is the most commonly cited subject area (45%), as it was in 2014, followed by Humanities (34%), (24% in 2014). *Other* subjects cited by participants included Music (9%), Theology, Economics and Dance. For the full list of results, please view Table A3.14a and for results by mission group, please view Table B3.14a.

The change in the design of the question with the introduction of response options in this year's Survey makes it difficult to conduct a longitudinal analysis, comparing results with previous years. Nevertheless, the order of subjects remains largely similar. *Art and Design* in 2016 (45%) compares with Art, Music and Drama which was the most commonly cited subject area to make less extensive use of TEL (100% in 2014 and 70% in 2012). *Humanities* in 2016 was the second most commonly referenced subject area with 34%, occupying the same position as in 2014 (24%) and 2012 (17%). The key change this year has been the increasing number of references to *Mathematics* as a subject area with less extensive TEL usage, and this is now the third most commonly referenced subject area, although the number of institutions citing it remains low (n=3 in 2014 and n=7 in 2016). The full longitudinal picture of results for this question is presented in Table C3.14a.

Figure 3.14b: Word cloud showing most commonly mentioned words from reasons for *less extensive* use of TEL

Table 3.14b provides a summary of reasons for less extensive use of TEL. The categories of reasons are very similar to those given in 2014 and focus on teaching style and preferences over course delivery methods, with academic staff placing a greater emphasis on face to face interaction and practical activities using *traditional media*. The varying engagement of staff with technology and the culture of teaching for the discipline were also commonly referenced as reasons for less extensive use of TEL.

Table 3.14b: Reasons given for *less extensive* use of TEL

Category	Sample quotation
Traditional pedagogic approaches	*Teaching style oriented around inter-disciplinary student teams to mimic real life work practice. Close interaction with staff on a face to face basis.*
Cultural factors in the discipline area	*There are some pockets of good practice, but many tutors are reluctant to share materials with students online, preferring to do this face to face. Little use of online assessment across the department, although some individual tutors using this.*
Focus on specific classroom based technologies or alternative technologies	*Use the VLE a lot less. Probably because they prefer industry standard tools.*
Lack of vision	*Academics in this area are sceptical about the benefits of TEL tools.*
Lack of strategy/support	*Limited support from senior management Skill set of staff Perception that* as they are teaching it, they are already doing it. *No school learning technologist – innovative in some programmes, limited support in others.*
Staff skills	*Culture and established practice within Schools in this cluster is very traditional. Low levels of staff engagement in professional development opportunities.*
Impact on students	*Smaller class sizes. Seminar and tutorial based teaching.*

Question 3.15: Approximately, what proportion of courses within your institution use each of the following technology enhanced learning tools?

This question was retained from previous Surveys with the aim of tracking the extent of TEL usage in courses across institutions. Please note though that a large number of changes were made to the list of tools that respondents were invited to review this year. The range of tools was updated to reflect the full list presented in questions 3.10 and 3.11 of the Survey, enabling the cross referencing of results for the adoption of centrally supported tools with figures for their deployment across courses.

All new tools for this question are marked with an asterisk against their name in Table 3.15 to highlight this updating process. Additional modifications to this question included the renaming of items such as plagiarism detection tools to *text matching tools*, audio/video lecture recordings to *lecture capture tools* and asynchronous collaborative tools to *asynchronous working tools*. Response items from previous Surveys which had not yielded insightful data in the past (e.g. access to external web based resources, voice based tools, simulations and games, online student presentations) were removed from the list of tools under review.

Table 3.15: Percentage of courses using TEL tools

Top 10 Tools	100%	75%–99%	50%–74%	25%–49%	5%–24%	1%–4%	0%	Don't know
Virtual Learning Environment (VLE)*	42%	50%	1%	0%	0%	1%	0%	5%
E-submission tools (assignments)	20%	38%	20%	8%	3%	0%	2%	8%
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	16%	42%	19%	8%	5%	0%	3%	6%
Content management systems*	11%	9%	2%	8%	12%	15%	14%	29%
Reading list management software *	9%	21%	12%	13%	7%	7%	11%	20%
Digital/learning repository*	6%	9%	6%	13%	13%	9%	17%	27%
Mobile apps*	5%	9%	6%	14%	15%	21%	3%	26%
Asynchronous communication tools (e.g. discussion forums)	4%	10%	15%	25%	30%	2%	3%	10%
Lecture capture tools (system to record teaching in a lecture theatre/ classroom)	4%	9%	4%	7%	35%	1%	11%	12%
E-portfolio	3%	0%	3%	16%	42%	21%	6%	9%

Note: n = 103 for Table 3.15

Table 3.15 captures the leading TEL tools which are being used by institutions to support teaching and learning practices. Data for this question requires some circumspection, as the results reflect estimates by respondents of the proportion of courses using TEL tools within their institutions. Nonetheless, when cross referencing these results with the centrally-supported software tools used by students in Question 3.10, we see a consistent picture of software usage emerging. The Top 3 centrally supported software tools used by students in Table 3.10 also appear in Table 3.15 in the same order. The *VLE* is the most widely used tool with 92% of institutions deploying it for between 75%–100% of their combined course delivery. *E-submission* and *text matching* tools are both used by 58% of institutions for the same range of course delivery. A number of the new response items for this question also feature in the Top 10; *content management systems* and *reading list management* software respectively have 20% and 30% of respondents reporting usage of these tools on 75%–100% of their courses.

With the introduction of new tools as response items for this question and the removal of options used in previous Surveys, longitudinal analysis of software deployment across courses is far from straightforward. Nevertheless, we are able to track key developments such as the increasing percentage of institutions using text-matching tools (formerly plagiarism detection software) across all of their courses, rising from 5% in 2014 to 16% in 2016. E-submission tools are also increasing in uptake, with 20% of respondents confirming that these tools are used in all of the courses that they deliver, compared with 6% of institutions in 2014. We may draw parallels here with the findings of the research study conducted by the UK Heads of e-Learning Forum (Newland, 2016[1]), which charts the rise in the number of institutions advocating e-submission as the only form of submission of assessed work and the increasing number possessing institution-wide e-submission policies.

1 *http://www.slideshare.net/barbaranewland/helf-uk-he-research-on-electronic-management-of-assessment-2016*

A breakdown of results for the Top 5 leading tools is presented below. Please note that the total number of responses received for each tool does vary and these totals are therefore indicated at the bottom of each table. The full set of results for each item is available in the Appendix (Tables A3.15a – y). For a full longitudinal comparison of results for the 2014, 2012, 2010 and 2008 Surveys, please view Table C3.15.

Table 3.15a: Virtual Learning Environment (VLE)*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	43	42%	34%	48%	50%	46%	0%	23%	50%
75%–99%	52	50%	57%	46%	38%	46%	100%	62%	50%
50%–74%	1	1%	0%	0%	13%	1%	0%	0%	0%
25%–49%	0	0%	0%	0%	0%	0%	0%	0%	0%
1%–4%	1	1%	0%	2%	0%	0%	0%	8%	0%
Don't know	5	5%	9%	2%	0%	5%	0%	8%	0%

Note: n = 102 for Table 3.15a

Table 3.15b: e-Submission tools (assignments)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	21	20%	11%	23%	63%	21%	0%	15%	50%
75%–99%	39	38%	36%	44%	13%	42%	50%	15%	0%
50%–74%	21	20%	26%	19%	0%	18%	50%	23%	50%
25%–49%	8	8%	9%	6%	13%	6%	0%	23%	0%
5%–24%	3	3%	6%	0%	0%	2%	0%	8%	0%
0%	2	2%	0%	2%	13%	2%	0%	0%	0%
Don't know	8	8%	13%	4%	0%	7%	0%	15%	0%

Note: n = 102 for Table 3.15b

Table 3.15c: Text matching tools (e.g. SafeAssign, Turnitin, Urkund)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	16	16%	9%	21%	25%	17%	0%	15%	0%
75%–99%	43	42%	49%	40%	13%	40%	50%	39%	100%
50%–74%	20	19%	21%	21%	0%	20%	25%	15%	0%
25%–49%	8	8%	4%	10%	13%	6%	25%	15%	0%
5%–24%	5	5%	6%	2%	13%	5%	0%	8%	0%
0%	3	3%	0%	0%	38%	4%	0%	0%	0%
Don't know	6	6%	9%	4%	0%	6%	0%	8%	0%

Note: n = 101 for Table 3.15c

Table 3.15d: Content Management Systems*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	11	11%	11%	6%	38%	12%	0%	8%	0%
75%–99%	9	9%	9%	10%	0%	8%	25%	8%	0%
50%–74%	2	2%	2%	2%	0%	2%	0%	0%	0%
25%–49%	8	8%	11%	6%	0%	7%	25%	8%	0%
5%–24%	12	12%	2%	21%	13%	11%	0%	15%	50%
1%–4%	15	15%	17%	13%	13%	14%	0%	23%	0%
0%	14	14%	15%	10%	25%	14%	0%	15%	0%
Don't know	30	29%	32%	29%	13%	29%	50%	23%	50%

Note: n = 101 for Table 3.15d

Table 3.15e: Reading list management software*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	9	9%	4%	13%	13%	10%	0%	0%	50%
75%–99%	22	21%	23%	21%	13%	23%	25%	15%	0%
50%–74%	12	12%	13%	13%	0%	13%	25%	0%	0%
25%–49%	13	13%	13%	13%	13%	13%	0%	8%	50%
5%–24%	7	7%	9%	6%	0%	6%	25%	8%	0%
1%–4%	7	7%	6%	8%	0%	7%	25%	0%	0%
0%	11	11%	9%	8%	38%	10%	0%	23%	0%
Don't know	21	20%	23%	17%	25%	18%	0%	46%	0%

Note: n = 102 for Table 3.15e

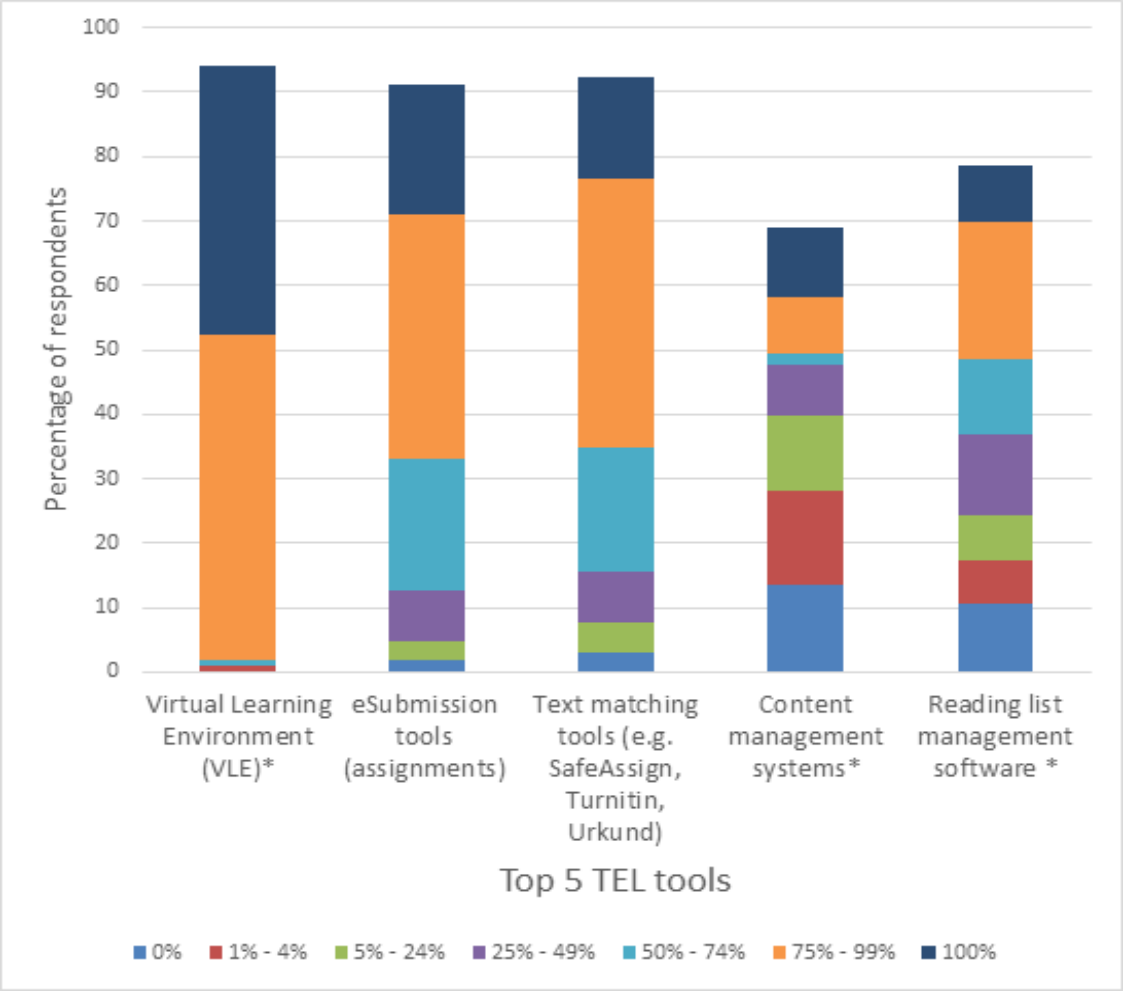

Figure 3.15a: Chart showing proportion of courses using (Top 5) TEL tools

A breakdown of the data is available for each mission group in Tables B3.15a – y in the Appendix. Table B3.15b shows that GuildHE and University Alliance institutions have made the most progress in deploying e-submission tools, with two-thirds of responding institutions having done so across 75% – 100% of their courses. This represents a notable change from 2014 when Russell Group institutions led the way. The University Alliance mission group also has the highest percentage of members (47%; n=7) deploying reading list management software across 75% – 100% of their courses. However, text-matching software is commonly adopted by all of the mission groups, with over 40% of institutions in each group using these tools in 75% – 100% of the courses that they deliver.

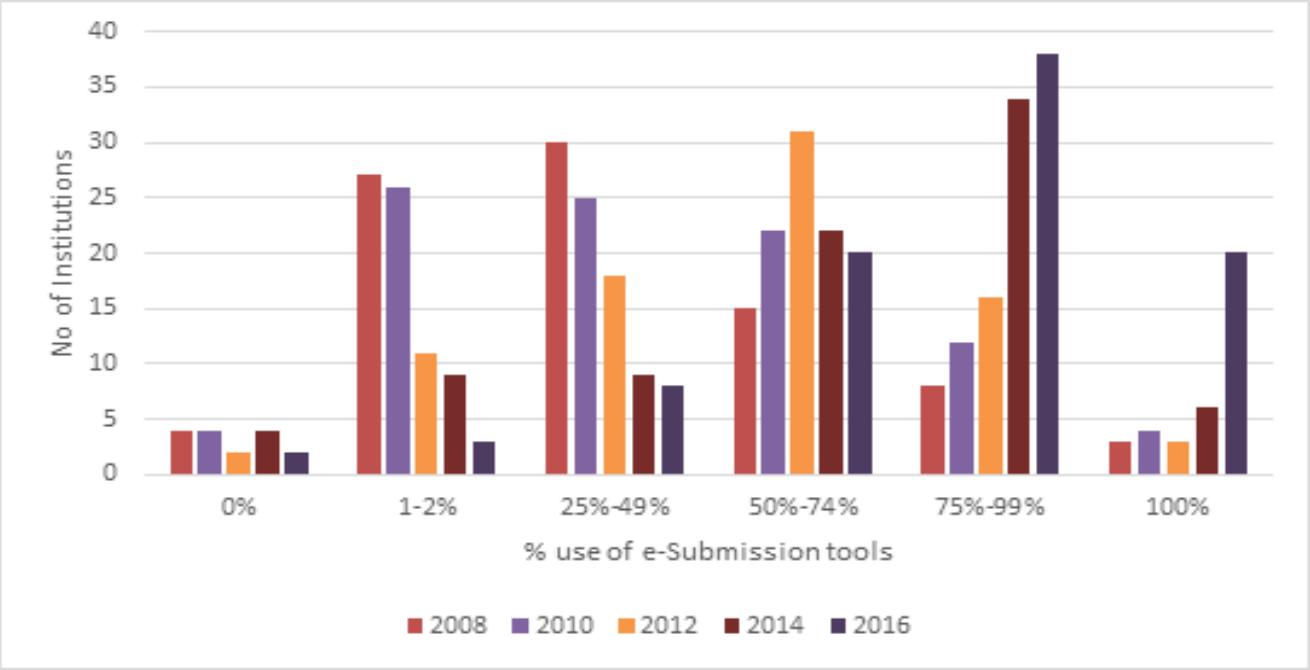

Figure 3.15b: Chart showing the longitudinal picture for the UK HE sector's use of e-Submission tools (assignments) in courses

Figure 3.15b provides a longitudinal picture for the UK HE sector's deployment of e-submission tools in courses. The chart clearly shows the increasing number of institutions which are deploying these tools, with the 75% – 99% and 100% bands of course adoption steadily increasing from 2008 onwards.

Question 3.16: Which of the following types of services, if any, have been optimised by your institution to be *accessible via mobile devices* (e.g. smart phone, tablet) beyond standard web based access?

This question was first introduced in the 2012 Survey to track the progress that institutions were making in optimising access for mobile devices to key university services. For this year's Survey, the list of services was expanded to include the optimisation of mobile access to printing services, the institutional portal, learning analytics services and to student information/records systems. An additional response option also enabled respondents to clarify why services might not be optimised, reflecting a context where they are designed by default to be device agnostic.

Table 3.16: Optimised services for mobile devices

Top 6 services	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Access to course announcements	61	60%	61%	66%	25%	60%	50%	62%	100%
Access to email	61	60%	65%	57%	50%	57%	75%	77%	50%
Access to course materials and learning resources	59	58%	65%	57%	25%	59%	50%	54%	100%
Access to communication tools (e.g. discussion boards, blogs and wikis)	49	49%	54%	49%	13%	48%	50%	46%	100%
Access to library services	49	49%	52%	47%	38%	48%	25%	62%	50%
Access to lecture recordings and videos	39	39%	48%	36%	0%	37%	50%	46%	50%

Note: n = 101 for Table 3.16

Table 3.16 presents the Top 6 services that have been optimised for mobile devices, offering an insight into the way that HE institutions are continuing to respond to this challenge. There has been little change from 2014, with the same set of services returned in the Top 6 with broadly equivalent percentages for institutional activity.

The key change since 2014 has been the rise in the number of institutions optimising library services (from n=39 in 2014 to n=49 in 2016), with Russell Group institutions leading the way with 69% of their members improving access in this area. The percentage of institutions optimising access to lecture recordings has stayed at the same level as 2014, despite the steady investment in lecture capture systems which has been taking place across the sector (71% of institutions supporting a system as reported in Question 3.10). The percentage of institutions optimising access to grades has dropped from 29% in 2014 to 22% in 2016, and there appears to have been little progress towards optimising access to student information/records systems, with only seven institutions confirming that they have done so.

Of the other new response options for this question, access to the institutional portal is the most common service area to be optimised (31%), followed by access to printing services (26%). Only one institution has undertaken optimisation work for a learning analytics system, which is not altogether surprising given the small number of institutions currently supporting a solution (n=20, as reported in Table A3.10). Other responses to this question included VLE access, portal services, student course evaluation forms, file sharing and access to an institutional programme module catalogue.

Possibly one explanation for the low level of optimisation work is that institutions are investing in systems which are designed to be *mobile ready* and device agnostic. Interestingly, whilst the combined total of institutions which have not optimised services (n=18) is almost the same as in 2014 figure (n=17), 11 of the 2016 institutions indicated that their services were designed to be device agnostic by default. Table B3.16 provides a full breakdown of results by mission group. Table C3.16 presents a longitudinal picture for this question, covering results from the 2012, 2014 and 2016 Surveys.

Question 3.17: For which types of devices does the institution provide active user (staff and student) support (e.g. documentation, training, service desk support) to connect to these services?

Table 3.17: Mobile devices with active user support

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
iOS devices (e.g. iPad and iPhone)	72	73%	76%	77%	29%	69%	100%	83%	100%
Android devices	68	69%	73%	70%	29%	65%	100%	75%	100%
Windows Mobile devices	55	56%	62%	53%	29%	52%	75%	75%	50%
Blackberry devices	24	24%	29%	21%	14%	22%	50%	33%	0%
No active user support provided – all services are designed to be device agnostic by default*	17	17%	20%	11%	43%	20%	0%	8%	0%
No active user support provided	9	9%	4%	11%	29%	11%	0%	0%	0%
Other mobile device	2	2%	0%	4%	0%	1%	0%	8%	0%

Note: n = 99 for Table 3.17

Table 3.17 outlines the range of devices that are supported by institutions. The data reveals that *iOS devices* are most commonly supported by institutions, with 73% of respondents doing so (81% in 2014), followed by *Android devices*, which are supported by 69% of institutions (77% in 2014). There has been a marked decline in support for *Blackberry devices*, with only 37% of institutions now supporting this device (51% in 2014). A new category *No active user support provided – all services are designed to be device agnostic by default* was selected by 17% of respondents.

Table B3.17 gives a breakdown of results for the mission groups. Comparing results with the last Survey, we can see that support for iOS and Android devices has grown across all mission groups, with half or more of members from each mission group now supporting these devices. 60% of Million+ and Russell Group members also support Windows Mobile devices as well.

Question 3.18: How does your institution promote the use of student/staff owned mobile devices in support of learning, teaching and assessment activities?

This question was first introduced in the 2014 Survey to track the ways institutions are promoting the use of student and staff owned mobile devices. In this year's Survey, an additional response option was included, focusing on *Institutional Bring Your Own Device* (BYOD) policy and its influence in supporting mobile device usage on campus.

Table 3.18: How use of mobile devices is promoted

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutional Bring Your Own Device (BYOD) policy and supporting mobile device usage on campus*	43	43%	44%	40%	57%	43%	50%	42%	50%
Loaning of devices to staff/ students	40	40%	40%	45%	14%	40%	100%	25%	50%
Funding for mobile learning projects	23	23%	20%	28%	14%	23%	0%	33%	0%
Other method of promoting use of mobile devices	22	22%	20%	26%	14%	19%	25%	50%	0%
Institutional switch-on policy to encourage use of devices by staff and students for learning, teaching and assessment	15	15%	13%	19%	0%	12%	50%	17%	50%
Institution does not promote the use of mobile devices	15	15%	18%	11%	29%	16%	0%	8%	50%
Free provision of devices to staff/ students	8	8%	4%	11%	14%	9%	0%	8%	0%

Note: n = 99 for Table 3.18

The most common ways in which institutions are promoting the use of mobile devices are through the establishment of a *bring your own device* (BYOD) policy and by loaning out devices to staff and students. Half of the responding Russell Group and University Alliance institutions confirmed that they have a BYOD policy in place and these groups also have the largest number of members engaged in loaning out devices to staff and students. However, there has been little change in the extent of this activity, with the global percentage of institutions loaning out devices broadly equivalent to the 2014 figure (42%).

Funding for mobile learning projects has reduced in scale across the sector from the 31 institutions supporting this activity in 2014 to 23 institutions in 2016. Of the mission groups, the University Alliance has the highest number of members promoting mobile in this way involved (n=5). The downturn in funding may well reflect a more general picture regarding the reduced availability of internal funds to support TEL development, and this is highlighted as a major barrier in the results for Question 5.1 (Section 5 of the Survey).

Of the *other methods of promoting mobile devices* which were mentioned in free-text responses, respondents highlighted staff development events and awareness raising of good practice, as well as dedicated training for staff in the use of mobile devices. The other main theme that was touched was investment in comprehensive wifi infrastructure to support staff, student and guest mobile usage on campus.

Question 3.19: Please list the systems that are linked (i.e. some form of data flow is supported between the systems) to the *main* VLE within your institution

This question was retained from the last Survey and focused on linkages between key enterprise systems and the VLE.

Table 3.19: Systems that are linked to the *main* VLE

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Library: system providing access to reading lists and electronic reading resources	79	80%	78%	81%	86%	84%	75%	50%	100%
Student records	78	79%	73%	89%	43%	78%	50%	92%	100%
Registration and enrolment	76	77%	82%	74%	57%	75%	75%	83%	100%
E-submission: system managing assignments and coursework	71	72%	73%	68%	86%	72%	7%	67%	100%
Lecture capture system (system to record teaching in a lecture theatre/classroom)	54	55%	69%	47%	14%	53%	100%	42%	100%

Note: n = 99 for Table 3.19

Table 3.19 displays the results for the top five systems that institutions reported as being linked with the VLE. The full set of data can be seen in Table A3.19. The table reveals that library systems are most commonly linked to the VLE, with the percentage of institutions with this form of system integration increasing from 73% in 2014 to 80% in 2016. Systems integration between library systems and the VLE is now supported on a similar level to linkages with student records (79%) and registration and enrolment systems (77%) across the sector. Other notable changes since the 2014 Survey include the rise in the number of institutions supporting integrations with e-submission systems managing assignments and coursework (from n=61 to n=71) and with their lecture capture system (from n=36 to n=54).

Table B3.19 reveals that 80% or more of institutions from each mission group have developed integrations between the VLE and their library systems, with 93% of University Alliance members having done so. Russell Group institutions have the highest percentage of members that have developed linkages with lecture capture systems (80%); this is not altogether surprising given the longer period with which these institutions have been using lecture capture systems, with greater opportunity to embed them as part of their online learning infrastructure for staff and students.

Table 3.19c (i): Systems linked to the VLE (longitudinal)

Top 10 systems linked to the VLE	2016	2014	2012	2010
Library: system providing access to reading lists and electronic reading resources	80%	73%	50%	60%
Student records	79%	80%	80%	78%
Registration and enrolment	77%	71%	60%	63%
E-submission: system managing assignments and coursework	72%	68%	-	-
Lecture capture system	55%	40%	32%	-
Media server	53%	33%	41%	44%
E-portfolio	52%	46%	51%	59%
E-assessment system: system supporting defined response testing and quizzes	47%	50%	57%	-
Timetabling	29%	29%	-	-
Portal	27%	37%	54%	49%

A longitudinal view of the systems linked to the VLE since 2010 shows the rise of integrations between the VLE and library systems, which has increased from 50% in 2012 to 80% in 2016, edging ahead of linkages with student record systems which is now in second place at 79%. Registration and enrolment is next with 77%, rising steadily from 60% in 2012. E-submission was introduced as a response option for the first time in the 2014 Survey and has increased by 4% to 72%. One of the striking developments in this year's results is the developing link with lecture capture systems, steadily increasing from 32% in 2010 to 55% in 2016. In contrast, integration between the portal and VLE has continued on a downward trend from 49% in 2010 to 27% in 2016.

Question 3.19a: Whether or not it is linked to the main VLE, does your institution have a main lecture capture system (to record teaching in a lecture theatre/classroom)?

This was a new question for the 2016 Survey, which aimed to track the growing level of investment in lecture recording systems which capture scheduled teaching in lecture theatres.

Table 3.19a: institutions possessing a *main* lecture capture system

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	68	69%	76%	66%	43%	68%	100%	58%	100%
No	31	31%	24%	34%	57%	32%	0%	42%	0%

Note: n = 99 for Table 3.19a

69% of responding institutions confirmed that they now have an institutional lecture capture system, and this figure is close to the 71% of institutions that possess a centrally supported lecture capture tool, as recorded in Question 3.10. (The slight difference in numbers may be attributed to the different response rates for each of these questions.) Table B3.19a reveals that 87% of Russell Group institutions possess a main lecture capture system, reflecting a higher level of investment compared with other mission groups; only 45% of GuildHE institutions, 63% of Million+ members and 67% of University Alliance members support such a system.

Question 3.19b: Which systems are linked to the main institutional lecture capture system?

This new companion question invited respondents to outline the extent to which the main institutional lecture capture system was embedded and linked to other key information systems.

Table 3.19b: Systems which are linked to the *main* institutional lecture capture system

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
VLE	54	48%	88%	71%	67%	82%	75%	57%	100%
Media server	18	16%	24%	26%	67%	20%	0%	71%	100%
Timetabling	14	13%	29%	13%	0%	25%	0%	0%	0%
Registration and enrolment	9	8%	18%	10%	0%	11%	50%	14%	0%
No systems are linked to main institutional lecture capture system	9	8%	3%	26%	0%	13%	25%	14%	0%

Note: n = 68 for Table 3.19b

The most popular systems link was with the VLE, with 54 institutions having developed a data flow – confirming the figure given in Question 3.19. 16% of responding institutions mentioned the link with a *media server* and 13% had a link with the *timetabling system*. *Registration and enrolment* was only linked by 8%, similarly 8% reported no systems were linked to the VLE.

Question 3.20: Have you evaluated the impact of technology enhanced learning on the *student learning experience* across the institution as a whole over the *past two years*? This can include particular aspects of TEL across the institution.

Questions 3.20-3.23 sought to investigate the extent to which the sector is evaluating the impact of TEL, both in terms of effect on the student learning experience and its influence on pedagogic practices. First introduced in 2012, the question-set has been redesigned in the light of the data collected in previous Surveys, with pre-coded response options introduced in this year's Survey to reflect commonly referenced evaluation themes. The phrasing of Q3.20 was also amended to invite responses on any aspect of TEL with an impact on the student learning experience.

Table 3.20: Evaluation of the impact of TEL on the student learning experience across the institution as a whole over the past two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	40	40%	44%	36%	43%	41%	25%	42%	50%
No	59	60%	56%	64%	57%	59%	75%	58%	50%

Note: n=99 for Table 3.20

Table 3.20 shows that only 40% of institutions have undertaken evaluations on the impact of TEL on the student learning experience over the past two years. This reflects a reduced level of activity across the sector when compared to the 52% of institutions engaged in this activity in 2014 and the 61% in 2012, maintaining the declining trend in evaluation over recent years. It is also represents a much smaller area of activity, when compared with the 57 institutions engaged in the review of TEL facilities or systems (Question 3.3).

The breakdown of the data by organisation type reveals that Pre-92 institutions have been more active than Post-92 universities in conducting impact studies. Table B3.20 shows that Russell Group institutions have the highest percentage of mission group members undertaking evaluations at 47% (n=7).

Question 3.20b: What aspects of the impact of technology enhanced learning on the *student learning experience* have you evaluated over the past two years?

This was a new companion question to Question 3.20 which invited respondents to identify the key themes for institutional evaluation activities. Respondents were provided with a list of options based on previous Survey data and known areas of evaluation activity across the sector.

Table 3.20b: What aspects of the impact of technology enhanced learning on the student learning experience have you evaluated over the past two years?

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Other 1	27	68%	70%	71%	33%	73%	0%	60%	0%
E-assessment	17	43%	40%	41%	67%	46%	100%	20%	0%
Take up/usage/adoption by students of lecture capture	12	30%	40%	24%	0%	36%	0%	0%	0%
Mobile learning	11	28%	30%	18%	67%	30%	0%	20%	0%
Effectiveness of flipped learning	8	20%	25%	12%	33%	18%	0%	20%	100%

Note: n=40 for Table 3.20b

Table 3.20b shows that e-assessment (n=17), lecture capture (n=12) and mobile learning (n=11) were the most commonly selected evaluation themes by respondents, when reviewing the impact of TEL on the student learning experience. E-assessment is identified as a theme by at least one member of each mission group, and there is a similar level of engagement between Pre-92 institutions (40%) and Post-92 institutions (41%). There is a less consistent pattern to the other evaluation themes. Whilst institutional support for lecture capture tools is now well established across the sector (as revealed in Q3.10), Table 3.20b shows that Pre-92 institutions are far more engaged in evaluating the take-up and usage of lecture capture tools by students than Post-92 institutions, with double the number of institutions (n=8) involved.

27 institutions provided other responses to this question. Of these open responses, 27 institutions identified the VLE as the focus for their evaluation (24%). The explanations confirm that investigations into VLE usage and levels of student satisfaction with the VLE are the most common reasons for these types of studies to be undertaken.

Question 3.21: *How* has the impact has been measured, *when*, and for *what purpose*?

This question was redesigned with a simplification of response options and the removal of the *by whom* category in the pre-coded set of responses. The question also introduced for the first time *crowd-sourcing of feedback from users via social media* as an option for *how* impact may be measured. The 2016 results show that surveys remain the most common form of data gathering method (n=30), followed by *interview/focus groups* (n=22) and *module and course evaluation* (n=20), with no institutions using crowd sourcing of feedback via social media. Although the number of institutions using these methods is not that large, it is noticeable how engaged Pre-92 institutions are in their use of surveys and benchmarking tools compared with other institutional groups.

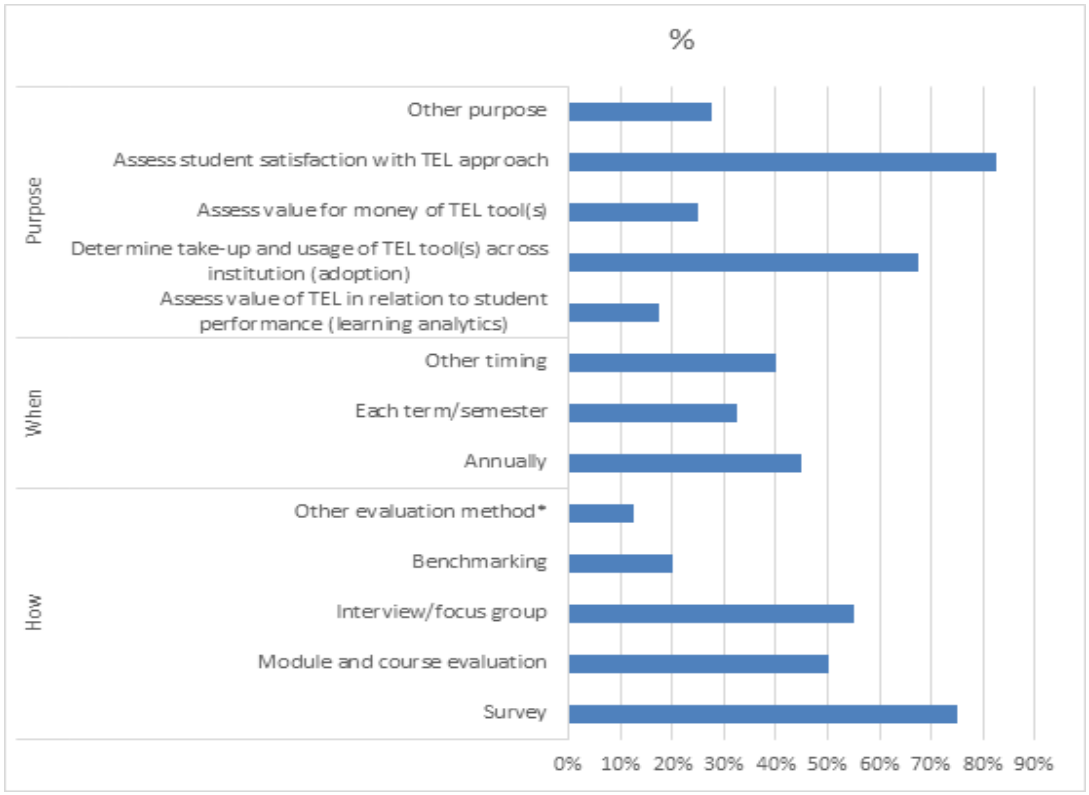

Figure 3.21: Details of how the impact of TEL tools on the student learning experience has been measured, when and for what purpose

Figure 3.21 shows that there are two common purposes for undertaking evaluation activities, namely to investigate student satisfaction (n=33) and to determine take-up of TEL services (n=27); the latter purpose was identified by 10 more institutions than the figure recorded in 2014. The number of institutions whose purpose is to *Assess value of TEL in relation to student performance (learning analytics) remains* relatively low and is less than the figure recorded in 2014 (n=12). This is consistent with responses elsewhere in the Survey (see Table A3.10w) which indicates that institutional adoption of learning analytics solutions and their implementation is not that far advanced across the sector.

Question 3.21a: And what have these evaluations revealed? Please describe the broad conclusions from the evaluations and, if any have been published, provide the appropriate references or links.

33 respondents provided information on the outcomes from the evaluations that they had undertaken. Whilst the level of detail that respondents provided varied quite considerably, it is possible to identify some common themes in the responses that were given. The data from Question 3.21 (*purpose*) revealed that student satisfaction was the most common reason for undertaking these evaluations. The qualitative responses in Question 3.21a support this finding, with many institutions reporting outcomes of student satisfaction (Table 3.21a) along with the value of consistency in TEL service provision.

Table 3.21a: Broad conclusions from the evaluations undertaken into the impact of TEL on the student learning experience

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
TEL appreciated by students	13	42%	40%	56%	0%	43%	0%	75%	0%
Students value consistency	12	39%	27%	44%	0%	29%	100%	50%	0%
Demand for mobile support	7	21%	20%	19%	50%	21%	0%	25%	0%
Mixed use of TEL	6	18%	20%	6%	50%	14%	0%	25%	0%
Other	6	18%	27%	6%	50%	21%	0%	0%	0%

Note: n=33 for Table 3.21a

The sample of free-text comments in Table 3.21b below suggests that there has been a focus on the evaluation of core systems such as the VLE or e-assessment, though some respondents also reported that they had conducted evaluations of personal response systems, e-portfolio, mobile and lecture capture systems.

Table 3.21b: Qualitative comments provided by respondents in support of the broad conclusions on TEL impact studies on the student learning experience

Category	Sample comments
TEL appreciated by students	*The use of e-assessment has increased student satisfaction relating to assessment and feedback.* *The results suggested that student satisfaction levels are high across a large number of functionalities on the VLE.*
Students value consistency	*Satisfaction with VLE high but some issues regarding consistency across programmes of study. Use of TEL is increasing year on year and is more widely embedded across modules and programmes. Students want more of it, and would like a more consistent experience of TEL. Students require consistency across awards and accurate and timely administrative information.*
Mixed use of TEL	*There is scope for improvements in terms of consistent approach and increased use of TEL tools across the institution.* *Students like the services provided but want staff to use them more.*
Demand for mobile support	*Students benefit from using mobile learning. Students have not always used mobile learning before.*

Question 3.22: Have you evaluated the impact of technology enhanced learning on pedagogic practices across the institution as a whole over the past two years? This can include particular aspects of TEL across the institution

Table 3.22: Evaluation of the impact of TEL on pedagogic practices across the institution as a whole over the past two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	36	36%	36%	38%	29%	38%	0%	33%	50%
No	63	64%	64%	62%	71%	62%	100%	67%	50%

Note: n=99 for Table 3.22

Table 3.22 shows that only 36 institutions have evaluated the impact on pedagogic practices over the past two years – fewer than the number undertaking impact studies on the student learning experience. However, when comparing responses to this question over the years, the percentage of institutions (36%) represents an increase on the 30% recorded in 2014 and is just under the 38% recorded in 2012.

The breakdown of data by organisational type shows that Pre-92 and Post-92 institutions have a similar level of evaluation activity. Of the mission groups, the University Alliance has the highest number of institutions engaged in pedagogic evaluation (n=7), although this figure represents less than 50% of the membership for this mission group.

Question 3.22a: What aspects of staff pedagogic practices have you evaluated over the past two years?

This new companion question was introduced in this year's Survey to gain a clear understanding of the institutional focus for pedagogic evaluation activity. Respondents were provided with the same response options as those used in Question 3.20b, but with additional items also included on *e-marking* and *staff digital fluency*.

Table 3.22a: Aspects of staff pedagogic practices that have been evaluated in the last two years

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
E-assessment	19	21%	63%	39%	100%	52%	0%	50%	100%
E-marking	16	18%	44%	44%	50%	42%	0%	50%	100%
Take-up/usage/adoption of lecture capture	15	17%	50%	39%	0%	45%	0%	25%	0%
Staff digital fluency/capability	14	16%	31%	44%	50%	39%	0%	50%	0%
Flipped learning design	11	12%	31%	22%	100%	32%	0%	0%	100%

Note: n=36 for Table 3.22a

The leading responses focus on assessment related uses of TEL, with *E-assessment* and *E-marking* representing the most common aspects of pedagogic practice under review. This does not come as a complete surprise, given the increasing number of courses using e-submission tools to manage assignments, as revealed in Table 3.15.

The breakdown of data by organisational type shows that the Pre-92 institutions are the most active group in the evaluation of e-assessment practices.

Question 3.23: *How* has the impact on *pedagogic practices* been measured, *when* and for *what purpose*?

This question was redesigned along similar lines to Question 3.21, exploring how the impact on pedagogic practices has been measured and for what purpose by institutions. A new response option was included on how the impact on pedagogic practices has been measured through the use of *social media*. For the purpose of evaluation, new response options were introduced on *Assess value for money*, and *Assess staff satisfaction*.

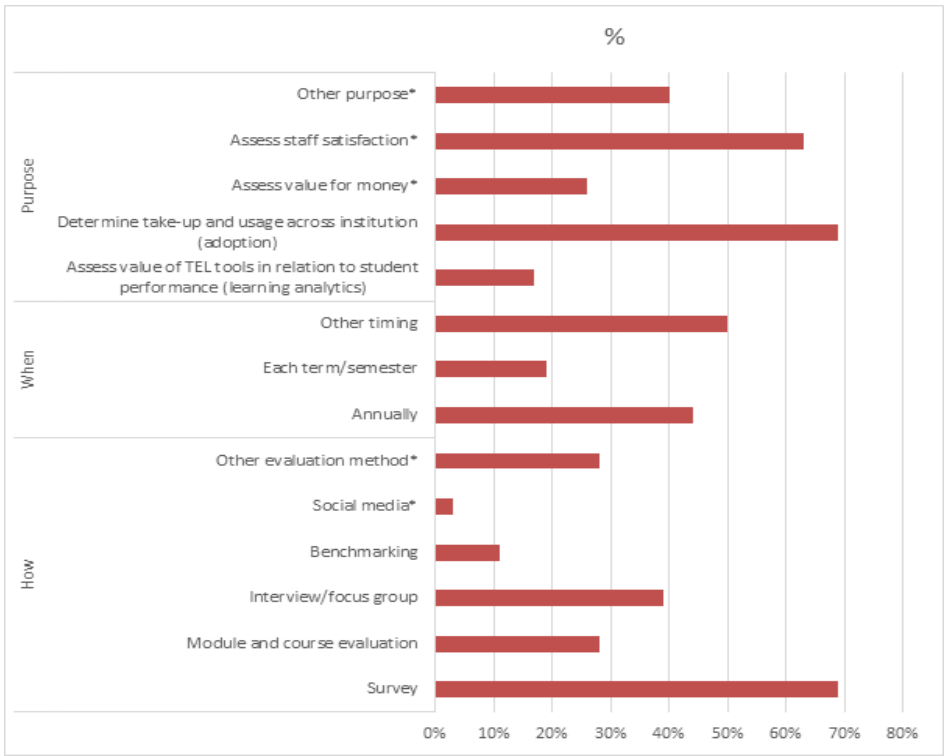

Figure 3.23: Details of how the impact of TEL tools on pedagogic practices has been measured, when and for what purpose

Figure 3.23 provides a breakdown of the categories detailing when, how and for what purpose the impact of TEL tools on pedagogic practices has been measured. The full data for this question is available in Table A3.23.

Surveys and *interviews* are again the most popular methods for measuring the impact of TEL, similar to Question 3.21 with an increase in the use of surveys and a decrease in interview/focus groups compared with the 2014 data. There is no discernible difference between Post- and Pre-92 institutions in the methods used to evaluate the impact on pedagogic practices, though the use of surveys is higher this time amongst University Alliance members (86%), in contrast to evaluation on the student learning experience (Question 3.21) for which Russell Group institutions are more actively engaged. A new option of *Social media* was also added but only one respondent indicated that they had used this method.

Where respondents indicated that other methods had been employed (n=10), a range of responses were given including *University wide consultation*, *Feedback from Learning Technologists working directly with academic staff* or *Learning analytics*.

Based on the free-text responses received in the last Survey, a new response option was introduced to this year's question specifying *Other timing* for the evaluation to be conducted. This new option was the most popular one selected by respondents, followed by *annual evaluations*. Post-92 institutions evaluated at other times the most (61% compared with 44% and 0% for Pre-92 and Other HE providers, respectively.) The most commonly cited reason for evaluating the impact of TEL tools on pedagogic practices other than annually was at the end of a particular project or initiative.

Determining take-up of TEL tools and usage across an institution (adoption) was still the most widely reported purpose for pedagogic evaluation to be conducted, with a slight increase on the figure recorded in the 2014 Survey. Additional options of assessing staff satisfaction and *other purposes* were added to this question, with *assessing staff satisfaction* (63%) the next most popular response. The most noticeable change from the 2014 Survey is the reduced percentage of institutions selecting *Assess value of TEL tools in relation to student performance learning analytics* as the purpose of their evaluation activity and this has decreased from 44% to 17%.

Question 3.23a: And what have these evaluations revealed? Please describe the broad conclusions from the evaluations and, if any have been published, provide the appropriate references or links.

Questions 3.23a invited respondents to identify the main conclusions arising from the evaluations of the impact of TEL for pedagogic practices. The free-text responses were grouped together into key categories through a cluster analysis, as presented in Table 3.23a below.

Table 3.23a: Broad conclusions from the evaluations undertaken into the impact of TEL on pedagogic practices

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Identification of gaps in provision/support	4	15%	27%	7%	0%	13%	0%	33%	0%
Efficiency with e-assessment	3	12%	9%	14%	0%	9%	0%	33%	0%
Mixed practice	3	12%	9%	14%	0%	13%	0%	0%	0%
More staff support	3	12%	9%	14%	0%	13%	0%	0%	0%
TEL valued as positive	2	8%	9%	7%	0%	9%	0%	0%	0%

Note: n=26 for Table 3.23a

The responses are quite different to those received in last year's Survey, with the *identification of gaps in provision or support* now representing the most widely reported conclusion. It is also interesting to note that several institutions reported that they had identified *efficiencies with e-assessment* as a key finding from their evaluation activity. Again, this is not altogether surprising and reflects the strong interest in e-assessment, as noted in the response data for Question 3.10. Indeed, looking back at the longitudinal data in Table C3.10, we can see the uptake of e-assessment tools steadily increasing over the years and no doubt institutions are looking to evaluate the investment in those services and the impact on pedagogic practices.

Table 3.23b: Illustrative comments explaining what the evaluations have revealed

Category	Sample comments
Identification of gaps in provision/ support	*A draft distance learning strategy written in 2014 revealed missing institutional infrastructure and the need for a university consultation.* *Need to improve provision and align it more closely to student requirements.*
Efficiency with e-assessment	*On the whole staff found e-assessment and e-marking more efficient but required additional equipment.* *E-marking using Turnitin GradeMark was well received by students and increased turnaround from submission to feedback and mark receive by students.*
Mixed practice	*Mixed take-up of minimum standards. Some things are commonplace while other standards are far from the goal.* *Evaluations have revealed a varied acceptance of TEL initiatives that differs amongst programmes.*
More staff support	*Staff need expert input to realise pedagogical aspirations in the digital.* *Most staff prefer what they are used to, but no real difference between Moodle and Bb; Staff want just-in-time support and more flexible opportunities for staff development.*

Section 4: Support for technology enhanced learning tools

Section 4 focused on the support available for TEL within institutions, looking at the different types of support units, the number of support staff, the range of support provision across the sector and how support units are changing over time. It also looked at the professional development activities offered to TEL support staff.

Questions 4.4 and 4.5 looked at changes in staffing provision and were simplified in their design in this year's Survey, with respondents invited to comment on any type of change that may have taken effect over the past two years, rather than focus explicitly on budgetary pressures.

Question 4.1: Which, if any, support units are there in your institution that provide *support for technology enhanced learning*? Please include both centrally provided and local units.

Table 4.1a: Support units that provide support for technology enhanced learning

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Information Technology support	58	59%	62%	55%	57%	56%	100%	67%	50%
Learning Technology Support Unit (LTSU)	67	68%	64%	72%	57%	68%	100%	50%	100%
Educational Development Unit (EDU)	50	51%	53%	53%	14%	47%	50%	75%	50%
Library	48	48%	44%	51%	57%	48%	50%	58%	0%
Local support	54	55%	64%	45%	57%	58%	0%	58%	0%
Other support unit	15	15%	20%	11%	14%	16%	0%	17%	0%
Outsourced supplier or specialist	2	2%	0%	4%	0%	1%	0%	8%	0%

Note: n=99 for Table 4.1a

Table 4.1a summarises the data for Question 4.1 and shows the percentage of institutions which have each of the support units listed. In a change from the 2014 Survey, *Learning Technology Support Units* are now the most prevalent unit providing TEL support. Only Scottish institutions buck this trend with *Educational Development Units* being the most prevalent. This is a big change from 2014 when only 43% of Scottish institutions reported TEL support within an *Educational Development Unit*, favouring instead *IT support units* (100%) and the *Library* (71%).

The percentage of *Information Technology Support Units* has reduced from 73% to 59% and appears to be related to a continual decline since the 2012 Survey within both Pre-92 and Russell Group institutions; for example Russell Group institutions reported 82% of ITSUs providing TEL support in 2012, 77% in 2014 and 65% in 2016.

The other noticeable change is in Library support which has decreased from 60% to 48%. Post-92 institutions show a clear emphasis on *Learning Technology Support Units* (72%) compared to *Information Technology Support Units* (55%) and *Local support* (45%).

Russell Group institutions are most likely to have *Local support* (82%) and least likely to have TEL support in the *Library* (29%). By contrast Million + institutions, which have the highest mean number of support units (3.5), show a high prevalence of support through IT Support Units, Educational Development Units and Library, all 75% with Learning Technology Support Units and local support being lower, at 50%. It is notable that no GuildHE institutions reported the presence of TEL support within an *Educational Development Unit*.

Where respondents indicated that they had *Other support units*, these primarily included equivalents to *Learning Technology Support Units*, e.g. E-learning team, Technology Enhanced Learning Department, as well as Audio Visual and Media teams.

Table 4.1b: Mean number of units providing support for TEL per institution

	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Mean number of support units	2.97	3.09	2.91	2.57	2.94	3.00	3.33	2.00

Note: n=99 for Table 4.1b

Table 4.1b summarises the responses for Question 4.1, focusing on the mean number of support units per institution. The data shows that institutions continue to provide TEL support via a range of units. Following an increase in the mean average of support units from 2012 to 2014, Table C4.1b in the Appendix shows that the mean average of support units has since decreased from the 2014 Survey figure of 3.32 to 2.97. This fluctuation appears to indicate that TEL support provision is still evolving across the sector. This is reflected in the responses to Question 4.4, with 81% of institutions having changed their TEL support provision in the last two years and 42% of institutions indicating that they have undergone a restructure or re-organisation.

Question 4.2: How many staff work in the unit?

Table 4.2: Mean number of staff working in each unit

	IT Support	LTSU	EDU	Library	Local support	Other	Outsourced/ specialist
Mean number of learning technologists	1.00	4.58	1.43	0.38	5.14	4.93	0.50
Mean number of IT support staff	9.60	0.55	0.02	0.77	1.63	5.13	0.50
Mean number of administrative staff	0.38	0.30	0.52	0.94	0.74	0.33	0.00
Mean number of academic staff	0.00	0.22	2.07	0.04	1.98	1.33	0.00
Mean number of other staff	0.93	1.50	1.32	3.48	0.46	0.87	0.00
FTE of staff supporting TEL	3.20	4.73	2.72	1.61	6.49	10.63	0.20

Note: n=99 for Table 4.2

Table 4.2 displays the mean number of staff by staff type for each support unit for the sector as a whole. It also reports the mean FTE of staff supporting TEL. For a full breakdown by country, institution type and mission type see tables A4.2a – g and B4.2a – g.

Overall the key locations within the institution for Learning Technologists are within *Learning Technology Support Units (LTSU)* (4.58), *Local Support* (5.14) and *Other* (4.93) support units (typically reported as a variation of an LTSU). As would be expected, IT Support Staff supporting TEL are most likely to be found within *IT Support Units* (9.60).

Considering *IT Support Units (ITSU)*, Pre-92 institutions have a higher mean number of Learning Technologists (1.68) compared with Post-92 institutions (0.42) and Other HE providers. Of the different mission groups, University Alliance institutions report the highest mean number of Learning Technologists in an ITSU (2.10), as well as a very high mean number of IT Support staff supporting TEL (23.20), although this data appears to have been skewed by several institutions providing the full number of staff in their IT departments, rather than just those focused on TEL support.

Russell Group and University Alliance institutions report a higher mean number of Learning Technologists in an *Educational Development Unit (EDU)*. However, when it comes to academics supporting TEL in an EDU, it is Million+ and University Alliance institutions with the highest mean number (2.90 and 2.60 respectively), whilst Russell Group institutions only report a mean of 1.44 academics.

University Alliance institutions report a higher mean of Learning Technologists based in the *Library* (1.38), whilst no Russell Group institutions report Library-based Learning Technologists.

When it comes to *Local* support, there is significant variation between the mission groups when it comes to local Learning Technologists. Russell Group institutions have the highest mean (8.57) followed by University Alliance institutions (7.40). GuildHE institutions and institutions in Wales and Northern Ireland reported having no local Learning Technologists. GuildHE report a mean of 7.50 academic staff, which perhaps indicates that local TEL support needs are being met by academic staff. This could be reflected by the *Availability of committed local champions* as noted in Question 1.3 as the third most important driving factor for TEL by GuildHE institutions, ranked higher than for the other mission groups, although with a lower overall mean.

Due to a change in the way that the data on support units has been extracted and analysed in this year's Survey, it is not possible to make direct comparisons with data from previous Surveys – therefore, for this group of questions, no valid longitudinal comparisons in the data have been attempted.

Question 4.3: What type of support is provided by the unit?

The Survey asked about the type of support provided by each unit. A cluster analysis was used to analyse the responses. Overall, the type of support provided by the different units has not changed much from previous Surveys.

Figures 4.3a – g show word cloud visualisations of all responses for each part of Question 4.3. An initial visualisation of the responses showed that the terms *support* and development commonly appeared for each type of unit. When these terms were removed, the more distinctive patterns of terms associated with each type of unit were revealed.

Information Technology Support Unit (ITSU):

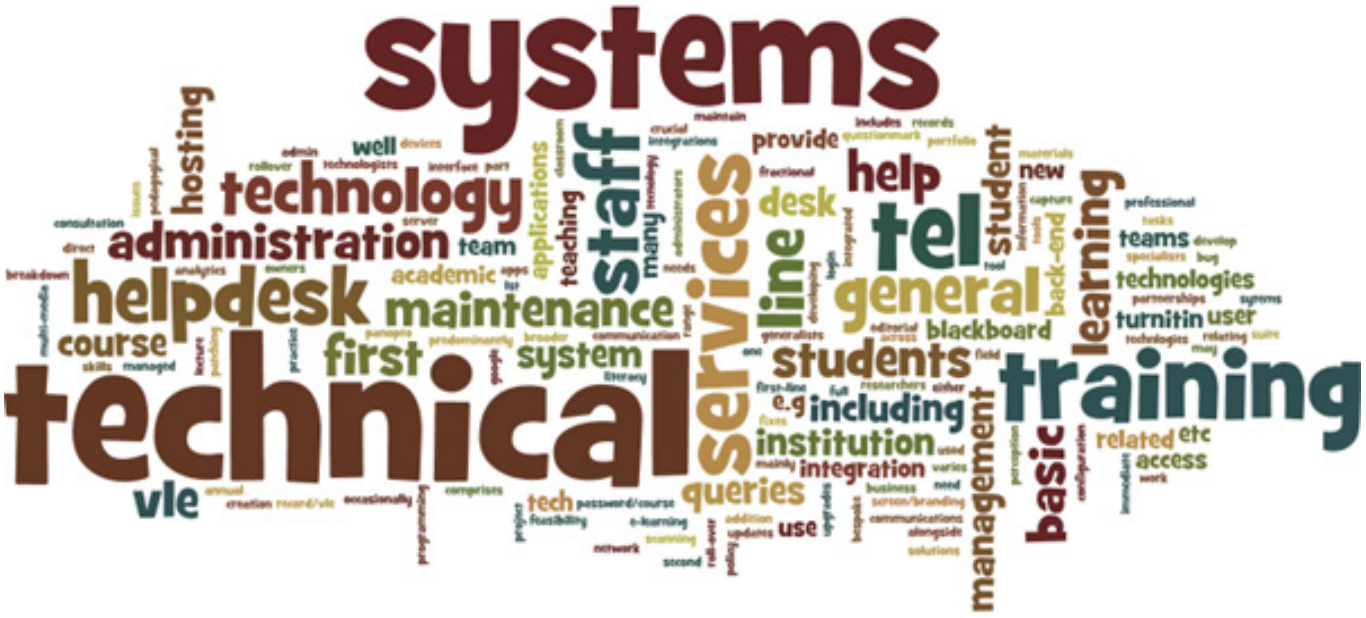

Figure 4.3a: Word cloud visualisation of responses describing the type of TEL support provided by Information Technology Support Units

The picture is very similar to 2014 with the main areas of support continuing to be described as general IT and technical support. This is split into two key areas: 1) first-line support through an IT Helpdesk and 2) TEL system hosting, administration and maintenance. There is some mention of training and project support.

Learning Technology Support Unit (LTSU)

Figure 4.3b: Word cloud visualisation of responses describing the type of TEL support provided by Learning Technology Support Units

LTSUs provide the broadest variety of support, with TEL support and related training featuring most strongly. Typical activities included technical and pedagogical support and advice, system management, helpdesk, training, documentation, sharing good practice, continuing professional development (CPD) and staff development. A few respondents mentioned providing strategic direction and policy making. Support for specific activities was also mentioned relating to MOOCs, e-assessment, video production and curriculum design.

Educational Development Unit (EDU)

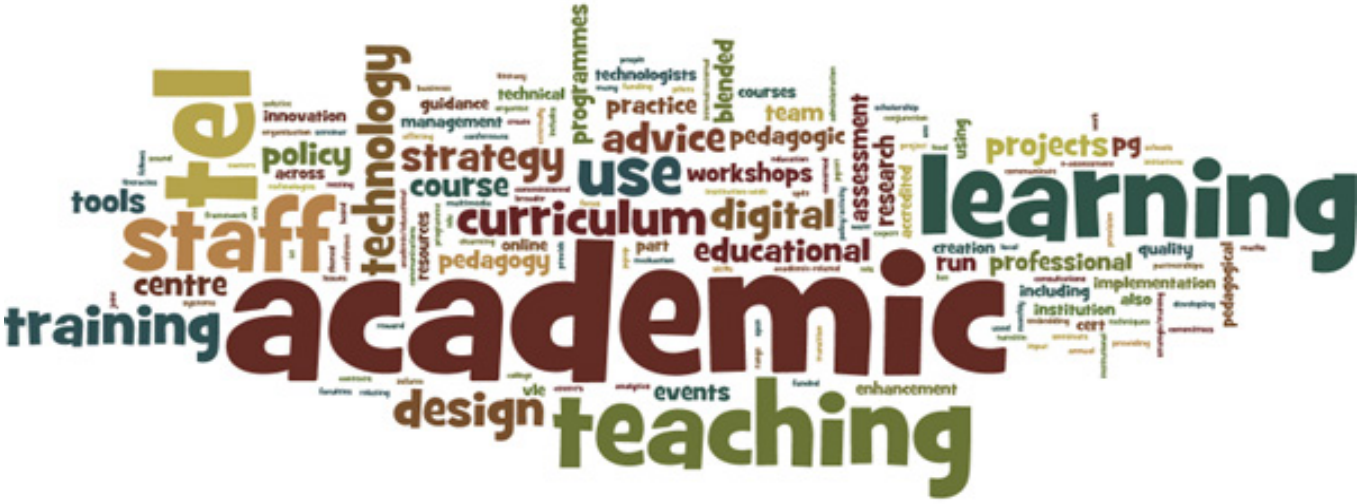

Figure 4.3c: Word cloud visualisation of responses describing the type of TEL support provided by Educational Development Units

As revealed in previous Surveys, EDUs are primarily providing pedagogically related support services, delivered in the form of academic programmes (e.g. Postgraduate Certificates), course design support, CPD initiatives and staff development activities and training courses. A few units are also engaged in research and consultancy related work.

Library

Figure 4.3d: Word cloud visualisation of responses describing the type of TEL support provided by Libraries

The Library is primarily concerned with the provision of online learning resources, including online journals, e-prints, multimedia repositories, Open Educational Resources, reading lists and scanning services. Once again, the Library has a strong role in enabling staff and student to develop information and digital literacies, although this area was also noted by a handful of institutions as being part of role of the LTSUs and EDUs as well.

Local support

Figure 4.3e: Word cloud visualisation of responses describing the type of TEL support provided by Local Support teams

The local support provided is very similar to that provided by LTSUs, focusing on both technical and pedagogical support, often in conjunction with a central team. In some cases the local teams support particular courses, such as distance learning courses, or projects and as such also develop TEL content.

Other

Figure 4.3f: Word cloud visualisation of responses describing the type of TEL support provided by *Other* support units

As the Other types of unit noted in Question 4.1 were equivalent to Learning Technology Support Units, the main focus of these other units is similar to the LTSUs; e.g. pedagogic and technical support, training and guidance. Other kinds of support mentioned included support for audio visual technologies, support for learning spaces, project work, consultancy and strategic direction.

Outsourced

Only two institutions indicated that they had *Outsourced* provision; one was for the development of VLE training materials and delivery of online courses, the other noted technical support and hosting of the VLE.

Question 4.4: What changes in staffing provision, if any, have been made over the last two years?

Table 4.4: Whether changes in staffing provision have been made over the last two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Changes made	81	83%	89%	80%	57%	81%	75%	92%	100%
No changes made	17	17%	11%	20%	43%	19%	25%	8%	0%

Note: n=98 for Table 4.4

This question was first introduced in the 2012 Survey to look at the effect of the economic climate on TEL provision. It was revised for the 2016 Survey to remove the emphasis on budgetary pressures as this was no longer felt to be as relevant. Table 4.4 shows that the vast majority of the responding institutions continue to make changes in staffing provision. The percentage of responding institutions making changes is similarly high across all categories and this is also reflected across mission groups (see Table B4.4 in Appendix B).

Table 4.4a: Changes made in staffing provision over the last two years

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Increase in the number of staff	50	51%	53%	50%	43%	55%	25%	33%	50%
Restructure of department(s)/TEL provision	41	42%	42%	41%	43%	40%	25%	50%	100%
Change of existing roles/ incorporation of other duties	30	31%	31%	30%	29%	30%	25%	33%	50%
No changes in staffing provision	17	17%	11%	20%	43%	19%	25%	8%	0%
Reduction in the number of staff	16	16%	11%	22%	14%	13%	25%	33%	50%

Note: n=98 for Table 4.4a

Table 4.4a summarises the returns for those institutions where changes in staffing provision have been made and the table shows the Top 5 responses. Table A4.4a provides the full list.

The 2016 findings suggest a period of growth in TEL staffing provision with 51% of respondents reporting an increase in the number of staff; rising from 11% in 2012 to 38% in 2014 (Table C4.4a). There also continues to be a certain level of change in provision with 42% reporting some form of restructure of their departments or their TEL provision. The pattern is generally similar across the sector; however, it is noticeable that more English institutions have increased the number of TEL support staff supporting TEL services. Amongst the mission groups only 29% of Million+ institutions reported an increase in staff and were most likely to report a reduction in staff. This is very different to the picture reported in the 2014 Survey, where 60% of Million+ institutions confirmed that there had been an increase in staff, which was then the highest increase across the sector.

A number of reasons were cited for the changes in staffing provision over the past two years including:

- Restructure or re-organisation primarily at an institutional level which affected the TEL support units.
- Financial constraints, which often led to a recruitment freeze or a reduction in staff.
- Growth of TEL as a result of increasing demand/importance from the institution and from students leading to additional roles being recruited or a change in the focus of the existing staff.
- Service improvement/enhancement for TEL support.
- Rationalising provision, e.g. centralising multiple TEL support units, ensuring wider coverage of TEL support across the institution.

Of those who indicated *Other change in staffing provision*, the responses typically fell under the pre-defined categories; e.g. recruitment of staff to specific posts, creation of a new TEL team and recruitment delay.

Question 4.5: Do you foresee changes in the staffing provision in supporting staff and students in their use of technology enhanced learning tools in the near future?

Table 4.5: Whether changes in staffing provision are foreseen in the near future

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Changes foreseen	77	79%	82%	74%	86%	78%	25%	100%	100%
No changes foreseen	21	21%	18%	26%	14%	23%	75%	0%	0%

Note: n=98 for Table 4.5

This question was also revised for the 2016 Survey to remove the emphasis on budgetary pressures, as this was no longer felt to be as relevant. Table 4.5 shows that the vast majority of the responding institutions foresee changes in staffing provision in the near future.

The percentage of responding institutions foreseeing changes is similarly high across most categories, with the exception of Wales, and this is also reflected across mission groups (see Table B4.4 in Appendix B). It is notable that 100% of Russell Group institutions foresee change, especially as 94% had already reported changes in the previous two years. Increasing the number of TEL support staff appears to be a continuing theme for Russell Group institutions.

Table 4.5a: Foreseen changes in staffing provision in the near future

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Anticipate change, but unsure as to how it might change	32	33%	31%	33%	43%	35%	0%	17%	100%
Increase in the number of staff	29	30%	38%	20%	43%	29%	25%	33%	50%
Restructure of department(s)/TEL provision	25	26%	31%	22%	14%	23%	25%	42%	50%
Change of existing roles/ incorporation of other duties	24	24%	31%	17%	29%	25%	0%	33%	0%
Do not foresee any changes	21	21%	18%	26%	14%	23%	75%	0%	0%

Note: n=98 for Table 4.5a

Table 4.5a summarises the returns for those institutions that do foresee changes in staffing provision and the table shows the top five responses. Table A4.5a provides the full list.

Of those who foresee change, 33% are not currently able to quantify what it might be. An *Increase in the number of staff* continues to be high on the list of possible changes, although with lower percentages than in 2014 (30% compared to 42%). All institution types reported an increase in staffing at Question 4.4. However, this growth is primarily expected to continue for Pre-92 institutions (38%) and Other HE Providers (43%), and less so for Post-92 institutions (20%).

Considering the mission groups (see Table B4.5a in Appendix B), 41% of the Russell Group institutions foresee the restructuring of their departments or their TEL provision, which is much higher than for the other mission groups.

Question 4.6: Which, if any, training and development activities are promoted to support *staff who help others* in the use of technology enhanced learning tools? Please include both face to face and online activities.

Table 4.6: Training and development activities promoted to support staff

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Jisc events*	84	86%	89%	85%	71%	86%	75%	92%	50%
National conferences/seminars	83	85%	78%	91%	86%	83%	100%	92%	100%
Internal staff development	83	85%	89%	85%	57%	84%	75%	100%	50%
Association for Learning Technology (ALT) events	80	82%	87%	83%	43%	84%	75%	75%	50%
HEA professional accreditation	73	74%	69%	83%	57%	73%	75%	83%	100%
Regional seminars	58	59%	67%	61%	0%	56%	75%	75%	50%

Note: n=98 for Table 4.6

Table 4.6 summarises the returns for Question 4.6 showing the Top 5 results for all the data. Full data for this question is provided in Table A4.6. Five new response items were added for the 2016 Survey to reflect the changes to Jisc (removing the previous response item *Regional Support Centre events*), the inclusion of events and accreditation from

Staff and Education Development Association (SEDA) and reference to Postgraduate Certificate courses and open learning opportunities. In addition the 2014 response item *Higher Education Academy (HEA) subject centre events* was updated to *Higher Education Academy (HEA) discipline cluster events*.

Comparing results with the 2014 Survey (Table C4.6), the new response item *Jisc events* tops the list with 86% of institutions promoting these events. After that the next three sources of training and development activities remain exactly the same as those recorded in the 2014 Survey report – namely, *National conferences/seminars*, *Internal staff development* and *Association for Learning Technology (ALT) events*.

There continues to be a steady growth in the promotion of accreditation activities, such as *HEA Professional accreditation (UKPSF)* (up from 69% to 74%), and *CMALT professional accreditation* (up from 43% to 48%). For the new response items in this area, 13% of institutions promote *Fellowship of the Staff and Education Development Association (FSEDA)* and 56% promote *Postgraduate Certificate (PGCert)* courses. Pre-92 institutions are less likely to promote *HEA Professional accreditation (UKPSF)* and *Postgraduate Certificate (PGCert)* courses compared with Post-92 institutions. *CMALT professional accreditation* would appear to be favoured by Russell Group institutions (65%) when compared with the other mission groups and the overall total.

Considering the mission groups, Million+ institutions appear to promote more training and development activities with higher percentages in most areas compared with the other mission groups. University Alliance institutions are most likely to promote *External training courses* (80%). *Universities and Colleges Information Systems Association (UCISA) events* are most popular with Million+ institutions (86%) compared to University Alliance (53%), Russell Group (35%) and GuildHE (27%) institutions.

Section 5: Looking to the future...

This section asked questions relating to new and emerging trends in institutions' use of TEL tools and services. For the most part the section remains unchanged from the 2014 Survey, with minor updates to response options in Questions 5.1 and 5.4. The biggest change is the revision of the 2014 Questions 5.2 and 5.3, which focused on outsourcing, to create a new set of questions on outsourcing, represented here by Questions 5.3a – d. For longitudinal purposes, the question numbering has been kept the same as in previous Surveys, but please note though that there is no longer a Question 5.2 in this section.

Question 5.1: Listed below are potential *barriers* to any (further) development of processes to promote and support technology enhanced learning tools. What, in your opinion, might be the barriers in your institution over the coming years?

Table 5.1: Ranked potential barriers to any (further) development of processes to promote and support technology enhanced learning tools

Top 5	Rank	Mean	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Lack of time	1	3.48	3.54	3.40	3.57	3.49	3.25	3.58	3.00
Departmental/school culture	2	3.07	3.28	2.98	2.29	3.07	2.75	3.17	3.00
Lack of internal sources of funding to support development	3	3.01	3.13	2.87	3.14	3.00	2.75	3.08	3.50
Lack of academic staff commitment	4	2.94	2.91	3.00	2.71	3.00	2.50	2.58	3.50
Institutional culture	5	2.92	3.15	2.79	2.29	2.93	2.75	2.92	3.00

Note: n=100 for Table 5.1

Table 5.1 summarises the responses for Question 5.1 and shows the Top 5 ranked barriers. The full data are in Tables A5.1 and B5.1. Longitudinal analysis is given in Table C5.1.

Two response items from the 2014 Survey were expanded to provide greater understanding of the nature of the barrier:

- *Lack of money* was split into the following two items:
  - Lack of internal sources of funding to support development
  - Lack of external sources of funding (e.g. HEA, HEFCE, Jisc) to support project development
- Technical problems was split into the following two items:
  - Technical and infrastructure limitations (e.g. wireless)
  - Other technical problems

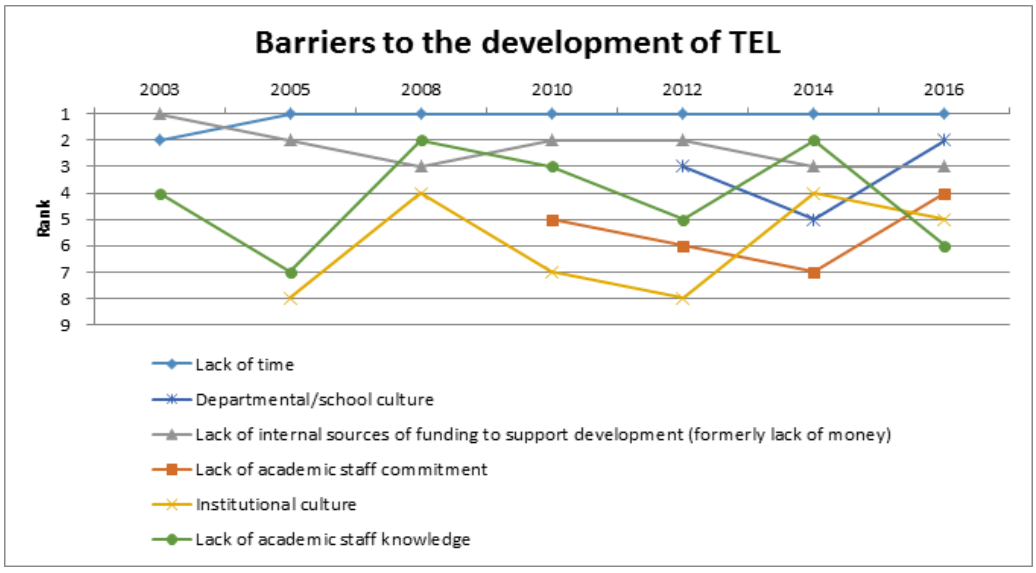

Figure 5.1: Longitudinal view of the 2016 Top 6 barriers

Overall, the mean averages for the barriers are lower than in 2014 with only three items with a mean above 3.00, compared with eight items in 2014. This reflects the means of the 2012 Survey when only two items had a mean average above 3.00.

In terms of rankings, *Lack of time* retains its position as the highest ranked barrier, a position it has held since the 2005 Survey. Culture continues to be a key barrier with *Departmental/school culture* moving up to second place and *Institutional culture* staying in the Top 5.

As mentioned previously, the 2014 barrier *Lack of money* was split into two categories to reflect internal and external funding, and it would appear that internal funding is a more important financial barrier for institutions with *Lack of internal sources of funding* being ranked 3rd, the same as *Lack of money* ranked in the 2014 Survey. By comparison, a *Lack of external sources of funding* is ranked 12th.

Lack of academic staff knowledge was a key barrier in 2014, being ranked second. However, this has dropped to 6th place. In parallel to this it is noted that the ranking of both *Lack of academic staff development opportunities* and *Lack of support staff* have both dropped. This reflects the responses to Question 1.3, where *Availability of TEL support staff* is the number one ranked driver for TEL and is perhaps indicative of there being more supportive environments, though the data from Section 4 indicates this may not be a stable environment.

Lack of institutional support for open learning was added as a new response option and appears in 19th place with a mean average of 2.01. Question 1.1 reported that open learning, in the form of open educational resources and open education courses, was not seen as a key driving factor for TEL development, which could explain why lack of support for open learning is not seen as a barrier here. The complete rank data across all years of the Survey can be seen in Table C5.1 in Appendix C.

For Pre-92 and Post-92 institutions there seems to be a difference in terms of the effect of culture as a barrier, with Pre-92 institutions ranking both *Departmental/school culture* and *Institutional culture* higher than Post-92 institutions. Key barriers for Post-92 institutions are *Lack of academic staff commitment* and *Lack of academic staff knowledge*, both ranked in second place with a mean of 3.00.

Looking at regional differences, Northern Irish institutions show the most variance from the sector results. However, this could be due to the small number of respondents. Institutions in Northern Ireland and Scotland rank *Lack of support staff* as a key barrier, ranking it first and second respectively. Welsh institutions rank *Lack of academic staff commitment* as much less of a barrier than the other countries.

Across the mission groups, all groups rank *Lack of time* as the top barrier. However, Million+ and University Alliance institutions also rank *Competing strategic initiatives* alongside this. In addition, both groups also rank *Lack of internal sources of funding* lower than the other two mission groups and the overall total. Russell Group members continue to rank *Lack of recognition for career development* as a key barrier, although its position has dropped from second place in 2014 (mean of 3.60) to fifth in 2016 (mean of 3.00). It is notable that *Lack of recognition for career development* is now a key barrier for Million+ institutions, ranked 3rd with a mean of 3.14, up from 11th place in 2016 (see Table B5.1 in Appendix B).

Question 5.3a: Does your institution currently outsource its provision of any of the following? Provision refers to an institutional service being hosted by another organisation.

Questions 5.3a to 5.3e were introduced in the 2016 Survey to replace the previous questions about outsourcing. The aim of the questions was to identify the types of institutional services which are outsourced (5.3a) or under consideration for outsourcing (5.3d), how they are outsourced (5.3b and 5.3e) and whether institutions are looking to bring services back in house (5.3c). Due to the change in the questions, there is limited longitudinal analysis that can be done, but where possible this will be highlighted in the Report.

Table 5.3a: Institutional services that are currently outsourced

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Student email	59	59%	59%	62%	43%	55%	75%	83%	50%
E-portfolio	35	35%	28%	43%	29%	34%	25%	50%	0%
VLE platform – supporting the delivery of blended learning courses	33	33%	22%	43%	43%	34%	25%	33%	0%
Staff email	30	30%	41%	21%	14%	26%	50%	50%	50%
VLE platform – supporting the delivery of fully online courses	26	26%	17%	34%	29%	27%	25%	25%	0%

Note: n=100 for Table A5.3c

Table 5.3a summarises the returns for Question 5.3a. For a full breakdown by country, institution type and mission type see tables A5.3a and B5.3a.

Student email is the most commonly outsourced institutional service, which reflects the data from the 2014 Survey, followed by *E-portfolios* and *VLE platforms – supporting the delivery of blended learning courses*.

Post-92 institutions are more likely to outsource their VLE for blended and fully online courses, whilst more Pre-92 institutions outsource their VLE for open online courses. Both institution types outsource *Student email* in line with the total, however more Pre-92 institutions outsource *Staff email*.

Considering the mission groups, only 33% of GuildHE institutions outsource *Student email*, which is much lower than the other mission groups. Russell Group institutions are most likely to outsource *Staff email* and the VLE for open online courses, where the outsourced solution is most likely to be FutureLearn (based on the data in Question 3.1a).

Twelve institutions indicated that they outsource *Other* services and these included Turnitin, Campus Pack, conferencing tools such as Blackboard Collaborate and Adobe Connect and audience response systems.

Question 5.3b: How is the provision of these services currently outsourced?

Table 5.3b: How the institutional services identified in Question 5.3a are currently outsourced

	Institutionally managed but hosted by a third party		Cloud-based Software as a Service (SaaS) multi-tenant service		Don't know	
	No.	Total	No.	Total	No.	Total
VLE platform – supporting the delivery of blended learning courses	24	73%	9	27%	0	0%
VLE platform – supporting the delivery of fully online courses	18	69%	7	27%	1	4%
VLE platform – supporting the delivery of open online courses	10	48%	11	52%	0	0%
Lecture capture platform	13	57%	10	43%	0	0%
Student email	14	24%	44	75%	1	2%
Staff email	9	30%	21	70%	0	0%
Digital repositories	8	80%	1	10%	1	10%
E-portfolio	25	71%	10	29%	0	0%
Content creation	2	100%	0	0%	0	0%
Other	4	33%	7	58%	1	8%

Note: *n* varies by service for Table 5.3b

Table 5.3b summarises the returns for Question 5.3b. For a full breakdown by country, institution type and mission type see tables A5.3b (i) – (x) and B5.3b (i) – (x).

This question aimed to identify the type of outsourcing used for the institutional services listed in Question 5.3a. The data shows that the majority of TEL-related outsourced services such as the *VLE for blended and fully online courses*, *Digital repositories* and *E-portfolios* tend to be institutionally managed but hosted by a third party, whilst more general services such as staff and student email tend to be outsourced on a Software as a Service (SaaS) basis. The exceptions here are *Lecture capture* and *VLEs for open online courses*, where there is a fairly even split between the two types of outsourcing.

Considering the different types of institutions, there is a difference between Pre-92 and Post-92 institutions when it comes to outsourcing of *VLE platforms for open online courses*, such that Post-92 institutions prefer an institutionally managed solution, whereas Pre-92 institutions prefer a SaaS model. This reflects the data from Question 3.1 whereby Pre-92 and Russell Group institutions primarily use FutureLearn for open online courses. There is a similar difference for e-portfolios where 90% of Post-92 institutions reported that they have an institutionally managed solution, whereas Pre-92 and Other HE providers reported a more even split between the two types of outsourcing.

Question 5.3c: Which, if any, of the services that are currently outsourced are you considering bringing back in to be institutionally managed?

Table A5.3c: Services that are currently outsourced are under consideration for bringing back in to be institutionally managed

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
None being considered for bringing back in-house	71	92%	91%	95%	83%	90%	100%	100%	100%
VLE platform – supporting the delivery of blended learning courses	3	4%	6%	3%	0%	5%	0%	0%	0%
E-portfolio	3	4%	3%	5%	0%	5%	0%	0%	0%
Don't know	3	4%	3%	3%	17%	5%	0%	0%	0%
VLE platform – supporting the delivery of fully online courses	2	3%	3%	3%	0%	3%	0%	0%	0%
Lecture capture platform	2	3%	3%	3%	0%	3%	0%	0%	0%
VLE platform – supporting the delivery of open online courses	1	1%	0%	3%	0%	2%	0%	0%	0%
Student email	1	1%	0%	3%	0%	2%	0%	0%	0%

Note: n=100 for Table 5.3c

Table 5.3c summarises the returns for Question 5.3c. For a full breakdown by country, institution type and mission type see tables A5.3c and B5.3c.

The majority of institutions are not considering bringing any TEL services back in house.

Question 5.3d: Is your institution formally considering the outsourcing of some or all of your provision for any of the following? Provision refers to an institutional service being hosted by another organisation?

Table A5.3d(i): Formally considering the outsourcing of some or all of their provision

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	49	49%	46%	51%	57%	48%	25%	58%	100%
Don't know	11	11%	13%	9%	14%	13%	0%	0%	0%
None being considered for outsourcing	40	40%	41%	40%	29%	39%	75%	42%	0%

Note: n=100 for Table A5.3d (i)

Table 5.3d (i) summarises the returns for Question 5.3d. For a full breakdown by country, institution type and mission type see tables A5.3d (i) and B5.3d(i).

Around half of the responding institutions are considering outsourcing some or all of their provision. This is much lower in Wales (25%) and much higher in Northern Ireland (100%), but it should be noted that the number of respondents is much smaller for both countries. Million+ institutions are more likely to consider outsourcing with 86% indicating that they are.

Table A5.3d (ii): Services being formally considered for outsourcing

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Staff email	23	47%	43%	54%	25%	49%	0%	43%	50%
VLE platform – supporting the delivery of blended learning courses	19	39%	43%	38%	25%	36%	0%	43%	100%
VLE platform – supporting the delivery of fully online courses	19	39%	43%	42%	0%	36%	0%	43%	100%
Lecture capture platform	15	31%	29%	33%	25%	31%	100%	29%	0%
VLE platform – supporting the delivery of open online courses	14	29%	24%	38%	0%	26%	0%	29%	100%

Note: n=49 for Table A5.3d (ii)

Following on from Table 5.3d (i), Table 5.3d (ii) identifies the services that are being considered for outsourcing. For a full breakdown by country, institution type and mission type see tables A5.3d (ii) and B5.3d(ii).

There are minimal differences between the institution types for the majority of services, with the exception of *Content creation*, which is being considered more by Post-92 institutions (42%), compared with Pre-92 (10%). It should be noted that there was only one respondent for Wales and two for Northern Ireland which skews their overall percentages.

Question 5.3e: What option(s) not selected at 5.3a are being considered for the outsourcing of this provision?

	Institutionally managed but hosted by a third party		Cloud-based Software as a Service (SaaS) multi-tenant service		Don't know/options still being considered	
	No.	Total	No.	Total	No.	Total
VLE platform – supporting the delivery of blended learning courses	10	43%	8	35%	5	22%
VLE platform – supporting the delivery of fully online courses	7	29%	9	38%	8	33%
VLE platform – supporting the delivery of open online courses	4	24%	7	41%	6	35%
Lecture capture platform	5	28%	6	33%	7	39%
Student email	0	0%	6	75%	2	25%
Staff email	2	9%	15	65%	6	26%
Digital repositories	3	27%	3	27%	5	45%
E-portfolio	5	42%	5	42%	2	17%
Content creation	0	0%	0	0%	12	100%

Note: *n* varies by service for Table 5.3e

Table 5.3e summarises the returns for Question 5.3e. For a full breakdown by country, institution type and mission type see tables A5.3e (i) – (x) and B5.3e (i) – (x).

This question aimed to identify the type of outsourcing being considered for the institutional services listed in Question 5.3d. Partially reflecting the responses in Question 5.3b, the data shows that for more general services, such as staff and student email, SaaS is the primary method of outsourcing being considered. For the more TEL-related services there is a fairly event split between the two types of outsourcing and a number of respondents indicated they did not yet know what type of outsourcing was being considered.

Question 5.4: Has your institution formally considered *collaboration with other HE institutions* in the delivery of technology enhanced learning services or resources to staff?

Table 5.4: Considered collaboration with other HE institutions

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, and do collaborate as a result	15	15%	28%	4%	0%	15%	50%	8%	0%
Yes, currently under consideration so no decision reached*	10	10%	9%	6%	43%	9%	0%	17%	50%
Yes, did consider but decided not to collaborate	4	4%	2%	6%	0%	4%	0%	8%	0%
No, not considered	61	61%	52%	72%	43%	63%	50%	50%	50%
Don't know*	10	10%	9%	11%	14%	10%	0%	17%	0%

Note: n=100 for Table 5.4

Table 5.4 summarises the returns for Question 5.4. For a full breakdown by country, institution type and mission type see tables A5.4 and B5.4. For the 2016 Survey a new response item was added to identify cases where institutions are currently considering collaboration but have not yet reached a decision. This accounts for a small number of respondents. The Survey did not ask respondents to provide reasons for why they decided not to collaborate.

As in previous surveys, the majority of institutions have not considered or are not currently collaborating with other HE institutions and this finding continues to reflect the low impact of HEFCE's *Collaborate to Compete* (2011) report[1], which has informed TEL development for only 11 institutions, as revealed in Table A2.3. Pre-92 institutions continue to be more likely to collaborate than Post-92 institutions.

1 *http://www.hefce.ac.uk/pubs/year/2011/201101/*

Considering the different mission groups, Russell Group institutions are the most likely to collaborate; no University Alliance institutions reported that they collaborate or had considered collaborating with other HE institutions.

Of those that do collaborate with others, the activities included shared TEL systems, primarily the Bloomsbury Consortium, sharing good practice, MOOCs and use of NorMAN for out of hours support[2]. One institution also noted collaboration with a commercial partner.

Question 5.5: Have any recent and prospective developments in technology started to make new demands upon you in terms of the support required by users?

Table 5.5: Whether there are any recent and prospective developments in technology that have started to make new demands upon institutions in terms of the support required by users

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	62	62%	65%	66%	14%	57%	100%	75%	100%
No	38	38%	35%	34%	86%	43%	0%	25%	0%

Note: n=100 for Table 5.5

Question 5.5 asked respondents to confirm whether there were any recent or prospective developments making new demands on support required by users. Respondents were then invited to identify up to three important developments (Question 5.5a).

Question 5.5a: Please write in details of up to three developments that are starting to make new demands upon you in terms of the support required by users – those you think are most important.

Figure 5.5a: Word cloud showing the developments making new demands.

2 *http://www.outofhourshelp.ac.uk/*

Table 5.5a: Recent and prospective developments in technology that are starting to make new demands in terms of the support required by users

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Electronic management of assessment (e-submission, e-marking, e-feedback)	24	39%	40%	39%	0%	36%	50%	56%	0%
Lecture capture	21	34%	40%	29%	0%	34%	75%	11%	50%
Mobile technologies/bring your own device (support, access to systems/content)	19	31%	17%	42%	100%	32%	50%	22%	0%
Multimedia (use, provision, management, support)	9	15%	13%	16%	0%	13%	25%	22%	0%
Distance learning/fully online courses	8	13%	10%	16%	0%	9%	0%	33%	50%
Learning analytics	8	13%	7%	19%	0%	17%	0%	0%	0%

Note: n=62 for Table 5.5a

As in previous Surveys, this was an open question and respondents were invited to give up to three responses. The responses, many of which were multi-part, were then categorised. The Top 5 demands are given in Table 5.5a. For a full breakdown by country, institution type and mission type see tables A5.5a and B5.5a.

The percentages are calculated as a proportion of the number of respondents. Where possible, items have been categorised based on categories used in previous Surveys but, where necessary, new categories have been added or combined. As a result of this, some longitudinal analysis is possible and is given in Table C5.5a.

Electronic management of assessment, *Lecture capture* and *Mobile technologies* all retain a position in the Top 3 developments making new demands. *Electronic management of assessment* ranks first, increasing from 34% in 2014 to 39% in 2016. *Lecture capture* retains second place, whilst *Mobile technologies* drops to third place, with a decrease from 45% to 31%, perhaps indicating that mobile technologies are becoming more embedded.

Learning analytics appeared for the first time in 2012 and continues to grow slowly as a key demand, up from 4% in 2012 to 13% in 2016. Fewer institutions are reporting demands from MOOCs (down from 17% to 10%). However, there has been a growth in the demands made by distance learning and fully online courses (up from 3% to 13%). A new entry which might be expected to make more demands in the future is *Accessibility*; in particular demands made by changes to the Disabled Students' Allowance, where the primary focus from respondents is on lecture capture and captioning.

Mobile technologies still seem to be causing more demand for Post-92 institutions (42%) and Other HE providers (100%) than for Pre-92 institutions (17%), although it should be noted that there was only one respondent for the Other HE providers category. *Lecture capture* was reported as making new demands on 40% of Pre-92 institutions and 75% of Welsh institutions. Pre-92 institutions were the only ones to mention demand from *Cloud Services* and *Development of policy*, whilst Post-92 institutions were the only ones to mention *Digital literacy/capability*.

Question 5.6: Do you see these developments posing any challenges over the next two to three years in terms of the support that will be required for staff and students?

Table 5.6: Whether institutions consider that the developments identified in question 5.5 will pose support challenges over the next two to three years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	44	72%	70%	73%	100%	72%	100%	67%	50%
No	17	28%	30%	27%	0%	28%	0%	33%	50%

Note: n=61 for Table 5.6

Question 5.6 asked respondents to confirm whether the developments identified in Question 5.5 posed any challenges for support over the next two to three years. Respondents were then invited to provide information about those challenges (Question 5.6a) and how they would overcome them (Question 5.6b).

Question 5.6a: Please write in the challenges you see these developments posing over the next two to three years in terms of the support that will be required for staff and students? Please write in details of up to three challenges – those you think are most important.

Figure 5.6: Word cloud showing most commonly mentioned words for challenges reported in Question 5.6a

Table 5.6a: Challenges that these developments pose over the next two to three years in terms of support that will be required for staff and students

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Staff development	15	35%	29%	43%	0%	22%	75%	67%	100%
E-assessment (e-submission, e-marking, e-feedback)	10	23%	14%	33%	0%	31%	0%	0%	0%
Lecture capture/recording	9	21%	29%	14%	0%	22%	25%	17%	0%
Technical infrastructure – addressing growth, new technologies	9	21%	14%	24%	100%	22%	0%	33%	0%
Lack of support staff/specialist skills/resources	7	16%	29%	5%	0%	13%	25%	17%	100%
Mobile technologies/learning, BYOD (support, creating content and compatibility with systems)	7	16%	5%	29%	0%	19%	0%	17%	0%

Note: n=43 for Table 5.6a

Table 5.6a gives the Top 5 most commonly cited challenges. For a full breakdown by country, institution type and mission type see Tables A5.6a and B5.6a. Totals and percentages are based upon 43 respondents who indicated that the developments mentioned in Question 5.5 would pose challenges over the next two to three years. As in previous Surveys, this was an open question and respondents were invited to give up to three responses.

Where possible, items have been categorised based on categories used in previous Surveys, but where necessary new categories have been added or combined. As a result of this, some longitudinal analysis is possible (see Table C5.6a).

The 2016 Survey reports some change in the Top 5 challenges from the 2014 Survey with *Lack of support staff/ specialist skills/resources* moving back into fifth place from first place. *Staff development* moves up from 3rd to 1st place with an increase from 20% to 35%. Reflecting the responses to question 5.5, E-assessment is the second highest challenge (23%) with a small increase from the 2014 survey. *Mobile technologies/learning* remains in the Top 5, but has dropped from 27% to 16%. *Lecture capture/recording* continues to move up the rankings having increased from 8% in 2012 to 29% in 2016. *Legal/policy issues* return as a challenge in 2016, up to 14% from 5% and this is primarily linked to the challenge around *Lecture capture/recording*.

Lack of support staff/specialist skills/resources continues to be of more concern to Pre-92 institutions (29%) and Russell Group institutions (40%). However, the percentages have decreased since 2014. Russell Group institutions identified *Financial constraints* as a key challenge (40%), but this was not noted by any GuildHE and University Alliance institutions.

Pre-92 institutions were the only group to report challenges caused by demands for *Increased/diverse support*, such as supporting remote students.

There was only one response from the Other HE providers and so it is not possible to draw any general conclusions for this group.

Question 5.6b: How do you see these challenges being overcome?

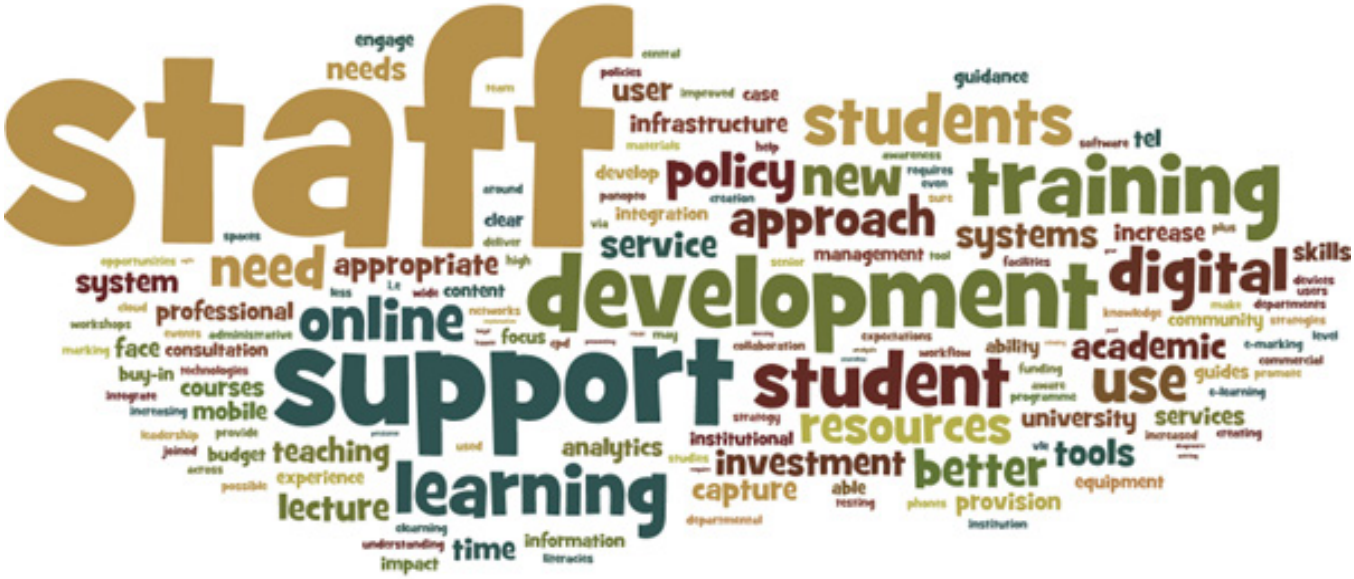

Figure 5.6b: Word cloud showing most commonly mentioned words for overcoming the challenges reported in Question 5.6a

Table 5.6b: How institutions see the challenges identified in Question 5.6a being overcome

Top 5	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Investment (time, money, resources, support staff)	15	35%	38%	29%	100%	44%	0%	17%	0%
Staff development (e.g. training courses)	15	35%	24%	43%	100%	31%	50%	50%	0%
Improve technical infrastructure (inc. wireless)	13	30%	29%	33%	0%	38%	0%	17%	0%
Development of/integration with strategies/policies	11	26%	14%	38%	0%	28%	0%	33%	0%
Review and revise support provision (increased/improved/ devolved/extended hours)	8	19%	19%	14%	100%	16%	50%	17%	0%

Note: n=43 for Table 5.6b

Table 5.6b lists the most commonly cited solutions to the challenges identified in Question 5.6a. For a full breakdown by country, institution type and mission type see Tables A5.6b and B5.6b. Totals and percentages are based upon 43 respondents. As for previous Surveys, this was an open question and respondents were invited to give up to three responses.

Where possible, items have been classified based on categories used in previous Surveys, but where necessary new categories have been added or combined. As a result of this, some longitudinal analysis is possible (see Table C5.6b).

Investment and *Staff development* remain the Top 2 ways of overcoming the challenges noted in Question 5.6a. *Review and revise support provision* retains a spot in the Top 5, moving from 2nd to 5th with a slight decrease 25% to 19%. *Improve technical infrastructure* is a new entry to the Top 5 with an increase from 10% to 30%. *Development of strategies/policies* remains in the Top 5 with a slightly increased score from the 2014 Survey.

Staff development continues to be the most commonly cited way of overcoming challenges for Post-92 institutions (43%) and this is also gaining in prominence for Pre-92 institutions, moving up to 3rd place and increasing from 11% to 24%. *Development of/integration with strategies/polices* has greater importance for Post-92 institutions (38%) compared with Pre-92 institutions (14%). *Investment* is less important for Post-92 institutions, ranking 4th at 29%. There was only one response from the Other HE providers and so it is not possible to draw any general conclusions for this group.

Considering the different mission groups, GuildHE institutions favour *Staff development* (67%) as the primary way to overcome challenges, whilst the focus for Russell Group institutions is on *Improving technical infrastructure* (60%). It should be noted that the number of respondents for each mission group is relatively low, e.g. two respondents for Million+, and so it is difficult to make general statements.

Appendix A: Full 2016 Data

Where new response options have been added to established questions used in previous Surveys, they have been denoted with an asterisk at the end of the response option. New questions for the 2016 Survey are identified in the main text accompanying each section of the Report.

Question 1.1: How important, if at all, have each of the following *driving factors* been for developing TEL and the processes that promote it in to date?

Table A1.1: Driving factors for TEL development (mean values)

Rank 2016	Driving factors	All	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
1	Enhancing the quality of learning and teaching in general	3.82	3.77	3.86	3.88	3.82	3.50	3.92	4.00
2	Meeting student expectations in the use of technology	3.60	3.62	3.56	3.75	3.59	4.00	3.58	3.50
3	Improving student satisfaction e.g. NSS scores*	3.57	3.55	3.64	3.25	3.54	3.50	3.75	4.00
4	To help create a common user experience	3.32	3.26	3.32	3.75	3.29	3.75	3.42	3.50
5	Improving access to online/ blended learning for campus-based students?*	3.23	3.28	3.18	3.25	3.18	3.50	3.33	4.00
6	Improving administrative processes	3.22	3.23	3.16	3.50	3.20	3.25	3.42	3.00
7	Supporting the development of digital literacy skills for students and staff?*	3.20	3.13	3.20	3.63	3.15	3.25	3.50	3.50
8	Supporting flexible/blended curriculum development*	3.16	3.19	3.10	3.38	3.14	3.00	3.33	3.50
9	Keeping abreast of educational developments	3.14	3.19	3.08	3.25	3.06	3.75	3.42	4.00
10	Widening participation/ inclusiveness	3.12	3.02	3.16	3.50	3.09	3.25	3.33	3.00
11	Attracting home students	3.10	3.06	3.08	3.38	3.11	3.25	3.00	2.50
12	Assisting and improving the retention of students	3.08	2.87	3.20	3.50	3.07	3.50	3.00	3.00
13	Creating or improving competitive advantage	3.03	3.13	2.90	3.25	2.95	3.50	3.33	3.50
14	Attracting international (outside EU) students	3.01	3.11	2.92	3.00	2.99	3.00	3.08	3.50
15	Supporting students affected by the withdrawal of DSA provision (Disabled Students' Allowances)*	2.99	2.81	3.16	3.00	3.08	3.50	2.25	2.50
16	Attracting new markets	2.98	2.85	3.06	3.25	2.87	3.25	3.50	4.00
17	Attracting EU students	2.97	3.06	2.88	3.00	2.98	3.00	3.00	2.50
18	Meeting the requirements of the Equality Act (2010)*	2.96	2.74	3.16	3.00	2.95	3.25	3.00	2.50
19	Improving access to learning for international students	2.94	3.17	2.78	2.63	2.87	2.75	3.42	3.50
20	Improving access to learning for distance learners	2.87	3.04	2.96	1.25	2.71	3.25	3.67	4.00
21	Addressing work-based learning – the employer/workforce development agenda and student employability skills	2.85	2.66	3.02	2.88	2.80	2.50	3.08	4.00
22	Achieving cost/efficiency savings	2.83	2.94	2.72	2.88	2.76	3.00	3.25	3.00

Rank 2016	Driving factors	All	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
23	Improving access to learning for part time students	2.77	2.74	2.84	2.50	2.66	3.00	3.33	4.00
24	Developing a wider regional, national or international role for your institution	2.73	2.83	2.66	2.63	2.64	3.25	3.08	3.50
25	Formation of other partnerships with external institutions/ organisations	2.54	2.60	2.48	2.63	2.47	2.75	2.92	3.00
26	To help support joint/ collaborative course developments with other institutions	2.27	2.32	2.32	1.63	2.18	2.50	2.67	3.00
27	Improving access to learning through the provision of open education resources	1.85	2.02	1.78	1.25	1.76	2.50	2.17	2.50
28	Improving access to learning through the provision of open education courses (e.g. MOOCs)	1.74	2.36	1.36	0.50	1.61	2.50	2.42	2.00

Note: n=105 for Table A1.1

Question 1.2: Are there any other *driving factors* in your institution?

Table A1.2: Other driving factors for TEL development

Other driving factor	Frequency
Enhancing the student experience	5
Institutional strategies	5
External influences	3
Facilitating online/distance learning	3
Achieve cost/efficiency savings	2
Flexibility and inclusivity	2
Supporting collaborative partners	1
Individual influence	1
Recruitment	1

Question 1.3: How important, if at all are the following factors in *encouraging* the development of TEL and processes that promote it?

Table A1.3: Factors encouraging development of TEL (mean values)

Rank 2016	Encouraging factors	All	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
1	Availability of technology enhanced learning support staff	3.70	3.77	3.64	3.63	3.67	3.75	3.83	4.00
2	Feedback from students	3.52	3.57	3.46	3.63	3.53	3.75	3.42	3.50
3	Availability and access to tools across the institution	3.44	3.51	3.38	3.38	3.39	3.75	3.58	4.00
4	School/departmental senior management support	3.44	3.55	3.32	3.50	3.40	3.25	3.75	3.50
5	Central university senior management support	3.31	3.40	3.28	3.00	3.24	3.25	3.75	4.00
6	Availability of committed local champions	3.22	3.23	3.20	3.25	3.13	3.75	3.67	3.50
7	Technological changes/ developments	3.13	3.13	3.12	3.25	3.07	3.25	3.42	4.00
8	Availability of internal project funding	3.03	3.23	2.76	3.50	2.99	3.25	3.17	3.50

Rank 2016	Encouraging factors	All	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
9	Availability of university committees and steering groups to guide development	2.92	2.98	2.86	3.00	2.84	3.25	3.33	3.50
10	Availability and access to relevant user groups/online communities	2.72	2.83	2.70	2.25	2.67	3.00	3.00	3.00
11	Partnership with students on TEL projects (students as co-creators)*	2.57	2.60	2.62	2.13	2.60	2.25	2.58	2.00
12	Availability of relevant standards	2.50	2.45	2.48	2.88	2.49	2.50	2.50	2.50
13	Availability of external project funding (e.g. Jisc, HEFCE)	2.32	2.53	2.12	2.38	2.26	3.50	2.42	2.00

Note: n=105 for Table 1.3

Question 1.4: Are there any *other* factors in your institution that encourage the development of technology enhanced learning and processes that promote it?

Table A1.4: Factors that encourage TEL development

Other factor	Frequency
Internal communities of practice	4
Internal and external frameworks and strategies	4
Teaching awards or other incentives	4
Administrative policies and processes	3
Curriculum design	2
Staff-student partnerships	2
Organisational change	1
Internal departments	1
Indirect exposure via online mandatory training	1

Note: n=22 for Table A1.4

Question 2.1: Which, if any, institutional strategies inform the development of technology enhanced learning in your institution?

Table A2.1a: Institutional strategies that have informed TEL development

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Teaching, Learning and Assessment strategy	96	91%	83%	96%	100%	91%	100%	83%	100%
Student learning experience/ student engagement strategy	61	58%	57%	59%	56%	58%	50%	50%	100%
Corporate strategy	59	56%	46%	63%	67%	53%	75%	58%	100%
Library/Learning Resources strategy	56	53%	48%	57%	56%	52%	50%	58%	50%
Technology Enhanced Learning or eLearning strategy	51	48%	57%	43%	33%	48%	75%	33%	100%
Information and Communication Technology (ICT) strategy	51	48%	54%	45%	33%	47%	50%	50%	100%
Employability strategy	40	38%	26%	51%	22%	40%	25%	25%	50%
Quality Enhancement strategy	34	32%	24%	35%	56%	26%	50%	58%	100%
Staff Development strategy*	33	31%	24%	35%	44%	31%	75%	17%	50%
Access/Widening Participation strategy	32	30%	24%	33%	44%	27%	25%	50%	50%
Information and Learning Technology (ILT) strategy	32	30%	28%	31%	33%	27%	50%	33%	100%
Estates strategy	30	28%	28%	33%	0%	27%	25%	42%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Digital Literacy/Digital Capability strategy	28	26%	22%	33%	11%	26%	25%	25%	50%
International strategy	27	25%	30%	22%	22%	19%	25%	67%	50%
Distance Learning strategy	24	23%	26%	20%	22%	23%	25%	8%	100%
Digital strategy/eStrategy	21	20%	22%	20%	11%	18%	0%	33%	50%
Mobile Learning strategy	19	18%	15%	24%	0%	19%	0%	8%	50%
Information strategy	16	15%	13%	20%	0%	15%	25%	17%	0%
Other institutional strategy	14	13%	9%	18%	11%	13%	25%	17%	0%
Digital Media strategy	13	12%	7%	20%	0%	11%	0%	8%	100%
Marketing strategy	11	10%	9%	10%	22%	11%	0%	8%	0%
Open Learning strategy*	11	10%	13%	10%	0%	8%	25%	17%	50%
Human Resources strategy	11	10%	7%	14%	11%	13%	0%	0%	0%
Communications strategy	7	7%	2%	12%	0%	8%	0%	0%	0%
Competition and Markets Authority (CMA) strategy*	4	4%	2%	6%	0%	5%	0%	0%	0%
Not considered in any institutional strategy documents	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n=106 for Table A2.1a

Table A2.1b: Are these strategies linked to an overarching institutional approach to digital and data management practices?

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes it is/they are – please enter brief details	21	20%	21%	20%	22%	20%	0%	25%	50%
Not currently, but under consideration	47	45%	43%	47%	44%	45%	50%	50%	0%
No, it isn't/they aren't	35	34%	36%	31%	33%	34%	50%	25%	50%
Not answered	1	1%	0%	2%	0%	1%	0%	0%	0%

Note: n=104 for Table A2.1b

Table A2.1c: Are these strategies linked to an overarching institutional approach to a particular teaching and learning initiative (with a TEL focus)?

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes it is/they are – please enter brief details	44	42%	39%	47%	33%	44%	0%	42%	50%
Not currently, but under consideration	36	35%	34%	35%	33%	33%	75%	33%	50%
No, it isn't/they aren't	22	21%	27%	16%	22%	21%	25%	25%	0%
Not answered	2	2%	0%	2%	11%	2%	0%	0%	0%

Note: n=104 for Table A2.1c

Table A2.1d: Management of TEL governance within institutions

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Other committees/working groups (1)	52	51%	58%	45%	50%	49%	50%	67%	50%
TEL/e-learning/blended learning	49	48%	42%	55%	38%	45%	75%	50%	100%
Other committees/working groups (2)	30	29%	38%	25%	13%	25%	50%	50%	50%
Don't have committees/working groups with an institutional remit looking at TEL	20	20%	16%	22%	25%	23%	0%	8%	0%
Distance learning	19	19%	24%	14%	13%	16%	25%	25%	100%
Open learning/MOOC development	17	17%	31%	6%	0%	14%	25%	17%	100%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Other committees/working groups (3)	11	11%	11%	10%	13%	6%	25%	33%	50%
Mobile learning	3	3%	4%	2%	0%	1%	0%	8%	50%
Other committees/working groups (4)	3	3%	0%	6%	0%	2%	0%	8%	0%

Note: n=102 for Table A2.1d

Table 2.1d (i): Management of TEL governance within institutions – a breakdown of the type of governance structures/committees

	No.	Total	Reporting to					
			Executive	Senate/ Academic Board	Committee	Sub-Comittee	Faculty/ Department	Other
Other committees/working groups (1)	52	51%	14	15	19	2	0	2
TEL/e-learning/blended learning	49	48%	11	5	23	3	2	4
Other committees/working groups (2)	30	29%	9	4	8	1	1	7
Distance learning	19	19%	3	0	11	1	0	3
Open learning/MOOC development	17	17%	4	1	8	1	0	3
Other committees/working groups (3)	11	11%	5	0	3	0	0	2
Mobile learning	3	3%	0	0	3	0	0	0
Other committees/working groups (4)	3	3%	1	0	2	0	0	0

Note: n=102 for Table A2.1d (i)

Question 2.2: Which, if any, *external strategy documents* inform the development of technology enhanced learning in your institution?

Table A2.2: External strategy documents that have informed the development of TEL

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Jisc strategies	72	71%	69%	71%	88%	71%	75%	67%	100%
HEFCE eLearning strategy (2005 and 2009)	51	50%	42%	56%	63%	54%	25%	25%	100%
Strategies from professional bodies or agencies	29	29%	36%	25%	13%	25%	50%	42%	50%
Other HEFCE strategy documents	17	17%	13%	21%	13%	19%	0%	0%	50%
Enhancing Learning and Teaching through Technology: refreshing the HEFCW strategy 2011	16	16%	18%	13%	25%	12%	100%	8%	50%
No external strategy documents inform development	11	11%	16%	6%	13%	12%	0%	8%	0%
Joint Scottish Funding Councils eLearning Report	10	10%	7%	13%	13%	1%	0%	75%	0%
Other external strategy	9	9%	7%	10%	13%	7%	25%	17%	0%
Department for Employment and Learning Northern Ireland (DELNI)	3	3%	2%	4%	0%	1%	0%	0%	100%

Note: n=101 for Table A2.2

Question 2.3: Which, if any, *external reports or documents* inform the development of technology enhanced learning in your institution?

Table A2.3: External reports or documents that have informed the development of TEL

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Jisc: Developing Digital Literacies (2012)	73	73%	66%	83%	50%	71%	67%	83%	100%
UCISA 2014 Survey of Technology Enhanced Learning for higher education	61	61%	55%	73%	25%	61%	100%	42%	100%
Changing the Learning Landscape Report (2012–14)*	58	58%	55%	60%	63%	58%	67%	50%	100%
Jisc: Enhancing the student digital experience: a strategic approach (2014)*	57	57%	52%	60%	63%	55%	67%	67%	50%
Jisc: Enhancing curriculum design with technology (2013)	56	56%	50%	63%	50%	52%	100%	67%	100%
HeLF: Electronic Management of Assessment Survey Report (2013)	47	47%	50%	52%	0%	46%	67%	50%	50%
NMC Horizon Report Higher Education Edition (2015)*	45	45%	43%	54%	0%	46%	33%	42%	50%
HeLF Learning Analytics report (2015)*	36	36%	39%	40%	0%	37%	0%	42%	0%
Jisc: Code of practice for learning analytics (2015)*	36	36%	32%	46%	0%	34%	0%	50%	100%
Jisc/NUS Benchmarking tool – the student digital experience (2015)*	36	36%	30%	46%	13%	37%	0%	42%	0%
NUS Charter on Technology in HE (2011)	33	33%	25%	44%	13%	33%	67%	25%	50%
MOOCs and Open Education: Implications for Higher Education (2013)	30	30%	43%	21%	13%	28%	67%	25%	100%
HEFCE Review of the National Student Survey (2014)*	30	30%	23%	35%	38%	31%	33%	17%	50%
The Open University: Innovation Pedagogy Report (2014)*	29	29%	27%	33%	13%	24%	67%	50%	50%
BIS: Students at the Heart of the System (2011)*	26	26%	20%	29%	38%	31%	0%	0%	0%
Jisc: Developing successful student-staff partnerships (2015)*	26	26%	23%	31%	13%	24%	33%	25%	100%
HEFCE's Strategy Statement: Opportunity, choice and excellence in higher education (2011)	21	21%	23%	21%	13%	23%	33%	0%	50%
HeLF Tablet Survey Report (2014)*	21	21%	23%	23%	0%	23%	0%	17%	0%
Gibbs (2012) Implications of Dimensions of quality in a market environment	19	19%	23%	17%	13%	20%	0%	8%	50%
NUS report: Radical interventions in teaching and learning (2014)*	18	18%	16%	19%	25%	18%	33%	17%	0%
Department for Business Innovation & Skills report on MOOCs (2013): The Maturing of the MOOC	15	15%	20%	13%	0%	16%	0%	17%	0%
NUS connect: A Manifesto for Partnership (2015)*	13	13%	7%	19%	13%	12%	0%	17%	50%
HEFCE's Collaborate to Compete paper (2011)	11	11%	11%	13%	0%	11%	0%	8%	50%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Department for Business and Skills FELTAG report (2014)*	11	11%	5%	17%	13%	13%	0%	0%	0%
HEPI-HEA Student Academic Experience Survey (2015)*	10	10%	7%	15%	0%	10%	33%	8%	0%
Other external reports or documents	10	10%	14%	8%	0%	7%	0%	33%	0%
E-Learning in European Higher Education Institutions: EUA report (2014)*	8	8%	7%	10%	0%	7%	0%	8%	50%
No external reports or documents inform development	4	4%	7%	0%	13%	5%	0%	0%	0%

Note: n=100 for Table A2.3

Question 2.4: To what extent, if at all, do any *internal* strategies on the development of technology enhanced learning influence the implementation of the various tools in practice?

Table A2.4: The extent to which *internal* strategies on the development of TEL have influenced the implementation of the various tools in practice

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Internal strategies have a great influence on implementation	30	30%	36%	23%	38%	28%	50%	33%	50%
Internal strategies influence implementation	59	58%	51%	67%	50%	59%	50%	58%	50%
Internal strategies have limited influence on implementation	9	9%	11%	6%	13%	10%	0%	8%	0%
Don't have internal strategies on the development of technology enhanced learning	3	3%	2%	4%	0%	4%	0%	0%	0%

Note: n=101 for Table A2.4

Question 2.4a: To what extent, if at all, do any *external* strategies on the development of technology enhanced learning influence the implementation of the various tools in practice?

Table A2.4a: The extent to which *external* strategies on the development of TEL have influenced the implementation of the various tools in practice

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
External strategies have a great influence on implementation	3	3%	4%	2%	0%	2%	25%	0%	0%
External strategies influence implementation	48	48%	42%	52%	50%	46%	50%	50%	100%
External strategies have limited influence on implementation	44	44%	49%	40%	38%	45%	25%	50%	0%
External strategies have no influence on implementation	6	6%	4%	6%	13%	7%	0%	0%	0%

Note: n=101 for Table A2.4a

Question 2.5: What institutional policies, if any, link strategy and implementation of technology enhanced learning tools?

Table A2.5: Institutional policies which link strategy with implementation of TEL tools

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Learning, Teaching and Assessment strategy	71	70%	60%	77%	88%	67%	100%	75%	100%
VLE usage policy (minimum requirements)	69	68%	56%	63%	88%	73%	75%	33%	50%
Faculty or departmental/school plans	63	62%	71%	54%	63%	63%	50%	58%	100%
VLE guidelines/description of VLE service	61	60%	56%	63%	75%	64%	25%	42%	100%
Electronic Management of Assessment (e-Assessment/ e-Submission) policy	50	50%	44%	60%	13%	53%	75%	25%	0%
TEL or eLearning strategy/action plan/framework	44	44%	44%	46%	25%	45%	25%	33%	100%
Lecture capture guidelines/policy*	44	44%	60%	31%	25%	47%	50%	25%	0%
Other institutional policy	8	8%	9%	8%	0%	10%	0%	0%	0%
There are no institutional policies that link strategy and implementation	3	3%	2%	4%	0%	2%	0%	8%	0%

Note: n=101 for Table A2.5

Question 2.6: How is the adoption and use of technology enhanced learning tools enabled within your institution?

Table A2.6: Enabling approaches for the adoption and use of TEL tools within an institution

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Providing support and training to academic staff	92	91%	89%	92%	100%	90%	100%	92%	100%
Providing platforms for sharing good practice (e.g. networks; show and tell meetings)	81	80%	78%	81%	88%	81%	75%	83%	50%
Delivery of PGCert Training & Learning/Academic Practice programme for academic staff	74	73%	73%	81%	25%	72%	100%	67%	100%
Provision of case studies*	53	52%	53%	54%	38%	49%	100%	58%	50%
Allowing academic staff development time	35	35%	29%	35%	63%	37%	25%	25%	0%
Provision of student internships/ partnerships	35	35%	33%	42%	0%	35%	25%	42%	0%
Allowing support staff development time	32	32%	24%	35%	50%	34%	50%	17%	0%
Delivery of other forms of accredited training for academic staff	31	31%	27%	35%	25%	30%	25%	42%	0%
Other enabling factor	21	21%	31%	15%	0%	20%	0%	33%	0%
By appointing an academic in each department with responsibility for coordinating TEL adoption amongst academic staff*	17	17%	11%	21%	25%	18%	25%	8%	0%
Setting targets for TEL adoption for staff as part of annual review/ appraisal process*	16	16%	13%	17%	25%	18%	0%	8%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Contractual obligation/part of job specification for academic staff	11	11%	7%	13%	25%	13%	0%	0%	0%
Proficiency in use of TEL tools is a criterion for selection of new teaching staff*	10	10%	0%	19%	13%	11%	0%	0%	50%
Capability in using TEL tools recognised as criterion for promotion of teaching staff*	8	8%	7%	8%	13%	6%	25%	0%	100%
Adoption and use of TEL is *not* enabled	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n=101 for Table A2.6

Table 2.6a: Other approaches enabling the adoption and use of technology enhanced tools

Other approaches	Frequency
Staff training and development	5
Availability of learning and teaching/e-learning staff	3
Awards or financial incentives	3
Internal conferences and events	2
Internal communities of practice	2

Question 2.7: In what ways, if any, have you sought to raise awareness amongst staff of the benefits of using technology enhanced learning tools, engaging them in greater use of technology in their teaching and assessment?

Table A2.7: Approaches to raise awareness amongst staff of the benefits of using technology enhanced learning tools

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Staff development for teaching and learning qualification (e.g. PG Cert Teaching & Learning/ Academic Practice)*	85	84%	80%	92%	63%	84%	75%	83%	100%
Staff development programme	85	84%	80%	90%	75%	84%	100%	75%	100%
Dissemination channels for TEL practices (e.g. internal conferences, show and tell, newsletters)	83	82%	76%	90%	75%	80%	100%	100%	50%
TEL website and online training resources	79	78%	87%	83%	0%	76%	75%	92%	100%
Provision of case studies featuring innovative TEL practice*	63	62%	69%	60%	38%	60%	75%	67%	100%
Joined up central and departmental training/support provision*	61	60%	42%	46%	63%	46%	0%	75%	0%
TEL strategy groups and networks	59	58%	53%	69%	25%	57%	50%	75%	50%
Teaching prizes and awards*	48	48%	58%	46%	0%	43%	75%	58%	100%
Professional accreditation schemes (e.g. UKPSF and CMALT)*	48	48%	47%	52%	25%	47%	75%	50%	0%
Joined up central and departmental support provision	47	47%	42%	46%	75%	58%	50%	83%	50%
Engagement in MOOCs*	30	30%	47%	19%	0%	24%	50%	50%	100%
Digital scholarship and research*	23	23%	20%	27%	13%	22%	25%	33%	0%
Badges*	10	10%	7%	15%	0%	12%	0%	0%	0%
Other approach to raising awareness	8	8%	9%	4%	25%	10%	0%	0%	0%

Note: n=101 for Table A2.7

Table A2.7a: Other approaches to raise awareness amongst staff of the benefits of using technology enhanced learning tools

Other approaches	Frequency
Student awards	2
Attending school/department meetings	2
Alignment to CPD Framework/Scheme	1
Alignment to institutional teaching methods	1
Specialist Research Centre	1
One to one consultation	1

Note: n=8 for Table A2.7a

Question 3.1: Is there a VLE currently in use in your institution?

Table A3.1: Institutional VLE currently in use

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	106	100%	100%	100%	100%	100%	100%	100%	100%
No	0	0%	0%	0%	0%	0%	0%	0%	0%

Note: n=106 for Table A3.1

Question 3.1a: Which VLE(s), if any, is/are currently used in your institution?

Table 3.1a: VLEs currently used

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Moodle	56	53%	60%	40%	88%	53%	50%	54%	50%
Blackboard Learn	49	46%	48%	52%	0%	43%	50%	69%	50%
FutureLearn	25	24%	50%	2%	0%	23%	0%	31%	50%
Other VLE developed *in-house*	13	12%	15%	10%	13%	10%	0%	31%	0%
Open Education (by Blackboard)*	9	9%	6%	12%	0%	8%	0%	15%	0%
Canvas (by Instructure)	7	7%	10%	4%	0%	7%	0%	0%	50%
Coursera	6	6%	13%	0%	0%	6%	0%	8%	0%
Other MOOC platform*	6	6%	2%	10%	0%	6%	0%	8%	0%
SharePoint	5	5%	6%	4%	0%	5%	0%	0%	50%
Joule (by Moodlerooms)*	3	3%	2%	2%	13%	3%	0%	0%	0%
Brightspace (by Desire2Learn)	2	2%	2%	2%	0%	2%	0%	0%	0%
edX	2	2%	4%	0%	0%	1%	0%	8%	0%
Other *commercial* VLE	2	2%	2%	2%	0%	2%	0%	0%	0%
Other *open source* VLE	2	2%	2%	2%	0%	1%	0%	8%	0%
Pearson eCollege	2	2%	0%	4%	0%	2%	0%	0%	0%
Sakai	2	2%	4%	0%	0%	2%	0%	0%	0%
Blackboard Classic	1	1%	0%	2%	0%	1%	0%	0%	0%
Other intranet based – developed *in-house*	1	1%	0%	2%	0%	1%	0%	0%	0%

Note: n=106 for Table A3.1a

Question 3.1b: Out of the above which is the *main* VLE in use across your institution?

Table A3.1b: The *main* VLE in use

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Learn	48	45%	48%	50%	0%	41%	50%	69%	50%
Moodle	47	43%	44%	38%	88%	47%	50%	31%	0%
Brightspace (by Desire2Learn)	2	2%	2%	2%	0%	2%	0%	0%	0%
Canvas (by Instructure)	2	2%	2%	2%	0%	2%	0%	0%	0%
SharePoint	2	2%	2%	2%	0%	1%	0%	0%	1%
Blackboard Classic	1	1%	0%	2%	0%	1%	0%	0%	0%
Joule (by Moodlerooms)*	1	1%	0%	0%	13%	1%	0%	0%	0%
Other *open source* VLE	1	1%	0%	2%	0%	1%	0%	0%	0%
Pearson eCollege	1	1%	0%	2%	0%	1%	0%	0%	0%
Sakai	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n=106 for Table A3.1b

Question 3.1c: Is the *main* VLE in used for each of the following or not?

Table A3.1c (i): The main VLE and blended learning (campus-based courses)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	105	99%	98%	100%	100%	99%	100%	100%	100%
No. Another VLE is used	0	0%	0%	0%	0%	0%	0%	0%	0%
No. Mode of delivery not supported *using a VLE*	0	0%	0%	0%	0%	0%	0%	0%	0%
No. Mode of delivery not supported	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n=106 for Table A3.1c (i)

Table A3.1c (ii): The main VLE and distance learning

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	91	86%	92%	86%	50%	84%	100%	100%	50%
No. Another VLE is used	6	4%	4%	8%	0%	6%	0%	0%	50%
No. Mode of delivery not supported *using a VLE*	1	1%	0%	0%	13%	1%	0%	0%	0%
No. Mode of delivery not supported	8	8%	4%	6%	38%	9%	0%	0%	0%

Note: n=106 for Table A3.1c (ii)

Table A3.1c (iii): The main VLE and open online learning

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	18	17%	17%	18%	13%	16%	50%	8%	50%
No. Another VLE is used	28	26%	38%	20%	0%	23%	0%	54%	50%
No. Mode of delivery not supported *using a VLE*	13	12%	15%	10%	13%	14%	0%	8%	0%
No. Mode of delivery not supported	47	44%	31%	52%	75%	47%	50%	31%	0%

Note: n=106 for Table A3.1c (iii)

Question 3.2: Thinking about the (main) VLE in use, which of the following best describes how your platform is technically managed?

Table A3.2: Hosting results for main institutional VLE

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally hosted and managed	60	57%	67%	48%	50%	54%	75%	62%	100%
Institutionally managed but hosted by third party	39	37%	29%	44%	38%	38%	25%	39%	0%
Cloud-based Software as a Service/multi-tenant service*	7	7%	4%	8%	13%	8%	0%	0%	0%

Note: n=106 for Table A3.2

Table A3.2 (i): Hosting results per platform for main institutional VLE

	Institutionally hosted and managed		Institutionally managed but hosted by third party		Cloud-based Software as a Service/multi-tenant service*		Total
	No.	%	No.	%	No.	%	No.
Blackboard Learn	26	54%	20	42%	2	4%	48
Moodle	28	60%	18	38%	1	2%	47
Brightspace (by Desire2Learn)	2	100%	0	0%	0	0%	2
Canvas (by Instructure)	0	0%	0	0%	2	100%	2
SharePoint	2	100%	0	0%	0	0%	2
Blackboard Classic	0	0%	1	100%	0	0%	1
Joule (by Moodlerooms)*	0	0%	0	0%	1	100%	1
Other *open source* VLE	1	100%	0	0%	0	0%	1
Pearson eCollege	0	0%	0	0%	1	100%	1
Sakai	1	100%	0	0%	0	0%	1

Note: n=106 for Table A3.2 (i)

Question 3.2a: Who is the external provider that hosts your (main) VLE?

Table A3.2a: External hosting provider for main institutional VLE

External hosting provider	Main institutional VLE		Total
	VLE	No.	No.
Blackboard Managed Hosting	Blackboard Learn	22	23
	Blackboard Classic	1	
University of London Computing Centre (ULCC)	Moodle	16	16
Instructure	Canvas	2	2
Synergy Learning	Moodle	2	2
Moodlerooms (Blackboard)	Joule	1	1
Pearson	Pearson eCollege	1	1
Webanywhere	Moodle	1	1

Note: n=46 for Table A3.2a

Question 3.3: Have you undertaken a review of a major institutional TEL facility or system in the *last two years*?

Table A3.3: Institutional review of TEL facility or system in last two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	57	54%	46%	56%	88%	55%	50%	39%	100%
No	49	46%	54%	44%	12%	12%	50%	61%	0%

Note: n=106 for Table A3.3

Question 3.3a: Which major TEL facilities or systems have you reviewed in the *last two years*?

Table A3.3a: TEL facilities or systems that have been reviewed in the last two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
VLE	47	83%	91%	71%	100%	83%	100%	60%	100%
Lecture capture	27	47%	36%	61%	29%	46%	100%	60%	0%
E-assessment	20	35%	36%	32%	43%	38%	50%	20%	0%
E-portfolio	17	30%	27%	29%	43%	31%	0%	40%	0%
Learning analytics	15	26%	23%	36%	0%	27%	0%	40%	0%
MOOC platform	9	16%	32%	7%	0%	15%	0%	40%	0%
Other	8	14%	14%	18%	0%	13%	0%	20%	50%
Mobile learning	7	12%	14%	14%	0%	13%	50%	0%	0%

Note: n=57 for Table A3.3a

Table A3.3a (i): Cross tabulation of *main institutional VLE* with *VLE review conducted in the last two years*

Main institutional VLE	Conducted review in last two years		
	No.	*Main VLE total (3.1b)*	%
Moodle	26	*47*	55%
Blackboard Learn	14	*48*	29%
Canvas (by Instructure)	2	*2*	100%
Blackboard Classic	1	*1*	100%
Joule (by Moodlerooms)	1	*1*	100%
Other *open source* VLE	1	*1*	100%
Sakai	1	*1*	100%
SharePoint	1	*2*	50%

Note: n=47 for Table A3.3a (i)

Table A3.3b (i): Outcomes of the VLE review

Outcomes	Frequency
Continue with the same VLE platform • Blackboard Learn • Moodle • Canvas (by Instructure) • WordPress	**13** (6) (5) (1) (1)
Continue with the same platform and upgrade to latest version • Moodle	**9** (9)
Review process not yet completed • Blackboard Learn • Moodle • SharePoint	**9** (4) (4) (1)

Outcomes	Frequency
Switch to external hosting for same VLE platform	**6**
• Move to Blackboard Managed Hosting (for Blackboard Learn)	(3)
• Move to external hosting provider (for Moodle)	(2)
• Move to Moodlerooms (for Joule)	(1)
Switch to a different VLE platform	**4**
• From Moodle to Canvas (by Instructure)	(2)
• From Sakai to Canvas (by Instructure)	(1)
• From Blackboard to Moodle	(1)
Continue with the same VLE platform and hosting provider	**3**
• Stay with ULCC (for Moodle)	(2)
• Stay with unnamed provider (for Moodle)	(1)
Move from two VLE platforms to one platform	**1**
• From Blackboard and Moodle to Blackboard	(1)

Note: n=45 for Table A3.3b (i)

Table A3.3b (ii): Outcomes of the MOOC platform review

Outcomes	Frequency
Recommended adoption of MOOC platform	**6**
• FutureLearn	(2)
• Open edX	(2)
• Blackboard Open Education	(1)
• Canvas	(1)
Development planning and implementation of MOOCs	**2**
• Using FutureLearn	(1)
• Using FutureLearn for accredited courses	(1)
Switch from in-house pilot to other MOOC platform	**1**

Note: n=9 for Table A3.3b (ii)

Table A3.3b (iii): Outcomes of the e-assessment review

Outcomes	Frequency
Review process not yet completed	**5**
Make use of existing tool-set (Blackboard/Turnitin/WebPA) and other online tools	**3**
Implement full lifecycle for electronic assessment (submission, marking and feedback)	**2**
Reviewed Turnitin service and decide to stay with Turnitin	**2**
Extend Moodle	**1**
Adopt Turnitin	**1**
Move to Moodlerooms	**1**
Stay with current platform (unnamed)	**1**
Review and cancellation of contract for provider of institutional online exam system	**1**
Upgrade current system – no change to a new provider	**1**
Adopt Canvas platform for e-submission and e-marking	**1**
Decision to review assessment and feedback practices	**1**

Note: n=20 for Table A3.3b (iii)

Table A3.3b (iv): Outcomes of the lecture capture review

Outcomes	Frequency
Review process not yet completed	**4**
Install and develop Panopto	**3**
• Introduce Panopto	(2)
• Adopt across institution	(1)
Conduct trial of Panopto	**2**
• extend pilot with 10-licence subscription	(1)
• pilot solution with intention to adopt across the institution	(1)

Outcomes	Frequency
Finalise policy with view to introduction of opt out service for next academic session (screen casting and flipped learning)	1
Review of Echo360 upgrades – decision to stay with basic service	1
Move Panopto solution to hosted service	1
Trial of Panopto conducted – no further action to be taken	1
Review of solutions – decision to stay with Panopto	1
Greater promotion of lecture capture by working with Student Union and Faculties on retention policy	1
Decision to implement solution (unnamed) across majority of larger teaching spaces	1
Lecture capture proposed but not supported	1
Update existing provision through market evaluation	1
Create home grown system	1
Migrate content to EU hosted platform	1
Increase usage of current system (unnamed)	1
Upgrade and improve existing system (unnamed)	1
Implemented MediaSite (by Sonic Foundry)	1
Currently procuring lecture capture system	1
Investigating costing for lecture capture system – planning to go to procurement	1
Selected Helix Media Library as solution	1

Note: n=26 for Table A3.3b (iv)

Table A3.3b (v): Outcomes of the e-portfolio review

Outcomes	Frequency
Switch platform to new solution • Move to Moodlerooms • Replace Mahara with new bespoke student/staff portal • Move from Campus Pack to Blackboard e-portfolio tool	3 (1) (1) (1)
Review process not yet completed	3
Stay with existing solution • Stay with PebblePad • Stay with unnamed solution	2 (1) (1)
Upgrade current solution • Upgrade Mahara, with plans to pilot PebblePad • Upgrade current system (unnamed)	2 (1) (1)
Introduce PebblePad • Trial PebblePad (v.5) • Introduce PebblePad for admissions	2 (1) (1)
Continue to use ULCC hosting services for e-portfolio solution	1
Implement workplace-based assessments using MyProgress	1
Selected Mahara as preferred solution	1
Decision not to make e-portfolios compulsory in all programmes	1

Note: n=16 for Table A3.3b (v)

Table A3.3b (vi): Outcomes of the learning analytics review

Outcomes	Frequency
Undertaken review in readiness to implement learning analytics service	**5**
• Engaged with Jisc discovery project	(2)
• Decision taken to extend internal systems	(1)
• Decision taken to prioritise use of Canvas data	(1)
• Decision taken to join Jisc network and engage in platform development	(1)
• Assessing readiness to adopt some form of tool	(1)
Review process not yet completed	**3**
Have implemented learning analytics solution	**2**
• Have created bespoke student dashboard using IBM Cognos	(1)
• Blackboard Analytics service introduced	(1)
Not implementing learning analytics solution	**2**
• Decision taken not to implement a solution at present	(1)
• Have explored options and decided to halt activity for now	(1)
Currently implementing project to pilot and develop learning analytics solution	**1**

Note: n=13 for Table A3.3b (vi)

Table A3.3b (vii): Outcomes of the mobile learning review

Outcomes	Frequency
Develop App and Portal provision	**2**
Promote Blackboard/Turnitin/Panopto/ResponseWare tools	**1**
Launch Blackboard Mobile app when moving to Managed Hosting	**1**
Look to increase mobile provision	**1**
Introduce iPad provision for selected programmes	**1**

Note: n=6 for Table A3.3b (vii)

Table A3.3b (viii): Other review outcomes

Outcomes	Frequency
Management of student assignments	**3**
• Move towards wider use of Blackboard for online submissions, linked with transfer of marks to SITS	(1)
• Implemented GradeMark	(1)
• Decision taken to explore best processes for managing online assignments	(1)
Review of web conferencing systems	**2**
• Purchase of Collaborate Ultra to replace Adobe Connect	(1)
• Blackboard Collaborate selected and procured	(1)
Purchased and installed Helix Media Library (polling and content management systems reviews not yet completed)	**1**
Review of media streaming solutions	**1**
• E-Stream retained for video streaming and Box of Broadcasts for broadcast media	(1)
Distance learning review not yet completed	**1**

Note: n=8 for Table A3.3b (viii)

Question 3.6: Are you planning to undertake a review of a major institutional TEL facility or system within the next two years?

Table A3.6: Institutional review of TEL facility or system in next two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Planning a review in the next year	34	32%	27%	35%	50%	35%	0%	23%	50%
Planning a review in the next two years	33	31%	38%	26%	25%	27%	50%	62%	0%
Not planning a review in the next two years	38	36%	35%	39%	25%	38%	50%	15%	50%

Note: n=105 for Table A3.6

Question 3.6a: Which major TEL facilities or systems are you planning on reviewing in the next two years?

Table A3.6a: TEL facilities or systems to be reviewed in the next two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
VLE	47	70%	74%	73%	33%	68%	100%	73%	100%
E-assessment	35	52%	68%	43%	17%	51%	0%	64%	100%
Learning analytics	29	43%	36%	57%	17%	40%	100%	55%	0%
Lecture capture	29	43%	55%	37%	17%	40%	50%	55%	100%
E-portfolio	27	40%	42%	40%	33%	40%	0%	55%	0%
Mobile learning	14	21%	26%	20%	0%	17%	0%	36%	100%
MOOC platform	8	12%	19%	7%	0%	9%	0%	27%	0%
Other	8	12%	7%	13%	33%	11%	0%	18%	0%

Note: n=67 for Table A3.6a

Table A3.6a (i): Cross tabulation of *main institutional VLE* with *VLE review to be conducted in the next two years*

Main institutional VLE	Conducted review in last two years		
	No.	*Main VLE total (3.1b)*	%
Blackboard Learn	24	*48*	50%
Moodle	16	*47*	34%
Brightspace (by Desire2Learn)	2	*2*	100%
SharePoint	2	*2*	100%
Blackboard Classic	1	*1*	100%
Other *open source* VLE	1	*1*	100%
Pearson eCollege	1	*1*	100%

Note: n=47 for Table A3.6a (i)

Table A3.6a (ii): Other TEL facilities or systems to be reviewed in the next two years

Other TEL facilities or systems to be reviewed	Frequency
Polling software • Audience participation system • Polling software	**4** (2) (2)
BYOD policy	**1**
Open education practices	**1**
Media streaming	**1**
Video server	**1**

Note: n=8 for Table A3.6a (ii)

Question 3.8: Are there *departments* within your institution using a VLE in addition to the *main* centrally provided VLE?

Table A3.8: Departmental VLEs in use

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	29	28%	42%	16%	13%	26%	25%	39%	50%
No	76	72%	58%	84%	87%	74%	75%	61%	50%

Note: n=105 for Table A3.8

Question 3.9: What is the context for this localised provision?

Table A3.9: Context for hosting of VLEs within departments

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
A case has been made for the departmental VLE based on *pedagogical* reasons	9	31%	30%	38%	0%	23%	100%	40%	100%
The departmental VLE predates introduction of institutional VLE	8	28%	35%	13%	0%	27%	0%	40%	0%
A case has been made for the departmental VLE based on *commercial* reasons	6	21%	15%	38%	0%	27%	0%	0%	0%
The institution has a devolved management structure that permits departments to deploy their own software	3	10%	15%	0%	0%	9%	0%	20%	0%
Other context	8	28%	25%	25%	100%	27%	0%	40%	0%

Note: n=29 for Table A3.9

Table A3.9a: Other context for hosting of VLEs within departments

Other context	Frequency
A requirement of award bodies	1
Case for alternative VLE supported by student feedback	1
Departmental VLE used by Education Department for teacher training	1
Consequence of transition of institutional VLE from Moodle to Canvas	1
Bespoke VLE is necessary due to the complexity of the medical and dental curricula	1
Platform was established some time ago and is popular with students	1
Department is a joint faculty with another institution that uses a different VLE	1
Computing Department designed their own	1

Note: n=8 for Table A3.9a

Question 3.10: Which, if any, *centrally-supported* technology enhanced learning software tools are used by *students* in your institution?

Table A3.10: Centrally-supported software tools used by students

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
VLE	104	99%	100%	98%	100%	98%	100%	100%	100%
E-submission tools (assignment)	98	93%	94%	94%	88%	92%	100%	100%	100%
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	94	90%	94%	92%	50%	88%	100%	100%	50%
Formative e-assessment tool (e.g. quizzes)	91	87%	88%	90%	63%	84%	100%	100%	100%
Asynchronous communication tools (e.g. discussion forums)*	89	85%	79%	92%	75%	85%	75%	92%	50%
Summative e-assessment tools (e.g. quizzes)*	85	81%	81%	84%	63%	77%	100%	100%	100%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blog	80	76%	75%	82%	50%	74%	75%	92%	50%
Document sharing tool (e.g. Google Docs, Office 365)	80	76%	73%	84%	50%	72%	75%	100%	100%
E-portfolio	78	74%	65%	88%	50%	74%	50%	77%	100%
Media streaming system	77	73%	65%	86%	50%	73%	100%	69%	50%
Lecture capture tools	75	71%	79%	71%	25%	71%	100%	69%	50%
Personal response systems (including handsets or web-based apps)	71	67%	79%	67%	0%	63%	75%	92%	100%
Reading list management software	69	66%	65%	71%	38%	69%	75%	46%	50%
Wiki	66	63%	65%	69%	13%	59%	75%	85%	50%
Mobile apps*	65	62%	60%	69%	25%	62%	0%	77%	100%
Webinar*	63	60%	60%	65%	25%	61%	50%	62%	50%
Synchronous collaborative tools (e.g. virtual classroom)*	58	55%	48%	67%	25%	52%	50%	77%	50%
Screen casting	51	49%	35%	61%	50%	48%	50%	62%	0%
Podcasting	37	35%	40%	35%	13%	30%	75%	62%	0%
Digital/learning repository	36	34%	29%	43%	13%	35%	0%	46%	0%
Content management systems	34	32%	27%	41%	13%	31%	0%	46%	50%
Social networking	26	25%	19%	33%	13%	26%	0%	31%	0%
Learning analytics tool*	20	19%	15%	27%	0%	20%	0%	15%	50%
Other software tool	20	19%	19%	22%	0%	16%	25%	31%	50%
Electronic essay exams*	15	14%	19%	12%	0%	12%	0%	31%	50%
Social bookmarking/content curation tools	6	6%	2%	8%	13%	5%	0%	15%	0%

Note: n=105 for Table A3.10

Table A3.10a: Centrally-supported virtual learning environment

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Learn	48	46%	50%	48%	13%	41%	75%	69%	50%
Moodle	46	44%	50%	31%	88%	46%	50%	38%	0%
Canvas	4	4%	4%	2%	13%	5%	0%	0%	0%
SharePoint	3	3%	4%	2%	0%	2%	0%	0%	50%
Brightspace (by Desire2Learn)	2	2%	2%	2%	0%	2%	0%	0%	0%
Moodlerooms	2	2%	0%	2%	13%	2%	0%	0%	0%
Pearson MyLab	1	1%	0%	2%	0%	1%	0%	0%	0%
Pearson LearningStudio	1	1%	0%	2%	0%	1%	0%	0%	0%
Sakai	1	1%	2%	0%	0%	1%	0%	0%	0%
WordPress	1	1%	0%	2%	0%	1%	0%	0%	0%

Note: n=104 for Table A3.10a

Table A3.10b: Centrally-supported e-submission (assignment) tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Turnitin	60	61%	71%	54%	43%	61%	75%	62%	50%
Blackboard	32	33%	33%	37%	0%	33%	25%	31%	50%
Moodle	30	31%	24%	28%	87%	32%	25%	31%	0%
In-house developed	8	8%	11%	7%	0%	9%	0%	8%	0%
Tribal SITS	4	4%	2%	7%	0%	5%	0%	0%	0%
VLE (unnamed)	3	3%	2%	4%	0%	0%	0%	23%	0%
Brightspace (by Desire2Learn)	2	2%	2%	2%	0%	3%	0%	0%	0%
Mahara	2	2%	0%	4%	0%	3%	0%	0%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
PebblePad	2	2%	2%	2%	0%	3%	0%	0%	0%
Campus Pack	1	1%	2%	0%	0%	1%	0%	0%	0%
Canvas	1	1%	2%	0%	0%	1%	0%	0%	0%
Medial	1	1%	0%	2%	0%	1%	0%	0%	0%
SafeAssign	1	1%	2%	0%	0%	0%	0%	8%	0%
Sakai	1	1%	2%	0%	0%	1%	0%	0%	0%
SharePoint	1	1%	2%	0%	0%	0%	0%	0%	50%
studentfolio	1	1%	0%	2%	0%	1%	0%	0%	0%
Student Portal	1	1%	0%	0%	14%	1%	0%	0%	0%
Vimeo	1	1%	0%	2%	0%	1%	0%	0%	0%

Note: n=98 for Table A3.10b

Table A3.10c: Centrally-supported text matching tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Turnitin	90	96%	98%	89%	100%	96%	100%	85%	100%
SafeAssign	10	11%	11%	11%	0%	9%	0%	23%	0%
Urkund	2	2%	4%	0%	0%	96%	0%	15%	0%

Note: n=94 for Table A3.10c

Table A3.10d: Centrally-supported formative e-assessment tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	43	47%	52%	48%	0%	47%	75%	38%	50%
Moodle	33	36%	36%	32%	80%	40%	50%	15%	0%
QuestionMark Perception	8	9%	14%	5%	0%	6%	25%	15%	50%
VLE (unnamed)	4	4%	2%	7%	0%	1%	0%	23%	0%
Maple TA	3	3%	7%	0%	0%	3%	0%	8%	0%
Brightspace (by Desire2Learn)	2	2%	2%	2%	0%	3%	0%	0%	0%
Canvas	2	2%	2%	2%	0%	3%	0%	0%	0%
Captivate	1	1%	0%	2%	0%	1%	0%	0%	0%
Hot Potatoes	1	1%	0%	2%	0%	0%	25%	0%	0%
Mahara	1	1%	0%	2%	0%	1%	0%	0%	0%
Moodlerooms	1	1%	0%	0%	20%	1%	0%	0%	0%
Qualtrics	1	1%	0%	2%	0%	1%	0%	0%	0%
Rogo	1	1%	2%	0%	0%	1%	0%	0%	0%
Sakai	1	1%	2%	0%	0%	1%	0%	0%	0%
SCORM content	1	1%	2%	0%	0%	1%	0%	0%	0%
Socrative	1	1%	2%	0%	0%	1%	0%	0%	0%
Stack	1	1%	2%	0%	0%	1%	0%	0%	0%
Teleform	1	1%	2%	0%	0%	0%	0%	8%	0%
Top Hat	1	1%	0%	2%	0%	1%	0%	0%	0%
Turnitin	1	1%	2%	0%	0%	0%	25%	0%	0%
Unnamed package	1	1%	0%	2%	0%	0%	0%	8%	0%
WebPA	1	1%	2%	0%	0%	0%	25%	0%	0%

Note: n=91 for Table A3.10d

Table A3.10e: Centrally-supported asynchronous communication tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	39	44%	50%	42%	17%	42%	67%	42%	100%
Moodle	35	39%	39%	31%	100%	42%	33%	25%	0%
VLE (unnamed)	7	8%	8%	9%	0%	4%	0%	33%	0%
Campus Pack	2	2%	0%	4%	0%	1%	0%	8%	0%
WordPress	2	2%	0%	2%	17%	3%	0%	0%	0%
Brightspace (by Desire2Learn)	1	1%	3%	0%	0%	1%	0%	0%	0%
Canvas	1	1%	3%	0%	0%	1%	0%	0%	0%
Facebook	1	1%	0%	2%	0%	1%	0%	0%	0%
Forums (unnamed)	1	1%	0%	2%	0%	1%	0%	0%	0%
Google communities	1	1%	0%	2%	0%	1%	0%	0%	0%
Google groups	1	1%	3%	0%	0%	1%	0%	0%	0%
In-house developed	1	1%	3%	0%	0%	1%	0%	0%	0%
Learnium	1	1%	0%	2%	0%	1%	0%	0%	0%
Padlet	1	1%	0%	2%	0%	1%	0%	0%	0%
PebblePad	1	1%	0%	2%	0%	1%	0%	0%	0%
Piazza	1	1%	3%	0%	0%	1%	0%	0%	0%
Sakai	1	1%	3%	0%	0%	1%	0%	0%	0%
SharePoint	1	1%	0%	2%	0%	1%	0%	0%	0%
Top Hat	1	1%	0%	2%	0%	1%	0%	0%	0%

Note: n=89 for Table A3.10e

Table A3.10f: Centrally-supported summative e-assessment tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	37	44%	44%	49%	0%	45%	25%	38%	50%
Moodle	26	31%	26%	29%	80%	32%	50%	23%	0%
QuestionMark Perception	13	15%	26%	7%	0%	12%	25%	23%	50%
VLE (unnamed)	3	4%	0%	7%	0%	2%	0%	15%	0%
Canvas	2	2%	3%	2%	0%	3%	0%	0%	0%
Maple TA	2	2%	5%	0%	0%	3%	0%	0%	0%
Rogo	2	2%	5%	0%	0%	3%	0%	0%	0%
Brightspace (by Desire2Learn)	1	1%	3%	0%	0%	2%	0%	0%	0%
Exam Online	1	1%	3%	0%	0%	0%	0%	8%	0%
Mahara	1	1%	0%	2%	0%	2%	0%	0%	0%
Moodlerooms	1	1%	0%	0%	20%	2%	0%	0%	0%
Respondus	1	1%	0%	2%	0%	2%	0%	0%	0%
Sakai	1	1%	3%	0%	0%	2%	0%	0%	0%
Teleform	1	1%	3%	0%	0%	0%	0%	8%	0%
Turnitin	1	1%	3%	0%	0%	0%	25%	0%	0%
Unnamed package	1	1%	0%	2%	0%	0%	0%	8%	0%

Note: n=85 for Table A3.10f

Table A3.10g: Centrally-supported blog

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	29	36%	36%	38%	25%	33%	67%	42%	100%
WordPress	24	30%	28%	30%	50%	34%	33%	8%	0%
Campus Pack	11	14%	19%	10%	0%	13%	33%	17%	0%
Moodle	11	14%	11%	15%	25%	14%	33%	8%	0%
Blogger	5	6%	8%	5%	0%	8%	0%	0%	0%
Mahara	5	6%	3%	8%	25%	5%	0%	17%	0%
PebblePad	3	4%	0%	8%	0%	3%	0%	8%	0%
VLE blog (unnamed)	3	4%	3%	5%	0%	2%	0%	17%	0%
My Portfolio	2	3%	3%	3%	0%	2%	33%	0%	0%
Atlassian Confluence	1	1%	0%	3%	0%	2%	0%	0%	0%
Canvas	1	1%	3%	0%	0%	2%	0%	0%	0%
In-house developed	1	1%	3%	0%	0%	2%	0%	0%	0%
Sakai	1	1%	3%	0%	0%	2%	0%	0%	0%
SharePoint	1	1%	0%	3%	0%	2%	0%	0%	0%
Tumblr	1	1%	0%	0%	25%	2%	0%	0%	0%

Note: n=80 for Table A3.10g

Table A3.10h: Centrally-supported document sharing tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
MS Office 365	55	69%	63%	73%	75%	61%	100%	85%	100%
Google Docs	28	35%	37%	29%	75%	39%	0%	31%	0%
SharePoint	7	9%	9%	10%	0%	8%	0%	15%	0%
Blackboard	2	3%	0%	5%	0%	2%	0%	8%	0%
Drop Box	2	3%	3%	2%	0%	3%	0%	0%	0%
PebblePad	2	3%	0%	5%	0%	2%	0%	8%	0%
Data anywhere	1	1%	3%	0%	0%	2%	0%	0%	0%
Opentext	1	1%	0%	2%	0%	2%	0%	0%	0%

Note: n=80 for Table A3.10h

Table A3.10i: Centrally-supported e-portfolio

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Mahara	33	42%	39%	40%	100%	42%	100%	40%	0%
PebblePad	23	29%	35%	28%	0%	31%	0%	30%	0%
Blackboard	13	17%	13%	19%	25%	14%	0%	0%	50%
Campus Pack	3	4%	0%	7%	0%	5%	0%	0%	0%
Myprogressfile.com	3	4%	3%	5%	0%	5%	0%	0%	0%
Brightspace (by Desire2Learn)	2	3%	3%	2%	0%	3%	0%	0%	0%
WordPress	2	3%	0%	5%	0%	3%	0%	0%	0%
Canvas	1	1%	3%	0%	0%	2%	0%	0%	0%
Digication	1	1%	0%	2%	0%	2%	0%	0%	0%
efolio	1	1%	3%	0%	0%	2%	0%	0%	0%
Google Sites	1	1%	3%	0%	0%	2%	0%	0%	0%
In-house developed	1	1%	3%	0%	0%	0%	0%	0%	50%
studentfolio	1	1%	0%	2%	0%	2%	0%	0%	0%
Tessello	1	1%	0%	2%	0%	2%	0%	0%	0%

Note: n=78 for Table A3.10i

Table A3.10j: Centrally-supported media streaming system

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Helix	18	23%	19%	29%	0%	21%	75%	22%	0%
Panopto	12	16%	6%	19%	50%	19%	0%	0%	0%
Kaltura Mediaspace	11	14%	23%	10%	0%	13%	0%	33%	0%
Planet eStream	7	9%	3%	10%	50%	10%	25%	0%	0%
Medial	6	8%	10%	7%	0%	6%	25%	11%	0%
In-house developed	5	6%	10%	5%	0%	8%	0%	0%	0%
Wowser	3	4%	6%	2%	0%	3%	0%	11%	0%
Adobe	2	3%	6%	0%	0%	3%	0%	0%	0%
MediaCore	2	3%	6%	0%	0%	3%	0%	0%	0%
TriplePlay	2	3%	0%	5%	0%	2%	0%	11%	0%
Vimeo	2	3%	3%	2%	0%	3%	0%	0%	0%
YouTube	2	3%	3%	2%	0%	3%	0%	0%	0%
Amazon cloudfront	1	1%	3%	0%	0%	2%	0%	0%	0%
Box of Broadcasts	1	1%	0%	0%	25%	2%	0%	0%	0%
Echo360	1	1%	0%	2%	0%	2%	0%	0%	0%
Edshare	1	1%	0%	2%	0%	0%	0%	11%	0%
Ensemble	1	1%	3%	0%	0%	2%	0%	0%	0%
Media Library	1	1%	0%	2%	0%	2%	0%	0%	0%
MediaSite (Sonic Foundry)	1	1%	0%	2%	0%	2%	0%	0%	0%
Office 365 video	1	1%	0%	2%	0%	2%	0%	0%	0%
Sharestream	1	1%	3%	0%	0%	0%	0%	0%	100%

Note: n=77 for Table A3.10j

Table A3.10k: Centrally-supported lecture capture tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Panopto	34	45%	42%	43%	100%	46%	100%	11%	0%
Echo360	17	23%	37%	9%	0%	23%	0%	33%	0%
Camtasia Relay	5	7%	5%	9%	0%	3%	0%	22%	100%
In-house developed	5	7%	3%	11%	0%	7%	0%	11%	0%
Techsmith Relay	4	5%	5%	6%	0%	2%	0%	33%	0%
Opencast (Matterhorn)	3	4%	8%	0%	0%	5%	0%	0%	0%
Kaltura	2	3%	3%	3%	0%	3%	0%	0%	0%
Adobe Connect	1	1%	0%	3%	0%	3%	0%	0%	0%
Blackboard Collaborate	1	1%	3%	0%	0%	2%	0%	0%	0%
CaptureEd	1	1%	3%	0%	0%	0%	0%	11%	0%
Planet eStream	1	1%	0%	3%	0%	2%	0%	0%	0%
Skype for Business	1	1%	0%	3%	0%	2%	0%	0%	0%

Note: n=75 for Table A3.10k

Table A3.10l: Centrally-supported personal response system

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
TurningPoint (by Turning Technologies)	40	56%	61%	48%	0%	57%	100%	33%	100%
Responseware (by Turning Technologies)	9	13%	18%	6%	0%	17%	0%	0%	0%
Poll Everywhere	7	10%	11%	9%	0%	13%	0%	0%	0%
Socrative	5	7%	5%	9%	0%	7%	0%	8%	0%
Qwizdom	4	6%	5%	6%	0%	4%	33%	8%	0%
In-house developed	2	3%	0%	6%	0%	4%	0%	0%	0%
LectureTools (by Echo360)	2	3%	5%	0%	0%	4%	0%	0%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Mentimeter	2	3%	5%	0%	0%	2%	0%	8%	0%
Optivote	2	3%	3%	3%	0%	4%	0%	0%	0%
Package not stated	2	3%	3%	3%	0%	2%	0%	8%	0%
Top Hat	2	3%	3%	3%	0%	2%	0%	8%	0%
Blackboard polls	1	1%	0%	3%	0%	0%	0%	8%	0%
Kahoot	1	1%	3%	0%	0%	2%	0%	0%	0%
Nearpod	1	1%	3%	0%	0%	2%	0%	0%	0%
Padlet	1	1%	3%	0%	0%	2%	0%	0%	0%
Personal Response Systems (by Turning Technologies)	1	1%	3%	0%	0%	0%	0%	8%	0%
Promethean	1	1%	0%	3%	0%	2%	0%	0%	0%
Skype for Business	1	1%	0%	3%	0%	2%	0%	0%	0%
Smartresponse	1	1%	0%	3%	0%	2%	0%	0%	0%
Turnitin	1	1%	3%	0%	0%	0%	0%	8%	0%
YACRS	1	1%	3%	0%	0%	0%	0%	8%	0%

Note: n=71 for Table A3.10l

Table A3.10m: Centrally-supported reading list management software

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Talis Aspire	44	64%	81%	51%	33%	59%	100%	83%	100%
rebus:list	10	14%	10%	20%	0%	17%	0%	0%	0%
In-house developed	3	4%	3%	6%	0%	5%	0%	0%	0%
Package not stated	3	4%	3%	6%	0%	2%	33%	17%	0%
RefWorks	2	3%	0%	6%	0%	3%	0%	0%	0%
Capita Discovery	1	1%	0%	0%	33%	2%	0%	0%	0%
Leganto (Ex Libris)	1	1%	3%	0%	0%	2%	0%	0%	0%
Lib Guides	1	1%	0%	3%	0%	2%	0%	0%	0%
RefME	1	1%	0%	3%	0%	2%	0%	0%	0%
RSS library feeds	1	1%	0%	0%	33%	2%	0%	0%	0%
Summon	1	1%	3%	0%	0%	2%	0%	0%	0%
Worldcat	1	1%	0%	0%	33%	2%	0%	0%	0%

Note: n=69 for Table A3.10m

Table A3.10n: Centrally-supported wiki tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Learn	28	42%	39%	44%	100%	41%	67%	45%	0%
Moodle	15	23%	19%	24%	100%	22%	33%	27%	0%
Campus Pack (Learning Objects)	10	15%	16%	15%	0%	14%	33%	18%	0%
Atlassian Confluence	9	14%	23%	6%	0%	12%	0%	18%	100%
Canvas	2	3%	6%	0%	0%	4%	0%	0%	0%
Google Docs	2	3%	3%	3%	0%	4%	0%	0%	0%
Google Sites	2	3%	0%	6%	0%	2%	0%	9%	0%
OU wiki	2	3%	6%	0%	0%	4%	0%	0%	0%
SharePoint	2	3%	0%	6%	0%	4%	0%	0%	0%
Mediawiki	1	2%	3%	0%	0%	2%	0%	0%	0%
Office 365	1	2%	0%	3%	0%	2%	0%	0%	0%

Note: n=66 for Table A3.10n

Table A3.10o: Centrally-supported mobile apps*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Mobile Learn	28	43%	48%	41%	0%	42%	0%	40%	50%
In-house developed student app	15	23%	28%	21%	0%	23%	0%	20%	50%
CampusM	6	9%	10%	9%	0%	11%	0%	0%	0%
Ombiel	6	9%	21%	0%	0%	11%	0%	0%	0%
Blackboard Mosaic	4	6%	3%	9%	0%	6%	0%	10%	0%
Package not stated	4	6%	0%	9%	50%	4%	0%	20%	0%
Pebble Pocket (by PebblePad)	3	5%	3%	6%	0%	4%	0%	10%	0%
Blackboard Grader app	2	3%	7%	0%	0%	2%	0%	10%	0%
Blackboard Student app	2	3%	3%	3%	0%	2%	0%	10%	0%
Canvas	2	3%	3%	0%	50%	4%	0%	0%	0%
Panopto	2	3%	0%	3%	50%	4%	0%	0%	0%
VLE (unnamed)	2	3%	3%	3%	0%	0%	0%	20%	0%
Adobe Connect	1	2%	0%	3%	0%	2%	0%	0%	0%
AR app	1	2%	0%	0%	50%	2%	0%	0%	0%
Ellucian Mobile	1	2%	0%	3%	0%	2%	0%	0%	0%
Ex libris	1	2%	3%	0%	0%	2%	0%	0%	0%
Mahara	1	2%	0%	3%	0%	2%	0%	0%	0%
Moodle	1	2%	0%	3%	0%	2%	0%	0%	0%
MyDay	1	2%	0%	3%	0%	2%	0%	0%	0%
Nearpod	1	2%	0%	3%	0%	2%	0%	0%	0%
Office 365	1	2%	0%	3%	0%	2%	0%	0%	0%
Responseware (by Turning Technologies)	1	2%	3%	0%	0%	2%	0%	0%	0%
Turnitin app	1	2%	3%	0%	0%	2%	0%	0%	0%

Note: n=65 for Table A3.10o

Table A3.10p: Centrally-supported webinar tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Collaborate	27	43%	48%	41%	0%	40%	50%	50%	100%
Adobe Connect	26	41%	31%	47%	100%	42%	50%	38%	0%
Big Blue Button	5	8%	10%	6%	0%	8%	0%	13%	0%
Skype for business	3	5%	7%	3%	0%	2%	0%	25%	0%
webex	3	5%	7%	3%	0%	4%	0%	13%	0%
Google Hangouts	2	3%	3%	3%	0%	4%	0%	0%	0%
GoToWebinar	2	3%	0%	6%	0%	4%	0%	0%	0%
Lync	1	2%	3%	0%	0%	2%	0%	0%	0%
Vidyo	1	2%	3%	0%	0%	2%	0%	0%	0%

Note: n=63 for Table A3.10p

Table A3.10q: Centrally-supported synchronous collaborative tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard Collaborate	29	50%	65%	42%	0%	51%	0%	50%	100%
Adobe Connect	20	34%	35%	33%	50%	33%	100%	30%	0%
Big Blue Button	6	10%	4%	15%	0%	11%	0%	10%	0%
Skype for business	5	9%	4%	9%	50%	11%	0%	0%	0%
Google Hangouts	3	5%	9%	3%	0%	7%	0%	0%	0%
Lync	2	3%	4%	3%	0%	4%	0%	0%	0%
webex	2	3%	4%	3%	0%	4%	0%	0%	0%
Blackboard	1	2%	0%	3%	0%	0%	0%	10%	0%
In-house developed	1	2%	0%	3%	0%	2%	0%	0%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Moodle wiki	1	2%	0%	3%	0%	2%	0%	0%	0%
Vidyo	1	2%	4%	0%	0%	2%	0%	0%	0%

Note: n=58 for Table A3.10q

Table A3.10r: Centrally-supported screen casting tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Camtasia Studio	15	29%	41%	17%	75%	29%	0%	38%	0%
Panopto	9	18%	12%	23%	0%	22%	0%	0%	0%
Screencast-o-matic	8	16%	12%	17%	25%	17%	0%	13%	0%
Techsmith (Camtasia) Relay	7	14%	12%	17%	0%	12%	0%	25%	0%
Adobe Captivate	2	4%	0%	3%	25%	2%	50%	0%	0%
Blackboard Collaborate	2	4%	6%	3%	0%	5%	0%	0%	0%
Kaltura Mediaspace	2	4%	12%	0%	0%	2%	0%	13%	0%
Package not stated	2	4%	0%	7%	0%	0%	0%	25%	0%
Adobe Connect	1	2%	6%	0%	0%	2%	0%	0%	0%
Air server	1	2%	0%	3%	0%	2%	0%	0%	0%
Apple TV	1	2%	0%	3%	0%	2%	0%	0%	0%
Echo360	1	2%	6%	0%	0%	2%	0%	0%	0%
Faststone	1	2%	6%	0%	0%	0%	50%	0%	0%
Flashback (Blueberry software)	1	2%	0%	3%	0%	0%	50%	0%	0%
In-house developed	1	2%	0%	3%	0%	2%	0%	0%	0%
Jing	1	2%	0%	3%	0%	2%	0%	0%	0%
Lync	1	2%	6%	0%	0%	2%	0%	0%	0%
MediaSite	1	2%	0%	3%	0%	2%	0%	0%	0%
Office Mix	1	2%	0%	3%	0%	2%	0%	0%	0%
QuickTime	1	2%	0%	0%	25%	2%	0%	0%	0%
Screencastify	1	2%	0%	3%	0%	2%	0%	0%	0%
WeVideo	1	2%	0%	3%	0%	0%	0%	13%	0%

Note: n=51 for Table A3.10r

Table A3.10s: Centrally-supported podcasting tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Audacity	7	19%	16%	24%	0%	15%	33%	25%	0%
Campus Pack (by Learning Objects)	5	14%	11%	18%	0%	12%	33%	13%	0%
In-house developed	4	11%	16%	6%	0%	8%	0%	25%	0%
Panopto	4	11%	11%	6%	100%	12%	33%	0%	0%
Blackboard	3	8%	5%	12%	0%	12%	0%	0%	0%
iTunesU	3	8%	11%	6%	0%	12%	0%	0%	0%
Moodle	3	8%	16%	0%	0%	8%	0%	13%	0%
Helix Media Library	2	5%	5%	6%	0%	8%	0%	0%	0%
Techsmith Relay	2	5%	11%	0%	0%	0%	0%	25%	0%
Blackboard Collaborate	1	3%	5%	0%	0%	0%	0%	13%	0%
Camtasia Relay	1	3%	0%	6%	0%	4%	0%	0%	0%
Canvas	1	3%	5%	0%	0%	4%	0%	0%	0%
Kaltura	1	3%	5%	0%	0%	0%	0%	13%	0%
Package not stated	1	3%	0%	6%	0%	4%	0%	0%	0%

Note: n=37 for Table A3.10s

Table A3.10t: Centrally-supported digital/learning repository

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Equella	7	19%	14%	24%	0%	23%	0%	0%	0%
Blackboard	6	17%	14%	19%	0%	17%	0%	17%	0%
D-space	2	6%	0%	10%	0%	3%	0%	17%	0%
Edshare	2	6%	0%	10%	0%	3%	0%	17%	0%
In-house developed	2	6%	7%	5%	0%	7%	0%	0%	0%
VLE (unnamed)	2	6%	7%	5%	0%	3%	0%	17%	0%
Asset Bank	1	3%	7%	0%	0%	3%	0%	0%	0%
Atlas (PebblePad)	1	3%	0%	5%	0%	3%	0%	0%	0%
Brightspace (by Desire2Learn)	1	3%	7%	0%	0%	3%	0%	0%	0%
Canvas	1	3%	7%	0%	0%	3%	0%	0%	0%
Documentum	1	3%	7%	0%	0%	3%	0%	0%	0%
EStream	1	3%	0%	0%	100%	3%	0%	0%	0%
HDrives	1	3%	0%	5%	0%	0%	0%	17%	0%
Intralibrary	1	3%	0%	5%	0%	3%	0%	0%	0%
Lynda.com	1	3%	0%	5%	0%	3%	0%	0%	0%
Mahara	1	3%	7%	0%	0%	0%	0%	17%	0%
Moodle	1	3%	7%	0%	0%	3%	0%	0%	0%
PURE	1	3%	0%	5%	0%	0%	0%	17%	0%
Research Observatory	1	3%	0%	5%	0%	3%	0%	0%	0%

Note: n=36 for Table A3.10t

Table A3.10u: Centrally-supported content management system

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	14	41%	31%	45%	100%	37%	0%	67%	0%
SharePoint	4	12%	0%	20%	0%	15%	0%	0%	0%
WordPress	3	9%	0%	15%	0%	11%	0%	0%	0%
Contensis	2	6%	8%	5%	0%	7%	0%	0%	0%
VLE (unnamed)	2	6%	8%	5%	0%	4%	0%	17%	0%
Canvas	1	3%	8%	0%	0%	4%	0%	0%	0%
Documentum	1	3%	8%	0%	0%	4%	0%	0%	0%
Drupal	1	3%	8%	0%	0%	4%	0%	0%	0%
In-house developed	1	3%	8%	0%	0%	4%	0%	0%	0%
Moodle	1	3%	0%	0%	100%	4%	0%	0%	0%
Orchard	1	3%	8%	0%	0%	4%	0%	0%	0%
Polopoly	1	3%	8%	0%	0%	4%	0%	0%	0%
Squiz	1	3%	8%	0%	0%	0%	0%	0%	100%
TERMINALFOUR	1	3%	8%	0%	0%	4%	0%	0%	0%

Note: n=34 for Table A3.10u

Table A3.10v: Centrally-supported social networking tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Facebook	9	35%	44%	31%	0%	27%	0%	75%	0%
Twitter	9	35%	11%	50%	0%	32%	0%	50%	0%
Yammer	7	27%	44%	19%	0%	27%	0%	25%	0%
Google+	3	12%	11%	13%	0%	14%	0%	0%	0%
Package not stated	2	8%	0%	13%	0%	5%	0%	25%	0%
Blackboard cloud profiles	1	4%	0%	0%	100%	5%	0%	0%	0%
Google communities	1	4%	11%	0%	0%	5%	0%	0%	0%
LinkedIn	1	4%	0%	0%	100%	5%	0%	0%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
SharePoint	1	4%	11%	0%	0%	5%	0%	0%	0%
WordPress	1	4%	0%	6%	0%	0%	0%	25%	0%
YouTube	1	4%	0%	6%	0%	0%	0%	25%	0%

Note: n=26 for Table A3.10v

Table A3.10w: Centrally-supported learning analytics tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
In-house developed	5	25%	14%	31%	0%	29%	0%	0%	0%
Blackboard	4	20%	14%	23%	0%	24%	0%	0%	0%
Moodle	3	15%	29%	8%	0%	18%	0%	0%	0%
Canvas	1	5%	14%	0%	0%	6%	0%	0%	0%
EesySoft	1	5%	14%	0%	0%	0%	0%	0%	100%
Microsoft reports	1	5%	14%	0%	0%	6%	0%	0%	0%
Package not stated	1	5%	0%	8%	0%	6%	0%	0%	0%
Progress Bars	1	5%	0%	8%	0%	0%	0%	50%	0%
Qlikview	1	5%	0%	8%	0%	6%	0%	0%	0%
SAS	1	5%	14%	0%	0%	6%	0%	0%	0%
Thrive	1	5%	14%	0%	0%	6%	0%	0%	0%
Top Hat	1	5%	0%	8%	0%	6%	0%	0%	0%
VLE (unnamed)	1	5%	0%	8%	0%	0%	0%	50%	0%

Note: n=20 for Table A3.10w

Table A3.10x: Other centrally-supported software tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
WebPA (peer assessment)	4	20%	33%	9%	0%	14%	0%	50%	0%
In-house developed tool	2	10%	0%	18%	0%	14%	0%	0%	0%
Qualtrics	2	10%	11%	9%	0%	14%	0%	0%	0%
Adobe Master Suite	1	5%	0%	9%	0%	0%	100%	0%	0%
Adobe Presenter	1	5%	11%	0%	0%	7%	0%	0%	0%
Blackboard Enterprise Surveys	1	5%	11%	0%	0%	7%	0%	0%	0%
Bristol Online Surveys	1	5%	0%	9%	0%	7%	0%	0%	0%
Formstack	1	5%	11%	0%	0%	7%	0%	0%	0%
Nearpod	1	5%	0%	9%	0%	7%	0%	0%	0%
Office 365	1	5%	11%	0%	0%	7%	0%	0%	0%
Padlet	1	5%	11%	0%	0%	7%	0%	0%	0%
Poll Everywhere	1	5%	0%	9%	0%	7%	0%	0%	0%
RefWorks	1	5%	11%	0%	0%	7%	0%	5%	0%
Respondus	1	5%	11%	0%	0%	0%	0%	0%	100%
SPSS	1	5%	0%	9%	0%	0%	100%	0%	0%
Studio/Desktop Videoconferencing	1	5%	0%	9%	0%	0%	0%	25%	0%
VitalSource (eBooks)	1	5%	11%	0%	0%	7%	0%	0%	0%
WeVideo (digital storytelling)	1	5%	0%	9%	0%	7%	0%	0%	0%
xpLor (by Blackboard)	1	5%							
YACRS	1	5%	11%	0%	0%	0%	0%	25%	0%

Note: n=20 for Table A3.10x

Table A3.10y: Centrally-supported electronic essay exams*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Blackboard	8	53%	44%	67%	0%	60%	0%	50%	0%
Turnitin	4	27%	33%	17%	0%	40%	0%	0%	0%
Canvas	1	7%	11%	0%	0%	10%	0%	0%	0%
Digiexam	1	7%	11%	0%	0%	10%	0%	0%	0%
Exam Online	1	7%	11%	0%	0%	0%	0%	25%	0%
In-house developed	1	7%	11%	0%	0%	10%	0%	0%	0%
SharePoint	1	7%	11%	0%	0%	0%	0%	0%	100%
VLE (unnamed)	1	7%	0%	17%	0%	0%	0%	25%	0%

Note: n=15 for Table A3.10y

Table A3.10z: Centrally-supported social bookmarking/content curation tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Package not stated	3	50%	100%	50%	0%	50%	0%	50%	0%
Delicious	1	17%	0%	25%	0%	0%	0%	50%	0%
EndNote	1	17%	0%	25%	0%	25%	0%	0%	0%
iTunes U	1	17%	0%	0%	100%	25%	0%	0%	0%
Refworks	1	17%	0%	25%	0%	25%	0%	0%	0%
Vimeo	1	17%	0%	0%	100%	25%	0%	0%	0%
YouTube	1	17%	0%	0%	100%	25%	0%	0%	0%

Note: n=6 for Table A3.10z

Question 3.11: And which, if any, technology enhanced learning tools that are used by students are *not* centrally-supported? For example, those used by particular departments or even individuals.

Table A3.11: Software tools used by students which are *not* centrally-supported

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Social networking	62	59%	52%	67%	50%	56%	75%	77%	50%
Document sharing tool (e.g. Google Docs, Office 365)	46	44%	38%	51%	38%	41%	75%	54%	50%
Blog	41	39%	31%	45%	50%	36%	75%	46%	50%
Mobile apps*	31	30%	33%	27%	25%	27%	25%	54%	0%
Personal response systems	27	26%	25%	29%	13%	29%	0%	15%	0%
Screen casting	23	22%	21%	25%	13%	22%	50%	15%	0%
Media streaming system	22	21%	19%	25%	13%	19%	50%	31%	0%
Social bookmarking/content curation tools	21	20%	13%	29%	13%	17%	25%	39%	0%
Synchronous collaborative tools (e.g. virtual classroom)*	20	19%	17%	25%	0%	20%	25%	15%	0%
Asynchronous communication tools (e.g. discussion forums)*	19	18%	10%	25%	25%	16%	50%	23%	0%
E-portfolio	18	17%	17%	16%	25%	17%	0%	23%	0%
None used	18	17%	21%	16%	0%	20%	0%	0%	50%
Other software tool	15	14%	13%	16%	13%	13%	25%	23%	0%
Virtual learning environment (VLE)	12	11%	19%	6%	0%	12%	0%	15%	0%
Webinar*	12	11%	4%	18%	13%	9%	50%	15%	0%
Wiki	12	11%	2%	20%	13%	12%	0%	15%	0%
Podcasting	11	11%	8%	12%	13%	8%	25%	23%	0%
Digital/learning repository	10	10%	6%	12%	13%	8%	50%	8%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Formative e-assessment tool (e.g. quizzes)	10	10%	6%	12%	13%	12%	0%	0%	0%
Lecture capture tools	9	9%	10%	8%	0%	11%	0%	0%	0%
Content management systems	6	6%	2%	8%	13%	6%	0%	8%	0%
E-submission tools (assignments)	5	5%	4%	6%	0%	5%	0%	8%	0%
Summative e-assessment tools (e.g. quizzes)*	4	4%	6%	2%	0%	4%	0%	8%	0%
Reading list management software	3	3%	2%	4%	0%	4%	0%	0%	0%
Electronic essay exams*	1	1%	2%	0%	0%	1%	0%	0%	0%
Learning analytics tool*	1	1%	2%	0%	0%	1%	0%	0%	0%
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n=105 for Table A3.11

Table A3.11a: Non centrally-supported social networking tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Facebook	44	71%	84%	64%	50%	71%	100%	60%	100%
Twitter	33	53%	52%	55%	50%	52%	100%	40%	100%
WhatsApp	6	10%	4%	15%	0%	13%	0%	0%	0%
Google +	3	5%	4%	6%	0%	6%	0%	0%	0%
Instagram	3	5%	0%	9%	0%	6%	0%	0%	0%
LinkedIn	3	5%	0%	9%	0%	4%	0%	0%	100%
Elgg	1	2%	4%	0%	0%	2%	0%	0%	0%
Flickr	1	2%	4%	0%	0%	2%	0%	0%	0%
Lynda.com	1	2%	0%	3%	0%	0%	0%	0%	100%
Pinterest	1	2%	4%	0%	0%	2%	0%	0%	0%
Reddit	1	2%	0%	3%	0%	2%	0%	0%	0%
Yammer	1	2%	4%	0%	0%	2%	0%	0%	0%
Various (packages not stated)	9	15%	4%	21%	25%	13%	0%	30%	0%

Note: n=62 for Table A3.11a

Table A3.11b: Non centrally-supported document sharing tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Google Docs/Drive	30	65%	61%	68%	67%	66%	100%	43%	100%
DropBox	19	41%	28%	52%	33%	49%	0%	29%	0%
One Drive/365	3	7%	17%	0%	0%	6%	0%	14%	0%
iWork/Cloud	1	2%	0%	4%	0%	3%	0%	0%	0%
Github	1	2%	0%	4%	0%	3%	0%	0%	0%
Sharepoint	1	2%	6%	0%	0%	0%	0%	14%	0%
Various (packages not stated)	3	7%	6%	4%	33%	3%	0%	29%	0%

Note: n=46 for Table A3.11b

Table A3.11c: Non centrally-supported blog tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
WordPress	26	63%	73%	68%	0%	61%	100%	50%	100%
Blogger	5	12%	7%	18%	0%	13%	0%	0%	100%
Google Sites	2	5%	0%	9%	0%	6%	0%	0%	0%
Tumblr	2	5%	7%	5%	0%	6%	0%	0%	0%
Blogspot	1	2%	0%	5%	0%	3%	0%	0%	0%
Pbworks	1	2%	0%	5%	0%	3%	0%	0%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Wix	1	2%	0%	5%	0%	3%	0%	0%	0%
Medium	1	2%	0%	5%	0%	3%	0%	0%	0%
Various (packages not stated)	8	20%	13%	14%	100%	19%	0%	50%	0%

Note: n=41 for Table A3.11c

Table A3.11d: Non centrally-supported mobile apps*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
In-house developed	4	13%	25%	0%	0%	13%	0%	14%	0%
Blackboard Mobile	2	6%	13%	0%	0%	0%	100%	14%	0%
CiteMe	1	3%	0%	8%	0%	0%	0%	14%	0%
Google Apps	1	3%	0%	8%	0%	4%	0%	0%	0%
Livecode	1	3%	6%	0%	0%	4%	0%	0%	0%
WhatsApp	1	3%	6%	0%	0%	4%	0%	0%	0%
Various (packages not stated)	17	55%	44%	69%	50%	61%	0%	43%	0%

Note: n=31 for Table A3.11d

Table A3.11e: Non centrally-supported personal response system

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Socrative	11	41%	33%	50%	0%	40%	0%	50%	0%
TurningPoint	4	15%	25%	7%	0%	16%	0%	0%	0%
Kahoot	3	11%	8%	14%	0%	12%	0%	0%	0%
Poll Everywhere	3	11%	0%	21%	0%	12%	0%	0%	0%
ResponseWare	2	7%	17%	0%	0%	8%	0%	0%	0%
Echo360	1	4%	8%	0%	0%	4%	0%	0%	0%
eInstruction Response	1	4%	8%	0%	0%	4%	0%	0%	0%
In-house developed	1	4%	8%	0%	0%	4%	0%	0%	0%
Nearpod	1	4%	8%	0%	0%	4%	0%	0%	0%
Sli.do	1	4%	8%	0%	0%	4%	0%	0%	0%
Textwall	1	4%	0%	7%	0%	0%	0%	50%	0%
Various (packages not stated)	4	15%	8%	21%	0%	16%	0%	0%	0%

Note: n=27 for Table A3.11e

Table A3.11f: Non centrally-supported screen casting tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Camtasia	8	35%	40%	33%	0%	32%	50%	50%	0%
Screencast-o-matic	6	26%	10%	42%	0%	26%	50%	0%	0%
Jing	6	26%	20%	33%	0%	26%	50%	50%	0%
Captivate	1	4%	0%	8%	0%	5%	0%	0%	0%
Zoom	1	4%	10%	0%	0%	5%	0%	0%	0%
Screenflow	1	4%	0%	8%	0%	5%	0%	0%	0%
Articulate	1	4%	0%	8%	0%	5%	0%	0%	0%
SnagIT	1	4%	10%	0%	0%	5%	0%	0%	0%
Frapp	1	4%	0%	8%	0%	5%	0%	0%	0%
Powtoon	1	4%	0%	8%	0%	5%	0%	0%	0%
Various (packages not stated)	5	22%	30%	8%	100%	21%	0%	50%	0%

Note: n=23 for Table A3.11f

Table A3.11g: Non centrally-supported media streaming tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
YouTube	16	73%	77%	75%	0%	75%	100%	50%	0%
Vimeo	5	23%	0%	42%	0%	31%	0%	0%	0%
Helix	1	5%	11%	0%	0%	6%	0%	0%	0%
Soundcloud	1	5%	0%	8%	0%	6%	0%	0%	0%
Various (packages not stated)	3	14%	11%	8%	100%	6%	0%	50%	0%

Note: n=22 for Table A3.11g

Table A3.11h: Non centrally-supported social bookmarking/content creation tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Delicious	4	19%	0%	29%	0%	20%	100%	0%	0%
Pinterest	3	14%	0%	21%	0%	13%	100%	0%	0%
Diigo	3	14%	33%	7%	0%	13%	0%	20%	0%
Storify	2	10%	0%	14%	0%	6%	0%	20%	0%
Mendeley	2	10%	17%	7%	0%	13%	0%	0%	0%
Scoopit	1	5%	0%	7%	0%	0%	100%	0%	0%
Bundlr	1	5%	17%	0%	0%	6%	0%	0%	0%
Citeulike	1	5%	0%	7%	0%	6%	0%	0%	0%
Flickr	1	5%	0%	7%	0%	6%	0%	0%	0%
Refine	1	5%	0%	7%	0%	6%	0%	0%	0%
Zotero	1	5%	17%	0%	0%	6%	0%	0%	0%
Evernote	1	5%	0%	7%	0%	0%	0%	20%	0%
Various (packages not stated)	5	24%	17%	21%	100%	20%	0%	40%	0%

Note: n=21 for Table A3.11h

Table A 3.11i: Non centrally-supported synchronous collaborative tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Google Hangouts	5	25%	25%	25%	0%	18%	100%	50%	0%
Skype	4	20%	13%	25%	0%	24%	0%	0%	0%
Adobe Connect	2	10%	25%	0%	0%	12%	0%	0%	0%
Appear.in	2	10%	13%	8%	0%	12%	0%	0%	0%
Google Classroom	2	10%	0%	17%	0%	12%	0%	0%	0%
GoToMeeting	2	10%	0%	17%	0%	12%	0%	0%	0%
BlueJeans	1	5%	0%	8%	0%	6%	0%	0%	0%
WhatsApp	1	5%	0%	8%	0%	6%	0%	0%	0%
Various (packages not stated)	1	5%	13%	0%	0%	6%	0%	0%	0%

Note: n=20 for Table A3.11i

Table A3.11j: Non centrally-supported asynchronous communication tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Facebook	8	42%	40%	50%	0%	43%	50%	33%	0%
Wordpress	3	16%	20%	17%	0%	7%	0%	33%	0%
Padlet	3	16%	20%	17%	0%	21%	0%	0%	0%
WhatsApp	2	11%	0%	17%	0%	14%	0%	0%	0%
Twitter	2	11%	0%	17%	0%	14%	0%	0%	0%
Yammer	1	5%	0%	8%	0%	7%	0%	0%	0%
Snapchat	1	5%	0%	8%	0%	7%	0%	0%	0%
Piazza	1	5%	0%	8%	0%	7%	0%	0%	0%
Pbworks	1	5%	0%	8%	0%	7%	0%	0%	0%
Moodle Forums	1	5%	20%	0%	0%	7%	0%	0%	0%
Various (packages not stated)	3	16%	20%	0%	100%	14%	50%	33%	0%

Note: n=19 for Table A3.11j

Table A3.11k: Non centrally-supported e-portfolio tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
PebblePad	4	22%	38%	13%	0%	27%	0%	0%	0%
Mahara	2	11%	13%	13%	0%	13%	0%	0%	0%
In-house developed	2	11%	13%	13%	0%	7%	0%	33%	0%
Evernote	1	6%	0%	13%	0%	7%	0%	0%	0%
Google Sites	1	6%	0%	13%	0%	7%	0%	0%	0%
MyProgress	1	6%	13%	0%	0%	0%	0%	33%	0%
MyShowcase	1	6%	13%	0%	0%	0%	0%	33%	0%
Tessello	1	6%	0%	13%	0%	7%	0%	0%	0%
WordPress	1	6%	13%	0%	0%	7%	0%	0%	0%
Various (packages not stated)	4	22%	25%	13%	100%	13%	0%	0%	0%

Note: n=18 for Table A3.11k

Table A3.11l: Other non centrally-supported tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Padlet	3	20%	0%	38%	0%	18%	0%	33%	0%
Prezi	3	20%	17%	25%	0%	27%	0%	0%	0%
Trello	3	20%	17%	25%	0%	18%	0%	33%	0%
Adobe Slate	2	13%	0%	25%	0%	18%	0%	0%	0%
Audacity	1	7%	0%	13%	0%	9%	0%	0%	0%
Autodesk Entertainment Suite	1	7%	0%	13%	0%	0%	100%	0%	0%
Eclipse Android	1	7%	0%	13%	0%	0%	100%	0%	0%
Flickr	1	7%	0%	13%	0%	9%	0%	0%	0%
Google Scholar	1	7%	17%	0%	0%	9%	0%	0%	0%
Google Sites	1	7%	0%	13%	0%	9%	0%	0%	0%
GloMaker	1	7%	0%	13%	0%	9%	0%	0%	0%
Java JDK	1	7%	0%	13%	0%	0%	100%	0%	0%
Mathworks	1	7%	0%	13%	0%	0%	100%	0%	0%
Maya 2015	1	7%	0%	13%	0%	0%	100%	0%	0%
Mudbox 2015	1	7%	0%	13%	0%	0%	100%	0%	0%
Multimedia Fusion	1	7%	0%	13%	0%	0%	100%	0%	0%
Pinterest	1	7%	17%	0%	0%	9%	0%	0%	0%
Skype	1	7%	0%	13%	0%	9%	0%	0%	0%
Survey Monkey	1	7%	0%	13%	0%	9%	0%	0%	0%
Sway	1	7%	0%	13%	0%	9%	0%	0%	0%
Torque 3D	1	7%	0%	13%	0%	0%	100%	0%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Unreal 4 engine	1	7%	0%	13%	0%	0%	100%	0%	0%
Visual Studio	1	7%	0%	13%	0%	0%	100%	0%	0%
Web of Knowledge	1	7%	17%	0%	0%	9%	0%	0%	0%
Web of Science	1	7%	17%	0%	0%	9%	0%	0%	0%
Wikipedia	1	7%	17%	0%	0%	9%	0%	0%	0%
Wolfram Alpha	1	7%	17%	0%	0%	9%	0%	0%	0%
Wonderlist	1	7%	17%	0%	0%	9%	0%	0%	0%
Xerte	1	7%	0%	13%	0%	9%	0%	0%	0%
Zaption	1	7%	0%	13%	0%	9%	0%	0%	0%
Various (packages not stated)	5	33%	67%	0%	100%	36%	0%	33%	0%

Note: n=15 for Table A3.11l

Table A3.11m: Non centrally-supported VLE tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Moodle	3	25%	33%	0%	0%	20%	0%	50%	0%
In-house developed	2	17%	22%	0%	0%	10%	0%	50%	0%
Blackboard	1	8%	0%	33%	0%	10%	0%	0%	0%
Canvas	1	8%	11%	0%	0%	10%	0%	0%	0%
Google Classroom	1	8%	11%	0%	0%	10%	0%	0%	0%
Google Sites	1	8%	0%	33%	0%	10%	0%	0%	0%
Joomla	1	8%	11%	0%	0%	0%	0%	50%	0%
WordPress	1	8%	11%	0%	0%	0%	0%	50%	0%
Various (packages not stated)	1	8%	11%	0%	0%	10%	0%	0%	0%

Note: n=12 for Table A3.11m

Table A3.11n: Non centrally-supported webinar tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Skype	5	42%	0%	56%	0%	50%	0%	50%	0%
Adobe Connect	3	25%	50%	22%	0%	25%	50%	0%	0%
Big Blue Button	1	8%	0%	11%	0%	13%	0%	0%	0%
Blackboard	1	8%	0%	11%	0%	13%	0%	0%	0%
Google Hangouts	1	8%	0%	11%	0%	0%	50%	0%	0%
WebEx	1	8%	50%	0%	0%	0%	50%	0%	0%
Various (packages not stated)	2	17%	50%	0%	100%	13%	0%	50%	0%

Note: n=12 for Table A3.11n

Table A3.11o: Non centrally-supported wiki tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
PB Works	2	17%	0%	20%	0%	20%	0%	0%	0%
Google Sites	1	8%	0%	10%	0%	10%	0%	0%	0%
Wikipages	1	8%	0%	10%	0%	10%	0%	0%	0%
Wikipedia	1	8%	0%	10%	0%	10%	0%	0%	0%
WordPress	1	8%	0%	10%	0%	10%	0%	0%	0%
Various (packages not stated)	5	42%	100%	30%	100%	30%	0%	100%	0%

Note: n=12 for Table A3.11o

Table A3.11p: Non centrally-supported podcasting tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Audacity	2	18%	0%	33%	0%	14%	100%	0%	0%
In-house developed	1	9%	25%	0%	0%	0%	0%	33%	0%
YouTube	1	9%	0%	17%	0%	14%	0%	0%	0%
Various (packages not stated)	4	36%	50%	17%	100%	43%	0%	33%	0%

Note: n=11 for Table A3.11p

Table A3.11q: Non centrally-supported digital/learning repository

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
DropBox	4	40%	33%	50%	0%	29%	100%	0%	0%
BMA Library	1	10%	33%	0%	0%	14%	0%	0%	0%
CC Search	1	10%	0%	17%	0%	0%	0%	100%	0%
Evernote	1	10%	33%	0%	0%	14%	0%	0%	0%
Flickr	1	10%	0%	17%	0%	0%	0%	100%	0%
Jorum	1	10%	0%	17%	0%	0%	0%	100%	0%
JSTOR	1	10%	33%	0%	0%	14%	0%	0%	0%
MERLOT	1	10%	0%	17%	0%	0%	0%	100%	0%
Personal website	1	10%	33%	0%	0%	14%	0%	0%	0%
Vimeo	1	10%	0%	17%	0%	0%	0%	100%	0%
YouTube	1	10%	0%	17%	0%	0%	0%	100%	0%
Various (packages not stated)	3	30%	33%	0%	100%	29%	0%	0%	0%

Note: n=10 for Table A3.11q

Table A3.11r: Non centrally-supported formative e-assessment tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Socrative	3	30%	33%	33%	0%	30%	0%	0%	0%
iSpring	1	10%	0%	17%	0%	10%	0%	0%	0%
Adobe Presenter	1	10%	0%	17%	0%	10%	0%	0%	0%
Hot Potatoes	1	10%	0%	17%	0%	10%	0%	0%	0%
Moodle	1	10%	33%	0%	0%	10%	0%	0%	0%
Quizlet	1	10%	0%	17%	0%	10%	0%	0%	0%
Poll Everywhere	1	10%	0%	17%	0%	10%	0%	0%	0%
Turningpoint	1	10%	0%	17%	0%	10%	0%	0%	0%
NHS Quizzes	1	10%	0%	17%	0%	10%	0%	0%	0%
Teleform	1	10%	0%	17%	0%	10%	0%	0%	0%
Various (packages not stated)	1	10%	33%	0%	0%	10%	0%	0%	0%

Note: n=10 for Table A3.11r

Table A3.11s: Non centrally-supported lecture capture tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Camtasia Relay	1	11%	0%	25%	0%	11%	0%	0%	0%
Mobile devices	2	22%	20%	25%	0%	22%	0%	0%	0%
In-house developed	1	11%	20%	0%	0%	11%	0%	0%	0%
Various (packages not stated)	4	44%	80%	0%	0%	44%	0%	0%	0%

Note: n=9 for Table A3.11s

Table A3.11t: Non centrally-supported content management system

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Google Sites	1	17%	0%	25%	0%	20%	0%	0%	0%
Khan Academy	1	17%	0%	25%	0%	20%	0%	0%	0%
Lynda.com	1	17%	0%	25%	0%	20%	0%	0%	0%
Flickr	1	17%	0%	25%	0%	20%	0%	0%	0%
In-house developed	1	17%	0%	25%	0%	20%	0%	0%	0%
Various (packages not stated)	2	33%	100%	0%	100%	20%	0%	100%	0%

Note: n=6 for Table A3.11t

Table A3.11u: Non centrally-supported e-submission (assignments) tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
DropBox	1	20%	0%	33%	0%	0%	0%	100%	0%
Moodle	1	20%	50%	0%	0%	25%	0%	0%	0%
YouTube	1	20%	0%	33%	0%	25%	0%	0%	0%
Vimeo	1	20%	0%	33%	0%	25%	0%	0%	0%
Various (packages not stated)	1	20%	50%	0%	0%	25%	0%	0%	0%

Note: n=5 for Table A3.11u

Table A3.11v: Non centrally-supported summative e-assessment tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
eOSCE	1	25%	33%	0%	0%	0%	0%	100%	0%
Moodle	1	25%	33%	0%	0%	33%	0%	0%	0%
Teleform	1	25%	0%	100%	0%	33%	0%	0%	0%
Various (packages not stated)	1	25%	33%	0%	0%	33%	0%	0%	0%

Note: n=4 for Table A3.11v

Table A3.11w: Non centrally-supported reading list management software

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
RefMe	2	67%	0%	100%	0%	67%	0%	0%	0%
Various (packages not stated)	1	33%	0%	50%	0%	33%	0%	0%	0%

Note: n=3 for Table A3.11w

Table A3.11x: Non centrally-supported electronic essay exams tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Package not stated	1	100%	100%	0%	0%	100%	0%	0%	0%

Note: n=1 for Table A3.11x

Table A3.11y: Non centrally-supported learning analytics tool*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Package not stated	1	100%	100%	0%	0%	100%	0%	0%	0%

Note: n=1 for Table A3.11y

Table A3.11z: Non centrally-supported text matching tool

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Package not stated	1	100%	100%	0%	0%	100%	0%	0%	0%

Note: n=1 for Table A3.11z

Question 3.12: Approximately what proportion of all modules or units of study in the technology enhanced learning environment in use in your institution fall into each of the following categories?

Table A3.12a: Blended learning: lecture notes and supplementary resources for courses studied in class are available

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, extensively across the institution	82	79%	81%	81%	50%	79%	75%	77%	100%
Yes, across some schools/ departments	14	13%	13%	13%	25%	12%	25%	23%	0%
Yes, by some individual teachers	7	7%	4%	6%	25%	8%	0%	0%	0%
Not yet, but we are planning to	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n=104 for Table A3.12a

Table A3.12b: Blended learning: parts of the course are studied in class and other parts require students to engage in active learning online (e.g. engaging in collaborative or assessed tasks)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, extensively across the institution	20	19%	21%	21%	0%	20%	0%	15%	50%
Yes, across some schools/ departments	48	46%	44%	50%	38%	42%	75%	69%	0%
Yes, by some individual teachers	32	31%	33%	27%	38%	33%	25%	15%	50%
Not yet, but we are planning to	1	1%	0%	0%	13%	1%	0%	0%	0%
Not offered and no plans to do so	2	2%	0%	2%	13%	2%	0%	0%	0%
Don't know/not applicable	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n =104 for Table A3.12b

Table A3.12c: Fully online courses

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, extensively across the institution	8	8%	8%	8%	0%	9%	0%	0%	0%
Yes, across some schools/ departments	48	46%	50%	48%	13%	38%	100%	85%	50%
Yes, by some individual teachers	27	26%	29%	27%	0%	31%	0%	0%	50%
Not yet, but we are planning to	14	13%	8%	10%	63%	14%	0%	15%	0%
Not offered and no plans to do so	7	7%	4%	6%	25%	8%	0%	0%	0%

Note: n=104 for Table A3.12c

Table A3.12d: Open online learning courses for all students at your institution (internal access only)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, extensively across the institution	7	7%	4%	6%	25%	7%	0%	8%	0%
Yes, across some schools/ departments	17	16%	19%	15%	13%	18%	25%	8%	0%
Yes, by some individual teachers	19	18%	15%	25%	0%	18%	25%	23%	0%
Not yet, but we are planning to	21	20%	21%	21%	13%	21%	0%	23%	0%
Not offered and no plans to do so	29	28%	29%	23%	50%	29%	0%	23%	50%
Don't know/not applicable	11	11%	13%	10%	0%	7%	50%	15%	50%

Note: n = 104 for Table A3.12d

Table A3.12e: Open online boundary courses: free external access to the course materials for the public, but assessment restricted to students registered at your institution only

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Not answered	2	2%	4%	0%	0%	2%	0%	0%	0%
Yes, extensively across the institution	2	2%	4%	0%	0%	2%	0%	0%	0%
Yes, across some schools/ departments	4	4%	4%	2%	13%	2%	50%	0%	0%
Yes, by some individual teachers	13	13%	10%	17%	0%	15%	0%	0%	0%
Not yet, but we are planning to	16	15%	17%	17%	0%	14%	0%	23%	50%
Not offered and no plans to do so	56	54%	44%	60%	75%	53%	50%	62%	50%
Don't know/not applicable	11	11%	17%	4%	13%	11%	0%	15%	0%

Note: n=104 for Table A3.12e

Table A3.12f Open online learning courses for public (free external access)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Not answered	1	1%	2%	0%	0%	1%	0%	0%	0%
Yes, extensively across the institution	4	4%	8%	0%	0%	5%	0%	0%	0%
Yes, across some schools/ departments	16	15%	23%	10%	0%	13%	25%	31%	0%
Yes, by some individual teachers	20	19%	23%	19%	0%	21%	0%	15%	0%
Not yet, but we are planning to	15	14%	15%	17%	0%	13%	25%	23%	0%
Not offered and no plans to do so	42	40%	21%	52%	88%	41%	50%	31%	50%
Don't know/not applicable	6	6%	8%	2%	13%	6%	0%	0%	50%

Note: n=104 for Table A3.12f

Table A3.12g: Other

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Not answered	73	70%	73%	67%	75%	67%	100%	85%	50%
Yes, across some schools/ departments	5	5%	6%	4%	0%	6%	0%	0%	0%
Yes, by some individual teachers	2	2%	2%	2%	0%	2%	0%	0%	0%
Not yet, but we are planning to	1	1%	2%	0%	0%	1%	0%	0%	0%
Not offered and no plans to do so	4	4%	4%	4%	0%	1%	0%	15%	50%
Don't know/not applicable	19	18%	13%	23%	25%	22%	0%	0%	0%

Note: n=104 for Table A3.12g

Question 3.13: Are there any particular subject areas that make *more extensive* use of technology enhanced learning tools than your institutional norm?

Table A3.13: Subjects that make *more extensive* use of technology enhanced learning tools than the institutional norm

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	59	57%	63%	52%	50%	53%	100%	69%	50%
No	45	43%	38%	48%	50%	47%	0%	31%	50%

Note: n=104 for Table A3.1

Question 3.13a: Please select *up to three* subject areas and explain in what way they make more use of technology enhanced learning tools and why you think that this is so.

Table A3.13a: Subjects that make *more extensive* use of TEL

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Medical sciences (Medicine, Nursing, Health)	32	54%	60%	56%	0%	53%	25%	67%	100%
Business and management	19	32%	40%	28%	0%	38%	25%	11%	0%
Other subject 1	16	27%	10%	40%	75%	29%	25%	22%	0%
Education, Teacher training	15	25%	20%	36%	0%	22%	0%	56%	0%
Computing	11	19%	17%	20%	25%	18%	50%	11%	0%
Engineering, Technology	9	15%	7%	28%	0%	16%	25%	11%	0%
Humanities (Geography, History)	7	12%	10%	16%	0%	11%	25%	11%	0%
Law	6	10%	13%	4%	25%	9%	0%	22%	0%
Social sciences	6	10%	17%	4%	0%	9%	25%	11%	0%
Languages	5	8%	13%	4%	0%	11%	0%	0%	0%
Natural sciences	5	8%	13%	4%	0%	4%	50%	0%	100%
Other subject 2	4	7%	0%	12%	25%	9%	0%	0%	0%
Mathematics	3	5%	3%	8%	0%	7%	0%	0%	0%
Art and design	2	3%	3%	0%	25%	4%	0%	0%	0%
Architecture	1	2%	3%	0%	0%	0%	0%	11%	0%

Note: n=83 for Table A3.13a

Question 3.14: Are there any particular subject areas that make *less extensive* use of technology enhanced learning tools than your institutional norm?

Table A3.14 Subjects that make *less extensive* use of technology enhanced learning tools than the institutional norm

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	47	46%	47%	50%	13%	44%	75%	54%	0%
No	56	54%	53%	50%	88%	56%	25%	46%	100%

Note: n=103 for Table A3.14

Question 3.14a: Please select *up to three* subject areas and explain in what way they make less use of technology enhanced learning tools and why you think that this is so.

Table A3.14a: Subject areas that make *less extensive* use of technology enhanced learning tools than the institutional norm

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco
Art and design	21	45%	23%	67%	0%	46%	33%	43%
Humanities (Geography, History)	16	34%	41%	29%	0%	32%	100%	14%
Other subject 1	12	26%	27%	21%	100%	30%	0%	14%
Mathematics	7	15%	18%	13%	0%	19%	0%	0%
Social sciences	5	11%	18%	4%	0%	11%	33%	0%
Education, Teacher training	4	9%	9%	8%	0%	8%	0%	14%
Law	4	9%	9%	8%	0%	11%	0%	0%
Architecture	3	6%	5%	8%	0%	5%	0%	14%
Computing	3	6%	5%	8%	0%	8%	0%	0%
Engineering, Technology	3	6%	9%	4%	0%	5%	0%	14%
Languages	2	4%	9%	0%	0%	0%	67%	0%
Natural sciences	2	4%	5%	4%	0%	3%	0%	14%
Other subject 2	1	2%	0%	0%	100%	3%	0%	0%

Note: n=83 for Table A3.14a

Question 3.15: Approximately, what proportion of courses within your institution use each of the following technology enhanced learning tools?

Table A3.15: Proportion of courses using TEL tools

	100%	75%–99%	50%–74%	25%–49%	5%–24%	1%–4%	0%	Don't know
Virtual Learning Environment (VLE)*	42%	50%	1%	0%	0%	1%	0%	5%
E-submission tools (assignments)	20%	38%	20%	8%	3%	0%	2%	8%
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	16%	42%	19%	8%	5%	0%	3%	6%
Content management systems*	11%	9%	2%	8%	12%	15%	14%	29%
Reading list management software *	9%	21%	12%	13%	7%	7%	11%	20%
Digital/learning repository*	6%	9%	6%	13%	13%	9%	17%	27%
Mobile apps*	5%	9%	6%	14%	15%	21%	3%	26%
Asynchronous communication tools (e.g. discussion forums)	4%	10%	15%	25%	30%	2%	3%	10%
Lecture capture tools (system to record teaching in a lecture theatre/ classroom)	4%	9%	4%	7%	35%	18%	11%	12%
E-portfolio	3%	0%	3%	16%	42%	21%	6%	9%
Document sharing tool (e.g. Google Docs, Office 365)	3%	6%	12%	10%	23%	14%	2%	29%
Formative e-assessment tool (e.g. quizzes)	3%	4%	17%	33%	28%	5%	1%	9%
Blog	3%	2%	4%	20%	37%	17%	3%	13%
Social networking*	2%	8%	2%	12%	25%	22%	6%	22%
Media streaming system*	2%	3%	5%	14%	32%	20%	8%	15%
Wiki*	2%	1%	0%	9%	28%	35%	9%	16%
Personal response systems (including handsets or web-based apps)	1%	0%	3%	14%	30%	23%	10%	17%
Electronic essay exams	1%	6%	4%	2%	14%	18%	32%	22%
Podcasting	1%	3%	3%	5%	23%	34%	12%	17%
Learning analytics tools	1%	1%	1%	5%	10%	31%	26%	24%
Screen casting	1%	1%	4%	10%	38%	19%	8%	17%
Webinar*	1%	1%	3%	10%	17%	38%	9%	20%
Summative e-assessment tools (e.g. quizzes)	0%	3%	7%	25%	30%	20%	4%	10%
Synchronous collaborative tools (e.g. virtual classroom)	0%	2%	5%	4%	24%	37%	13%	15%
Social bookmarking/ content curation tools*	0%	1%	2%	1%	12%	28%	16%	39%

Note: n=103 for Table A3.15

Table A3.15a: Virtual Learning Environment (VLE)*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	43	42%	34%	48%	50%	46%	0%	23%	50%
75% – 99%	52	50%	57%	46%	38%	46%	100%	62%	50%
50% – 74%	1	1%	0%	0%	13%	1%	0%	0%	0%
1% – 4%	1	1%	0%	2%	0%	0%	0%	8%	0%
Don't know	5	5%	9%	2%	0%	5%	0%	8%	0%

Note: n=103 for Table A3.15a

Table A3.15b: E-submission tools (assignments)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	21	20%	11%	23%	63%	21%	0%	15%	50%
75% – 99%	39	38%	36%	44%	13%	42%	50%	15%	0%
50% – 74%	21	20%	26%	19%	0%	18%	50%	23%	50%
25% – 49%	8	8%	9%	6%	13%	6%	0%	23%	0%
5% – 24%	3	3%	6%	0%	0%	2%	0%	8%	0%
0%	2	2%	0%	2%	13%	2%	0%	0%	0%
Don't know	8	8%	13%	4%	0%	7%	0%	15%	0%

Note: n=103 for Table 3.15b

Table A3.15c: Text matching tools (e.g. SafeAssign, Turnitin, Urkund)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	16	16%	9%	21%	25%	17%	0%	15%	0%
75% – 99%	43	42%	49%	40%	13%	40%	50%	38%	100%
50% – 74%	20	19%	21%	21%	0%	20%	25%	15%	0%
25% – 49%	8	8%	4%	10%	13%	6%	25%	15%	0%
5% – 24%	5	5%	6%	2%	13%	5%	0%	8%	0%
0%	3	3%	0%	0%	38%	4%	0%	0%	0%
Don't know	6	6%	9%	4%	0%	6%	0%	8%	0%

Note: n=103 for Table A3.15c

Table A3.15d: Content Management Systems*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	11	11%	11%	6%	38%	12%	0%	8%	0%
75% – 99%	9	9%	9%	10%	0%	8%	25%	8%	0%
50% – 74%	2	2%	2%	2%	0%	2%	0%	0%	0%
25% – 49%	8	8%	11%	6%	0%	7%	25%	8%	0%
5% – 24%	12	12%	2%	21%	13%	11%	0%	15%	50%
1% – 4%	15	15%	17%	13%	13%	14%	0%	23%	0%
0%	14	14%	15%	10%	25%	14%	0%	15%	0%
Don't know	30	29%	32%	29%	13%	29%	50%	23%	50%

Note: n=103 for Table A3.15d

Table A3.15e: Reading list management software*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	9	9%	4%	13%	13%	10%	0%	0%	50%
75% – 99%	22	21%	23%	21%	13%	23%	25%	15%	0%
50% – 74%	12	12%	13%	13%	0%	13%	25%	0%	0%
25% – 49%	13	13%	13%	13%	13%	13%	0%	8%	50%
5% – 24%	7	7%	9%	6%	0%	6%	25%	8%	0%
1% – 4%	7	7%	6%	8%	0%	7%	25%	0%	0%
0%	11	11%	9%	8%	38%	10%	0%	23%	0%
Don't know	21	20%	23%	17%	25%	18%	0%	46%	0%

Note: n=103 for Table A3.15e

Table A3.15f: Digital/learning repository*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	6	6%	4%	4%	25%	7%	0%	0%	0%
75% – 99%	9	9%	9%	10%	0%	11%	0%	0%	0%
50% – 74%	6	6%	2%	10%	0%	7%	0%	0%	0%
25% – 49%	13	13%	13%	13%	13%	11%	50%	15%	0%
5% – 24%	13	13%	6%	19%	13%	13%	0%	15%	0%
1% – 4%	9	9%	6%	10%	13%	10%	0%	8%	0%
0%	17	17%	17%	15%	25%	14%	0%	31%	50%
Don't know	28	27%	40%	17%	13%	25%	50%	31%	50%

Note: n=103 for Table A3.15f

Table A3.15g: Mobile apps*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	5	5%	4%	6%	0%	6%	0%	0%	0%
75% – 99%	9	9%	11%	8%	0%	8%	0%	0%	100%
50% – 74%	6	6%	6%	4%	13%	6%	0%	8%	0%
25% – 49%	14	14%	11%	15%	25%	12%	0%	31%	0%
5% – 24%	15	15%	13%	15%	25%	17%	25%	0%	0%
1% – 4%	22	21%	19%	27%	0%	20%	0%	38%	0%
0%	3	3%	2%	2%	13%	2%	0%	8%	0%
Don't know	27	26%	32%	21%	25%	26%	75%	15%	0%

Note: n=103 for Table A3.15g

Table A3.15h: Asynchronous communication tools (e.g. discussion forums)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	4	4%	0%	4%	25%	5%	0%	0%	0%
75% – 99%	10	10%	13%	8%	0%	8%	0%	15%	50%
50% – 74%	15	15%	15%	13%	25%	12%	25%	23%	50%
25% – 49%	26	25%	26%	27%	13%	25%	25%	31%	0%
5% – 24%	31	30%	26%	35%	25%	31%	50%	23%	0%
1% – 4%	2	2%	2%	2%	0%	2%	0%	0%	0%
0%	3	3%	2%	2%	13%	4%	0%	0%	0%
Don't know	10	10%	15%	6%	0%	11%	0%	8%	0%

Note: n=103 for Table A3.15h

Table A3.15i: Lecture capture tools (system to record teaching in a lecture theatre/classroom)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	4	4%	4%	2%	13%	5%	0%	0%	0%
75% – 99%	9	9%	17%	2%	0%	10%	25%	0%	0%
50% – 74%	4	4%	6%	2%	0%	4%	25%	0%	0%
25% – 49%	7	7%	6%	6%	13%	6%	0%	15%	0%
5% – 24%	36	35%	36%	40%	0%	32%	50%	38%	100%
1% – 4%	19	18%	11%	27%	13%	20%	0%	15%	0%
0%	11	11%	4%	10%	50%	12%	0%	8%	0%
Don't know	12	12%	15%	8%	13%	11%	0%	23%	0%

Note: n=103 for Table A3.15i

Table A3.15j: E-portfolio

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	3	3%	4%	0%	13%	2%	0%	0%	50%
50% – 74%	3	3%	2%	4%	0%	4%	0%	0%	0%
25% – 49%	16	16%	13%	17%	25%	14%	25%	23%	0%
5% – 24%	43	42%	38%	48%	25%	43%	50%	31%	50%
1% – 4%	22	21%	26%	17%	25%	21%	0%	31%	0%
0%	6	6%	6%	4%	13%	5%	25%	8%	0%
Don't know	9	9%	11%	8%	0%	10%	0%	8%	0%

Note: n=103 for Table 3.15j

Table A3.15k: Document sharing tool (e.g. Google Docs, Office 365)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	3	3%	0%	2%	25%	4%	0%	0%	0%
75% – 99%	6	6%	4%	6%	13%	7%	0%	0%	0%
50% – 74%	12	12%	17%	8%	0%	11%	0%	23%	0%
25% – 49%	10	10%	13%	8%	0%	10%	0%	8%	50%
5% – 24%	24	23%	13%	38%	0%	24%	50%	8%	50%
1% – 4%	14	14%	15%	10%	25%	12%	25%	23%	0%
0%	2	2%	0%	2%	13%	2%	0%	0%	0%
Don't know	30	29%	36%	23%	25%	29%	25%	38%	0%

Note: n=103 for Table A3.15k

Table A3.15l: Formative e-assessment tool (e.g. quizzes)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	3	3%	4%	2%	0%	2%	0%	0%	50%
75% – 99%	4	4%	9%	0%	0%	5%	0%	0%	0%
50% – 74%	17	17%	17%	19%	0%	17%	25%	15%	0%
25% – 49%	34	33%	28%	38%	38%	30%	25%	54%	50%
5% – 24%	29	28%	28%	25%	50%	30%	50%	15%	0%
1% – 4%	5	5%	2%	8%	0%	6%	0%	0%	0%
0%	1	1%	0%	0%	13%	1%	0%	0%	0%
Don't know	9	9%	13%	6%	0%	8%	0%	15%	0%

Note: n=103 for Table A3.15l

Table A3.15m: Blog

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	3	3%	2%	2%	13%	4%	0%	0%	0%
75% – 99%	2	2%	0%	2%	13%	2%	0%	0%	0%
50% – 74%	4	4%	4%	2%	13%	2%	0%	8%	50%
25% – 49%	21	20%	21%	17%	38%	20%	25%	23%	0%
5% – 24%	38	37%	32%	48%	0%	33%	75%	46%	50%
1% – 4%	17	17%	19%	15%	13%	18%	0%	15%	0%
0%	3	3%	2%	2%	13%	4%	0%	0%	0%
Don't know	13	13%	17%	10%	0%	14%	0%	8%	0%

Note: n=103 for Table A3.15m

Table A3.15n: Social networking*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	2	2%	0%	2%	13%	2%	0%	0%	0%
75% – 99%	8	8%	4%	8%	25%	6%	0%	15%	50%
50% – 74%	2	2%	2%	2%	0%	2%	0%	0%	0%
25% – 49%	12	12%	9%	15%	13%	11%	50%	8%	0%
5% – 24%	26	25%	28%	27%	0%	24%	25%	38%	0%
1% – 4%	23	22%	23%	23%	13%	24%	0%	23%	0%
0%	6	6%	6%	6%	0%	6%	0%	0%	50%
Don't know	23	22%	28%	15%	38%	24%	25%	15%	0%

Note: n=103 for Table A3.15n

Table A3.15o: Media streaming system*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	2	2%	2%	0%	13%	2%	0%	0%	0%
75% – 99%	3	3%	6%	0%	0%	4%	0%	0%	0%
50% – 74%	5	5%	2%	2%	38%	5%	0%	8%	0%
25% – 49%	14	14%	9%	19%	13%	15%	0%	8%	0%
5% – 24%	33	32%	30%	38%	13%	29%	50%	38%	100%
1% – 4%	21	20%	17%	27%	0%	21%	50%	8%	0%
0%	8	8%	9%	4%	25%	8%	0%	8%	0%
Don't know	15	15%	23%	8%	0%	13%	0%	31%	0%

Note: n=103 for Table A3.15o

Table A3.15p: Wiki*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	2	2%	4%	0%	0%	2%	0%	0%	0%
75% – 99%	1	1%	0%	2%	0%	0%	0%	0%	50%
25% – 49%	9	9%	6%	10%	13%	8%	25%	8%	0%
5% – 24%	29	28%	30%	29%	13%	25%	0%	54%	50%
1% – 4%	36	35%	34%	38%	25%	35%	75%	31%	0%
0%	9	9%	6%	6%	38%	11%	0%	0%	0%
Don't know	16	16%	19%	13%	13%	18%	0%	8%	0%

Note: n=103 for Table A3.15p

Table A3.15q: Personal response systems (including handsets or web-based apps)*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	1	1%	0%	2%	0%	1%	0%	0%	0%
50% – 74%	3	3%	6%	0%	0%	2%	0%	0%	50%
25% – 49%	14	14%	15%	15%	0%	15%	0%	8%	0%
5% – 24%	31	30%	34%	29%	13%	26%	75%	38%	50%
1% – 4%	24	23%	15%	33%	13%	23%	0%	38%	0%
0%	10	10%	6%	6%	50%	12%	0%	0%	0%
Don't know	18	17%	21%	13%	25%	18%	25%	15%	0%

Note: n=103 for Table A3.15q

Table A3.15r: Electronic essay exams

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	1	1%	0%	2%	0%	1%	0%	0%	0%
75% – 99%	6	6%	2%	8%	13%	6%	0%	0%	50%
50% – 74%	4	4%	9%	0%	0%	5%	0%	0%	0%
25% – 49%	2	2%	2%	2%	0%	2%	0%	0%	0%
5% – 24%	14	14%	17%	13%	0%	12%	25%	23%	0%
1% – 4%	19	18%	26%	15%	0%	18%	25%	23%	0%
0%	33	32%	19%	35%	88%	31%	0%	46%	50%
Don't know	23	22%	26%	23%	0%	24%	50%	8%	0%

Note: n=103 for Table A3.15r

Table A3.15s: Podcasting

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	1	1%	2%	0%	0%	1%	0%	0%	0%
75% – 99%	3	3%	6%	0%	0%	4%	0%	0%	0%
50% – 74%	3	3%	6%	0%	0%	2%	25%	0%	0%
25% – 49%	5	5%	6%	4%	0%	4%	0%	8%	50%
5% – 24%	24	23%	19%	25%	38%	23%	25%	23%	50%
1% – 4%	35	34%	34%	35%	25%	32%	25%	54%	0%
0%	12	12%	9%	15%	13%	14%	0%	0%	0%
Don't know	18	17%	15%	19%	25%	18%	25%	15%	0%

Note: n=103 for Table A3.15s

Table A3.15t: Learning analytics tools

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	1	1%	2%	0%	0%	1%	0%	0%	0%
75% – 99%	1	1%	0%	2%	0%	1%	0%	0%	0%
50% – 74%	1	1%	0%	2%	0%	1%	0%	0%	0%
25% – 49%	5	5%	4%	6%	0%	6%	0%	0%	0%
5% – 24%	10	10%	6%	13%	13%	10%	25%	8%	0%
1% – 4%	32	31%	32%	31%	25%	32%	0%	31%	50%
0%	27	26%	21%	27%	50%	26%	25%	31%	0%
Don't know	25	24%	34%	17%	13%	21%	50%	31%	50%

Note: n=103 for Table A3.15t

Table A3.15u: Screen casting

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	1	1%	2%	0%	0%	1%	0%	0%	0%
75% – 99%	1	1%	2%	0%	0%	1%	0%	0%	0%
50% – 74%	4	4%	4%	2%	13%	5%	0%	0%	0%
25% – 49%	10	10%	6%	13%	13%	8%	0%	15%	50%
5% – 24%	39	38%	28%	46%	50%	38%	75%	23%	50%
1% – 4%	20	19%	23%	19%	0%	20%	0%	23%	0%
0%	8	8%	6%	8%	13%	7%	0%	15%	0%
Don't know	18	17%	26%	10%	13%	17%	25%	23%	0%

Note: n=103 for Table A3.15u

Table A3.15v: Webinar*

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
100%	1	1%	2%	0%	0%	1%	0%	0%	0%
75% – 99%	1	1%	2%	0%	0%	1%	0%	0%	0%
50% – 74%	3	3%	4%	2%	0%	4%	0%	0%	0%
25% – 49%	10	10%	6%	10%	25%	7%	25%	15%	50%
5% – 24%	18	17%	17%	19%	13%	15%	25%	23%	50%
1% – 4%	39	38%	34%	46%	13%	39%	25%	38%	0%
0%	9	9%	6%	8%	25%	11%	0%	0%	0%
Don't know	21	20%	28%	13%	25%	20%	25%	23%	0%

Note: n= 103 for Table A3.15v

Table A3.15w: Summative e-assessment tools (e.g. quizzes)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
75% – 99%	3	3%	6%	0%	0%	2%	0%	0%	50%
50% – 74%	7	7%	11%	4%	0%	6%	25%	8%	0%
25% – 49%	26	25%	21%	27%	38%	24%	25%	31%	50%
5% – 24%	31	30%	28%	33%	25%	27%	50%	46%	0%
1% – 4%	21	20%	19%	25%	0%	24%	0%	8%	0%
0%	4	4%	0%	2%	38%	5%	0%	0%	0%
Don't know	10	10%	15%	6%	0%	11%	0%	8%	0%

Note: n=103 for Table A3.15w

Table A3.15x: Synchronous collaborative tools (e.g. virtual classroom)

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
75% – 99%	2	2%	4%	0%	0%	2%	0%	0%	0%
50% – 74%	5	5%	6%	4%	0%	5%	0%	8%	0%
25% – 49%	4	4%	2%	4%	13%	4%	0%	0%	50%
5% – 24%	25	24%	30%	19%	25%	21%	50%	38%	0%
1% – 4%	38	37%	30%	48%	13%	38%	25%	31%	50%
0%	13	13%	9%	10%	50%	14%	0%	8%	0%
Don't know	15	15%	19%	13%	0%	14%	25%	15%	0%

Note: n=103 for Table A3.15x

Table A3.15y: Social bookmarking/content curation tools

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
75% – 99%	1	1%	0%	2%	0%	0%	0%	8%	0%
50% – 74%	2	2%	0%	2%	13%	1%	0%	8%	0%
25% – 49%	1	1%	0%	2%	0%	1%	0%	0%	0%
5% – 24%	12	12%	11%	13%	13%	11%	25%	15%	0%
1% – 4%	29	28%	26%	33%	13%	30%	0%	31%	0%
0%	16	16%	17%	15%	13%	17%	0%	0%	100%
Don't know	40	39%	45%	31%	50%	38%	75%	38%	0%

Note: n=103 for Table 3.15y

Question 3.16: Which of the following types of services, if any, have been optimised by your institution to be *accessible via mobile devices* (e.g. smart phone, tablet) beyond standard web based access?

Table A3.16: Optimised services for mobile devices

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Access to course announcements	61	60%	61%	66%	25%	60%	50%	62%	100%
Access to email	61	60%	65%	57%	50%	57%	75%	77%	50%
Access to course materials and learning resources	59	58%	65%	57%	25%	59%	50%	54%	100%
Access to communication tools (e.g. discussion boards, blogs and wikis)	49	49%	54%	49%	13%	48%	50%	46%	100%
Access to library services	49	49%	52%	47%	38%	48%	25%	62%	50%
Access to lecture recordings and videos	39	39%	48%	36%	0%	37%	50%	46%	50%
Access to timetabling information	32	32%	33%	32%	25%	35%	0%	15%	50%
Access to portal*	31	31%	35%	28%	25%	27%	25%	54%	50%
Access to printing*	26	26%	28%	21%	38%	26%	0%	31%	50%
Access to personal calendars	24	24%	28%	21%	13%	26%	25%	15%	0%
Access to grades	22	22%	22%	26%	0%	23%	0%	15%	50%
Other institutional service	13	13%	22%	6%	0%	10%	25%	31%	0%
Services are not optimised – all are designed to be device agnostic by default*	11	11%	13%	6%	25%	13%	0%	0%	0%
Access to student information/ records system*	7	7%	11%	4%	0%	9%	0%	0%	0%
Services are not optimised	7	7%	2%	11%	13%	9%	0%	0%	0%
Access to learning analytics*	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n=101 for Table A3.16

Question 3.17: For which types of devices does the institution provide active user (staff and student) support (e.g. documentation, training, service desk support) to connect to these services?

Table A3.17 Mobile devices with active user support

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
iOS devices (e.g. iPad and iPhone)	72	73%	76%	77%	29%	69%	100%	83%	100%
Android devices	68	69%	73%	70%	29%	65%	100%	75%	100%
Windows Mobile devices	55	56%	62%	53%	29%	52%	75%	75%	50%
Blackberry devices	24	24%	29%	21%	14%	22%	50%	33%	0%
No active user support provided – all services are designed to be device agnostic by default*	17	17%	20%	11%	43%	20%	0%	8%	0%
No active user support provided	9	9%	4%	11%	29%	11%	0%	0%	0%
Other mobile device	2	2%	0%	4%	0%	1%	0%	8%	0%

Note: n=99 for Table A3.17

Question 3.18: How does your institution promote the use of student/staff owned mobile devices in support of learning, teaching and assessment activities?

Table A3.18: How use of mobile devices is promoted

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutional Bring Your Own Device (BYOD) policy and supporting mobile device usage on campus*	43	43%	44%	40%	57%	43%	50%	42%	50%
Loaning of devices to staff/ students	40	40%	40%	45%	14%	40%	100%	25%	50%
Funding for mobile learning projects	23	23%	20%	28%	14%	23%	0%	33%	0%
Other method of promoting use of mobile devices	22	22%	20%	26%	14%	19%	25%	50%	0%
Institutional switch-on policy to encourage use of devices by staff and students for learning, teaching and assessment	15	15%	13%	19%	0%	12%	50%	17%	50%
Institution does not promote the use of mobile devices	15	15%	18%	11%	29%	16%	0%	8%	50%
Free provision of devices to staff/ students	8	8%	4%	11%	14%	9%	0%	8%	0%

Note: n=99 for Table A3.18

Question 3.19: Please indicate the systems that are linked (i.e. some form of data flow is supported between the systems) to the main VLE within your institution.

Table A3.19: Systems that are linked to the VLE

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Library: system providing access to reading lists and electronic reading resources	79	80%	78%	81%	86%	84%	75%	50%	100%
Student records	78	79%	73%	89%	43%	78%	50%	92%	100%
Registration and enrolment	76	77%	82%	74%	57%	75%	75%	83%	100%
E-submission: system managing assignments and coursework	71	72%	73%	68%	86%	72%	75%	67%	100%
Lecture capture system (system to record teaching in a lecture theatre/classroom)	54	55%	69%	47%	14%	53%	100%	42%	100%
Media server	52	53%	53%	55%	29%	48%	75%	67%	100%
E-portfolio	51	52%	47%	60%	29%	51%	50%	58%	50%
E-assessment system: system supporting defined response testing and quizzes	47	47%	53%	45%	29%	46%	50%	50%	100%
Timetabling	29	29%	27%	30%	43%	35%	0%	0%	50%
Portal	27	27%	27%	28%	29%	28%	0%	25%	50%
Survey systems	27	27%	24%	32%	14%	27%	25%	17%	100%
Content management system	20	20%	20%	21%	14%	19%	0%	33%	50%
Digital learning repository	18	18%	11%	26%	14%	22%	0%	0%	0%
Learning analytics*	17	17%	11%	26%	0%	19%	0%	8%	50%
HR system	15	15%	18%	15%	0%	16%	0%	17%	0%
Attendance monitoring	11	11%	11%	11%	14%	11%	0%	8%	50%
Online payments	6	6%	7%	6%	0%	7%	0%	0%	0%
Other system linked to (main) VLE	4	4%	9%	0%	0%	4%	0%	8%	0%

Note: n=99 for Table A3.19

Table A3.19a: Is there a main lecture capture system where there is a link to the VLE

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	68	69%	76%	66%	43%	68%	100%	58%	100%
No	31	31%	24%	34%	57%	32%	0%	42%	0%

Note: n=99 for Table A3.19a

Table 3.19b: Systems which are linked to the main institutional lecture capture system

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
VLE	54	48%	88%	71%	67%	82%	75%	57%	100%
Media server	18	16%	24%	26%	67%	20%	0%	71%	100%
Timetabling	14	13%	29%	13%	0%	25%	0%	0%	0%
Registration and enrolment	9	8%	18%	10%	0%	11%	50%	14%	0%
No systems are linked to main institutional lecture capture system	9	8%	3%	26%	0%	13%	25%	14%	0%
Student records	4	4%	9%	3%	0%	5%	0%	14%	0%
Other system linked to the main institutional lecture capture system	2	2%	6%	0%	0%	2%	0%	14%	0%
Learning analytics	1	1%	0%	3%	0%	2%	0%	0%	0%
Portal	1	1%	0%	3%	0%	2%	0%	0%	0%

Note: n=68 for Table A3.19b

Question 3.20: Have you evaluated the impact of technology enhanced learning on the *student learning experience* across the institution as a whole over the *past two years*? This can include particular aspects of TEL across the institution.

Table 3.20: Evaluation of the impact of TEL on student learning experience

	No.	Total	Pre- 92	Post-92	Other	Eng	Wal	Sco	NI
Yes	40	40%	44%	36%	43%	41%	25%	42%	50%
No	59	60%	56%	64%	57%	59%	75%	58%	50%

Note: n=99 for Table 3.20

Question 3.20b: What aspects of the impact of technology enhanced learning on the *student learning experience* have you evaluated over the past two years?

Table A3.20b: Aspects of the impact of TEL on student learning experience which have been evaluated in the last two years.

	No.	Total	Pre-92	Post 92	Other	Eng	Wal	Sco	NI
Take up/usage/adoption by students of lecture capture	12	30%	40%	24%	0%	36%	0%	0%	0%
Effectiveness of flipped learning	8	20%	25%	12%	33%	18%	0%	20%	100%
E-assessment	17	43%	40%	41%	67%	46%	100%	20%	0%
Mobile learning	11	28%	30%	18%	67%	30%	0%	20%	0%
Use of learning analytics in supporting students	3	8%	10%	6%	0%	6%	0%	20%	0%
Other 1	27	68%	70%	71%	33%	73%	0%	60%	0%
Other 2	8	20%	15%	24%	33%	18%	0%	40%	0%
Other 3	3	8%	5%	6%	33%	6%	0%	20%	0%

Note: n=40 for Table A3.20b

Question 3.21: *How* has the impact has been measured, *when*, and for *what purpose?*

Table A3.21: Details of how the impact of TEL tools and systems on the student learning experience has been measured, when and for what purpose

	No.	Total	Pre- 92	Post 92	Other	Eng	Wal	Sco	NI
Survey	30	35%	80%	65%	100%	82%	0%	40%	100%
Module and course evaluation	20	24%	55%	47%	33%	49%	100%	40%	100%
Interview/focus group	22	26%	50%	53%	100%	64%	0%	20%	0%
Benchmarking	8	9%	30%	6%	33%	21%	0%	20%	0%
Other evaluation method*	5	6%	20%	6%	0%	15%	0%	0%	0%
Annually	18	38%	50%	29%	100%	49%	0%	40%	0%
Each term/semester	13	28%	30%	41%	0%	27%	100%	40%	100%
Other timing	16	34%	45%	41%	0%	46%	0%	20%	0%
Assess value of TEL in relation to student performance (learning analytics)	7	8%	25%	12%	0%	21%	0%	0%	0%
Determine take-up and usage of TEL tool(s) across institution (adoption)	27	31%	70%	65%	67%	67%	100%	60%	100%
Assess value for money of TEL tool(s) (e.g. review of licensing costs)	10	11%	20%	24%	67%	24%	0%	20%	100%
Assess student satisfaction with TEL approach	33	38%	85%	77%	100%	88%	0%	80%	0%
Other (purpose)	11	13%	25%	29%	33%	30%	0%	20%	0%

Note: n= 85 (how); n=47 (when);n= 88 (purpose) for Table A3.21

Question 3.21a: And what have these evaluations revealed? Please describe the broad conclusions from the evaluations and, if any have been published, provide the appropriate references or links.

Table A3.21a: Broad conclusions from the evaluations undertaken into the impact of TEL on the student learning experience

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
TEL appreciated by students	13	42%	40%	56%	0%	43%	0%	75%	0%
Students value consistency	12	39%	27%	44%	0%	29%	100%	50%	0%
Mixed use of TEL	6	18%	20%	6%	50%	14%	0%	25%	0%
Increase in TEL adoption	2	6%	7%	6%	0%	4%	0%	25%	0%
Interest in more e-assessment	4	12%	13%	13%	0%	14%	0%	0%	0%
Demand for Mobile Support	7	21%	20%	19%	50%	21%	0%	25%	0%
Concern about digital literacy of staff	3	9%	13%	13%	0%	14%	0%	0%	0%
Demand for lecture capture	4	12%	20%	6%	0%	14%	0%	0%	0%
Other	6	18%	27%	6%	50%	21%	0%	0%	0%

Note: n=33 for Table A3.21a

Question 3.22: Have you evaluated the impact of technology enhanced learning on pedagogic practices across the institution as a whole over the past two years? This can include particular aspects of TEL across the institution

Table A3.22: Evaluation of the impact of TEL on pedagogic practices across the institution as a whole over the past two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	36	36%	36%	38%	29%	38%	0%	33%	50%
No	63	64%	64%	62%	71%	62%	100%	67%	50%

Note: n=99 for Table A3.22

Question 3.22a: What aspects of staff pedagogic practices have you evaluated over the past two years?

Table A3.22a: Aspects of staff pedagogic practices that have been evaluated over the past two years

	No.	Total	Pre- 92	Post- 92	Other	Eng	Wal	Sco	NI
E-assessment	19	21%	63%	39%	100%	52%	0%	50%	100%
E-marking	16	18%	44%	44%	50%	42%	0%	50%	100%
Take-up/usage/adoption of lecture capture	15	17%	50%	39%	0%	45%	0%	25%	0%
Staff digital fluency/capability	14	16%	31%	44%	50%	39%	0%	50%	0%
Flipped learning design	11	12%	31%	22%	100%	32%	0%	0%	100%
Other	8	9%	25%	22%	0%	23%	0%	25%	0%
Mobile learning	5	6%	19%	11%	0%	16%	0%	0%	0%
Use of learning analytics in supporting students	1	1%	6%	0%	0%	3%	0%	0%	0%

Note: n=36 for Table A3.22a

Question 3.23: How has the impact on *pedagogic practices* been measured, *when* and for *what purpose*?

Table A3.23: Details of how the impact of TEL tools and systems on pedagogic practices has been measured, when and for what purpose

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Survey	24	67%	69%	72%	0%	65%	0%	75%	100%
Module and course evaluation	10	28%	25%	22%	100%	32%	0%	0%	0%
Interview/focus group	14	39%	38%	39%	50%	39%	0%	50%	0%
Benchmarking	4	11%	13%	6%	50%	13%	0%	0%	0%
Social media	1	3%	6%	0%	0%	3%	0%	0%	0%
Other evaluation method	10	28%	31%	22%	50%	29%	0%	100%	100%
Annually	16	44%	56%	28%	100%	45%	0%	25%	100%
Each term/semester	7	19%	13%	28%	0%	23%	0%	0%	0%
Other timing	18	50%	44%	61%	0%	48%	0%	75%	0%
Assess value of TEL tools in relation to student performance (learning analytics)	6	17%	19%	11%	50%	19%	0%	0%	0%
Determine take-up and usage across institution (adoption)	24	69%	75%	56%	100%	71%	0%	50%	0%
Assess value for money	9	26%	25%	22%	50%	26%	0%	25%	0%
Assess staff satisfaction	22	63%	69%	50%	100%	58%	0%	75%	100%
Other purpose	14	40%	50%	39%	0%	45%	0%	25%	0%

Note: n=36 for Table A3.23

Table A3.23a: Broad conclusions from the evaluations undertaken into the impact of TEL on pedagogic practices

Reason	No	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Identification of gaps in provision/ support	4	15%	27%	7%	0%	13%	0%	33%	0%
Efficiency with e-assessment	3	12%	9%	14%	0%	9%	0%	33%	0%
Mixed practice	3	12%	9%	14%	0%	13%	0%	0%	0%
More staff support	3	12%	9%	14%	0%	13%	0%	0%	0%
TEL valued as positive	2	8%	9%	7%	0%	9%	0%	0%	0%
No data	2	8%	9%	7%	100%	9%	0%	0%	0%
Published works	2	8%	0%	7%	0%	4%	0%	0%	0%

Note: n=26 for Table A3.23a

Question 4.1: Which, if any, support units are there in your institution that provide *support for technology enhanced learning*? Please include both centrally provided and local units.

Table A4.1a: Support units that provide support for technology enhanced learning

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Information Technology support	58	59%	62%	55%	57%	56%	100%	67%	50%
Learning Technology Support Unit (LTSU)	67	68%	64%	72%	57%	68%	100%	50%	100%
Educational Development Unit (EDU)	50	51%	53%	53%	14%	47%	50%	75%	50%
Library	48	48%	44%	51%	57%	48%	50%	58%	0%
Local support	54	55%	64%	45%	57%	58%	0%	58%	0%
Other support unit	15	15%	20%	11%	14%	16%	0%	17%	0%
Outsourced supplier or specialist	2	2%	0%	4%	0%	1%	0%	8%	0%

Note: n=99 for Table A4.1a

Table 4.1b: Mean number of units providing support for TEL per institution

	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Mean number of support units	2.97	3.09	2.91	2.57	2.94	3.00	3.33	2.00

Note: n=99 for Table A4.1b

Question 4.2: How many staff work in the unit?

Table A4.2a: Mean number of staff working in IT Support Unit

	No.	Mean	Pre-92	Post-92	Other	Eng	Wales	Sco	NI
Mean number of learning technologists	58	1.00	1.68	0.42	0.00	0.98	1.00	1.13	1.00
Mean number of IT support staff	58	9.60	8.27	11.96	3.63	7.53	19.50	17.50	0.00
Mean number of administrative staff	58	0.38	0.36	0.44	0.13	0.26	2.25	0.19	0.00
Mean number of academic staff	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean number of other staff	58	0.93	1.04	0.96	0.00	1.00	1.50	0.38	0.00
Mean FTE of staff supporting TEL	58	3.20	2.53	2.75	10.75	3.79	2.00	0.88	0.00

Note: n=58 for Table A4.2a

Table A4.2b: Mean number of staff working in Learning Technology Support Units

	No.	Mean	Pre-92	Post-92	Other	Eng	Wales	Sco	NI
Mean number of learning technologists	67	4.58	5.07	4.53	1.50	4.99	3.50	3.10	0.00
Mean number of IT support staff	67	0.55	0.31	0.78	0.38	0.59	0.25	0.17	1.25
Mean number of administrative staff	67	0.30	0.26	0.37	0.05	0.30	0.50	0.33	0.00
Mean number of academic staff	67	0.22	0.34	0.15	0.00	0.25	0.00	0.17	0.00
Mean number of other staff	67	1.50	2.26	0.84	1.55	1.60	0.00	1.42	1.75
Mean FTE of staff supporting TEL	67	4.73	5.17	4.49	3.48	5.01	2.53	4.85	1.00

Note: n=67 for Table A4.2b

Table A4.2c: Mean number of staff working in Educational Development Units

	No.	Mean	Pre-92	Post-92	Other	Eng	Wales	Sco	NI
Mean number of learning technologists	50	1.43	1.51	1.36	1.00	1.61	0.00	0.89	2.00
Mean number of IT support staff	50	0.02	0.00	0.04	0.00	0.03	0.00	0.00	0.00
Mean number of administrative staff	50	0.52	0.56	0.50	0.00	0.59	0.50	0.27	0.00
Mean number of academic staff	50	2.07	1.46	2.74	0.00	2.11	4.00	1.73	0.00
Mean number of other staff	50	1.32	1.92	0.80	0.00	1.53	0.00	0.89	0.00
Mean FTE of staff supporting TEL	50	2.72	2.22	3.27	1.00	3.25	1.90	0.74	2.00

Note: n=50 for Table A4.2c

Table A4.2d: Mean number of staff working in Libraries

	No.	Mean	Pre-92	Post-92	Other	Eng	Wales	Sco	NI
Mean number of learning technologists	48	0.38	0.45	0.29	0.50	0.46	0.00	0.00	0.00
Mean number of IT support staff	48	0.77	1.30	0.38	0.50	0.95	0.00	0.00	0.00
Mean number of administrative staff	48	0.94	0.15	1.21	3.25	0.95	4.00	0.00	0.00
Mean number of academic staff	48	0.04	0.10	0.00	0.00	0.05	0.00	0.00	0.00
Mean number of other staff	48	3.48	3.70	3.75	0.75	3.51	5.00	2.86	0.00
Mean FTE of staff supporting TEL	48	1.61	1.33	1.91	1.25	1.60	4.75	0.79	0.00

Note: n=48 for Table A4.2d

Table A4.2e: Mean number of staff working in local (devolved) support units

	No.	Mean	Pre-92	Post-92	Other	Eng	Wales	Sco	NI
Mean number of learning technologists	54	5.14	5.65	5.43	0.00	5.19	0.00	4.86	0.00
Mean number of IT support staff	54	1.63	1.55	1.86	1.00	0.96	0.00	6.14	0.00
Mean number of administrative staff	54	0.74	1.10	0.14	1.25	0.85	0.00	0.00	0.00
Mean number of academic staff	54	1.98	1.86	1.19	7.00	2.02	0.00	1.71	0.00
Mean number of other staff	54	0.46	0.21	0.67	1.25	0.49	0.00	0.29	0.00
Mean FTE of staff supporting TEL	54	6.49	5.77	5.43	17.25	6.81	0.00	4.29	0.00

Note: n=54 for Table A4.2e

Table A4.2f: Mean number of staff working in other units

	No.	Mean	Pre-92	Post-92	Other	Eng	Wales	Sco	NI
Mean number of learning technologists	15	4.93	7.67	0.80	1.00	3.00	0.00	17.50	0.00
Mean number of IT support staff	15	5.13	8.56	0.00	0.00	0.54	0.00	35.00	0.00
Mean number of administrative staff	15	0.33	0.56	0.00	0.00	0.08	0.00	2.00	0.00
Mean number of academic staff	15	1.33	0.00	3.40	3.00	1.54	0.00	0.00	0.00
Mean number of other staff	15	0.87	1.33	0.20	0.00	1.00	0.00	0.00	0.00
Mean FTE of staff supporting TEL	15	10.63	16.00	3.10	0.00	4.32	0.00	51.70	0.00

Note: n=15 for Table A4.2f

Table A4.2g: Mean number of staff working for outsourced supplier or specialist

	No.	Mean	Pre-92	Post-92	Other	Eng	Wales	Sco	NI
Mean number of learning technologists	2	0.50	0.00	0.50	0.00	1.00	0.00	0.00	0.00
Mean number of IT support staff	2	0.50	0.00	0.50	0.00	0.00	0.00	1.00	0.00
Mean number of administrative staff	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean number of academic staff	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean number of other staff	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean FTE of staff supporting TEL	2	0.20	0.00	0.20	0.00	0.20	0.00	0.20	0.00

Note: n=2 for Table A4.2g

Question 4.4: What changes in staffing provision, if any, have been made over the *last two years*?

Table A4.4: Whether changes in staffing provision have been made over the last two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Changes made	81	83%	89%	80%	57%	81%	75%	92%	100%
No changes made	17	17%	11%	20%	43%	19%	25%	8%	0%

Note: n=98 for Table A4.4

Table A4.4a: Changes in staffing provision over the last two years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Increase in the number of staff	50	51%	53%	50%	43%	55%	25%	33%	50%
Restructure of department(s)/TEL provision	41	42%	42%	41%	43%	40%	25%	50%	100%
Change of existing roles/incorporation of other duties	30	31%	31%	30%	29%	30%	25%	33%	50%
No changes in staffing provision	17	17%	11%	20%	43%	19%	25%	8%	0%
Reduction in the number of staff	16	16%	11%	22%	14%	13%	25%	33%	50%
Recruitment delay/freeze	14	14%	18%	13%	0%	16%	25%	0%	0%
Other change in staffing provision	7	7%	13%	2%	0%	5%	25%	17%	0%

Note: n=98 for Table A4.4a

Question 4.5: Do you foresee changes in the staffing provision in supporting staff and students in their use of technology enhanced learning tools in the near future?

Table A4.5: Whether changes in staffing provision are foreseen in the near future

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Changes foreseen	77	79%	82%	74%	86%	78%	25%	100%	100%
No changes foreseen	21	21%	18%	26%	14%	23%	75%	0%	0%

Note: n=98 for Table A4.5

Table A4.5a: Foreseen changes in staffing provision in the near future

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Anticipate change, but unsure as to how it might change	32	33%	31%	33%	43%	35%	0%	17%	100%
Increase in the number of staff	29	30%	38%	20%	43%	29%	25%	33%	50%
Restructure of department(s)/TEL provision	25	26%	31%	22%	14%	23%	25%	42%	50%
Change of existing roles/incorporation of other duties	24	24%	31%	17%	29%	25%	0%	33%	0%
Do not foresee any changes	21	21%	18%	26%	14%	23%	75%	0%	0%
Currently reviewing staffing provision	10	10%	9%	13%	0%	9%	0%	25%	0%
Recruitment delay/freeze	6	6%	9%	4%	0%	6%	0%	8%	0%
Reduction in the number of staff	5	5%	7%	2%	14%	4%	0%	17%	0%
Other change in the future	4	4%	9%	0%	0%	4%	0%	8%	0%

Note: n=98 for Table 4.5a

Question 4.6: Which, if any, training and development activities are promoted to support *staff who help others* in the use of technology enhanced learning tools? Please include both face to face and online activities.

Table A4.6: Training and development activities promoted to support staff

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Jisc events*	84	86%	89%	85%	71%	86%	75%	92%	50%
National conferences/seminars	83	85%	78%	91%	86%	83%	100%	92%	100%
Internal staff development	83	85%	89%	85%	57%	84%	75%	100%	50%
Association for Learning Technology (ALT) events	80	82%	87%	83%	43%	84%	75%	75%	50%
HEA professional accreditation	73	74%	69%	83%	57%	73%	75%	83%	100%
Regional seminars	58	59%	67%	61%	0%	56%	75%	75%	50%
External training courses	56	57%	56%	63%	29%	55%	75%	58%	100%
Post Graduate Certificate (PGCert)*	55	56%	49%	63%	57%	56%	75%	50%	50%
Higher Education Academy (HEA) events	49	50%	44%	54%	57%	49%	50%	58%	50%
CMALT professional accreditation	47	48%	53%	48%	14%	50%	25%	50%	0%
Staff and Education Development Association (SEDA) events*	41	42%	53%	37%	0%	41%	25%	50%	50%
Universities and Colleges Information Systems Association (UCISA) events	35	36%	36%	41%	0%	35%	25%	42%	50%
International conferences/seminars	34	35%	36%	35%	29%	34%	0%	58%	0%
Open learning opportunities (including badges)*	30	31%	29%	37%	0%	29%	0%	50%	50%
Higher Education Academy (HEA) discipline cluster events	25	26%	24%	28%	14%	25%	0%	33%	50%
Fellowship of the Staff and Education Development Association (FSEDA)*	13	13%	11%	15%	14%	14%	25%	8%	0%
Other training activity	3	3%	2%	2%	14%	3%	0%	8%	0%
None are promoted	1	1%	2%	0%	0%	1%	0%	0%	0%

Note: n=98 for Table A4.6

Question 5.1: Listed below are potential *barriers* to any (further) development of processes to promote and support technology enhanced learning tools. What, in your opinion, might be the barriers in your institution over the coming years?

Table A5.1: Ranked potential barriers to any (further) development of processes to promote and support technology enhanced learning tools

	Rank	Mean	Pre92	Post92	Other	Eng	Wal	Sco	NI
Lack of time	1	3.48	3.54	3.40	3.57	3.49	3.25	3.58	3.00
Departmental/school culture	2	3.07	3.28	2.98	2.29	3.07	2.75	3.17	3.00
Lack of internal sources of funding to support development*	3	3.01	3.13	2.87	3.14	3.00	2.75	3.08	3.50
Lack of academic staff commitment	4	2.94	2.91	3.00	2.71	3.00	2.50	2.58	3.50
Institutional culture	5	2.92	3.15	2.79	2.29	2.93	2.75	2.92	3.00
Lack of academic staff knowledge	6	2.90	2.80	3.00	2.86	2.88	2.75	3.08	3.00
Lack of recognition for career development	7	2.85	2.96	2.81	2.43	2.78	2.75	3.17	4.00
Lack of support staff	8	2.81	2.98	2.64	2.86	2.73	2.75	3.17	4.00
Competing strategic initiatives	9	2.71	2.76	2.70	2.43	2.67	2.25	3.00	3.50
Lack of incentives	10	2.56	2.78	2.38	2.29	2.55	2.50	2.58	3.00
Changing administrative processes	11	2.46	2.46	2.47	2.43	2.51	2.50	1.92	3.50
Lack of external sources of funding (e.g. HEA, HEFCE, Jisc) to support project development*	12=	2.44	2.41	2.38	3.00	2.39	2.75	2.58	3.00
Lack of academic staff development opportunities	12=	2.44	2.50	2.32	2.86	2.41	2.75	2.33	3.50
Technical and infrastructure limitations (e.g. wireless)*	14	2.42	2.35	2.57	1.86	2.51	1.50	2.17	2.00
Organisational structure	15	2.39	2.57	2.32	1.71	2.48	2.00	1.92	2.50
Lack of strategy and leadership	16	2.38	2.50	2.34	1.86	2.46	2.00	2.08	1.50
Other technical problems	17	2.31	2.35	2.32	2.00	2.35	2.25	2.08	2.00
Lack of student engagement	18	2.02	1.83	2.09	2.86	2.11	1.50	1.67	1.50
Lack of institutional support for open learning*	19	2.01	2.02	2.06	1.57	2.02	1.75	1.92	2.50
Too few standards and guidelines	20	1.98	2.09	1.94	1.57	2.00	1.75	2.25	0.00
Inappropriate policies and procedures	21	1.85	1.85	1.91	1.43	1.89	2.00	1.58	1.50
Too many/diffuse/diverse standards and guidelines	22	1.79	1.85	1.77	1.57	1.78	1.75	1.58	3.50

Note: n=100 for Table A5.1

Question 5.3a: Does your institution currently outsource its provision of any of the following? Provision refers to an institutional service being hosted by another organisation.

Table A5.3a: Institutional services that are currently outsourced

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Student email	59	59%	59%	62%	43%	55%	75%	83%	50%
E-portfolio	35	35%	28%	43%	29%	34%	25%	50%	0%
VLE platform – supporting the delivery of blended learning courses	33	33%	22%	43%	43%	34%	25%	33%	0%
Staff email	30	30%	41%	21%	14%	26%	50%	50%	50%
VLE platform – supporting the delivery of fully online courses	26	26%	17%	34%	29%	27%	25%	25%	0%
Lecture capture platform	23	23%	24%	23%	14%	26%	25%	8%	0%
VLE platform – supporting the delivery of open online courses	21	21%	26%	19%	0%	21%	0%	33%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
No outsourced provision	19	19%	26%	13%	14%	18%	25%	17%	50%
Other	12	12%	13%	9%	29%	12%	25%	8%	0%
Digital repositories	10	10%	4%	15%	14%	10%	0%	17%	0%
Don't know	3	3%	2%	4%	0%	4%	0%	0%	0%
Content creation	2	2%	0%	4%	0%	2%	0%	0%	0%

Note: n=100 for Table A5.3c

Question 5.3b: How is the provision of these services currently outsourced?

Table A5.3b(i): Type of outsourcing for VLE platforms – supporting the delivery of blended learning courses

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	24	73%	60%	80%	67%	68%	100%	100%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	9	27%	40%	20%	33%	32%	0%	0%	0%
Don't know	0	0%	0%	0%	0%	0%	0%	0%	0%

Note: n=33 for Table A5.3b(i)

Table A5.3b (ii): Type of outsourcing for VLE platforms – supporting the delivery of fully online courses

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	18	69%	50%	81%	50%	64%	100%	100%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	7	27%	50%	13%	50%	32%	0%	0%	0%
Don't know	1	4%	0%	6%	0%	5%	0%	0%	0%

Note: n=26 for Table A5.3b (ii)

Table A5.3b (iii): Type of outsourcing for VLE platforms – supporting the delivery of open online courses

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	10	48%	17%	89%	0%	41%	0%	75%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	11	52%	83%	11%	0%	59%	0%	25%	0%
Don't know	0	0%	0%	0%	0%	0%	0%	0%	0%

Note: n=21 for Table A5.3b (iii)

Table A5.3b(iv): Type of outsourcing for lecture capture platforms

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	13	57%	45%	64%	100%	52%	100%	100%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	10	43%	55%	36%	0%	48%	0%	0%	0%
Don't know	0	0%	0%	0%	0%	0%	0%	0%	0%

Note: n=23 for Table A5.3b (iv)

Table A5.3b (v): Type of outsourcing for student email

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	14	24%	15%	28%	67%	24%	0%	30%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	44	75%	85%	69%	33%	73%	100%	70%	100%
Don't know	1	2%	0%	3%	0%	2%	0%	0%	0%

Note: n=59 for Table A5.3b (v)

Table A5.3b (vi): Type of outsourcing for staff email

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	9	30%	16%	50%	100%	38%	0%	17%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	21	70%	84%	50%	0%	62%	100%	83%	100%
Don't know	0	0%	0%	0%	0%	0%	0%	0%	0%

Note: n=30 for Table A5.3b (vi)

Table A5.3b (vii): Type of outsourcing for digital repositories

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	8	80%	0%	100%	100%	75%	0%	100%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	1	10%	50%	0%	0%	13%	0%	0%	0%
Don't know	1	10%	50%	0%	0%	13%	0%	0%	0%

Note: n=10 for Table A5.3b (vii)

Table A5.3b (viii): Type of outsourcing for e-portfolios

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	25	71%	46%	90%	50%	68%	83%	100%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	10	29%	54%	10%	50%	32%	17%	0%	0%
Don't know	0	0%	0%	0%	0%	0%	0%	0%	0%

Note: n=35 for Table A5.3b (viii)

Table A5.3b (ix): Type of outsourcing for content creation

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	2	100%	0%	100%	0%	100%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	0	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	0	0%	0%	0%	0%	0%	0%	0%	0%

Note: n=2 for Table A5.3b (ix)

Table A5.3b(x): Type of outsourcing for *Other* outsourced provision

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	4	33%	17%	25%	100%	40%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	7	58%	83%	50%	0%	60%	100%	0%	0%
Don't know	1	8%	0%	25%	0%	0%	0%	100%	0%

Note: n=12 for Table A5.3b(x)

Question 5.3c: Which, if any, of the services that are currently outsourced are you considering bringing back in to be institutionally managed?

Table A5.3c: Services that are currently outsourced are under consideration for bringing back in to be institutionally managed

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
None being considered for bringing back in-house	71	92%	91%	95%	83%	90%	100%	100%	100%
VLE platform – supporting the delivery of blended learning courses	3	4%	6%	3%	0%	5%	0%	0%	0%
E-portfolio	3	4%	3%	5%	0%	5%	0%	0%	0%
Don't know	3	4%	3%	3%	17%	5%	0%	0%	0%
VLE platform – supporting the delivery of fully online courses	2	3%	3%	3%	0%	3%	0%	0%	0%
Lecture capture platform	2	3%	3%	3%	0%	3%	0%	0%	0%
VLE platform – supporting the delivery of open online courses	1	1%	0%	3%	0%	2%	0%	0%	0%
Student email	1	1%	0%	3%	0%	2%	0%	0%	0%

Note: n=100 for Table A5.3c

Question 5.3d: Is your institution formally considering the outsourcing of some or all of your provision for any of the following? Provision refers to an institutional service being hosted by another organisation?

Table A5.3d(i): Formally considering the outsourcing of some or all of their provision

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	49	49%	46%	51%	57%	48%	25%	58%	100%
Don't know	11	11%	13%	9%	14%	13%	0%	0%	0%
None being considered for outsourcing	40	40%	41%	40%	29%	39%	75%	42%	0%

Note: n=100 for Table A5.3d (i)

Table A5.3d (ii): Services being formally considered for outsourcing

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Staff email	23	47%	43%	54%	25%	49%	0%	43%	50%
VLE platform – supporting the delivery of blended learning courses	19	39%	43%	38%	25%	36%	0%	43%	100%
VLE platform – supporting the delivery of fully online courses	19	39%	43%	42%	0%	36%	0%	43%	100%
Lecture capture platform	15	31%	29%	33%	25%	31%	100%	29%	0%
VLE platform – supporting the delivery of open online courses	14	29%	24%	38%	0%	26%	0%	29%	100%
Content creation	12	24%	10%	42%	0%	26%	0%	14%	50%
E-portfolio	10	20%	19%	21%	25%	21%	0%	29%	0%
Student email	8	16%	14%	21%	0%	18%	0%	0%	50%
Digital repositories	7	14%	0%	29%	0%	15%	0%	14%	0%

Note: n=49 for Table A5.3d (ii)

Question 5.3e: What option(s) not selected at 5.3a are being considered for the outsourcing of this provision?

Table A5.3e(i): Type of outsourcing being considered for VLE platforms – supporting the delivery of blended learning courses

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	10	43%	44%	56%	100%	50%	0%	67%	50%
Cloud-based Software as a Service (SaaS) multi-tenant service	8	35%	78%	11%	0%	36%	0%	67%	50%
Don't know/options still being considered	5	22%	11%	44%	0%	29%	0%	0%	50%

Note: n=23 for Table A5.3e(i)

Table A5.3e(ii): Type of outsourcing being considered for VLE platforms – supporting the delivery of fully online courses

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	7	29%	33%	40%	0%	29%	0%	67%	50%
Cloud-based Software as a Service (SaaS) multi-tenant service	9	38%	67%	30%	0%	50%	0%	33%	50%
Don't know/options still being considered	8	33%	22%	60%	0%	43%	0%	33%	50%

Note: n=24 for Table A5.3e(ii)

Table A5.3e(iii): Type of outsourcing being considered for VLE platforms – supporting the delivery of open online courses

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	4	24%	20%	33%	0%	30%	0%	50%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	7	41%	60%	44%	0%	60%	0%	0%	50%
Don't know/options still being considered	6	35%	20%	56%	0%	40%	0%	50%	50%

Note: n=17 for Table A5.3e(iii)

Table A5.3e(iv): Type of outsourcing being considered for lecture capture platforms

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	5	28%	17%	38%	100%	33%	0%	50%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	6	33%	33%	50%	0%	42%	100%	0%	0%
Don't know/options still being considered	7	39%	50%	50%	0%	50%	0%	50%	0%

Note: n=18 for Table A5.3e(iv)

Table A5.3e(v): Type of outsourcing being considered for student email

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	0	0%	0%	0%	0%	0%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	6	75%	67%	80%	0%	71%	0%	0%	100%
Don't know/options still being considered	2	25%	33%	20%	0%	29%	0%	0%	0%

Note: n=8 for Table A5.3e(v)

Table A5.3e(vi): Type of outsourcing being considered for staff email

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	2	9%	0%	8%	100%	5%	0%	33%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	15	65%	67%	69%	0%	68%	0%	33%	100%
Don't know/options still being considered	6	26%	33%	23%	0%	26%	0%	33%	0%

Note: n=23 for Table A5.3e(vi)

Table A5.3e(vii): Type of outsourcing being considered for digital repositories

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	3	27%	0%	43%	0%	50%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	3	27%	0%	43%	0%	50%	0%	0%	0%
Don't know/options still being considered	5	45%	0%	71%	0%	67%	0%	100%	0%

Note: n=11 for Table A5.3e(vii)

Table A5.3e(viii): Type of outsourcing being considered for e-portfolios

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	5	42%	75%	20%	100%	38%	0%	100%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	5	42%	50%	60%	0%	50%	0%	50%	0%
Don't know/options still being considered	2	17%	0%	40%	0%	25%	0%	0%	0%

Note: n=12 for Table A5.3e(viii)

Table A5.3e(ix): Type of outsourcing being considered for content creation

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Institutionally managed but hosted by a third party	0	0%	0%	0%	0%	0%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	0	0%	0%	0%	0%	0%	0%	0%	0%
Don't know/options still being considered	12	100%	100%	100%	0%	100%	0%	100%	100%

Note: n=12 for Table A5.3e(ix)

Question 5.3c: Which, if any, of the services that are currently outsourced are you considering bringing back in to be institutionally managed?

Table A5.3c: Services that are currently outsourced are under consideration for bringing back in to be institutionally managed

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
None being considered for bringing back in-house	71	92%	91%	95%	83%	90%	100%	100%	100%
VLE platform – supporting the delivery of blended learning courses	3	4%	6%	3%	0%	5%	0%	0%	0%
E-portfolio	3	4%	3%	5%	0%	5%	0%	0%	0%
Don't know	3	4%	3%	3%	17%	5%	0%	0%	0%
VLE platform – supporting the delivery of fully online courses	2	3%	3%	3%	0%	3%	0%	0%	0%
Lecture capture platform	2	3%	3%	3%	0%	3%	0%	0%	0%
VLE platform – supporting the delivery of open online courses	1	1%	0%	3%	0%	2%	0%	0%	0%
Student email	1	1%	0%	3%	0%	2%	0%	0%	0%

Note: n=100 for Table A5.3c

Question 5.4: Has your institution formally considered *collaboration with other HE institutions* in the delivery of technology enhanced learning services or resources to staff?

Table A5.4: Considered collaboration with other HE institutions

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes, and do collaborate as a result	15	15%	28%	4%	0%	15%	50%	8%	0%
Yes, currently under consideration so no decision reached*	10	10%	9%	6%	43%	9%	0%	17%	50%
Yes, did consider but decided not to collaborate	4	4%	2%	6%	0%	4%	0%	8%	0%
No, not considered	61	61%	52%	72%	43%	63%	50%	50%	50%
Don't know*	10	10%	9%	11%	14%	10%	0%	17%	0%

Note: n=100 for Table A5.4

Question 5.5: Have any recent and prospective developments in technology started to make new demands upon you in terms of the support required by users?

Table A5.5: Whether there are any recent and prospective developments in technology that have started to make new demands upon institutions in terms of the support required by users

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	62	62%	65%	66%	14%	57%	100%	75%	100%
No	38	38%	35%	34%	86%	43%	0%	25%	0%

Note: n=100 for Table 5.5

Question 5.5a: Please write in details of up to three developments that are starting to make new demands upon you in terms of the support required by users – those you think are most important.

Table A5.5a: Recent and prospective developments in technology that are starting to make new demands terms of the support required by users

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Electronic management of assessment (e-submission, e-marking, e-feedback)	24	39%	40%	39%	0%	36%	50%	56%	0%
Lecture capture	21	34%	40%	29%	0%	34%	75%	11%	50%
Mobile technologies/bring your own device (support, access to systems/ content)	19	31%	17%	42%	100%	32%	50%	22%	0%
Multimedia (use, provision, management, support)	9	15%	13%	16%	0%	13%	25%	22%	0%
Distance learning/fully online courses	8	13%	10%	16%	0%	9%	0%	33%	50%
Learning analytics	8	13%	7%	19%	0%	17%	0%	0%	0%
MOOCs	6	10%	10%	10%	0%	6%	0%	22%	50%
VLE – new/change, embed, extend, customise	6	10%	7%	13%	0%	11%	25%	0%	0%
E-portfolio	5	8%	10%	6%	0%	9%	0%	11%	0%
Accessibility (in particular captioning and response to the change in Disabled Students' Allowance)	4	6%	7%	6%	0%	4%	50%	0%	0%
Cloud services	4	6%	13%	0%	0%	4%	25%	0%	50%
New modes of delivery (e.g. flipped classroom)	4	6%	7%	6%	0%	9%	0%	0%	0%
Real-time communication (e.g. video conferencing/webinar software)	4	6%	7%	6%	0%	6%	0%	11%	0%
Social media/networking	4	6%	7%	6%	0%	9%	0%	0%	0%
Collaboration	3	5%	7%	3%	0%	6%	0%	0%	0%
Development of policy	3	5%	10%	0%	0%	4%	25%	0%	0%
Digital literacy/capability	3	5%	0%	10%	0%	6%	0%	0%	0%
Learning spaces	3	5%	7%	3%	0%	6%	0%	0%	0%
Meeting staff/student expectations	3	5%	3%	6%	0%	6%	0%	0%	0%
24/7 access/support	2	3%	0%	6%	0%	4%	0%	0%	0%
Classroom interactivity (e.g. voting technologies)	2	3%	3%	3%	0%	4%	0%	0%	0%
Curriculum development/design	2	3%	7%	0%	0%	2%	0%	11%	0%
Developing/curating content and resources	2	3%	7%	0%	0%	2%	0%	0%	50%
File management (storage, sharing)	2	3%	7%	0%	0%	4%	0%	0%	0%
Lack of TEL staffing	2	3%	3%	3%	0%	2%	0%	0%	50%
Office 365	2	3%	0%	6%	0%	4%	0%	0%	0%
Restructure/reorganisation	2	3%	7%	0%	0%	4%	0%	0%	0%
Staff development	2	3%	0%	6%	0%	4%	0%	0%	0%
Supporting remote students	2	3%	3%	3%	0%	2%	0%	11%	0%
Awareness raising	1	2%	0%	3%	0%	2%	0%	0%	0%
Badges	1	2%	0%	3%	0%	0%	0%	11%	0%
Blended learning	1	2%	0%	0%	100%	2%	0%	0%	0%
Employability	1	2%	3%	0%	0%	2%	0%	0%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
EU tenders	1	2%	0%	3%	0%	0%	0%	0%	50%
Information security	1	2%	3%	0%	0%	2%	0%	0%	0%
Interoperability	1	2%	0%	3%	0%	0%	0%	11%	0%
Managing expectations of new TEL staff	1	2%	3%	0%	0%	0%	0%	11%	0%
Open educational resources	1	2%	3%	0%	0%	0%	25%	0%	0%
Overseas campus	1	2%	3%	0%	0%	2%	0%	0%	0%
Research into effective use of technology	1	2%	3%	0%	0%	0%	0%	11%	0%
Summative and formative e-assessment	1	2%	0%	3%	0%	2%	0%	0%	0%
Wireless	1	2%	0%	0%	100%	2%	0%	0%	0%
Workplace assessments	1	2%	3%	0%	0%	2%	0%	0%	0%

Note: n=62 for Table A5.6a

Question 5.6: Do you see these developments posing any challenges over the next two to three years in terms of the support that will be required for staff and students?

Table A5.6: Whether institutions consider that the developments identified in question 5.5 will pose support challenges over the next two to three years

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Yes	44	72%	70%	73%	100%	72%	100%	67%	50%
No	17	28%	30%	27%	0%	28%	0%	33%	50%

Note: n=61 for Table A5.6

Question 5.6a: What challenges do you see these developments posing over the next two to three years in terms of support that will be required for staff and students?

Table A5.6a: Challenges that these developments pose over the next two to three years in terms of support that will be required for staff and students

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Staff development	15	35%	29%	43%	0%	22%	75%	67%	100%
E-assessment (e-submission, e-marking, e-feedback)	10	23%	14%	33%	0%	31%	0%	0%	0%
Lecture capture/recording	9	21%	29%	14%	0%	22%	25%	17%	0%
Technical infrastructure – addressing growth, new technologies	9	21%	14%	24%	100%	22%	0%	33%	0%
Lack of support staff/specialist skills/ resources	7	16%	29%	5%	0%	13%	25%	17%	100%
Mobile technologies/learning, BYOD (support, creating content and compatibility with systems)	7	16%	5%	29%	0%	19%	0%	17%	0%
Budgets/funding/financial constraints	6	14%	14%	10%	100%	16%	0%	0%	100%
Legal/policy issues (inc. IPR, copyright, data security, system contingency)	5	12%	14%	10%	0%	16%	0%	0%	0%
New modes of delivery (e.g. open/online/ distance courses, flipped classroom)	5	12%	14%	10%	0%	9%	0%	33%	0%
Increased/diverse support (inc. 24/7 support, support for remote students/ staff)	4	9%	19%	0%	0%	9%	0%	17%	0%
Learning analytics	4	9%	5%	14%	0%	13%	0%	0%	0%
Managing/meeting expectations	4	9%	10%	10%	0%	6%	0%	33%	0%
Culture change	3	7%	5%	10%	0%	9%	0%	0%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Keeping up with emerging technologies	3	7%	14%	0%	0%	3%	25%	17%	0%
Staff incentives	3	7%	14%	0%	0%	9%	0%	0%	0%
Cloud services	2	5%	10%	0%	0%	6%	0%	0%	0%
Digital literacy/capability	2	5%	0%	10%	0%	6%	0%	0%	0%
Diversity of platforms/technologies	2	5%	5%	5%	0%	3%	25%	0%	0%
Internal collaboration	2	5%	5%	5%	0%	0%	0%	33%	0%
Interoperability	2	5%	5%	5%	0%	6%	0%	0%	0%
Lack of time	2	5%	5%	5%	0%	6%	0%	0%	0%
Multimedia (production, management, delivery storage)	2	5%	10%	0%	0%	3%	25%	0%	0%
Peer support networks	2	5%	5%	5%	0%	3%	0%	17%	0%
Prioritisation of teaching in line other activities	2	5%	10%	0%	0%	6%	0%	0%	0%
Wireless	2	5%	5%	0%	100%	6%	0%	0%	0%
Accessibility (in response to the change in Disabled Students' Allowance)	1	2%	0%	5%	0%	0%	25%	0%	0%
Blackboard Collaborate	1	2%	0%	5%	0%	3%	0%	0%	0%
Developing/supporting content creation and collections	1	2%	0%	5%	0%	3%	0%	0%	0%
E-portfolios	1	2%	0%	5%	0%	0%	0%	17%	0%
Learning spaces	1	2%	0%	5%	0%	3%	0%	0%	0%
Pedagogic support	1	2%	0%	5%	0%	3%	0%	0%	0%
Reorganisation	1	2%	5%	0%	0%	3%	0%	0%	0%
Senior management support	1	2%	0%	5%	0%	0%	0%	17%	0%
Sharing good practice	1	2%	0%	5%	0%	3%	0%	0%	0%
Social media	1	2%	5%	0%	0%	3%	0%	0%	0%
Supplier communications	1	2%	0%	5%	0%	0%	25%	0%	0%
Turnitin/plagiarism	1	2%	0%	5%	0%	3%	0%	0%	0%
VLE (change/extend)	1	2%	0%	5%	0%	3%	0%	0%	0%

Note: n=43 for Table A5.6a

Question 5.6b: How do you see these challenges being overcome?

Table A5.6b: How institutions see the challenges identified in question 5.6a being overcome

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Investment (time, money, resources, support staff)	15	35%	38%	29%	100%	44%	0%	17%	0%
Staff development (e.g. training courses)	15	35%	24%	43%	100%	31%	50%	50%	0%
Improve technical infrastructure (inc. wireless)	13	30%	29%	33%	0%	38%	0%	17%	0%
Development of/integration with strategies/policies	11	26%	14%	38%	0%	28%	0%	33%	0%
Review and revise support provision (increased/improved/devolved/extended hours)	8	19%	19%	14%	100%	16%	50%	17%	0%
Mobile devices (support, provision of apps)	6	14%	5%	19%	100%	19%	0%	0%	0%
Provision of guidance to staff/students (e.g. online resources)	5	12%	10%	10%	100%	6%	50%	17%	0%

	No.	Total	Pre-92	Post-92	Other	Eng	Wal	Sco	NI
Communities of practice – sharing good practice, success stories, case studies	4	9%	10%	10%	0%	9%	0%	17%	0%
Internal collaboration/joined-up approach	4	9%	5%	14%	0%	6%	0%	33%	0%
Senior management leadership/ commitment to TEL	4	9%	10%	10%	0%	9%	25%	0%	0%
Staff/student engagement/buy-in	4	9%	10%	10%	0%	9%	0%	17%	0%
E-assessment (e-submission, e-marking, e-feedback)	3	7%	5%	10%	0%	6%	0%	17%	0%
Improve/increase use of existing technologies	3	7%	5%	10%	0%	6%	0%	17%	0%
Interoperability/extending systems	3	7%	5%	10%	0%	6%	0%	17%	0%
Learning analytics	3	7%	0%	14%	0%	9%	0%	0%	0%
Lecture capture	3	7%	10%	5%	0%	6%	0%	17%	0%
Accessibility	2	5%	0%	10%	0%	3%	25%	0%	0%
Greater use of multimedia	2	5%	5%	5%	0%	0%	25%	17%	0%
Reorganisation/restructure	2	5%	5%	5%	0%	6%	0%	0%	0%
System testing	2	5%	0%	10%	0%	6%	0%	0%	0%
Awareness-raising	1	2%	5%	0%	0%	3%	0%	0%	0%
Cloud solutions	1	2%	5%	0%	0%	3%	0%	0%	0%
Collaboration with external partners	1	2%	5%	0%	0%	0%	0%	17%	0%
Cultural changes/embedding	1	2%	0%	5%	0%	3%	0%	0%	0%
Develop digital literacy skills	1	2%	0%	5%	0%	3%	0%	0%	0%
Improve learning spaces	1	2%	0%	5%	0%	3%	0%	0%	0%
Improve skills and knowledge of support staff	1	2%	0%	5%	0%	3%	0%	0%	0%
Keeping up to date with new technologies	1	2%	0%	5%	0%	3%	0%	0%	0%
Managing expectations	1	2%	0%	5%	0%	3%	0%	0%	0%
New governance model	1	2%	5%	0%	0%	3%	0%	0%	0%
Outsourcing content creation	1	2%	0%	5%	0%	3%	0%	0%	0%
Providing access to software	1	2%	0%	5%	0%	3%	0%	0%	0%
Provision of incentives	1	2%	0%	5%	0%	0%	25%	0%	0%
Rollout of Office 365/SharePoint	1	2%	0%	5%	0%	3%	0%	0%	0%
Student demand/experience	1	2%	5%	0%	0%	3%	0%	0%	0%
Student development	1	2%	0%	5%	0%	3%	0%	0%	0%
Understanding the value of TEL	1	2%	0%	5%	0%	3%	0%	0%	0%

Note: n=43 for Table A5.6b

Appendix B: Data presented by university mission groups

Appendix B offers an additional layer of data for the Survey, based on the combined responses to questions by university mission groups[1].

Note that the membership of mission groups is based on the make-up of these groups in February/March 2016 when the Survey was being completed, and therefore will not reflect any subsequent changes in group membership. We have omitted a data column for unclassified institutions which do not belong to a mission group, as this unaffiliated set of institutions is not meaningful as a combined group.

It is important to note that the totals in each table reflect the global figures and percentages for all respondents that responded to that question. However, the breakdown of data per column headings will only capture mission group responses and will therefore not add up to the global totals, as the unclassified data has been omitted from each table.

Where new response options have been added to established questions used in previous Surveys, they have been denoted with an asterisk at the end of the response option. New questions for the 2016 Survey are identified in the main text accompanying each section of the Report.

Question 1.1: How important, if at all, have each of the following driving factors been for developing TEL and the processes that promote it in to date?

Table B1.1: Driving factors for TEL development (mean values)

Rank 2016	Driving factors	All	GuildHE	Alliance	Million+	Russell
1	Enhancing the quality of learning and teaching in general	3.82	3.85	3.94	3.75	3.82
2	Meeting student expectations in the use of technology	3.60	3.54	3.69	3.88	3.59
3	Improving student satisfaction e.g. NSS scores	3.57	3.46	3.69	3.63	3.53
4	To help create a common user experience	3.32	3.54	3.44	3.63	3.12
5	Improving access to online/blended learning for campus-based students*	3.23	3.38	2.88	3.50	3.47
6	Improving administrative processes	3.22	3.23	3.25	3.38	3.06
7	Supporting the development of digital literacy skills for students and staff*	3.20	3.46	3.38	3.25	3.06
8	Supporting flexible/blended curriculum development*	3.16	3.62	2.94	3.25	3.35
9	Keeping abreast of educational developments	3.14	3.38	3.31	3.13	3.12
10	Widening participation/inclusiveness	3.12	3.54	3.25	3.00	2.71
11	Attracting home students	3.10	3.46	3.31	3.25	2.76
12	Assisting and improving the retention of student	3.08	3.38	3.44	3.50	2.24
13	Creating or improving competitive advantage	3.03	3.08	3.00	3.00	3.00
14	Attracting international (outside EU) students	3.01	3.15	2.94	3.00	3.00
15	Supporting students affected by the withdrawal of DSA provision (Disabled Students' Allowances)*	2.99	3.15	3.19	3.13	2.65
16	Attracting new market	2.98	3.38	2.94	3.38	2.88

1 *Further details on the university mission groups are available on their respective websites: GuildHE: http://www.guildhe.ac.uk/; University Alliance: http://www.unialliance.ac.uk/; Million+: http://www.millionplus.ac.uk/; Russell Group: http://www.russellgroup.ac.uk/*

Rank 2016	Driving factors	All	GuildHE	Alliance	Million+	Russell
17	Attracting EU students	2.97	3.38	3.06	3.00	2.82
18	Meeting the requirements of the Equality Act (2010)*	2.96	3.15	3.31	3.25	2.59
19	Improving access to learning for international students	2.94	2.75	3.06	3.00	2.94
20	Improving access to learning for distance learners	2.87	2.46	2.94	3.38	3.00
21	Addressing work-based learning – the employer/workforce development agenda and student employability skills	2.85	2.85	3.13	3.38	2.24
22	Achieving cost/efficiency savings	2.83	2.54	2.81	3.00	2.53
23	Improving access to learning for part time students	2.77	3.23	2.81	3.00	2.41
24	Developing a wider regional, national or international role for your institution	2.73	2.46	2.88	3.00	2.76
25	Formation of other partnerships with external institutions/organisations	2.54	2.31	2.56	2.63	2.47
26	To help support joint/collaborative course developments with other institutions	2.27	2.00	2.38	2.63	2.18
27	Improving access to learning through the provision of open education resources	1.85	1.85	1.88	2.38	2.00
28	Improving access to learning through the provision of open education courses (e.g. MOOCs)	1.74	1.00	1.69	1.63	2.53

Note: n=105 for Table B1.1

Question 1.3: How important, if at all are the following factors in *encouraging* the development of TEL and processes that promote it?

Table B1.3: Factors encouraging development of TEL (mean values)

Rank 2016	Driving factors	All	GuildHE	Alliance	Million+	Russell
1	Availability of technology enhanced learning support staff	3.70	3.62	3.94	3.63	3.82
2	Feedback from students	3.52	3.54	3.56	3.50	3.59
3	Availability and access to tools across the institution	3.44	3.31	3.50	3.50	3.59
4	School/departmental senior management support	3.44	3.15	3.69	3.50	3.41
5	Central university senior management support	3.31	3.00	3.56	3.50	3.41
6	Availability of committed local champions	3.22	3.31	3.19	3.38	3.41
7	Technological changes/developments	3.13	3.23	3.00	3.13	2.94
8	Availability of internal project funding	3.03	2.85	3.06	2.75	3.06
9	Availability of university committees and steering groups to guide development	2.92	2.69	3.00	3.25	3.00
10	Availability and access to relevant user groups/online communities	2.72	2.77	2.69	2.88	2.71
11	Partnership with students on TEL projects (students as co-creators)*	2.57	2.85	2.75	2.88	2.65
12	Availability of relevant standards	2.50	2.46	2.75	3.00	2.29
13	Availability of external project funding (e.g. JISC, HEFCE)	2.32	2.46	2.38	2.38	1.94

Note: n=105 for Table B1.3

Question 2.1: Which, if any, institutional strategies inform the development of technology enhanced learning in your institution?

Table B2.1a: Institutional strategies that have informed TEL development

	No.	Total	GuildHE	Alliance	Million+	Russell
Teaching, Learning and Assessment strategy	96	91%	100%	88%	100%	88%
Student learning experience/student engagement strategy	61	58%	31%	71%	75%	47%
Corporate strategy	59	56%	54%	71%	88%	41%
Library/Learning Resources strategy	56	53%	46%	47%	75%	65%
Technology Enhanced Learning or eLearning strategy	51	48%	46%	59%	38%	71%
Information and Communication Technology (ICT) strategy	51	48%	46%	53%	50%	53%
Employability strategy	40	38%	31%	41%	75%	29%
Quality Enhancement strategy	34	32%	31%	41%	50%	12%
Staff Development strategy*	33	31%	31%	35%	38%	18%
Access/Widening Participation strategy	32	30%	31%	41%	25%	12%
Information and Learning Technology (ILT) strategy	32	30%	54%	41%	25%	35%
Estates strategy	30	28%	23%	47%	25%	24%
Digital Literacy/Digital Capability strategy	28	26%	31%	35%	38%	29%
International strategy	27	25%	23%	24%	38%	29%
Distance Learning strategy	24	23%	23%	18%	25%	24%
Digital strategy/eStrategy	21	20%	15%	18%	13%	29%
Mobile Learning strategy	19	18%	23%	29%	13%	18%
Information strategy	16	15%	23%	24%	13%	6%
Other institutional strategy	14	13%	8%	18%	13%	6%
Digital Media strategy	13	12%	23%	6%	13%	6%
Marketing strategy	11	10%	15%	18%	0%	12%
Open Learning strategy*	11	10%	8%	18%	0%	18%
Human Resources strategy	11	10%	15%	12%	25%	12%
Communications strategy	7	7%	15%	18%	0%	0%
Competition and Markets Authority (CMA) strategy*	4	4%	8%	0%	0%	0%
Not considered in any institutional strategy documents	1	1%	0%	0%	0%	0%

Note: n=106 for Table B2.1a

Table B2.1b: Are these strategies linked to an overarching institutional approach to digital and data management practices?

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes it is/they are – please enter brief details	21	20%	23%	24%	25%	24%
Not currently, but under consideration	47	45%	39%	59%	38%	35%
No, it isn't/they aren't	35	34%	39%	12%	38%	41%
Not answered	1	1%	0%	6%	0%	0%

Note: n=104 for Table 2.1b

Table B2.1c: Are these strategies linked to an overarching institutional approach to a particular teaching and learning initiative (with a TEL focus)?

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes it is/they are – please enter brief details	44	42%	46%	53%	63%	53%
Not currently, but under consideration	36	35%	31%	29%	25%	29%
No, it isn't/they aren't	22	21%	23%	12%	13%	18%
Not answered	2	2%	0%	6%	0%	0%

Note: n=104 for Table B2.1c

Table B2.1d: How is TEL governance managed within your institution? Do you have any of the following committees/ working groups with an institutional remit, looking at TEL activity across the institution?

	No.	Total	GuildHE	Alliance	Million+	Russell
Other committees/working groups (1)	52	51%	39%	56%	43%	24%
TEL/e-learning/blended learning	49	48%	39%	69%	57%	53%
Other committees/working groups (2)	30	29%	15%	25%	43%	24%
Don't have committees/working groups with an institutional remit looking at TEL	20	20%	31%	6%	14%	18%
Distance learning	19	19%	15%	19%	14%	29%
Open learning/MOOC development	17	17%	0%	13%	0%	35%
Other committees/working groups (3)	11	11%	15%	6%	29%	6%
Mobile learning	3	3%	0%	6%	0%	6%
Other committees/working groups (4)	3	3%	0%	6%	14%	0%

Note: n=102 for Table B2.1d

Question 2.2: Which, if any, *external strategy documents* inform the development of technology enhanced learning in your institution?

Table B2.2: External strategy documents that have informed the development of TEL

	No.	Total	GuildHE	Alliance	Million+	Russell
Jisc strategies	72	71%	92%	69%	71%	65%
HEFCE eLearning strategy (2005 and 2009)	51	50%	42%	75%	57%	47%
Strategies from professional bodies or agencies	29	29%	25%	31%	14%	47%
Other HEFCE strategy documents	17	17%	17%	13%	29%	18%
Enhancing Learning and Teaching through Technology: refreshing the HEFCW strategy 2011	16	16%	8%	31%	14%	29%
No external strategy documents inform development	11	11%	8%	0%	0%	18%
Joint Scottish Funding Councils eLearning Report	10	10%	0%	0%	43%	12%
Other external strategy	9	9%	0%	6%	29%	6%
Department for Employment and Learning Northern Ireland (DELNI)	3	3%	0%	0%	14%	6%

Note: n=101 for Table B2.2

Question 2.3: Which, if any, *external reports or documents* inform the development of technology enhanced learning in your institution?

Table B2.3: External reports or documents that have informed the development of TEL

	No.	Total	GuildHE	Alliance	Million+	Russell
Jisc: Developing Digital Literacies (2012)	73	73%	67%	81%	86%	65%
UCISA 2014 Survey of Technology Enhanced Learning for higher education	61	61%	67%	75%	71%	59%
Changing the Learning Landscape Report (2012–14)*	58	58%	67%	50%	71%	53%
Jisc: Enhancing the student digital experience: a strategic approach (2014)*	57	57%	50%	63%	57%	47%
Jisc: Enhancing curriculum design with technology (2013)	56	56%	42%	75%	57%	41%
HeLF: Electronic Management of Assessment Survey Report (2013)	47	47%	33%	44%	71%	53%
NMC Horizon Report 2015 Higher Education Edition*	45	45%	25%	63%	57%	59%
HeLF Learning Analytics report (2015)*	36	36%	33%	31%	43%	47%
Jisc: Code of practice for learning analytics (2015)*	36	36%	25%	44%	57%	35%
Jisc/NUS Benchmarking tool – the student digital experience (2015)*	36	36%	42%	44%	43%	29%
NUS Charter on Technology in HE (2011)	33	33%	33%	44%	43%	24%
MOOCs and Open Education: Implications for Higher Education (2013)	30	30%	8%	13%	43%	53%
HEFCE Review of the National Student Survey (2014)*	30	30%	50%	50%	57%	18%
The Open University: Innovation Pedagogy Report (2014)*	29	29%	17%	44%	71%	35%
BIS: Students at the Heart of the System (2011)*	26	26%	50%	19%	43%	24%
Jisc: Developing successful student-staff partnerships (2015)*	26	26%	33%	31%	57%	24%
HEFCE's Strategy Statement: Opportunity, choice and excellence in higher education (2011)	21	21%	25%	44%	14%	24%
HeLF Tablet Survey Report (2014)*	21	21%	8%	19%	43%	35%
Gibbs (2012) Implications of Dimensions of quality in a market environment	19	19%	17%	19%	29%	29%
NUS report: Radical interventions in teaching and learning (2014)*	18	18%	17%	19%	57%	18%
Department for Business Innovation & Skills report on MOOCs (2013): The Maturing of the MOOC	15	15%	8%	13%	29%	29%
NUS connect: A Manifesto for Partnership (2015)*	13	13%	17%	25%	29%	12%
HEFCE's Collaborate to Compete paper (2011)	11	11%	8%	25%	29%	18%
Department for Business and Skills FELTAG report (2014)*	11	11%	8%	13%	29%	6%
HEPI-HEA Student Academic Experience Survey (2015)*	10	10%	8%	19%	43%	0%
Other external reports or documents	10	10%	0%	6%	29%	12%
E-Learning in European Higher Education Institutions: EUA report (2014)*	8	8%	17%	0%	14%	6%
No external reports or documents inform development	4	4%	0%	0%	0%	12%

Note: n=100 for Table B2.3

Question 2.4: To what extent, if at all, do any *internal* strategies on the development of technology enhanced learning influence the implementation of the various tools in practice?

Table B2.4: The extent to which *internal* strategies on the development of TEL have influenced the implementation of the various tools in practice

	No.	Total	Guild HE	Alliance	Million+	Russell
Internal strategies have a great influence on implementation	30	30%	33%	44%	29%	29%
Internal strategies influence implementation	59	58%	42%	50%	71%	71%
Internal strategies have limited influence on implementation	9	9%	8%	6%	0%	0%
Don't have internal strategies on the development of technology enhanced learning	3	3%	17%	0%	0%	0%

Note: n=101 for Table B2.4

Question 2.4a: To what extent, if at all, do any *external* strategies on the development of technology enhanced learning influence the implementation of the various tools in practice?

Table B2.4a: The extent to which *external* strategies on the development of TEL have influenced the implementation of the various tools in practice

	No.	Total	GuildHE	Alliance	Million+	Russell
External strategies have a great influence on implementation	3	3%	0%	6%	0%	0%
External strategies influence implementation	48	48%	42%	63%	71%	47%
External strategies have limited influence on implementation	44	44%	50%	25%	29%	47%
External strategies have no influence on implementation	6	6%	8%	6%	0%	6%

Note: n=101 for Table B2.4a

Question 2.5: What institutional policies, if any, link strategy and implementation of technology enhanced learning tools?

Table B2.5: Institutional policies which link strategy with implementation of TEL tools

	No.	Total	GuildHE	Alliance	Million+	Russell
Learning, Teaching and Assessment strategy	71	70%	75%	81%	100%	59%
VLE usage policy (minimum requirements)	69	68%	100%	88%	100%	41%
Faculty or departmental/school plans	63	62%	33%	75%	86%	88%
VLE guidelines/description of VLE service	61	60%	50%	69%	86%	59%
Electronic management of assessment (e-assessment/e-submission) policy	50	50%	50%	81%	29%	53%
TEL or eLearning strategy/action plan/framework	44	44%	50%	50%	43%	59%
Lecture capture guidelines/policy*	44	44%	25%	44%	29%	76%
Other institutional policy	8	8%	8%	6%	14%	12%
There are no institutional policies that link strategy and implementation	3	3%	0%	0%	0%	0%

Note: n=101 for Table B2.5

Question 2.6: How is the adoption and use of technology enhanced learning tools enabled within your institution?

Table B2.6: Enabling approaches for the adoption and use of TEL tools within an institution

	No.	Total	GuildHE	Alliance	Million+	Russell
Providing support and training to academic staff	92	91%	83%	100%	86%	82%
Providing platforms for sharing good practice (e.g. networks; show and tell meetings)	81	80%	75%	94%	86%	82%
Delivery of PGCert Training & Learning/Academic Practice programme for academic staff	74	73%	58%	88%	100%	76%
Provision of case studies*	53	52%	25%	50%	71%	65%
Allowing academic staff development time	35	35%	50%	50%	43%	35%
Provision of student internships/partnerships	35	35%	50%	44%	57%	41%
Allowing support staff development time	32	32%	50%	63%	43%	24%
Delivery of other forms of accredited training for academic staff	31	31%	42%	25%	43%	35%
Other enabling factor	21	21%	0%	25%	29%	41%
By appointing an academic in each department with responsibility for coordinating TEL adoption amongst academic staff*	17	17%	25%	19%	14%	29%
Setting targets for TEL adoption for staff as part of annual review/appraisal process*	16	16%	25%	38%	14%	12%
Contractual obligation/part of job specification for academic staff	11	11%	25%	25%	0%	6%
Proficiency in use of TEL tools is a criterion for selection of new teaching staff*	10	10%	25%	19%	29%	0%
Capability in using TEL tools recognised as criterion for promotion of teaching staff*	8	8%	17%	13%	0%	12%
Adoption and use of technology enhanced learning tools is *not* enabled	1	1%	0%	0%	0%	0%

Note: n=101 for Table B2.6

Question 2.7: In what ways, if any, have you sought to raise awareness amongst staff of the benefits of using technology enhanced learning tools, engaging them in greater use of technology in their teaching and assessment?

Table B2.7: Approaches to raise awareness amongst staff of the benefits of using technology enhanced learning tools

	No.	Total	GuildHE	Alliance	Million+	Russell
Staff development for teaching and learning qualification (e.g. PGCert Teaching & Learning/ Academic Practice)*	85	84%	83%	88%	100%	88%
Staff development programme	85	84%	92%	100%	100%	82%
Dissemination channels for TEL practices (e.g. internal conferences, show and tell, newsletters)	83	82%	83%	94%	86%	71%
TEL website and online training resources	79	78%	58%	88%	71%	94%
Provision of case studies featuring innovative TEL practice*	63	62%	33%	56%	86%	88%
Joined up central and departmental training/ support provision*	61	60%	58%	69%	57%	65%
TEL strategy groups and networks	59	58%	58%	69%	71%	65%
Teaching prizes and awards*	48	48%	25%	56%	43%	65%
Professional accreditation schemes (e.g. UKPSF and CMALT)*	48	48%	25%	69%	86%	59%

	No.	Total	GuildHE	Alliance	Million+	Russell
Joined up central and departmental support provision	47	47%	33%	56%	43%	53%
Engagement in MOOCs*	30	30%	0%	25%	14%	53%
Digital scholarship and research*	23	23%	17%	38%	29%	29%
Badges*	10	10%	8%	19%	14%	12%
Other approach to raising awareness	8	8%	17%	6%	0%	6%

Note: n=101 for Table B2.7

Question 3.1: Is there a VLE *currently* in use in your institution?

Table B3.1: Institutional VLE currently in use

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	106	100%	100%	100%	100%	100%
No	0	0%	0%	0%	0%	0%

Note: n=94 for Table B3.1

Question 3.1a: Which VLE(s), if any, is/are *currently* used in your institution?

Table B3.1a: VLEs currently used

	No.	Total	GuildHE	Alliance	Million+	Russell
Moodle	56	53%	67%	53%	13%	61%
Blackboard Learn	49	46%	25%	41%	63%	50%
FutureLearn	25	24%	0%	6%	0%	78%
Other VLE developed *in-house*	13	12%	8%	0%	0%	28%
Open Education (by Blackboard)*	9	9%	0%	12%	13%	11%
Canvas (by Instructure)	7	7%	8%	0%	0%	17%
Coursera	6	6%	0%	0%	0%	17%
Other MOOC platform*	6	6%	8%	12%	0%	6%
SharePoint	5	5%	8%	0%	13%	11%
Joule (by Moodlerooms)*	3	3%	0%	0%	0%	6%
Brightspace (by Desire2Learn)	2	2%	0%	6%	0%	6%
edX	2	2%	0%	6%	0%	6%
Other *commercial* VLE	2	2%	0%	0%	0%	0%
Other *open source* VLE	2	2%	8%	0%	0%	0%
Pearson eCollege	2	2%	0%	0%	13%	0%
Sakai	2	2%	0%	0%	0%	0%
Blackboard Classic	1	1%	0%	6%	0%	0%
Other intranet based – developed *in-house*	1	1%	0%	0%	0%	0%

Note: n=106 for Table B3.1a

Question 3.1b: Out of the above which is the *main* VLE in use across your institution?

Table B3.1b: The *main* VLE in use

	No.	Total	GuildHE	Alliance	Million+	Russell
Blackboard Learn	48	45%	25%	41%	63%	50%
Moodle	47	43%	67%	47%	13%	39%
Brightspace (by Desire2Learn)	2	2%	0%	6%	0%	0%
Canvas (by Instructure)	2	2%	0%	6%	0%	6%
SharePoint	2	2%	0%	0%	13%	6%
Blackboard Classic	1	1%	0%	6%	0%	0%
Joule (by Moodlerooms)*	1	1%	0%	0%	0%	0%
Other *open source* VLE	1	1%	8%	0%	0%	0%
Pearson eCollege	1	1%	0%	0%	13%	0%
Sakai	1	1%	0%	0%	0%	0%

Note: n=106 for Table B3.1b

Question 3.1c: Is the *main* VLE in used for each of the following or not?

Table B3.1c (i): The main VLE and blended learning (campus-based courses)

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	105	99%	100%	94%	100%	100%
No. Another VLE is used	0	0%	0%	0%	0%	0%
No. Mode of delivery not supported *using a VLE*	0	0%	0%	0%	0%	0%
No. Mode of delivery not supported	1	1%	0%	6%	0%	0%

Note: n=106 for Table B3.1c (i)

Table B3.1c (ii): The main VLE and distance learning

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	91	86%	83%	82%	100%	94%
No. Another VLE is used	6	4%	0%	18%	0%	6%
No. Mode of delivery not supported *using a VLE*	1	1%	8%	0%	0%	0%
No. Mode of delivery not supported	8	8%	8%	0%	0%	0%

Note: n=106 for Table B3.1c (ii)

Table B3.1c (iii): The main VLE and open online learning

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	18	17%	17%	18%	13%	17%
No. Another VLE is used	28	26%	8%	18%	25%	44%
No. Mode of delivery not supported *using a VLE*	13	12%	25%	12%	13%	22%
No. Mode of delivery not supported	47	44%	50%	53%	50%	17%

Note: n=106 for Table B3.1c (iii)

Question 3.2: Thinking about the (main) VLE in use, which of the following best describes how your platform is technically managed?

Table B3.2: Hosting results for main institutional VLE

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally hosted and managed	60	57%	58%	59%	63%	67%
Institutionally managed but hosted by third party	39	37%	33%	35%	25%	28%
Cloud-based Software as a Service/multi-tenant service*	7	7%	8%	6%	13%	6%

Note: n=106 for Table B3.2

Question 3.3: Have you undertaken a review of a major institutional TEL facility or system in the *last two years*?

Table B3.3: Institutional review of TEL facility or system in last two years

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	57	54%	58%	77%	13%	61%
No	49	46%	42%	23%	87%	39%

Note: n=106 for Table B3.3

Question 3.3a: Which major TEL facilities or systems have you reviewed in the *last two years*?

Table B3.3a: TEL facilities or systems that have been reviewed in the last two years

	No.	Total	GuildHE	Alliance	Million+	Russell
VLE	47	83%	86%	69%	0%	82%
Lecture capture	27	47%	43%	69%	100%	27%
E-assessment	20	35%	43%	39%	100%	9%
E-portfolio	17	30%	14%	31%	100%	0%
Learning analytics	15	26%	0%	54%	100%	27%
MOOC platform	9	16%	0%	8%	0%	27%
Other	8	14%	0%	23%	0%	18%
Mobile learning	7	12%	29%	15%	0%	0%

Note: n=57 for Table B3.3a

Question 3.6: Are you planning to undertake a review of a major institutional TEL facility or system within the next two years?

Table B3.6: Institutional review of TEL facility or system in next two years

	No.	Total	GuildHE	Alliance	Million+	Russell
Planning a review in the next year	34	32%	50%	31%	50%	28%
Planning a review in the next two years	33	31%	8%	13%	50%	39%
Not planning a review in the next two years	38	36%	42%	56%	0%	33%

Note: n=105 for Table B3.6

Question 3.6a: Which major TEL facilities or systems are you planning on reviewing in the next two years?

Table B3.6a: TEL facilities or systems to be reviewed in the next two years

	No.	Total	GuildHE	Alliance	Million+	Russell
VLE	47	70%	57%	71%	75%	58%
E-assessment	35	52%	29%	43%	75%	83%
Learning analytics	29	43%	57%	57%	50%	33%
Lecture capture	29	43%	29%	29%	50%	58%
E-portfolio	27	40%	14%	43%	75%	25%
Mobile learning	14	21%	29%	0%	25%	17%
MOOC platform	8	12%	0%	0%	13%	8%
Other	8	12%	29%	29%	13%	0%

Note: n=67 for Table B3.6a

Question 3.8: Are there *departments* within your institution using a VLE in addition to the *main* centrally provided VLE?

Table B3.8: Departmental VLEs in use

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	29	28%	8%	13%	25%	56%
No	76	72%	92%	87%	75%	44%

Note: n=105 for Table B3.8

Question 3.9: What is the context for this localised provision?

Table B3.9: Context for hosting of VLEs within departments

	No.	Total	Guild HE	Alliance	Million+	Russell
A case has been made for the departmental VLE based on *pedagogical* reasons	9	31%	0%	50%	0%	30%
The departmental VLE predates introduction of institutional VLE	8	28%	0%	0%	0%	50%
A case has been made for the departmental VLE based on *commercial* reasons	6	21%	0%	0%	100%	10%
The institution has a devolved management structure that permits departments to deploy their own software	3	10%	0%	0%	0%	30%
Other context	8	28%	100%	50%	0%	10%

Note: n=29 for Table B3.9

Question 3.10: Which, if any, *centrally-supported* technology enhanced learning software tools are used by *students* in your institution?

Table B3.10: Centrally-supported software tools used by students

	No.	Total	GuildHE	Alliance	Million+	Russell
VLE	104	99%	100%	100%	100%	100%
E-submission tools (assignment)	98	93%	83%	100%	100%	94%
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	94	90%	58%	100%	100%	94%
Formative e-assessment tool (e.g. quizzes)	91	87%	67%	94%	100%	89%

	No.	Total	GuildHE	Alliance	Million+	Russell
Asynchronous communication tools (e.g. discussion forums)*	89	85%	100%	94%	100%	67%
Summative e-assessment tools (e.g. quizzes)*	85	81%	67%	88%	88%	83%
Blog	80	76%	83%	88%	100%	78%
Document sharing tool (e.g. Google Docs, Office 365)	80	76%	83%	88%	75%	83%
E-portfolio	78	74%	58%	88%	100%	72%
Media streaming system	77	73%	83%	94%	88%	67%
Lecture capture tools	75	71%	50%	75%	63%	89%
Personal response systems (including handsets or web-based apps)	71	67%	42%	69%	75%	89%
Reading list management software	69	66%	42%	81%	75%	67%
Wiki	66	63%	58%	75%	75%	61%
Mobile apps*	65	62%	33%	94%	75%	67%
Webinar*	63	60%	50%	69%	88%	44%
Synchronous collaborative tools (e.g. virtual classroom)*	58	55%	58%	63%	63%	44%
Screen casting	51	49%	75%	81%	50%	39%
Podcasting	37	35%	17%	44%	63%	44%
Digital/learning repository	36	34%	17%	56%	50%	33%
Content management systems	34	32%	42%	44%	38%	28%
Social networking	26	25%	17%	31%	50%	22%
Learning analytics tool*	20	19%	17%	44%	25%	11%
Other software tool	20	19%	8%	19%	38%	22%
Electronic essay exams*	15	14%	8%	19%	13%	22%
Social bookmarking/content curation tools	6	6%	8%	6%	13%	6%

Note: n=105 for Table B3.10

Question 3.11: And which, if any, technology enhanced learning tools that are used by students are *not* centrally-supported? For example, those used by particular departments or even individuals.

Table B3.11: Software tools used by students which are *not* centrally-supported

	No.	Total	GuildHE	Alliance	Million+	Russell
Social networking	62	59%	58%	75%	63%	50%
Document sharing tool (e.g. Google Docs. Office 365)	46	44%	42%	56%	50%	39%
Blog	41	39%	33%	63%	38%	28%
Mobile apps*	31	30%	17%	44%	25%	39%
Personal response systems	27	26%	17%	50%	13%	33%
Screen casting	23	22%	8%	50%	13%	22%
Media streaming system	22	21%	17%	38%	25%	28%
Social bookmarking/content curation tools	21	20%	17%	38%	13%	11%
Synchronous collaborative tools (e.g. virtual classroom)*	20	19%	8%	38%	25%	22%
Asynchronous communication tools (e.g. discussion forums)*	19	18%	8%	44%	25%	11%
E-portfolio	18	17%	0%	38%	13%	17%

	No.	Total	GuildHE	Alliance	Million+	Russell
None used	18	17%	17%	13%	13%	22%
Other software tool	15	14%	8%	25%	13%	17%
Virtual learning environment (VLE)	12	11%	0%	19%	0%	22%
Webinar*	12	11%	8%	25%	13%	0%
Wiki	12	11%	0%	38%	25%	0%
Podcasting	11	11%	0%	31%	0%	0%
Digital/learning repository	10	10%	0%	31%	0%	6%
Formative e-assessment tool (e.g. quizzes)	10	10%	0%	25%	25%	11%
Lecture capture tools	9	9%	0%	19%	13%	6%
Content management systems	6	6%	0%	25%	0%	0%
E-submission tools (assignments)	5	5%	0%	13%	25%	6%
Summative e-assessment tools (e.g. quizzes)*	4	4%	0%	6%	0%	6%
Reading list management software	3	3%	8%	13%	0%	0%
Electronic essay exams*	1	1%	0%	6%	0%	0%
Learning analytics tool*	1	1%	0%	6%	0%	0%
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	1	1%	0%	6%	0%	0%

Note: n=105 for Table B3.11

Question 3.12: Approximately what proportion of all modules or units of study in the technology enhanced learning environment in use in your institution fall into each of the following categories?

Table B3.12a: Blended learning: lecture notes and supplementary resources for courses studied in class are available

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes, extensively across the institution	82	79%	75%	80%	63%	89%
Yes, across some schools/departments	14	13%	17%	13%	25%	6%
Yes, by some individual teachers	7	7%	8%	0%	13%	6%
Not yet, but we are planning to	1	1%	0%	7%	0%	0%

Note: n=104 for Table B3.12a

Table B3.12b: Blended learning: parts of the course are studied in class and other parts require students to engage in active learning online (e.g. engaging in collaborative or assessed tasks)

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes, extensively across the institution	20	19%	8%	40%	13%	22%
Yes, across some schools/departments	48	46%	58%	47%	63%	44%
Yes, by some individual teachers	32	31%	25%	7%	25%	33%
Not yet, but we are planning to	1	1%	0%	0%	0%	0%
Not offered and no plans to do so	2	2%	8%	0%	0%	0%
Don't know/not applicable	1	1%	0%	7%	0%	0%

Note: n=104 for Table B3.12b

Table B3.12c: Fully online courses

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes, extensively across the institution	8	8%	8%	7%	0%	6%
Yes, across some Schools/departments	48	46%	25%	53%	100%	56%
Yes, by some individual teachers	27	26%	25%	40%	0%	28%
Not yet, but we are planning to	14	13%	25%	0%	0%	11%
Not offered and no plans to do so	7	7%	17%	0%	0%	0%

Note: n=104 for Table B3.12c

Table B3.12d: Open online learning courses for all students at your institution (internal access only)

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes, extensively across the institution	7	7%	17%	7%	0%	6%
Yes, across some schools/departments	17	16%	8%	7%	0%	22%
Yes, by some individual teachers	19	18%	25%	13%	38%	22%
Not yet, but we are planning to	21	20%	17%	33%	13%	28%
Not offered and no plans to do so	29	28%	33%	20%	38%	17%
Don't know/not applicable	11	11%	0%	20%	13%	6%

Note: n=104 for Table B3.12d

Table B3.12e: Open online boundary courses: free external access to the course materials for the public, but assessment restricted to students registered at your institution only

	No.	Total	GuildHE	Alliance	Million+	Russell
Not answered	2	2%	0%	0%	0%	6%
Yes, extensively across the institution	2	2%	0%	7%	0%	0%
Yes, across some schools/departments	4	4%	8%	7%	0%	6%
Yes, by some individual teachers	13	13%	8%	33%	0%	11%
Not yet, but we are planning to	16	15%	17%	20%	25%	28%
Not offered and no plans to do so	56	54%	58%	33%	63%	39%
Don't know/not applicable	11	11%	8%	0%	13%	11%

Note: n=104 for Table B3.12e

Table B3.12f: Open online learning courses for public (free external access)

	No.	Total	GuildHE	Alliance	Million+	Russell
Not answered	1	1%	0%	0%	0%	6%
Yes, extensively across the institution	4	4%	0%	7%	0%	6%
Yes, across some schools/departments	16	15%	0%	20%	13%	28%
Yes, by some individual teachers	20	19%	17%	27%	13%	28%
Not yet, but we are planning to	15	14%	25%	13%	25%	17%
Not offered and no plans to do so	42	40%	58%	27%	50%	11%
Don't know/not applicable	6	6%	0%	7%	0%	6%

Note: n=104 for Table B3.12f

Table B3.12g: Other

	No.	Total	GuildHE	Alliance	Million+	Russell
Not answered	73	70%	75%	60%	75%	78%
Yes, across some Schools/departments	5	5%	0%	13%	0%	11%
Yes, by some individual teachers	2	2%	0%	0%	0%	6%
Not yet, but we are planning to	1	1%	0%	0%	0%	6%
Not offered and no plans to do so	4	4%	0%	0%	0%	0%
Don't know/not applicable	19	18%	25%	27%	25%	0%

Note: n=104 for Table B3.12g

Question 3.13: Are there any particular subject areas that make *more extensive* use of technology enhanced learning tools than your institutional norm?

Table B3.13: Subjects that make *more extensive* use of technology enhanced learning tools than the institutional norm

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	59	57%	42%	60%	63%	67%
No	45	43%	58%	40%	38%	33%

Note: n=104 for Table B3.13

Question 3.13a: Please select *up to three* subject areas and explain in what way they make more use of technology enhanced learning tools and why you think that this is so.

Table B3.13a: Subjects that make *more extensive* use of TEL

	No.	Total	GuildHE	Alliance	Million+	Russell
Medical sciences (Medicine, Nursing, Health)	32	54%	0%	67%	80%	83%
Business and management	19	32%	40%	33%	0%	33%
Other subject 1	16	27%	60%	44%	0%	8%
Education, Teacher training	15	25%	40%	0%	80%	17%
Computing	11	19%	20%	0%	60%	0%
Engineering, Technology	9	15%	0%	44%	40%	8%
Humanities (Geography, History)	7	12%	20%	11%	20%	8%
Law	6	10%	0%	0%	20%	17%
Social sciences	6	10%	0%	11%	0%	8%
Languages	5	8%	0%	11%	0%	17%
Natural sciences	5	8%	0%	0%	0%	0%
Other subject 2	4	7%	20%	0%	0%	0%
Mathematics	3	5%	0%	22%	0%	0%
Art and design	2	3%	20%	0%	0%	8%
Architecture	1	2%	0%	0%	0%	0%

Note: n=83 for Table B3.13a

Question 3.14: Are there any particular subject areas that make *less extensive* use of technology enhanced learning tools than your institutional norm?

Table B3.14: Subjects that make *less extensive* use of technology enhanced learning tools than the institutional norm

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	47	46%	33%	27%	75%	53%
No	56	54%	67%	73%	25%	47%

Note: n=103 for Table B3.14

Question 3.14a: Please select *up to three* subject areas and explain in what way they make less use of technology enhanced learning tools and why you think that this is so.

Table B3.14a: Subject areas that make *less extensive* use of technology enhanced learning tools than the institutional norm

	No.	Total	Guild HE	Alliance	Million+	Russell
Art and design	21	45%	75%	75%	100%	22%
Humanities (Geography, History)	16	34%	75%	0%	17%	33%
Other subject 1	12	26%	0%	25%	0%	44%
Mathematics	7	15%	0%	25%	0%	33%
Social sciences	5	11%	0%	0%	17%	11%
Education, Teacher training	4	9%	0%	25%	17%	11%
Law	4	9%	25%	25%	0%	11%
Architecture	3	6%	0%	25%	0%	0%
Computing	3	6%	0%	25%	0%	11%
Engineering, Technology	3	6%	0%	0%	17%	0%
Languages	2	4%	0%	0%	0%	0%
Natural sciences	2	4%	0%	25%	0%	0%
Other subject 2	1	2%	0%	0%	0%	0%

Note: n=83 for Table B3.14a

Question 3.15: Approximately, what proportion of courses within your institution use each of the following technology enhanced learning tools?

Table B3.15a: Virtual Learning Environment (VLE)

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	43	42%	75%	53%	38%	35%
75% – 99%	52	50%	17%	40%	50%	47%
50% – 74%	1	1%	0%	0%	0%	0%
1% – 4%	1	1%	0%	0%	13%	0%
Don't know	5	5%	0%	7%	0%	18%

Note: n=103 for Table B3.15a

Table B3.15b: E-submission tools (assignments)

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	21	20%	50%	27%	13%	12%
75% – 99%	39	38%	17%	40%	38%	18%
50% – 74%	21	20%	8%	20%	38%	41%
25% – 49%	8	8%	8%	7%	13%	6%
5% – 24%	3	3%	0%	0%	0%	0%
0%	2	2%	0%	0%	0%	0%
Don't know	8	8%	8%	7%	0%	24%

Note: n=103 for Table B3.15b

Table B3.15c: Text matching tools (e.g. SafeAssign, Turnitin, Urkund)

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	16	16%	33%	20%	13%	6%
75% – 99%	43	42%	8%	33%	38%	41%
50% – 74%	20	19%	17%	33%	38%	18%
25% – 49%	8	8%	17%	7%	13%	6%
5% – 24%	5	5%	0%	0%	0%	6%
0%	3	3%	8%	0%	0%	0%
Don't know	6	6%	8%	7%	0%	18%

Note: n=103 for Table B3.15c

Table B3.15d: Content management systems*

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	11	11%	42%	7%	0%	6%
75% – 99%	9	9%	8%	7%	0%	18%
50% – 74%	2	2%	0%	0%	13%	6%
25% – 49%	8	8%	0%	7%	0%	18%
5% – 24%	12	12%	33%	13%	13%	0%
1% – 4%	15	15%	0%	13%	50%	6%
0%	14	14%	8%	7%	0%	6%
Don't know	30	29%	0%	47%	25%	35%

Note: n=103 for Table B3.15d

Table B3.15e: Reading list management software*

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	9	9%	0%	13%	13%	0%
75% – 99%	22	21%	17%	33%	0%	24%
50% – 74%	12	12%	8%	13%	25%	6%
25% – 49%	13	13%	8%	13%	0%	18%
5% – 24%	7	7%	0%	7%	13%	18%
1% – 4%	7	7%	8%	0%	13%	12%
0%	11	11%	17%	0%	13%	0%
Don't know	21	20%	33%	20%	25%	24%

Note: n=103 for Table B3.15e

Table B3.15f: Digital/learning repository*

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	6	6%	25%	13%	0%	0%
75% – 99%	9	9%	0%	20%	0%	6%
50% – 74%	6	6%	8%	0%	13%	6%
25% – 49%	13	13%	8%	20%	0%	12%
5% – 24%	13	13%	33%	7%	25%	6%
1% – 4%	9	9%	8%	7%	25%	12%
0%	17	17%	8%	13%	0%	0%
Don't know	28	27%	0%	20%	38%	53%

Note: n=103 for Table B3.15f

Table B3.15g: Mobile apps*

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	5	5%	17%	7%	0%	0%
75% – 99%	9	9%	0%	20%	0%	18%
50% – 74%	6	6%	17%	0%	13%	6%
25% – 49%	14	14%	25%	7%	25%	6%
5% – 24%	15	15%	8%	13%	13%	18%
1% – 4%	22	21%	8%	27%	50%	0%
0%	3	3%	8%	0%	0%	0%
Don't know	27	26%	8%	27%	0%	47%

Note: n=103 for Table B3.15g

Table B3.15h: Asynchronous communication tools (e.g. discussion forums)

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	4	4%	25%	0%	0%	0%
75% – 99%	10	10%	8%	13%	0%	12%
50% – 74%	15	15%	8%	7%	25%	6%
25% – 49%	26	25%	33%	20%	38%	35%
5% – 24%	31	30%	17%	47%	38%	18%
1% – 4%	2	2%	0%	0%	0%	0%
0%	3	3%	0%	0%	0%	0%
Don't know	10	10%	0%	13%	0%	24%

Note: n=103 for Table B3.15h

Table B3.15i: Lecture capture tools (system to record teaching in a lecture theatre/classroom)

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	4	4%	0%	7%	0%	0%
75% – 99%	9	9%	0%	7%	0%	24%
50% – 74%	4	4%	8%	0%	0%	12%
25% – 49%	7	7%	8%	0%	13%	0%
5% – 24%	36	35%	25%	40%	25%	35%
1% – 4%	19	18%	8%	40%	63%	0%
0%	11	11%	33%	0%	0%	0%
Don't know	12	12%	8%	7%	0%	29%

Note: n=103 for Table B3.15i

Table B3.15j: E-portfolio

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	3	3%	0%	7%	0%	6%
50% – 74%	3	3%	8%	0%	0%	0%
25% – 49%	16	16%	8%	27%	25%	6%
5% – 24%	43	42%	42%	33%	63%	47%
1% – 4%	22	21%	8%	27%	13%	18%
0%	6	6%	8%	0%	0%	0%
Don't know	9	9%	17%	7%	0%	24%

Note: n=103 for Table B3.15j

Table B3.15k: Document sharing tool (e.g. Google Docs, Office 365)

	No.	Total	Guild HE	Alliance	Million+	Russell
100%	3	3%	25%	0%	0%	0%
75% – 99%	6	6%	25%	7%	0%	6%
50% – 74%	12	12%	0%	20%	13%	12%
25% – 49%	10	10%	8%	0%	13%	18%
5% – 24%	24	23%	25%	33%	25%	12%
1% – 4%	14	14%	8%	13%	25%	0%
0%	2	2%	0%	0%	0%	0%
Don't know	30	29%	0%	27%	25%	47%

Note: n=103 for Table B3.15k

Table B3.15l: Formative e-assessment tool (e.g. quizzes)

	No.	Total	Guild HE	Alliance	Million+	Russell
100%	3	3%	0%	7%	0%	6%
75% – 99%	4	4%	0%	0%	0%	18%
50% – 74%	17	17%	8%	33%	38%	12%
25% – 49%	34	33%	42%	33%	13%	18%
5% – 24%	29	28%	17%	7%	50%	18%
1% – 4%	5	5%	17%	7%	0%	6%
0%	1	1%	8%	0%	0%	0%
Don't know	9	9%	0%	13%	0%	24%

Note: n=103 for Table B3.15l

Table B3.15m: Blog

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	3	3%	17%	7%	0%	0%
75% – 99%	2	2%	8%	0%	0%	0%
50% – 74%	4	4%	0%	0%	0%	12%
25% – 49%	21	20%	25%	20%	0%	18%
5% – 24%	38	37%	42%	47%	50%	24%
1% – 4%	17	17%	0%	7%	50%	18%
0%	3	3%	0%	0%	0%	0%
Don't know	13	13%	0%	20%	0%	24%

Note: n=103 for Table B3.15m

Table B3.15n: Social networking*

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	2	2%	17%	0%	0%	0%
75% – 99%	8	8%	17%	7%	13%	6%
50% – 74%	2	2%	0%	13%	0%	0%
25% – 49%	12	12%	8%	20%	25%	12%
5% – 24%	26	25%	25%	27%	50%	18%
1% – 4%	23	22%	17%	13%	13%	18%
0%	6	6%	0%	0%	0%	6%
Don't know	23	22%	8%	20%	0%	41%

Note: n=103 for Table B3.15n

Table B3.15o: Media streaming system*

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	2	2%	0%	7%	0%	0%
75% – 99%	3	3%	0%	0%	0%	12%
50% – 74%	5	5%	8%	13%	0%	0%
25% – 49%	14	14%	25%	13%	13%	0%
5% – 24%	33	32%	42%	27%	50%	41%
1% – 4%	21	20%	8%	33%	38%	12%
0%	8	8%	8%	0%	0%	0%
Don't know	15	15%	0%	7%	0%	29%

Note: n=103 for Table B3.15o

Table B3.15p: Wiki*

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	2	2%	0%	7%	0%	0%
75% – 99%	1	1%	0%	0%	0%	0%
25% – 49%	9	9%	8%	13%	13%	6%
5% – 24%	29	28%	25%	40%	38%	35%
1% – 4%	36	35%	25%	20%	50%	24%
0%	9	9%	17%	0%	0%	0%
Don't know	16	16%	17%	20%	0%	35%

Note: n=103 for Table B3.15p

Table B3.15q: Personal response systems (including handsets or web-based apps)*

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	1	1%	0%	0%	0%	0%
50% - 74%	3	3%	0%	7%	0%	12%
25% - 49%	14	14%	25%	7%	13%	24%
5% - 24%	31	30%	25%	40%	13%	12%
1% - 4%	24	23%	17%	27%	63%	12%
0%	10	10%	17%	0%	13%	0%
Don't know	18	17%	8%	20%	0%	35%

Note: n=103 for Table B3.15q

Table B3.15r: Electronic essay exams

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	1	1%	8%	0%	0%	0%
75% – 99%	6	6%	8%	7%	13%	6%
50% – 74%	4	4%	0%	0%	0%	6%
25% – 49%	2	2%	8%	0%	0%	6%
5% – 24%	14	14%	8%	7%	25%	24%
1% – 4%	19	18%	0%	20%	13%	12%
0%	33	32%	50%	20%	38%	18%
Don't know	23	22%	8%	47%	13%	29%

Note: n=103 for Table B3.15r

Table B3.15s: Podcasting

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	1	1%	0%	7%	0%	0%
75% – 99%	3	3%	0%	7%	0%	6%
50% – 74%	3	3%	0%	0%	0%	12%
25% – 49%	5	5%	8%	0%	13%	6%
5% – 24%	24	23%	33%	27%	13%	6%
1% – 4%	35	34%	33%	33%	63%	35%
0%	12	12%	8%	7%	13%	6%
Don't know	18	17%	8%	20%	0%	24%

Note: n=103 for Table B3.15s

Table B3.15t: Learning analytics tools

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	1	1%	0%	7%	0%	0%
75% – 99%	1	1%	0%	7%	0%	0%
50% – 74%	1	1%	0%	0%	0%	0%
25% – 49%	5	5%	8%	7%	0%	6%
5% – 24%	10	10%	8%	27%	13%	18%
1% – 4%	32	31%	25%	13%	50%	24%
0%	27	26%	42%	20%	25%	6%
Don't know	25	24%	8%	20%	13%	47%

Note: n=103 for Table B3.15t

Table B3.15u: Screen casting

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	1	1%	0%	7%	0%	0%
75% – 99%	1	1%	0%	7%	0%	0%
50% – 74%	4	4%	8%	0%	0%	12%
25% – 49%	10	10%	17%	7%	25%	0%
5% – 24%	39	38%	67%	53%	25%	24%
1% – 4%	20	19%	0%	7%	50%	18%
0%	8	8%	0%	0%	0%	6%
Don't know	18	17%	0%	20%	0%	35%

Note: n=103 for Table B3.15u

Table B3.15v: Webinar*

	No.	Total	GuildHE	Alliance	Million+	Russell
100%	1	1%	0%	7%	0%	0%
75% – 99%	1	1%	0%	0%	0%	0%
50% – 74%	3	3%	8%	7%	0%	0%
25% – 49%	10	10%	8%	7%	13%	6%
5% – 24%	18	17%	17%	20%	50%	18%
1% – 4%	39	38%	42%	40%	38%	41%
0%	9	9%	8%	0%	0%	0%
Don't know	21	20%	8%	20%	0%	35%

Note: n=103 for Table B3.15v

Table B3.15w: Summative e-assessment tools (e.g. quizzes)

	No.	Total	Guild HE	Alliance	Million+	Russell
75% – 99%	3	3%	0%	7%	0%	12%
50% – 74%	7	7%	0%	0%	25%	12%
25% – 49%	26	25%	33%	40%	25%	12%
5% – 24%	31	30%	17%	20%	50%	18%
1% – 4%	21	20%	33%	20%	0%	24%
0%	4	4%	8%	0%	0%	0%
Don't know	10	10%	0%	13%	0%	24%

Note: n=103 for Table B3.15w

Table B3.15x: Synchronous collaborative tools (e.g. virtual classroom)

	No.	Total	GuildHE	Alliance	Million+	Russell
75% – 99%	2	2%	0%	7%	0%	0%
50% – 74%	5	5%	8%	7%	13%	6%
25% – 49%	4	4%	0%	0%	0%	6%
5% – 24%	25	24%	17%	27%	38%	35%
1% – 4%	38	37%	33%	33%	50%	24%
0%	13	13%	25%	7%	0%	0%
Don't know	15	15%	8%	20%	0%	29%

Note: n=103 for Table B3.15x

Table B3.15y: Social bookmarking/content curation tools

	No.	Total	GuildHE	Alliance	Million+	Russell
75% – 99%	1	1%	0%	0%	0%	0%
50% – 74%	2	2%	8%	0%	13%	0%
25% – 49%	1	1%	8%	0%	0%	0%
5% – 24%	12	12%	8%	13%	25%	18%
1% – 4%	29	28%	33%	40%	25%	12%
0%	16	16%	8%	7%	13%	18%
Don't know	40	39%	25%	40%	25%	47%

Note: n=103 for Table B3.15y

Question 3.16: Which of the following types of services, if any, have been optimised by your institution to be *accessible via mobile devices* (e.g. smart phone, tablet) beyond standard web based access?

Table B3.16: Optimised services for mobile devices

	No.	Total	GuildHE	Alliance	Million+	Russell
Access to course announcements	61	60%	64%	60%	50%	75%
Access to email	61	60%	64%	40%	38%	88%
Access to course materials and learning resources	59	58%	64%	47%	38%	81%
Access to communication tools (e.g. discussion boards, blogs and wikis)	49	49%	55%	47%	38%	69%
Access to library services	49	49%	55%	53%	38%	69%
Access to lecture recordings and videos	39	39%	36%	27%	38%	56%
Access to timetabling information	32	32%	45%	40%	0%	50%
Access to portal*	31	31%	45%	33%	38%	44%
Access to printing*	26	26%	36%	20%	13%	44%
Access to personal calendars	24	24%	36%	33%	13%	44%
Access to grades	22	22%	27%	33%	13%	25%
Other institutional service	13	13%	0%	7%	13%	25%
Services are not optimised – all are designed to be device agnostic by default	11	11%	18%	13%	0%	6%
Access to student information/records system*	7	7%	18%	0%	0%	13%
Services are not optimised	7	7%	0%	13%	25%	0%
Access to learning analytics*	1	1%	0%	0%	0%	6%

Note: n=101 for Table B3.16

Question 3.17: For which types of devices does the institution provide active user (staff and student) support (e.g. documentation, training, service desk support) to connect to these services?

Table B3.17: Mobile devices with active user support

	No.	Total	GuildHE	Alliance	Million+	Russell
iOS devices (e.g. iPad and iPhone)	72	73%	73%	73%	63%	73%
Android devices	68	69%	64%	73%	50%	73%
Windows Mobile devices	55	56%	36%	47%	63%	60%
Blackberry devices	24	24%	9%	27%	13%	20%
No active user support provided – all services are designed to be device agnostic by default*	17	17%	9%	20%	13%	27%
No active user support provided	9	9%	18%	7%	25%	0%
Other mobile device	2	2%	0%	7%	0%	0%

Note: n=99 for Table B3.17

Question 3.18: How does your institution promote the use of student/staff owned mobile devices in support of learning, teaching and assessment activities?

Table B3.18: How use of mobile devices is promoted

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutional Bring Your Own Device (BYOD) policy and supporting mobile device usage on campus*	43	43%	36%	53%	38%	53%
Loaning of devices to staff/students	40	40%	18%	40%	50%	53%
Funding for mobile learning projects	23	23%	27%	33%	25%	13%
Other method of promoting use of mobile devices	22	22%	27%	20%	25%	7%
Institutional switch-on policy to encourage use of devices by staff and students for learning, teaching and assessment	15	15%	18%	20%	25%	13%
Institution does not promote the use of mobile devices	15	15%	18%	13%	13%	13%
Free provision of devices to staff/students	8	8%	9%	20%	13%	7%

Note: n=99 for Table B3.18

Question 3.19: Please indicate the systems that are linked (i.e. some form of data flow is supported between the systems) to the main VLE within your institution.

Table B3.19: Systems that are linked to the VLE

	No.	Total	GuildHE	Alliance	Million+	Russell
Library: system providing access to reading lists and electronic reading resources	79	80%	82%	93%	88%	80%
Student records	78	79%	55%	93%	75%	73%
Registration and enrolment	76	77%	64%	80%	88%	87%
E-submission: system managing assignments and coursework	71	72%	73%	73%	63%	73%
Lecture capture system (system to record teaching in a lecture theatre/classroom)	54	55%	45%	60%	25%	80%
Media server	52	53%	27%	67%	75%	53%
E-portfolio	51	52%	64%	73%	50%	60%
E-assessment system: system supporting defined response testing and quizzes	47	47%	45%	40%	38%	67%

	No.	Total	GuildHE	Alliance	Million+	Russell
Timetabling	29	29%	36%	47%	13%	33%
Portal	27	27%	45%	33%	25%	33%
Survey systems	27	27%	36%	33%	38%	40%
Content management system	20	20%	36%	33%	13%	20%
Digital/learning repository	18	18%	27%	40%	13%	0%
Learning analytics*	17	17%	0%	27%	25%	20%
HR system	15	15%	18%	13%	0%	13%
Attendance monitoring	11	11%	18%	7%	13%	13%
Online payments	6	6%	18%	7%	0%	7%
Other system linked to (main) VLE	4	4%	0%	0%	0%	7%

Note: n=99 for Table B3.19

Table B3.19a: Is there a main lecture capture system where there is a link to the VLE

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	68	69%	45%	67%	63%	87%
No	31	31%	55%	33%	38%	13%

Note: n=99 for Table B3.19a

Table B3.19b: Systems which are linked to the main institutional lecture capture system

	No.	Total	GuildHE	Alliance	Million+	Russell
VLE	54	48%	100%	80%	40%	92%
Media server	18	16%	0%	30%	80%	23%
Timetabling	14	13%	0%	20%	20%	46%
Registration and enrolment	9	8%	0%	0%	40%	8%
No systems are linked to main institutional lecture capture system	9	8%	0%	20%	20%	0%
Student records	4	4%	0%	10%	0%	8%
Other system linked to the main institutional lecture capture system	2	2%	0%	0%	0%	8%
Learning analytics	1	1%	0%	0%	0%	0%
Portal	1	1%	0%	10%	0%	0%

Note: n=68 for Table B3.19b

Question 3.20 Have you evaluated the impact of technology enhanced learning on the *student learning experience* across the institution as a whole over the *past two years*? This can include particular aspects of TEL across the institution.

Table B3.20: Evaluation of the impact of TEL on student learning experience

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	40	40%	27%	33%	38%	47%
No	59	60%	73%	67%	63%	53%

Note: n=99 for Table B3.20

Question 3.20b: What aspects of the impact of technology enhanced learning on the *student learning experience* have you evaluated over the past two years?

Table B3.20b: Aspects of the impact of TEL on student learning experience which have been evaluated in the last two years

	No.	GuildHE	Alliance	Million+	Russell
Take up/usage/adoption by students of lecture capture	12	0%	40%	33%	43%
Effectiveness of flipped learning	8	33%	0%	33%	43%
E-assessment	17	33%	60%	67%	29%
Mobile learning	11	33%	40%	0%	43%
Use of learning analytics in supporting students	3	0%	20%	0%	14%
Other 1	27	33%	80%	67%	71%
Other 2	8	0%	0%	33%	0%
Other 3	3	0%	0%	0%	0%

Note: n=89 for Table B3.20b

Question 3.21: *How* has the impact has been measured, *when*, and for *what purpose*?

Table B3.21: Details of how the impact of TEL tools and systems on the student learning experience has been measured, when and for what purpose

	No.	GuildHE	Alliance	Million+	Russell
Survey	30	67%	80%	67%	86%
Module and course evaluation	20	0%	80%	67%	29%
Interview/focus group	22	100%	100%	0%	57%
Benchmarking	8	0%	0%	0%	57%
Assess value of TEL in relation to student performance (learning analytics)	7	0%	40%	33%	29%
Determine take-up and usage of TEL tool(s) across institution (adoption)	27	100%	40%	33%	57%
Assess value for money of TEL tool(s) (e.g. review of licensing costs)	10	33%	0%	67%	29%
Assess student satisfaction with TEL approach	33	100%	60%	67%	86%
Other	11	0%	40%	33%	29%

Note: n=85(how), 47(when), 88 (purpose) for Table B3.21

Question 3.22: Have you evaluated the impact of technology enhanced learning on pedagogic practices across the institution as a whole over the past two years? This can include particular aspects of TEL across the institution.

Table B3.22: Evaluation of the impact of TEL on pedagogic practices across the institution as a whole over the past two years

	No	Total	GuildHE	Alliance	Million+	Russell
Yes	36	36%	9%	47%	38%	27%
No	63	64%	91%	53%	63%	73%

Note: n=99 for Table B3.22

Question 3.22a: What aspects of staff pedagogic practices have you evaluated over the past two years?

Table B3.22a: Aspects of staff pedagogical practices that have been evaluated over past two years

	No.	GuildHE	Alliance	Million+	Russell
E-assessment	19	100%	43%	67%	75%
E-marking	16	100%	29%	100%	75%
Take up/usage/adoption of lecture capture	15	0%	57%	33%	50%
Staff digital fluency/capability	14	0%	29%	0%	25%
Flipped learning design	11	100%	14%	33%	25%
Other	8	0%	29%	0%	25%
Mobile learning	5	0%	29%	0%	25%
Use of learning analytics in supporting students	1	0%	14%	0%	0%

Note: n=36 for Table B3.22a

Question 3.23 *How* has the impact on *pedagogic practices* been measured, *when* and for *what purpose*?

Table B3.23: Details of how the impact of TEL tools and systems on pedagogic practices has been measured how, when and for what purpose

	No.	GuildHE	Alliance	Million+	Russell
Survey	24	0%	86%	67%	75%
Module and course evaluation	10	100%	43%	33%	0%
Interview/focus group	14	0%	71%	0%	75%
Benchmarking	4	0%	0%	33%	0%
Social media	1	0%	0%	0%	0%
Other evaluation method	10	100%	29%	0%	25%
Annually	16	100%	27%	0%	75%
Each term/semester	7	0%	43%	67%	25%
Other timing	18	0%	57%	33%	26%
Assess value of TEL tools in relation to student performance (learning analytics)	6	0%	14%	33%	25%
Determine take-up and usage across institution (adoption)	24	100%	71%	67%	100%
Assess value for money	9	0%	14%	33%	50%
Assess staff satisfaction	22	100%	27%	67%	75%
Other purpose	14	0%	57%	0%	50%

Note: n=36 for Table B3.23

Question 4.1: Which, if any, support units are there in your institution that provide *support for technology enhanced learning*? Please include both centrally provided and local units.

Table B4.1a: Support units that provide support for technology enhanced learning

	No.	Total	GuildHE	Alliance	Million+	Russell
Information Technology support	58	59%	55%	67%	75%	65%
Learning Technology Support Unit (LTSU)	67	68%	82%	67%	50%	59%
Educational Development Unit (EDU)	50	51%	0%	67%	75%	53%
Library	48	48%	36%	53%	75%	29%
Local support	54	55%	18%	67%	50%	82%
Other support unit	15	15%	0%	7%	13%	24%
Outsourced supplier or specialist	2	2%	0%	0%	13%	0%

Note: n=99 for Table B4.1a

Table B4.1b: Mean number of units providing support for TEL per institution

	Total	GuildHE	Alliance	Million+	Russell
Mean number of support units	2.97	1.91	3.27	3.50	3.12

Note: n=99 for Table B4.1b

Question 4.2: How many staff work in the unit?

Table B4.2a: Mean number of staff working in IT support units

	No.	Mean	GuildHE	Alliance	Mission+	Russell
Mean number of learning technologists	58	1.00	0.50	2.10	1.17	1.36
Mean number of IT support staff	58	9.60	2.75	23.20	8.67	3.05
Mean number of administrative staff	58	0.38	0.25	0.80	0.50	0.00
Mean number of academic staff	58	0.00	0.00	0.00	0.00	0.00
Mean number of other staff	58	0.93	0.00	1.90	0.50	0.00
Mean FTE of staff supporting TEL	58	3.20	8.10	3.15	1.42	3.04

Note: n=58 for Table B4.2a

Table B4.2b: Mean number of staff working in learning technology support units

	No.	Mean	GuildHE	Alliance	Mission+	Russell
Mean number of learning technologists	67	4.58	2.78	7.30	4.30	6.45
Mean number of IT support staff	67	0.55	0.39	1.50	0.00	0.60
Mean number of administrative staff	67	0.30	0.33	0.50	0.00	0.25
Mean number of academic staff	67	0.22	0.00	0.50	0.00	1.00
Mean number of other staff	67	1.50	0.78	0.70	0.00	2.50
Mean FTE of staff supporting TEL	67	4.73	2.73	6.50	4.18	8.50

Note: n=67 for Table B4.2b

Table B4.2c: Mean number of staff working in educational development units

	No.	Mean	GuildHE	Alliance	Mission+	Russell
Mean number of learning technologists	50	1.43	0.00	1.90	1.17	1.89
Mean number of IT support staff	50	0.02	0.00	0.10	0.00	0.00
Mean number of administrative staff	50	0.52	0.00	0.30	1.07	0.56
Mean number of academic staff	50	2.07	0.00	2.90	2.60	1.44
Mean number of other staff	50	1.32	0.00	1.10	1.50	1.78
Mean FTE of staff supporting TEL	50	2.72	0.00	3.98	3.30	1.82

Note: n=50 for Table B4.2c

Table B4.2d: Mean number of staff working in library services

	No.	Mean	GuildHE	Alliance	Mission+	Russell
Mean number of learning technologists	48	0.38	1.00	1.38	0.17	0.00
Mean number of IT support staff	48	0.77	0.25	0.25	0.67	0.00
Mean number of administrative staff	48	0.94	0.00	1.88	0.00	0.00
Mean number of academic staff	48	0.04	0.00	0.00	0.00	0.20
Mean number of other staff	48	3.48	1.25	3.38	1.17	1.80
Mean FTE of staff supporting TEL	48	1.61	1.50	0.86	0.83	0.80

Note: n=48 for Table B4.2d

Table B4.2e: Mean number of staff working as local (devolved) support units

	No.	Mean	GuildHE	Alliance	Mission+	Russell
Mean number of learning technologists	54	5.14	0.00	7.40	4.25	8.57
Mean number of IT support staff	54	1.63	2.00	1.00	1.75	2.36
Mean number of administrative staff	54	0.74	2.50	0.00	0.00	1.00
Mean number of academic staff	54	1.98	7.50	1.50	0.00	2.07
Mean number of other staff	54	0.46	0.00	0.30	2.75	0.00
Mean FTE of staff supporting TEL	54	6.49	28.50	5.45	5.88	7.64

Note: n=54 for Table B4.2e

Table B4.2f: Mean number of staff working in other units

	No.	Mean	GuildHE	Alliance	Mission+	Russell
Mean number of learning technologists	15	4.93	0.00	0.00	0.00	9.75
Mean number of IT support staff	15	5.13	0.00	0.00	0.00	19.25
Mean number of administrative staff	15	0.33	0.00	0.00	0.00	1.00
Mean number of academic staff	15	1.33	0.00	0.00	5.00	0.00
Mean number of other staff	15	0.87	0.00	1.00	0.00	2.50
Mean FTE of staff supporting TEL	15	10.63	0.00	0.00	3.00	28.75

Note: n=15 for Table B4.2f

Table B4.2g: Mean number of staff working for outsourced supplier or specialist

	No.	Mean	GuildHE	Alliance	Mission+	Russell
Mean number of learning technologists	2	0.50	0.00	0.00	1.00	0.00
Mean number of IT support staff	2	0.50	0.00	0.00	0.00	0.00
Mean number of administrative staff	2	0.00	0.00	0.00	0.00	0.00
Mean number of academic staff	2	0.00	0.00	0.00	0.00	0.00
Mean number of other staff	2	0.00	0.00	0.00	0.00	0.00
Mean FTE of staff supporting TEL	2	0.20	0.00	0.00	0.20	0.00

Note: n=2 for Table B4.2g

Question 4.4: What changes in staffing provision, if any, have been made over the *last two years*?

Table B4.4: Whether changes in staffing provision have been made over the last two years

	No.	Total	Guild HE	Alliance	Million+	Russell
Changes made	81	83%	82%	73%	86%	94%
No changes made	17	17%	18%	27%	14%	6%

Note: n=98 for Table B4.4

Table B4.4a: Changes in staffing provision over the last two years

	No.	Total	Guild HE	Alliance	Million+	Russell
Increase in the number of staff	50	51%	55%	60%	29%	65%
Restructure of department(s)/TEL provision	41	42%	36%	47%	43%	59%
Change of existing roles/incorporation of other duties	30	31%	36%	13%	43%	47%
Reduction in the number of staff	16	16%	0%	13%	43%	6%
Recruitment delay/freeze	14	14%	18%	13%	14%	18%
Other change in staffing provision	7	7%	0%	7%	14%	0%
No changes in staffing provision	17	17%	18%	27%	14%	6%

Note: n=98 for Table B4.4a

Question 4.5: Do you foresee changes in the staffing provision in supporting staff and students in their use of technology enhanced learning tools in the near future?

Table B4.5: Whether changes in staffing provision are foreseen in the near future

	No.	Total	GuildHE	Alliance	Million+	Russell
Changes foreseen	77	79%	82%	73%	86%	100%
No changes foreseen	21	21%	18%	27%	14%	0%

Note: n=98 for Table B4.5

Table B4.5a: Foreseen changes in staffing provision in the near future

	No.	Total	GuildHE	Alliance	Million+	Russell
Anticipate change, but unsure as to how it might change	32	33%	36%	53%	14%	35%
Increase in the number of staff	29	30%	36%	27%	14%	47%
Restructure of department(s)/TEL provision	25	26%	0%	27%	14%	41%
Change of existing roles/incorporation of other duties	24	24%	9%	13%	29%	29%
Do not foresee any changes	21	21%	18%	27%	14%	0%
Currently reviewing staffing provision	10	10%	18%	0%	29%	12%
Recruitment delay/freeze	6	6%	0%	7%	14%	12%
Reduction in the number of staff	5	5%	0%	0%	0%	0%
Other change in the future	4	4%	0%	0%	0%	12%

Note: n=98 for Table B4.5a

Question 4.6: Which, if any, training and development activities are promoted to support *staff who help others* in the use of technology enhanced learning tools? Please include both face-to-face and online activities.

Table B4.6: Training and development activities promoted to support staff

	No.	Total	Guild HE	Alliance	Million+	Russell
Jisc events*	84	86%	73%	93%	100%	94%
National conferences/seminars	83	85%	82%	93%	86%	82%
Internal staff development	83	85%	73%	93%	100%	94%
Association for Learning Technology (ALT) events	80	82%	73%	100%	86%	88%
HEA Professional accreditation (UKPSF)	73	74%	73%	80%	100%	76%
Regional seminars	58	59%	55%	67%	71%	71%
External training courses	56	57%	55%	80%	43%	53%
Post Graduate Certificate (PGCert)*	55	56%	73%	67%	86%	47%
Higher Education Academy (HEA) events	49	50%	45%	67%	71%	41%
CMALT professional accreditation	47	48%	45%	47%	43%	65%
Staff and Education Development Association (SEDA) events*	41	42%	27%	33%	43%	65%
Universities and Colleges Information Systems Association (UCISA) events	35	36%	27%	53%	86%	35%
International conferences/seminars	34	35%	18%	40%	57%	35%
Open learning opportunities (including badges)*	30	31%	45%	27%	57%	41%
Higher Education Academy (HEA) discipline cluster events	25	26%	36%	33%	43%	29%
Fellowship of the Staff and Education Development Association (FSEDA)*	13	13%	18%	7%	14%	0%
Other training activity	3	3%	9%	0%	14%	0%
None are promoted	1	1%	0%	0%	0%	6%

Note: n=98 for Table B4.6

Question 5.1: Listed below are potential barriers to any (further) development of processes to promote and support technology enhanced learning tools. What, in your opinion, might be the barriers in your institution over the coming years?

Table B5.1: Ranked potential barriers to any (further) development of processes to promote and support technology enhanced learning tools

	Rank	Mean	GuildHE	Alliance	Million+	Russell
Lack of time	1	3.48	3.42	3.27	3.29	3.65
Departmental/school culture	2	3.07	2.83	3.00	3.00	3.24
Lack of internal sources of funding to support development	3	3.01	2.92	2.80	2.86	3.24
Lack of academic staff commitment	4	2.94	3.17	2.80	2.57	2.82
Institutional culture	5	2.92	2.67	2.67	2.43	2.88
Lack of academic staff knowledge	6	2.90	2.67	2.87	3.00	2.65
Lack of recognition for career development	7	2.85	2.75	2.80	3.14	3.00
Lack of support staff	8	2.81	2.75	2.87	2.43	3.00
Competing strategic initiatives	9	2.71	2.00	3.27	3.29	2.59
Lack of incentives	10	2.56	2.00	2.40	2.00	2.76
Changing administrative processes	11	2.46	2.58	2.67	2.29	2.41
Lack of external sources of funding (e.g. HEA, HEFCE, Jisc) to support project development	12	2.44	2.92	2.13	2.57	1.94
Lack of academic staff development opportunities	13	2.44	2.42	2.20	2.00	2.47
Technical and infrastructure limitations (e.g. wireless)	14	2.42	2.67	2.13	2.57	2.47
Organisational structure	15	2.39	2.08	2.73	1.86	2.35
Lack of strategy and leadership	16	2.38	2.00	2.60	2.29	2.18
Other technical problems	17	2.31	2.42	2.20	2.57	2.29
Lack of student engagement	18	2.02	2.42	1.87	2.29	1.65
Lack of institutional support for open learning*	19	2.01	2.17	1.80	2.14	2.00
Too few standards and guidelines	20	1.98	1.92	1.93	2.43	1.71
Inappropriate policies and procedures	21	1.85	1.67	2.20	2.43	1.82
Too many/diffuse/diverse standards and guidelines	22	1.79	1.50	1.93	2.29	1.88

Note: n=100 for Table B5.1

Question 5.3a: Does your institution currently outsource its provision of any of the following? Provision refers to an institutional service being hosted by another organisation.

Table B5.3a: Institutional services that are currently outsourced

	No.	Total	GuildHE	Alliance	Million+	Russell
Student email	59	59%	33%	73%	71%	65%
E-portfolio	35	35%	25%	33%	29%	35%
VLE platform – supporting the delivery of blended learning courses	33	33%	33%	27%	29%	24%
Staff email	30	30%	8%	27%	14%	41%
VLE platform – supporting the delivery of fully online courses	26	26%	25%	27%	29%	18%
Lecture capture platform	23	23%	17%	27%	14%	24%

	No.	Total	GuildHE	Alliance	Million+	Russell
VLE platform – supporting the delivery of open online courses	21	21%	0%	20%	14%	35%
No outsourced provision	19	19%	25%	27%	0%	24%
Other	12	12%	17%	13%	0%	18%
Digital repositories	10	10%	17%	13%	14%	6%
Don't know	3	3%	0%	0%	29%	0%
Content creation	2	2%	8%	7%	0%	0%

Note: n=100 TableB5.3a

Question 5.3b: How is the provision of these services currently outsourced?

Table B5.3b(i): Type of outsourcing for VLE platforms – supporting the delivery of blended learning courses

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	24	73%	75%	75%	50%	25%
Cloud-based Software as a Service (SaaS) multi-tenant service	9	27%	25%	25%	50%	75%
Don't know	0	0%	0%	0%	0%	0%

Note: n=33 for Table B5.3b(i)

Table B5.3b(ii): Type of outsourcing for VLE platforms – supporting the delivery of fully online courses

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	18	69%	100%	75%	50%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	7	27%	0%	25%	50%	100%
Don't know	1	4%	0%	0%	0%	0%

Note: n=26 for Table B5.3b(ii)

Table B5.3b(iii): Type of outsourcing for VLE platforms – supporting the delivery of open online courses

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	10	48%	0%	67%	100%	17%
Cloud-based Software as a Service (SaaS) multi-tenant service	11	52%	0%	33%	0%	83%
Don't know	0	0%	0%	0%	0%	0%

Note: n=21 for Table B5.3b(iii)

Table B5.3b(iv): Type of outsourcing for lecture capture platforms

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	13	57%	50%	25%	100%	25%
Cloud-based Software as a Service (SaaS) multi-tenant service	10	43%	50%	75%	0%	75%
Don't know	0	0%	0%	0%	0%	0%

Note: n=23 for Table B5.3b(iv)

Table B5.3b(v): Type of outsourcing for student email

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	14	24%	25%	18%	20%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	44	75%	75%	73%	80%	100%
Don't know	1	2%	0%	9%	0%	0%

Note: n=59 for Table B5.3b(v)

Table B5.3b(vi): Type of outsourcing for staff email

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	9	30%	0%	50%	100%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	21	70%	100%	50%	0%	100%
Don't know	0	0%	0%	0%	0%	0%

Note: n=30 for Table B5.3b(vi)

Table B5.3b(vii): Type of outsourcing for digital repositories

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	8	80%	100%	100%	100%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	1	10%	0%	0%	0%	0%
Don't know	1	10%	0%	0%	0%	100%

Note: n=10 for Table B5.3b(vii)

Table B5.3b(viii): Type of outsourcing for e-portfolios

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	25	71%	100%	80%	100%	50%
Cloud-based Software as a Service (SaaS) multi-tenant service	10	29%	0%	20%	0%	50%
Don't know	0	0%	0%	0%	0%	0%

Note: n=35 for Table B5.3b(viii)

Table B5.3b(ix): Type of outsourcing for content creation

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	2	100%	100%	100%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	0	0%	0%	0%	0%	0%
Don't know	0	0%	0%	0%	0%	0%

Note: n=2 for Table B5.3b(ix)

Table B5.3b(x): Type of outsourcing for *Other* outsourced provision

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	4	33%	100%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	7	58%	0%	100%	0%	100%
Don't know	1	8%	0%	0%	0%	0%

Note: n=12 for Table B5.3b(x)

Question 5.3c: Which, if any, of the services that are currently outsourced are you considering bringing back in to be institutionally managed?

Table B5.3c: Services that are currently outsourced are under consideration for bringing back in to be institutionally managed

	No.	Total	GuildHE	Alliance	Million+	Russell
None being considered for bringing back in-house	71	92%	100%	91%	100%	92%
VLE platform – supporting the delivery of blended learning courses	3	4%	0%	0%	0%	8%
E-portfolio	3	4%	0%	9%	0%	8%
Don't know	3	4%	0%	0%	0%	0%
VLE platform – supporting the delivery of fully online courses	2	3%	0%	0%	0%	0%
Lecture capture platform	2	3%	0%	0%	0%	0%
VLE platform – supporting the delivery of open online courses	1	1%	0%	0%	0%	0%
Student email	1	1%	0%	0%	0%	0%

Note: n=100 for Table B5.3c

Question 5.3d: Is your institution formally considering the outsourcing of some or all of your provision for any of the following? Provision refers to an institutional service being hosted by another organisation?

Table B5.3d(i): Formally considering the outsourcing of some or all of their provision

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	49	49%	50%	47%	86%	47%
Don't know	11	11%	8%	7%	0%	12%
None being considered for outsourcing	40	40%	42%	47%	14%	41%

Note: n=100 for Table B5.3d(i)

Table B5.3d(ii): Services being formally considered for outsourcing

	No.	Total	GuildHE	Alliance	Million+	Russell
Staff email	23	47%	50%	29%	83%	63%
VLE platform – supporting the delivery of blended learning courses	19	39%	17%	29%	50%	38%
VLE platform – supporting the delivery of fully online courses	19	39%	0%	57%	33%	38%
Lecture capture platform	15	31%	17%	29%	33%	38%
VLE platform – supporting the delivery of open online courses	14	29%	0%	14%	50%	25%
Content creation	12	24%	0%	43%	50%	13%
E-portfolio	10	20%	17%	14%	33%	13%
Student email	8	16%	17%	0%	33%	25%
Digital repositories	7	14%	0%	0%	33%	0%

Note: n=49 for Table B5.3d(ii)

Question 5.3e: What option(s) not selected at 5.3a are being considered for the outsourcing of this provision?

Table B5.3e(i): Type of outsourcing being considered for VLE platforms – supporting the delivery of blended learning courses

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	10	43%	100%	100%	33%	67%
Cloud-based Software as a Service (SaaS) multi-tenant service	8	35%	0%	0%	0%	100%
Don't know	5	22%	0%	0%	67%	0%

Note: n=23 for Table B5.3e(i)

Table B5.3e(ii): Type of outsourcing being considered for VLE platforms – supporting the delivery of fully online courses

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	7	29%	0%	50%	0%	33%
Cloud-based Software as a Service (SaaS) multi-tenant service	9	38%	0%	75%	0%	67%
Don't know	8	33%	0%	25%	100%	33%

Note: n=24 for Table B5.3e(ii)

Table B5.3e(iii): Type of outsourcing being considered for VLE platforms – supporting the delivery of open online courses

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	4	24%	0%	0%	33%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	7	41%	0%	100%	67%	50%
Don't know	6	35%	0%	0%	67%	50%

Note: n=17 for Table B5.3e(iii)

Table B5.3e(iv): Type of outsourcing being considered for lecture capture platforms

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	5	28%	100%	0%	50%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	6	33%	0%	50%	50%	33%
Don't know	7	39%	0%	50%	100%	67%

Note: n=18 for Table B5.3e(iv)

Table B5.3e(v): Type of outsourcing being considered for student email

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	0	0%	0%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	6	75%	100%	100%	100%	33%
Don't know	2	25%	0%	0%	0%	67%

Note: n=8 for Table B5.3e(v)

Table B5.3e(vi): Type of outsourcing being considered for staff email

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	2	9%	33%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	15	65%	67%	100%	60%	80%
Don't know	6	26%	0%	0%	40%	20%

Note: n=23 for Table B5.3e(vi)

Table B5.3e(vii): Type of outsourcing being considered for digital repositories

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	3	27%	0%	0%	50%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	3	27%	0%	0%	50%	0%
Don't know	5	45%	0%	0%	100%	0%

Note: n=11 for Table B5.3e(vii)

Table B5.3e(viii): Type of outsourcing being considered for e-portfolios

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	5	42%	0%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	5	42%	100%	0%	50%	100%
Don't know	2	17%	0%	100%	50%	0%

Note: n=12 for Table B5.3e(viii)

Table B5.3e(ix): Type of outsourcing being considered for content creation

	No.	Total	GuildHE	Alliance	Million+	Russell
Institutionally managed but hosted by a third party	0	0%	0%	0%	0%	0%
Cloud-based Software as a Service (SaaS) multi-tenant service	0	0%	0%	0%	0%	0%
Don't know	12	100%	0%	100%	100%	100%

Note: n=12 for Table B5.3e(ix)

Question 5.3c: Which, if any, of the services that are currently outsourced are you considering bringing back in to be institutionally managed?

Table B5.3c: Services that are currently outsourced are under consideration for bringing back in to be institutionally managed

	No.	Total	GuildHE	Alliance	Million+	Russell
None being considered for bring back in-house	71	92%	100%	91%	100%	92%
VLE platform – supporting the delivery of blended learning courses	3	4%	0%	0%	0%	8%
E-portfolio	3	4%	0%	9%	0%	8%
Don't know	3	4%	0%	0%	0%	0%
VLE platform – supporting the delivery of fully online courses	2	3%	0%	0%	0%	0%
Lecture capture platform	2	3%	0%	0%	0%	0%
VLE platform – supporting the delivery of open online courses	1	1%	0%	0%	0%	0%
Student email	1	1%	0%	0%	0%	0%

Note: n=100 for Table B5.3c

Question 5.4: Has your institution formally considered *collaboration with other HE institutions* in the delivery of technology enhanced learning services or resources to staff?

Table B5.4: Considered collaboration with other HE institutions

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes, and do collaborate as a result	15	15%	8%	0%	14%	24%
Yes, currently under consideration so no decision reached*	10	10%	0%	0%	14%	6%
Yes, did consider but decided not to collaborate	4	4%	8%	0%	14%	6%
No, not considered	61	61%	75%	80%	43%	47%
Don't know*	10	10%	8%	20%	14%	18%

Note: n=100 for Table B5.4

Question 5.5: Have any recent and prospective developments in technology started to make new demands upon you in terms of the support required by users?

Table B5.5: Whether there are any recent and prospective developments in technology that have started to make new demands upon institutions in terms of the support required by users

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	62	62%	50%	67%	57%	65%
No	38	38%	50%	33%	43%	35%

Note: n=100 for Table B5.5

Question 5.5a: Please write in details of up to three developments that are starting to make new demands upon you in terms of the support required by users – those you think are most important

Table B5.5a: Recent and prospective developments in technology that are starting to make new demands terms of the support required by users

	No.	Total	GuildHE	Alliance	Million+	Russell
Electronic management of assessment (e-submission, e-marking, e-feedback)	24	39%	33%	60%	25%	18%
Lecture capture	21	34%	17%	30%	25%	27%
Mobile technologies/bring your own device (support, access to systems/content)	19	31%	50%	40%	25%	18%
Multi-media (use, provision, management, support)	9	15%	0%	10%	0%	18%
Distance learning/fully online courses	8	13%	17%	0%	0%	18%
Learning analytics	8	13%	0%	50%	0%	9%
MOOCs	6	10%	0%	10%	25%	9%
VLE – new/change, embed, extend, customise	6	10%	0%	30%	25%	0%
E-portfolio	5	8%	0%	0%	25%	9%
Accessibility (in particular captioning and response to the change in Disabled Students' Allowance)	4	6%	17%	0%	0%	0%
Cloud services	4	6%	0%	10%	0%	9%
New modes of delivery (e.g. flipped classroom)	4	6%	0%	10%	25%	9%
Real time communication (e.g. video conferencing/webinar software)	4	6%	0%	20%	0%	0%
Social media/networking	4	6%	17%	10%	25%	0%
Collaboration	3	5%	0%	0%	0%	18%
Development of policy	3	5%	0%	0%	0%	9%
Digital literacy/capability	3	5%	0%	0%	0%	0%
Learning spaces	3	5%	17%	0%	0%	0%
Meeting staff/student expectations	3	5%	0%	10%	0%	0%
24/7 access/support	2	3%	33%	0%	0%	0%
Classroom interactivity (e.g. voting technologies)	2	3%	0%	0%	0%	9%
Curriculum development/design	2	3%	0%	0%	0%	0%
Developing/curating content and resources	2	3%	0%	0%	0%	9%
File management (storage, sharing)	2	3%	0%	0%	0%	9%
Lack of TEL staffing	2	3%	0%	0%	0%	0%
Office 365	2	3%	17%	10%	0%	0%
Restructure/reorganisation	2	3%	0%	0%	0%	0%
Staff development	2	3%	0%	0%	0%	0%
Supporting remote students	2	3%	17%	0%	0%	0%
Awareness raising	1	2%	17%	0%	0%	0%
Badges	1	2%	0%	0%	0%	0%
Blended learning	1	2%	0%	0%	0%	0%
Employability	1	2%	0%	0%	0%	0%
EU tenders	1	2%	0%	0%	0%	0%
Information security	1	2%	0%	0%	0%	9%
Interoperability	1	2%	0%	0%	25%	0%

	No.	Total	GuildHE	Alliance	Million+	Russell
Managing expectations of new TEL staff	1	2%	0%	0%	0%	9%
Open educational resources	1	2%	0%	0%	0%	0%
Overseas campus	1	2%	0%	0%	0%	0%
Research into effective use of technology	1	2%	0%	0%	0%	9%
Summative and formative e-assessment	1	2%	0%	0%	25%	0%
Wireless	1	2%	0%	0%	0%	0%
Workplace assessments	1	2%	0%	0%	0%	0%

Note: n=62 for Table B5.5a

Question 5.6: Do you see these developments posing any challenges over the next two to three years in terms of the support that will be required for staff and students?

Table B5.6: Whether institutions consider that the developments identified in question 5.5 will pose support challenges over the next two to three years

	No.	Total	GuildHE	Alliance	Million+	Russell
Yes	44	72%	67%	80%	67%	45%
No	17	28%	33%	20%	33%	55%

Note: n=61 for Table B5.6

Question 5.6a: Please write in the challenges you see these developments posing over the next two to three years in terms of the support that will be required for staff and students? Please write in details of up to three challenges – those you think are most important.

Table B5.6a: Challenges that these developments pose over the next two to three years in terms of support that will be required for staff and students

	No.	Total	GuildHE	Alliance	Million+	Russell
Staff development	15	35%	67%	25%	50%	40%
E-assessment (e-submission, e-marking, e-feedback)	10	23%	67%	50%	50%	20%
Lecture capture/recording	9	21%	33%	0%	50%	20%
Technical infrastructure – addressing growth, new technologies	9	21%	0%	25%	0%	20%
Lack of support staff/specialist skills/resources	7	16%	0%	0%	0%	40%
Mobile technologies/learning, BYOD (support, creating content and compatibility with systems)	7	16%	33%	25%	0%	0%
Budgets/funding/financial constraints	6	14%	0%	25%	0%	40%
Legal/policy issues (inc. IPR, copyright, data security, system contingency)	5	12%	0%	25%	0%	20%
New modes of delivery (e.g. open/online/ distance courses, flipped classroom)	5	12%	0%	13%	50%	0%
Increased/diverse support (inc. 24/7 support, support for remote students/staff)	4	9%	0%	0%	0%	20%
Learning analytics	4	9%	0%	25%	0%	0%
Managing/meeting expectations	4	9%	0%	13%	0%	0%
Culture change	3	7%	33%	0%	0%	0%
Keeping up with emerging technologies	3	7%	0%	0%	0%	0%
Staff incentives	3	7%	0%	0%	0%	0%
Cloud services	2	5%	0%	13%	0%	0%
Digital literacy/capability	2	5%	0%	13%	0%	0%

	No.	Total	GuildHE	Alliance	Million+	Russell
Diversity of platforms/technologies	2	5%	0%	13%	0%	0%
Internal collaboration	2	5%	0%	0%	0%	0%
Interoperability	2	5%	0%	0%	50%	20%
Lack of time	2	5%	0%	0%	0%	20%
Multimedia (production, management, delivery storage)	2	5%	0%	0%	0%	20%
Peer support networks	2	5%	0%	0%	0%	0%
Prioritisation of teaching in line other activities	2	5%	0%	0%	0%	0%
Wireless	2	5%	0%	0%	0%	0%
Accessibility (in response to the change in Disabled Students' Allowance)	1	2%	0%	0%	0%	0%
Blackboard Collaborate	1	2%	0%	13%	0%	0%
Developing/supporting content creation and collections	1	2%	0%	0%	0%	0%
E-portfolios	1	2%	0%	0%	50%	0%
Learning spaces	1	2%	33%	0%	0%	0%
Pedagogic support	1	2%	0%	13%	0%	0%
Reorganisation	1	2%	0%	0%	0%	0%
Senior management support	1	2%	0%	0%	0%	0%
Sharing good practice	1	2%	0%	13%	0%	0%
Social media	1	2%	0%	0%	0%	0%
Supplier communications	1	2%	0%	13%	0%	0%
Turnitin/plagiarism	1	2%	0%	0%	0%	0%
VLE (change/extend)	1	2%	0%	0%	50%	0%

Note: n=43 for Table B5.5a

Question 5.6b: How do you see these challenges being overcome?

Table B5.6b: How institutions see the challenges identified in question 5.6a being overcome

	No.	Total	GuildHE	Alliance	Million+	Russell
Investment (time, money, resources, support staff)	15	35%	0%	25%	50%	40%
Staff development (e.g. training courses)	15	35%	67%	38%	50%	20%
Improve technical infrastructure (inc. wireless)	13	30%	33%	50%	50%	60%
Development of/integration with strategies/ policies	11	26%	0%	38%	50%	20%
Review and revise support provision (increased/ improved/devolved/extended hours)	8	19%	0%	13%	0%	20%
Mobile devices (support, provision of apps)	6	14%	0%	13%	0%	0%
Provision of guidance to staff/students (e.g. online resources)	5	12%	0%	25%	0%	20%
Communities of practice – sharing good practice, success stories, case studies	4	9%	0%	0%	0%	0%
Internal collaboration/joined-up approach	4	9%	0%	0%	0%	0%
Senior management leadership/commitment to TEL	4	9%	0%	0%	0%	0%
Staff/student engagement/buy-in	4	9%	0%	0%	50%	0%
E-assessment (e-submission, e-marking, e-feedback)	3	7%	0%	13%	0%	0%

	No.	Total	GuildHE	Alliance	Million+	Russell
Improve/increase use of existing technologies	3	7%	0%	13%	50%	0%
Interoperability/extending systems	3	7%	0%	0%	100%	20%
Learning analytics	3	7%	0%	25%	0%	0%
Lecture capture	3	7%	0%	0%	50%	20%
Accessibility	2	5%	33%	0%	0%	0%
Greater use of multimedia	2	5%	0%	0%	50%	0%
Reorganisation/restructure	2	5%	0%	0%	0%	0%
System testing	2	5%	33%	0%	50%	0%
Awareness-raising	1	2%	0%	0%	0%	0%
Cloud solutions	1	2%	0%	0%	0%	0%
Collaboration with external partners	1	2%	0%	0%	0%	0%
Cultural changes/embedding	1	2%	0%	0%	0%	0%
Develop digital literacy skills	1	2%	0%	0%	0%	0%
Improve learning spaces	1	2%	0%	0%	0%	0%
Improve skills and knowledge of support staff	1	2%	0%	13%	0%	0%
Keeping up to date with new technologies	1	2%	0%	0%	0%	0%
Managing expectations	1	2%	0%	0%	0%	0%
New governance model	1	2%	0%	0%	0%	20%
Outsourcing content creation	1	2%	0%	0%	0%	0%
Providing access to software	1	2%	33%	0%	0%	0%
Provision of incentives	1	2%	0%	0%	0%	0%
Rollout of Office 365/SharePoint	1	2%	33%	0%	0%	0%
Student demand/experience	1	2%	0%	13%	0%	0%
Student development	1	2%	0%	0%	0%	0%
Understanding the value of TEL	1	2%	0%	0%	0%	0%

Note: n=43 for Table B5.6b

Appendix C: Longitudinal analysis between 2016, 2014, 2012, 2010, 2008, 2005, 2003 and 2001 surveys

Where new response options have been added to established questions used in previous Surveys, they have been denoted with an asterisk at the end of the response option in the table.

Question 1.1: How important, if at all, have each of the following driving factors been for developing TEL and the processes that promote it in *your institution* to date?

Table C1.1: Driving factors for TEL development (rankings)

	ALL						
Driving factor	**Rank 2016**	**Rank 2014**	**Rank 2012**	**Rank 2010**	**Rank 2008**	**Rank 2005**	**Rank 2003**
Enhancing quality of learning and teaching in general	1	1	1	1	1	1	1
Meeting student expectations in the use of technology	2	2	2	2	2	3	5
Improving student satisfaction e.g. NSS scores*	3	-	-	-	-	-	-
Helping create a common user experience	4	5	5=	7	8	-	-
Improving access to online/blended learning for campus-based students*	5	-	-	-	-	-	-
Improving administrative processes	6	4	10=	13	10=	4	7
Supporting the development of digital literacy skills for students and staff*	7	-	-	-	-	-	-
Supporting flexible/blended curriculum development*	8	-	-	-	-	-	-
Keeping abreast of educational developments	9	10	14	9	7	11	13
Widening participation/inclusiveness	10	9	8	5	4	7	4
Attracting home students	11	7	10=	16	9	10	10
Assisting and improving the retention of students*	12	-	-	-	-	-	-
Creating/improving competitive advantage	13	8	7	11	6	6	6
Attracting international (outside EU) students	14	6	12	15	12	12	-
Supporting students affected by the withdrawal of DSA provision (Disabled Students' Allowances)*	15	-	-	-	-	-	-
Attracting new markets	16	13	13	14	13=	9	9
Attracting EU students	17	11	15	18	15	15	11=
Meeting requirements of Equality Act (2010) and DDA (2005)	18	16	16	8	10=	13	15
Improving access to learning for overseas students	19	12	9	10	13	14	11=
Improving access to learning for distance learners	20	14	4	6	-	-	-
Addressing work-based learning – the employer/workforce development agenda	21	15	17	12	-	-	-
Achieving cost/efficiency savings	22	19	18	20	20	16=	14
Improving access to learning for part time students	23	17	5=	4	5	5	3
Developing wider regional/national role for institution	24	18	19	17	16	16=	17
Formation of other partnerships with external institutions/ organisations	25	20	20	19	19	18	16
Supporting joint/collaborative course developments with other institutions	26	22	22	21	17=	-	-

	ALL						
Driving factor	**Rank 2016**	**Rank 2014**	**Rank 2012**	**Rank 2010**	**Rank 2008**	**Rank 2005**	**Rank 2003**
Improving access to learning through the provision of open education resources	27	23	-	-	-	-	-
Improving access to learning through the provision of open education courses (e.g. MOOCs)	28	24	-	-	-	-	-
Improving access to learning for students off-campus	-	3	3	3	3	2	2
Assisting institutional view regarding learning styles	-	21	21	22	17=	-	-
Help to standardise across institution	-	-	-	-	-	8	8
Help to standardise institution with others	-	-	-	-	-	19	18

Question 1.3: How important, if at all are the following factors in *encouraging* the development of TEL and processes that promote it?

Table C1.3: Factors encouraging development of TEL

Factor	Rank 2016	Mean 2016	Rank 2014	Mean 2014	Rank 2012	Mean 2012	Rank 2010	Mean 2010	Rank 2008	Mean 2008	Rank 2005	Mean 2005
Availability of TEL support staff	1	3.70	2	3.69	1	3.77	1	3.56	-	-	-	-
Feedback from students	2	3.52	1	3.70	-	-	-	-	-	-	-	-
Availability and access to tools across the institution	3	3.44	3	3.50	4	3.39	2	3.52	-	-	-	-
School/departmental senior management support	4	3.44	5	3.45	3	3.44	4	3.33	-	-	-	-
Central university senior management support	5	3.31	4	3.49	2	3.49	3	3.46	-	-	-	-
Committed local champions	6	3.22	6	3.42	5	3.36	5	3.3	1	3.54	2	3.85
Technological changes/developments	7	3.13	7	3.2	6	3.21	6	3.10	3	3.11	3	3.21
Availability of internal project funding	8	3.03	9	3.12	7	3.06	7	2.93	2	3.41	1	3.95
Availability of university committees and steering groups to guide development	9	2.92	8	3.14	-	-	-	-	-	-	-	-
Availability and access to relevant user groups/online communities	10	2.72	10	2.85	-	-	-	-	-	-	-	-
Partnership with students on TEL projects (students as co-creators)*	11	2.57	-	-	-	-	-	-	-	-	-	-
Availability of relevant standards	12	2.5	12	2.41	9	2.29	9	1.92	5	2.12	5	2.1
Availability of external project funding (e.g. JISC, HEFCE)	13	2.32	11	2.51	8	2.64	8	2.79	4	3.07	4	3.13

Question 2.1: Which, if any, *institutional strategies*, inform the development of technology enhanced learning in your institution?

Table C2.1: Institutional strategies that have informed TEL development

	Total 2016	Rank 2016	Total 2014	Rank 2014	Total 2012	Rank 2012	Total 2010	Rank 2010	Total 2008	Rank 2008	Total 2005	Rank 2005	Total 2003	Rank 2003
Teaching, Learning and Assessment strategy	91%	1	92%	1	93%	1	99%	1	100%	1	95%	1	64%	1
Student Learning Experience strategy	58%	2	47%	5	44%	5	-	-	-	-	-	-	-	-
Corporate strategy	56%	3	52%	2	67%	2	59%	3	70%	4	53%	5	-	-
Library/Learning Resources strategy	53%	4	47%	4	64%	3	75%	2	76%	2=	74%	2	48%	2
Technology Enhanced Learning or eLearning strategy	48%	5	47%	6	43%	6	48%	6	76%	2=	55%	4	37%	5
Information and Communication Technology (ICT) strategy	48%	6	48%	3	56%	4	51%	5	46%	8	56%	3	45%	4
Employability strategy	38%	7	33%	7	-	-	-	-	-	-	-	-	-	-
Quality Enhancement strategy	32%	8	25%	9	35%	7	53%	4	58%	5=	41%	8	-	-
Access/Widening Participation strategy	30%	10	25%	8	28%	8	40%	7	54%	7	50%	7	-	-
Information and Learning Technology (ILT) strategy	30%	11	24%	11	25%	10	24%	10	41%	10	38%	9	32%	6
Estates strategy	28%	12	22%	12	28%	9	26%	9	58%	5=	24%	10	-	-
Digital Literacy/Digital Capability strategy	26%	13	15%	15	-	-	-	-	-	-	-	-	-	-
International strategy	25%	14	25%	10	-	-	-	-	-	-	-	-	-	-
Distance Learning	23%	15	10%	18	12%	15	-	-	-	-	-	-	-	-
Digital strategy/eStrategy	20%	16	10%	17	1%	19	11%	15	11%	14	8%	13	-	-
Mobile Learning strategy	18%	17	17%	13	19%	12	-	-	-	-	-	-	-	-
Information strategy	15%	18	14%	16	18%	13	37%	8	45%	9	52%	6	46%	3
Other institutional strategy	13%	19	17%	14	22%	11	13%	14	10%	15	6%	14	16%	7
Digital Media strategy	12%	20	8%	20	9%	16	-	-	-	-	-	-	-	-
Marketing strategy	10%	21	9%	19	13%	14	14%	12	27%	12	23%	11	-	-
Open learning strategy*	10%	22	-	-	-	-	-	-	-	-	-	-	-	-
Human Resources strategy	10%	23	5%	22	9%	17	14%	13	28%	11	3%	15	-	-
Communications strategy	7%	24	7%	21	8%	18	15%	11	15%	13	8%	12	14%	8
Competition and Markets Authority (CMA) strategy*	4%	25	-	-	-	-	-	-	-	-	-	-	-	-
Not considered in any institutional strategy documents*	1%	26	-	-	-	-	-	-	-	-	-	-	-	-

Question 2.2: Which, if any, *external strategy documents* inform the development of technology enhanced learning in your institution?

Table C2.2: External strategy documents that have informed the development of TEL

	Total 2016	Total 2014	Total 2012	Total 2010	Total 2008	Total 2005
JISC strategies	71%	56%	67%	80%	77%	24%
HEFCE e-learning strategy (2005 and 2009)	51%	58%	69%	80%	80%	50%
Strategies from professional bodies or agencies	29%	21%	32%	37%	34%	73%
Other HEFCE strategy documents	17%	21%	30%	34%	28%	68%
Enhancing Learning & Teaching through Technology: refreshing the HEFCW strategy 2011	16%	15%	24%	10%[1]	-	-
No external strategy documents inform development	11%	15%	7%	-	1%	0%
Joint Scottish Funding Councils eLearning Report	10%	3%	11%	15%	11%	27%
Other external strategy	9%	5%	4%	8%	18%	6%
Department for Employment and Learning Northern Ireland (DELNI)	3%	1%	1%	1%	-	-

Question 2.3: Which, if any, *external reports or documents* inform the development of technology enhanced learning in your institution?

Table C2.3: External reports or documents that have informed the development of TEL

External reports or documents	Total 2016	Total 2014	Total 2012	Total 2010
JISC: Developing Digital Literacies (2012)	73%	67%	-	-
UCISA Survey of Technology Enhanced Learning for higher education (2014/2012)	61%	71%	-	-
Changing the Learning Landscape Report (2012–14)*	58%	-	-	-
Jisc: Enhancing the student digital experience: a strategic approach (2014)*	57%	-	-	-
JISC: Enhancing curriculum design with technology (2013)	56%	46%	-	-
HeLF: Electronic Management of Assessment Survey Report (2013)	47%	44%	-	-
NMC Horizon Report Higher Education Edition (2015)*	45%	-	-	-
HeLF Learning Analytics report (2015)*	36%	-	-	-
Jisc: Code of practice for learning analytics (2015)*	36%	-	-	-
Jisc/NUS Benchmarking tool – the student digital experience (2015)*	36%	-	-	-
NUS Charter on Technology in HE (2011)	33%	42%	-	-
MOOCs and Open Education: Implications for Higher Education (2013)	30%	49%	-	-
HEFCE Review of the National Student Survey (2014)*	30%	-	-	-
The Open University: Innovation Pedagogy Report (2014)*	29%	-	-	-
BIS: Students at the Heart of the System (2011)*	26%	-	-	-
Jisc: Developing successful student-staff partnerships (2015)*	26%	-	-	-
HEFCE's Strategic Statement: Opportunity, choice and excellence in higher education (2011)	21%	23%	31%	-
HeLF Tablet Survey Report (2014)*	21%	-	-	-
Gibbs (2012) Implications of Dimensions of quality in a market environment	19%	27%	-	-
NUS report: Radical interventions in teaching and learning (2014)*	18%	-	-	-
Department for Business Innovation & Skills report on MOOCs (2013): *The Maturing of the MOOC*	15%	29%	-	-

1 *Percentage score for original HEFCW Technology Enhancement Strategy:* Enhancing learning and teaching through technology: a strategy for higher education in Wales *(HEFCW 2008).*

External reports or documents	Total 2016	Total 2014	Total 2012	Total 2010
NUS connect: A Manifesto for Partnership (2015)*	13%	-	-	-
HEFCE's Collaborate to Compete paper (2011)	11%	22%	31%	-
Department for Business and Skills FELTAG report (2014)*	11%	-	-	-
HEPI-HEA Student Academic Experience Survey (2015)*	10%	-	-	-
Other external reports or documents	10%	11%	21%	33%
E-Learning in European Higher Education Institutions: EUA report (2014)*	8%	-	-	-
No external reports or documents inform development	4%	4%	12%	8%
JISC: Learning in a digital age: Extending higher education opportunities for lifelong learning (2012)*	-	59%	-	-
NUS's Student Perspectives on Technology report (2010)	-	59%	53%	-
JISCinfoNET: Emerging Practice in a Digital Age (2011)	-	49%	60%	-
NMC Horizon Report Higher Education Edition (2013)	-	43%	-	-
Online Learning Task Force's Study of UK online learning (2010)	-	34%	44%	-
Effective Practice in a Digital Age (JISC, 2009)	-	-	65%	75%
HE in a Web 2.0 World (JISC, 2009)	-	-	51%	-
JISCinfoNET: Exploring Tangible Benefits of e-learning in HE (2008)	-	-	40%	67%
Leitch Review of Skills (2006)	-	-	26%	52%
Sir Ron Cooke's submission to DIUS: On-line Innovation in HE (2008)	-	-	24%	41%
Not answered	-	-	2%	2%

Question 2.5: What institutional policies, if any link strategy and implementation of technology enhanced learning tools?

Table C2.5: Institutional policies which link strategy with implementation of TEL tools

	2016		2014		2012		2010		2008	
	No.	Total	No.	Total	No.	Total	No.	Total	No.	Total
Learning, Teaching and Assessment strategy	71	70%	62	68%	18	18%	33	36%	16	22%
VLE usage policy (minimum requirements)	69	68%	53	58%	21	21%	-	-	-	-
Faculty or departmental/school plans	63	62%	55	60%	20	20%	-	-	-	-
VLE guidelines/description of VLE service	61	60%	43	47%	11	11%	-	-	-	-
E-assessment/e-submission policy	50	50%	37	41%	15	15%	-	-	-	-
TEL or e-learning strategy/action plan	44	44%	41	45%	18	18%	18	20%	17	23%
Lecture capture guidelines/ policy*	44	44%	-	-	-	-	-	-	-	-
Other institutional policy	8	8%	16	18%	-	-	-	-	-	-
There are no institutional policies that link strategy and implementation	3	3%	4	4%	-	-	-	-	-	-

Question 2.6: How is the adoption and use of technology enhanced learning tools *enabled* within your institution?

Table C2.6: Enabling approaches for the adoption and use of TEL tools within an institution

	Total 2016	Total 2014	Total 2012	Total 2010	Total 2008	Total 2005	Total 2003	Total 2001
Providing support and training to academic staff	91%	97%	97%	100%	-	-	-	-
Providing platforms for sharing good practice (e.g. networks; show and tell meetings)	80%	87%	-	-	-	-	-	-
Delivery of PGCert programme for academic staff	73%	73%	77%	-	-	-	-	-
Provision of case studies*	52%	-	-	-	-	-	-	-
Allowing academic staff development time	35%	42%	48%	41%	54%	49%	55%	48%
Provision of student internships/ partnerships	35%	41%	-	-	-	-	-	-
Allowing support staff development time	32%	39%	46%	47%	51%	41%	43%	
Delivery of other forms of accredited training for academic staff	31%	30%	34%	38%	-	-	-	-
Other enabling approach	21%	12%	30%	20%	-	-	-	-
By appointing an academic in each department with responsibility for coordinating TEL adoption amongst academic staff*	17%	-	-	-	-	-	-	-
Setting targets for TEL adoption for staff as part of annual review/appraisal process*	16%	-	-	-	-	-	-	-
Contractual obligation/part of job specification for academic staff	11%	14%	15%	15%	37%	28%	-	-
Proficiency in use of TEL tools is a criterion for selection of new teaching staff*	10%	-	-	-	-	-	-	-
Capability in using TEL tools recognised as criterion for promotion of teaching staff*	8%	-	-	-	-	-	-	-
Adoption and use of TEL is *not* enabled	1%	2%	0%	-	1%	3%	2%	

Question 2.7: In what ways, if any, have you sought to raise awareness amongst staff of the benefits of using technology enhanced learning tools, engaging them in greater use of technology in their teaching and assessment practices?

Table C2.7: Approaches to raise awareness amongst staff of the benefits of using technology enhanced learning tools

	HE Total 2016	HE Total 2014
Staff development for teaching and learning qualification (e.g. PGCert Teaching & Learning / Academic Practice)*	84%	-
Staff development programme	84%	93%
Dissemination channels for TEL practices (e.g. internal conferences, show and tell, newsletters)	82%	90%
TEL website and online training resources	78%	80%
Provision of case studies featuring innovative TEL practice*	62%	-
Joined up central and departmental training/support provision*	60%	-
TEL strategy groups and networks	58%	74%
Teaching prizes and awards*	48%	-
Professional accreditation schemes (e.g. UKPSF and CMALT)*	48%	-
Joined up central and departmental support provision	47%	65%
Engagement in MOOCs*	30%	-
Digital scholarship and research*	23%	-
Badges*	10%	-
Other approach to raising awareness	8%	20%

Question 3.1: Is there a VLE *currently* in use in your institution?

Table C3.1: Institutional VLE currently in use

	HE Total 2016	HE Total 2014
Yes	100%	100%
No	0%	0%

Question 3.1: Which VLE(s), if any, is/are *currently* used in your institution?

Table C3.1a: VLEs currently used

	HE Total 2016	HE Total 2014	HE Total 2012	HE Total 2010	HE Total 2008	HE Total 2005	HE Total 2003	HE Total 2001
Moodle	53%	62%	58%	55%	55%	8%	-	-
Blackboard Learn	46%	49%	38%	9%	-	-	-	-
FutureLearn	24%	5%	-	-	-	-	-	-
Other VLE developed *in-house*	12%	12%	11%	15%	23%	38%	23%	11%
Open Education (by Blackboard)*	9%	-	-	-	-	-	-	-
Canvas (by Instructure)	7%	2%	-	-	-	-	-	-
Coursera	6%	1%	-	-	-	-	-	-
Other MOOC platform*	6%	-	-	-	-	-	-	-
SharePoint	5%	12%	6%	13%	-	-	-	-
Joule (by Moodlerooms)*	3%	-	-	-	-	-	-	-
Brightspace (by Desire2Learn)	2%	2%	2%	2%	5%	-	-	-
edX	2%	0%	-	-	-	-	-	-
Other *commercial* VLE	2%	2%	6%	3%	4%	0%	-	-
Other *open source* VLE	2%	1%	2%	2%	4%	-	-	-
Pearson eCollege	2%	1%	-	-	-	-	-	-
Sakai	2%	2%	3%	3%	5%	-	-	-
Blackboard Classic	1%	0%	6%	29%	-	-	-	-
Other intranet based – developed *in-house*	1%	3%	7%	2%	12%	17%	26%	-
Blackboard (Angel)	0%	0%	0%	2%	-	-	-	-
Blackboard (WebCT)	0%	3%	16%	-	-	-	-	-
FirstClass	0%	0%	1%	2%	10%	8%	19%	29%

Question 3.1b: Out of the above which is the *main* VLE in use across your institution?

Table C3.1b: The *main* VLE in use

	HE Total 2016	HE Total 2014	HE Total 2012	HE Total 2010	HE Total 2008
Blackboard Learn	45%	49%	39%	9%	-
Moodle	43%	39%	31%	23%	11%
Brightspace (by Desire2Learn)	2%	2%	1%	1%	1%
Canvas (by Instructure)	2%	1%	-	-	-
SharePoint	2%	1%	1%	3%	-
Blackboard Classic	1%	0%	9%	25%	-
Joule (by Moodlerooms)*	1%	-	-	-	-
Other *open source* VLE	1%	0%	-	-	-
Pearson eCollege	1%	1%	-	-	-
Sakai	1%	2%	2%	1%	1%
Blackboard WebCT	0%	0%	9%	-	-
Blackboard Classic	0%	0%	9%	25%	-
Blackboard Angel	0%	0%	0%	1%	-
Other *commercial* VLE	0%	0%	1%	0%	1%
Other intranet based developed *in-house*	0%	0%	0%	0%	1%
WebCT	-	-	-	20%	23%

Question 3.2: Thinking about the (main) VLE in use, which of the following best describes how your platform is technically managed?

Table C3.2: Hosting results for main institutional VLE

	HE Total 2016	HE Total 2014	HE Total 2012
Institutionally hosted and managed	57%	67%	80%
Institutionally managed but hosted by third party	37%	33%	20%
Cloud-based Software as a Service/multi-tenant service*	7%	-	-

Table C3.2 (i): Hosting results per platform for *main* institutional VLE

		Institutionally hosted and managed		Institutionally managed but hosted by third party		Cloud-based Software as a Service/ multi-tenant service*		Total
	Year	No.	%	No.	%	No.	%	No.
Blackboard Learn	2016	26	54%	20	42%	2	4%	48
	2014	*32*	*70%*	*14*	*30%*	-	-	*46*
Moodle	2016	28	60%	18	38%	1	2%	47
	2014	*22*	*60%*	*15*	*40%*	-	-	*37*
Brightspace (by Desire2Learn)	2016	2	100%	0	0%	0	0%	2
	2014	2	100%	0	0%	-	-	2
Canvas (by Instructure)	2016	0	0%	0	0%	2	100%	2
	2014	*0*	0%	1	100%	-	-	1
SharePoint	2016	2	100%	0	0%	0	0%	2
	2014	*1*	*100%*	*0*	0%	-	-	1
Blackboard Classic	2016	0	0%	1	100%	0	0%	1
	2014	*0*	*0%*	*0*	*0%*	*0*	0%	0
Joule (by Moodlerooms)*	2016	0	0%	0	0%	1	100%	1
	2014	-	-	-	-	-	-	-
Other open source VLE	2016	1	100%	0	0%	0	0%	1
	2014	*0*	*0%*	*0*	*0%*	*0*	*0%*	*0*
Pearson eCollege	2016	0	0%	0	0%	1	100%	1
	2014	*0*	*0%*	*1*	*100%*	-	-	*1*
Sakai	2016	1	100%	0	0%	0	0%	1
	2014	*2*	*100%*	*0*	*0%*	-	-	*2*
Other VLE – developed *in-house*	2016	0	0%	0	0%	0	0%	0
	2014	*4*	*100%*	*0*	*0%*	-	-	*4*

Note: Cloud-based Software as a Service (SaaS) was not available as a response option in the 2014 Survey. Pearson eCollege and Canvas respondents therefore opted for the hosted by a third party option.

Question 3.3a: Which major TEL facilities or systems have you reviewed in the *last two years*?

Table C3.3: Review of the VLE in the last two years

	Total 2016		Total 2014		Total 2012	
	No.	**%**	**No.**	**%**	**No.**	**%**
Yes	47	44%	48	51%	61	62%
No	59	56%	46	49%	37	38%

Table C3.3a (i): Cross tabulation of *main institutional VLE* with *VLE review conducted in the last two years*

Main institutional VLE		**Conducted review in last two years**		
	Year	**No.**	***Main VLE total (3.1b)***	**%**
Moodle	2016	26	*47*	55%
	2014	13	*37*	35%
Blackboard Learn	2016	14	*48*	29%
	2014	27	*46*	59%
Canvas (by Instructure)	2016	2	*2*	100%
	2014	1	*1*	100%
Blackboard Classic	2016	1	*1*	100%
	2014	0	*0*	0%
Joule (by Moodlerooms)*	2016	1	*1*	100%
		-	-	-
Other *open source* VLE	2016	1	*1*	100%
	2014	0	*0*	0%
Sakai	2016	1	*1*	100%
	2014	1	*2*	50%
SharePoint	2016	1	*2*	50%
	2014	1	*1*	100%

Table C3.3b (i): Outcomes of the VLE review

Outcomes	Frequency		
	2016	2014	2012
Continue with the same VLE platform	**13**	**15**	**8**
• Blackboard Learn	(6)	(12)	
• Moodle	(5)	(1)	
• Canvas (by Instructure)	(1)	(0)	
• WordPress	(1)	-	
• Other VLE developed *in-house*	-	(2)	
Continue with the same platform and upgrade to latest version	**9**	**9**	**17**
• Moodle	(9)	(3)	(5)
• Blackboard Learn	(0)	(5)	(12)
• Sakai	(0)	(1)	-
Review process not yet complete	**9**	**2**	**5**
• Blackboard Learn	(4)	(2)	
• Moodle	(4)	(0)	
• SharePoint	(1)	(0)	
Switch to external hosting for same VLE platform	**6**	**4**	**5**
• Move to Blackboard Managed Hosting (for Blackboard Learn)	(3)	(3)	2)
• Move to external hosting provider (for Moodle)	(2)	(1)	(3)
• Move to Moodlerooms (for Joule)	(1)	-	-
Switch to a different VLE platform	**4**	**15**	**29**
• From Moodle to Canvas (by Instructure)	(2)	-	-
• From Sakai to Canvas (by Instructure)	(1)	-	-
• From Blackboard to Moodle	(1)	(4)	(2)
• From Blackboard WebCT to Moodle	-	(3)	(12)
• From Blackboard WebCT to Blackboard Learn	-	(3)	(10)
• From Blackboard WebCT to Desire2Learn	-	(1)	(1)
• From Blackboard WebCT to Canvas (by Instructure)	-	(1)	-
• From Blackboard WebCT to Pearson eCollege	-	(1)	-
• From Moodle to Blackboard	(0)	(1)	-
• From SharePoint to Moodle	(0)	(1)	(3)
• From VLE developed in-house to Moodle	(0)	(0)	(1)
Continue with the same VLE platform and hosting provider	**3**	**0**	-
• Stay with ULCC (for Moodle)	(2)	(0)	
• Stay with unnamed provider (for Moodle)	(1)	(0)	
Move from two VLE platforms to one platform	**1**	**0**	**0**
• From Blackboard and Moodle to Blackboard	(1)	-	-
Establish closer integration between VLE and other TEL systems	**0**	**0**	**3**
Reorganisation of TEL support provision and governance	**0**	**0**	**1**

Question 3.6a: Which major TEL facilities or systems are you planning on reviewing in the next two years?

Table C3.6a: Planning for review of the VLE in the next two years

	Total 2016		Total 2014		Total 2012	
	No.	%	No.	%	No.	%
Planning a review in next two years	47	45%	31	32%	33	34%
Not planning a review in next two years	58	55%	65	68%	65	66%

Table C3.6a (i): Cross tabulation of *main institutional VLE* with *VLE review to be conducted in the next two years*

Main institutional VLE		Review to be conducted in next two years		
	Year	No.	*Main VLE total (3.1b)*	%
Blackboard Learn	2016	24	*48*	50%
	2014	20	*46*	43%
Moodle	2016	16	*47*	34%
	2014	6	*37*	16%
Brightspace (by Desire2Learn)	2016	2	*2*	100%
	2014	1	*2*	50%
SharePoint	2016	2	*2*	100%
	2014	0	*1*	0%
Blackboard Classic	2016	1	*1*	100%
	2014	-	-	-
Other *open source* VLE	2016	1	*1*	100%
	2014	-	-	-
Pearson eCollege	2016	1	*1*	100%
	2014	1	*1*	100%
Sakai	2016	0	*1*	0%
	2014	2	*2*	100%
Other VLE developed *in-house*	2016	-	-	-
	2014	1	*4*	25%

Question 3.8: Are there *departments* within your institution using a VLE in addition to the *main* centrally provided VLE?

Table C3.8: Departmental VLEs in use

	HE Total 2016	HE Total 2014	HE Total 2012	HE Total 2010
Yes	26%	39%	36%	35%
No	69%	59%	62%	59%
Not answered	5%	2%	2%	6%

Question 3.9: What is the context for this localised provision?

Table C3.9: Context for hosting of VLEs within departments

	HE Total 2016	HE Total 2014	HE Total 2012	HE Total 2010
A case has been made for the departmental VLE based on *pedagogical reasons*	31%	35%	49%	50%
The departmental VLE predates introduction of institutional VLE	28%	30%	34%	25%
A case has been made for the departmental VLE based on *commercial* reasons	21%	27%	11%	13%
The institution has a devolved management structure that permits departments to deploy their own software	10%	32%	34%	34%
Other context	28%	24%	40%	22%

Question 3.10: Which, if any, *centrally-supported* technology enhanced learning software tools are used by *students* in your institution?

Table C3.10: Centrally-supported software tools used by students

	HE Total 2016	HE Total 2014	HE Total 2012	HE Total 2010	HE Total 2008
VLE	99%	95%	-	-	-
E-submission tools (assignment)	93%	85%	87%	89%	-
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	90%	95%	92%	92%	-
Formative e-assessment tool (e.g. quizzes)	87%	71%	79%	80%	-
Asynchronous communication tools (e.g. discussion forums)*	85%	-	-	-	-
Summative e-assessment tool (e.g. quizzes)*	81%	-	-	-	-
Blog	76%	73%	72%	74%	72%
Document sharing tool (e.g. Google Docs, Office 365)	76%	45%	51%	-	-
E-portfolio	74%	78%	76%	72%	68%
Media streaming system	73%	65%	-	-	-
Lecture capture tools	71%	63%	51%	-	-
Personal response systems (including handsets or web-based apps)	67%	70%	-	-	-
Reading list management software	66%	55%	-	-	-
Wiki	63%	66%	74%	75%	64%
Mobile apps*	62%	-	-	-	-
Webinar*	60%	-	-	-	-
Synchronous collaborative tools (e.g. virtual classroom)*	55%	-	-	-	-
Screen casting	49%	31%	-	-	-
Podcasting	35%	46%	62%	69%	69%
Digital/learning repository	34%	34%	-	-	-
Content management systems	32%	32%	40%	-	-
Social networking	25%	15%	33%	33%	-
Learning analytics tool*	19%	-	-	-	-
Other software tool	19%	30%	42%	44%	12%

	HE Total 2016	HE Total 2014	HE Total 2012	HE Total 2010	HE Total 2008
Electronic essay exams*	14%	-	-	-	-
Social bookmarking/content curation tools	6%	5%	9%	19%	28%

Question 3.11: And which, if any, technology enhanced learning tools that are used by students are *not* centrally-supported? For example, those used by particular departments or even individuals.

Table C3.11: Software tools used by students which are *not* centrally-supported

	HE Total 2016	HE Total 2014	HE Total 2012	HE Total 2010	HE Total 2008
Social networking	59%	64%	73%	81%	-
Document sharing tool	44%	62%	52%	-	-
Blog	39%	59%	60%	59%	46%
Mobile apps*	30%	-	-	-	-
Personal response systems	26%	26%	-	-	-
Screen casting	22%	26%	-	-	-
Media streaming system	21%	26%	-	-	-
Social bookmarking/content curation tools	20%	31%	40%	48%	30%
Synchronous collaborative tools (e.g. virtual classroom)*	19%	-	-	-	-
Asynchronous communication tools (e.g. discussion forums)*	18%	-	-	-	-
E-portfolio	17%	19%	23%	25%	11%
None used	17%	6%	6%	-	-
Other software tool	14%	26%	36%	33%	32%
Virtual Learning Environment (VLE)	11%	20%	21%	23%	26%
Webinar*	11%	-	-	-	-
Wiki	11%	17%	36%	51%	34%
Podcasting	11%	21%	22%	41%	31%
Digital/learning repository	10%	8%	-	-	-
Formative e-assessment tool (e.g. quizzes)	10%	14%	23%	27%	26%
Lecture capture tools	9%	19%	20%	-	-
Content management systems	6%	7%	-	-	-
E-submission tool (assignments)	5%	9%	8%	15%	-
Summative e-assessment tools (e.g. quizzes)*	4%	-	-	-	-
Reading list management software	3%	4%	-	-	-
Electronic essay exams*	1%	-	-	-	-
Learning analytics tool*	1%	-	-	-	-
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	1%	-	-	-	-

Question 3.13: Are there any particular subject areas that make *more extensive* use of technology enhanced learning tools than your institutional norm?

Table C3.13: Institutions with subjects that make *more extensive* use of technology enhanced learning tools than the institutional norm

	HE Total 2016		HE Total 2014	
	No.	**%**	**No.**	**%**
Yes	59	57%	63	71%
No	45	43%	26	29%

Question 3.13a: Please select *up to three* subject areas and explain in what way they make more use of technology enhanced learning tools and why you think that this is so.

Table C3.13a Longitudinal subjects that make more extensive use of TEL tools than the institutional norm

2008 – 2014 subject classifications	2016 subject classifications[2]	Total 2016	Total 2014	Total 2012	Total 2010	Total 2008
Medicine, Nursing, Health	Medical sciences	54%	62%	81%	45%	35%
Management, Accountancy, Finance, Business etc.	Business and management	32%	40%	38%	29%	14%
Education	Education, teacher training	25%	25%	25%	19%	4%
Computing	Computing	19%	10%	13%	20%	16%
Engineering	Engineering, technology	15%	10%	18%	6%	0%
Humanities	Humanities (Geography, History)	12%	5%	-	-	-
Social Sciences, Psychology, Law, Teaching etc.	Social sciences	10%	28%	24%	21%	14%
Science, specified e.g. Chemistry	Natural sciences	8%	12%	9%	11%	-
Languages	Languages	8%	8%	9%	9%	4%
Art, Music, Drama	Art and design	3%	27%	18%	-	7%
Science(s), not specified	-	-	28%	9%	5%	3%

2 *2016 subject classifications were pre-defined and presented as response options. Previous Surveys (2008 – 2014) invited free-text responses to this question, with responses then grouped together and classified through a cluster analysis.*

Question 3.14: Are there any particular subject areas that make *less extensive* use of technology enhanced learning tools than your institutional norm?

Table C3.14: Institutions with subjects that make *less extensive* use of technology enhanced learning tools than the institutional norm

	HE Total 2016		HE Total 2014	
	No.	**%**	**No.**	**%**
Yes	47	46%	46	52%
No	56	54%	43	48%

Question 3.14a: Please select *up to three* subject areas and explain in what way they make less use of technology enhanced learning tools and why you think that this is so.

Table C3.14a Longitudinal subjects that make *less extensive* use of TEL than the institutional norm

2008 – 2014 subject classifications	2016 subject classifications[3]	Total 2016	Total 2014	Total 2012	Total 2010	Total 2008
Art, Music, Drama	Art and design	45%	100%	70%	46%	31%
Humanities	Humanities (Geography, History)	34%	24%	17%	12%	-
Maths	Mathematics	15%	7%	9%	9%	1%
Social Sciences	Social Sciences	11%	17%	21%	16%	11%
Education	Education, teacher training	9%	7%	4%	-	-
-	Law	9%	-	-	-	-
-	Architecture	6%	-	-	-	-
Engineering	Engineering, technology	6%	12%	11%	7%	1%
Computing	Computing	6%	7%	6%	5%	1%
Science, specified e.g. Chemistry	Natural sciences	4%	5%	4%	-	-
Languages	Languages	4%	2%	6%	4%	-
Management, Accountancy, Finance, Business etc.	Business and management	0%	19%	11%	-	-
Theology/Religious Studies	-	-	7%	4%	4%	1%
English	-	-	2%	6%	7%	11%

3 *2016 subject classifications were pre-defined and presented as response options. Previous Surveys (2008 – 2014) invited free-text responses to this question, with responses then grouped together and classified through a cluster analysis.*

Question 3.15: Approximately, what proportion of courses within your institution use each of the following technology enhanced learning tools?

Table C3.15: Proportion of courses using TEL tools

Tool	Year	100%	75% – 99%	50% – 74%	25% – 49%	1% – 24%	0%
E-submission tools (assignments)	2016	20%	38%	20%	8%	3%	2%
	2014	6%	34%	22%	9%	9%	4%
	2012	3%	16%	31%	18%	11%	2%
	2010	4%	12%	22%	25%	26%	4%
	2008	3%	8%	15%	30%	27%	4%
Formative e-assessment (e.g. quizzes as part of course delivery)	2016	3%	4%	17%	33%	33%	1%
	2014	5%	1%	16%	16%	51%	0%
	2012	1%	2%	11%	21%	46%	0%
	2010	0%	4%	13%	18%	53%	2%
	2008	0%	4%	7%	24%	42%	8%
Text matching tools (e.g. SafeAssign, Turnitin, Urkund)	2016	16%	42%	19%	8%	5%	3%
	2014	5%	31%	34%	11%	14%	0%
	2012	2%	19%	25%	18%	17%	1%
	2010	1%	18%	22%	24%	21%	7%
	2008	-	-	-	-	-	-
Summative e-assessment (e.g. defined response tests as part of course delivery)	2016	-	3%	7%	25%	50%	4%
	2014	2%	5%	4%	13%	64%	4%
	2012	0%	1%	4%	10%	62%	5%
	2010	0%	0%	1%	14%	60%	12%
	2008	0%	0%	1%	4%	64%	16%
Lecture capture tools (system to record teaching in a lecture theatre/ classroom)	2016	4%	9%	4%	7%	53%	11%
	2014	2%	1%	5%	7%	71%	4%
	2012	1%	0%	3%	11%	63%	4%
	2010	0%	2%	2%	12%	68%	7%
	2008	-	-	-	-	-	-
Document sharing tools (e.g. Google documents, Office 365)	2016	3%	6%	12%	10%	37%	2%

Tool	Year	100%	75% – 99%	50% – 74%	25% – 49%	1% – 24%	0%
	2014	1%	2%	6%	7%	51%	2%
	2012	0%	1%	0%	9%	44%	8%
	2010	-	-	-	-	-	-
	2008	-	-	-	-	-	-
E-portfolio	2016	3%	-	3%	16%	63%	6%
	2014	0%	1%	2%	13%	65%	5%
	2012	0%	0%	4%	10%	61%	6%
	2010	2%	3%	2%	15%	57%	8%
	2008	0%	7%	5%	16%	47%	7%
Electronic essay exams	2016	1%	6%	4%	2%	32%	32%
	2014	0%	1%	4%	6%	25%	40%
	2012	-	-	-	-	-	-
	2010	-	-	-	-	-	-
	2008	-	-	-	-	-	-
Synchronous collaborative tools (e.g. virtual classroom)	2016	-	2%	5%	4%	61%	13%
	2014	0%	0%	1%	1%	79%	10%
	2012	0%	0%	0%	8%	57%	13%
	2010	0%	0%	1%	1%	66%	18%
	2008	-	-	-	-	-	-
Asynchronous collaborative working tools (e.g. discussion forums, blogs, wikis)	2016	4%	10%	15%	25%	32%	3%
	2014	0%	7%	19%	29%	35%	0%
	2012	0%	7%	13%	36%	26%	0%
	2010	1%	10%	18%	29%	37%	0%
	2008	-	-	-	-	-	-
Personal response systems	2016	1%	-	3%	14%	53%	10%
	2014	0%	1%	5%	7%	65%	11%
	2012	-	-	-	-	-	-
	2010	-	-	-	-	-	-
	2008	-	-	-	-	-	-

Tool	Year	100%	75% – 99%	50% – 74%	25% – 49%	1% – 24%	0%
Podcasting	2016	1%	3%	3%	5%	57%	12%
	2014	0%	0%	1%	7%	68%	6%
	2012	1%	0%	2%	4%	63%	6%
	2010	0%	0%	2%	10%	71%	7%
	2008	-	-	-	-	-	-
Screen casting	2016	1%	1%	4%	10%	57%	8%
	2014	0%	0%	1%	6%	65%	5%

Question 3.16: Which of the following types of services, if any, have been optimised by your institution to be accessible via mobile devices (e.g. smart phone, tablet) beyond standard web based access?

Table C3.16: Optimised services for mobile devices

	Total 2016		Total 2014		Total 2012	
	No.	%	No.	%	No.	%
Access to course announcements	61	60%	54	60%	31	31%
Access to email	61	60%	58	64%	34	35%
Access to course materials and learning resources	59	58%	56	62%	21	21%
Access to communication tools (e.g. discussion boards, blogs and wikis)	49	49%	43	48%	20	20%
Access to library services	49	49%	39	43%	36	37%
Access to lecture recordings and videos	39	39%	35	39%	13	13%
Access to timetabling information	32	32%	25	28%	25	26%
Access to portal*	31	31%	-	-	-	-
Access to printing*	26	26%	-	-	-	-
Access to personal calendars	24	24%	26	29%	21	21%
Access to grades	22	22%	26	29%	12	12%
Other institutional service	13	13%	14	16%	21	21%
Services are not optimised – all are designed to be device agnostic by default*	11	11%	-	-	-	-
Access to student information/records system*	7	7%	-	-	-	-
Services are not optimised	7	7%	17	19%	19	19%
Access to learning analytics*	1	1%	-	-	-	-

Question 3.17: For which types of devices does the institution provide active user (staff and student) support to connect to these services?

Table C3.17: Devices with active user support

	Total 2016		Total 2014		Total 2012	
	No.	%	No.	%	No.	%
iOS devices (e.g. iPad and iPhone)	72	73%	59	81%	49	73%
Android devices	68	69%	56	77%	46	69%
Windows Mobile devices	55	56%	42	58%	-	-
Blackberry devices	24	24%	37	51%	39	58%
No active user support provided – all services are designed to be device agnostic by default*	17	17%	-	-	-	-
No active user support provided	9	9%	8	11%	-	-
Other mobile device	2	2%	9	12%	16	24%

Question 3.18: How does your institution promote the use of student/staff owned mobile devices in support of learning, teaching and assessment activities?

Table C3.18: Methods used to promote mobile device usage

	Total 2016		Total 2014	
	No.	%	No.	%
Institutional Bring Your Own Device (BYOD) policy and supporting mobile device usage on campus*	43	43%	-	-
Loaning of devices to staff/students	40	40%	37	42%
Funding for mobile learning projects	23	23%	31	35%
Other method of promoting use of mobile devices	22	22%	26	30%
Institutional switch-on policy to encourage use of devices by staff and students for learning, teaching and assessment	15	15%	15	17%
Institution does not promote the use of mobile devices	15	15%	21	24%
Free provision of devices to staff/students	8	8%	16	18%

Question 3.19: Please list the systems that are linked (i.e. some form of data flow is supported between the systems) to the main VLE within your institution

Table C3.19: Systems linked to the VLE

Systems linked to the VLE	2016	2014	2012	2010	2005
Library: system providing access to reading lists and electronic reading resources	80%	73%	50%	60%	30%
Student records	79%	80%	80%	78%	63%
Registration and enrolment	77%	71%	60%	63%	51%
E-submission: system managing assignments and coursework	72%	68%	-	-	-
Lecture capture system	55%	40%	32%	-	-
Media server	53%	33%	41%	44%	-
E-portfolio	52%	46%	51%	59%	15%
E-assessment system: system supporting defined response testing and quizzes	47%	50%	57%	-	38%
Timetabling	29%	29%	-	-	-
Portal	27%	37%	54%	49%	29%
Survey systems	27%	21%	-	-	-
Content management system	20%	16%	31%	26%	-
Digital/learning repository	18%	32%	-	-	-
Learning analytics*	17%	-	-	-	-
HR system	15%	11%	30%	20%	-
Attendance monitoring	11%	9%	-	-	--
Online payments	6%	9%	9%	6%	-
Other system linked to	4%	8%	8%	8%	-
No systems are linked to main VLE	0%	1%	-	-	-

Question 3.20: Have you evaluated the impact of technology enhanced learning on the *student learning experience* across the institution as a whole over the *past two years*?

Table C3.20: Evaluation of the impact of TEL on *student learning experience*

	Total 2016		Total 2014		Total 2012	
	No.	%	No.	%	No.	%
Yes	40	40%	47	52%	54	61%
No	59	60%	43	48%	35	39%

Question 3.21: *How* has the impact has been measured, *when*, and for *what purpose*?

Table C3.21(i): How the impact on student learning experience has been evaluated

	Total 2016		2014	
	No.	%	No	%
Survey	30	35%	38	81%
Interview/focus group	22	26%	26	55%
Module and course evaluation	20	24%	28	60%
Benchmarking	8	9%	9	19%
Other	5	6%	-	-

Table C3.21(ii): When the impact on student learning experience has been evaluated

	Total 2016		Total 2014	
	No.	%	No	%
Annually	18	38%	28	60
Other timing	16	34%	-	-
Each term/semester	13	28%	15	32%
Summer	-	-	3	6%

Table C3.21(iii): Purpose of the impact on student learning experience that has been evaluated

	2016		2014	
	No.	%	No	%
Assess student satisfaction with TEL approach*	33	38%	-	-
Determine take-up and usage of TEL tool(s) across institution (adoption)	27	31%	39	83%
Other	11	13%	24	51%
Assess value for money of TEL tool(s) (e.g. review of licensing costs)*	10	11%	-	-
Assess value of TEL in relation to student performance (learning analytics)	7	8%	15	32%

Question 3.21a: And what have these evaluations revealed?

Table C3.21a: Broad conclusions from the evaluations undertaken into the impact of TEL on the *student learning experience*

	2016		2014	
	No.	%	No	%
TEL appreciated by students	13	42%	14	34%
Students value consistency	12	39%	12	29%
Demand for mobile support	7	21%	4	10%
Mixed use of TEL	6	18%	12	29%
Other	6	18%	-	-
Interest in more e-assessment	4	12%	4	10%
Demand for lecture capture	4	12%	3	7%
Concern about digital literacy of staff	3	9%	4	10%
Increase in TEL adoption	2	6%	10	24%

Question 3.22: Have you evaluated the impact of technology enhanced learning on *pedagogic practices* across the institution as a whole over the past two years? This can include particular aspects of TEL across the institution.

Table C3.22: Evaluation of the impact of TEL on *pedagogic practices*

	Total 2016		Total 2014		Total 2012	
	No.	%	No.	%	No.	%
Yes	36	36%	27	30%	34	38%
No	63	64%	43	70%	55	62%

Question 3.23: *How* has the impact on *pedagogic practices* been measured, *when*, and for *what* purpose?

Table C3.23(i): How the impact on pedagogical practices has been evaluated

	Total 2016		2014	
	No.	%	No	%
Survey	24	69%	15	55%
Interview/focus group	14	39%	14	60%
Module and course evaluation	10	28%	9	33%
Benchmarking	4	11%	12	44%

Table C3.23(ii): When the impact on pedagogical practices has been evaluated

	Total 2016		Total 2014	
	No.	%	No	%
Other timing*	18	50%	-	-
Annually	16	44%	12	44%
Each term/semester	7	19%	8	30%
Summer	-	-	2	7%

Table C3.23(iii): Purpose of the evaluation on pedagogical practices

	2016		2014	
	No.	%	No	%
Determine take-up and usage across institution (adoption)	24	69%	17	63%
Assess staff satisfaction*	22	63%	-	-
Other purpose	14	40%	12	44%
Assess value for money*	9	26%	-	-
Assess value of TEL tools in relation to student performance (learning analytics)	6	17%	12	44%

Question 3.23a: And what have these evaluations revealed?

Table C3.23a: Broad conclusions from the evaluations undertaken into the impact of TEL on *pedagogical practices*

	2016		2014	
	No.	%	No	%
Identification of gaps in provision/ support	4	15%	-	-
Efficiency with e-assessment	3	12%	-	-
Mixed practice	3	12%	3	13%
More staff support	3	12%	2	9%
TEL valued as positive	2	8%	2	9%
No data	2	8%	-	-
Published works from TEL	2	8%	4	17%
Positive impact on staff teaching practice	-	-	7	30%
Rethinking pedagogic systems, workflows	-	-	5	22%

Question 4.1: Which, if any, support units are there in your institution that provide support for technology enhanced learning? Please include both centrally provided and local units.

Table C4.1a: Support units that provide support for technology enhanced learning

	2016	2014	2012	2010	2008
Information Technology Support	59%	73%	64%	81%	80%
Learning Technology Support Unit	68%	66%	49%	63%	67%
Educational Development Unit	51%	51%	54%	65%	56%
Library	48%	60%	-	-	-
Local support (devolved to Faculty, School, Department)	55%	60%	48%	66%	-
Other	15%	13%	19%	23%	47%
Outsourced support	2%	9%	4%	7%	4%
No support units	0%	-	10%	-	-

Table C4.1b: Number of units providing support for TEL per institution

Number of support units per institution	2016	2014	2012	2010	2008
0	0%	0%	-	3%	7%
1	8%	13%	-	12%	11%
2	32%	16%	-	15%	32%
3	29%	23%	-	27%	39%
4	17%	23%	-	32%	8%
5	11%	15%	-	7%	3%
6	2%	6%	-	1%	-
Mean number of support units	2.97	3.32	2.65	3.0	2.4

Question 4.4: What changes in staffing provision, if any, have been made over the *last two years*?

Table C4.4: Whether changes in staffing provision have been made

	2016		2014		2012	
	No.	%	No.	%	No.	%
Changes made	81	83%	76	84%	46	55%
No changes made	17	17%	14	16%	37	45%

Table C4.4a: Changes made in staffing provision

	2016		2014		2012	
	No.	%	No.	%	No.	%
Increase in number of staff	50	51%	34	38%	5	11%
Restructure of department(s)	41	42%	42	47%	10	22%
Change of existing roles/incorporated other duties	30	31%	40	44%	6	13%
Reduction in number of staff	16	16%	17	19%	20	44%
Recruitment delay/freeze	14	14%	21	23%	3	7%
Other change in staffing provision	7	7%	-	-	-	-

Note: The 2012 Survey invited open responses to this question, and responses were classified using a cluster analysis approach, whereas for 2014 and 2016 the question design changed and response items were pre-coded – leading to much higher levels of responses to this question.

Question 4.5: Do you foresee changes in the staffing provision in supporting staff and students in their use of technology enhanced learning tools in the near future?

Table C4.5: Whether changes in staffing provision are foreseen in the near future

	2016		2014		2012	
	No.	%	No.	%	No.	%
Changes foreseen	77	79%	77	86%	52	61%
No changes foreseen	21	21%	13	14%	33	39%

Table C4.5a: Foreseen changes in staffing provision in the near future

	2016		2014		2012	
	No.	%	No.	%	No.	%
Anticipate change but unsure as to what this might be	32	33%	29	32%	11	21%
Increase in number of staff	29	30%	38	42%	24	46%
Restructure of department(s)/TEL provision	25	26%	27	30%	6	12%
Change of existing roles/incorporation of other duties	24	24%	30	33%	2	4%
Do not foresee any changes in staffing provision	21	21%	13	8%	-	-
Currently reviewing staffing provision	10	10%	15	17%	4	8%
Recruitment delay/freeze	6	6%	8	5%	-	-
Other change	4	4%	4	2%	-	-
Reduction in the number of staff	5	5%	2	1%	3	6%

Note: The 2012 Survey invited open responses to this question, and responses were classified using a cluster analysis approach, whereas for 2014 and 2016 the question design changed and response items were pre-coded – leading to much higher levels of responses to this question.

Question 4.6: Which, if any, training and development activities are promoted to support *staff who help others* in the use of technology enhanced learning tools? Please include both face to face and online activities.

Table C4.6: Training and development activities promoted to support staff

	2016	2014	2012	2010	2008	2005
Jisc events*	86%	-	-	-	-	-
National conferences/seminars	85%	87%	84%	89%	88%	75%
Internal staff development	85%	83%	83%	96%	91%	79%
Association for Learning Technology (ALT) events	82%	79%	79%	80%	77%	71%
HEA Professional accreditation (UKPSF)	74%	69%	53%	43%	-	-
Regional seminars	59%	71%	70%	73%	73%	52%
External training courses	57%	67%	66%	67%	77%	71%
Post Graduate Certificate (PGCert)*	56%	-	-	-	-	-
Higher Education Academy (HEA) events	50%	76%	68%	76%	-	-
CMALT professional accreditation	48%	43%	41%	23%	-	-
Staff and Education Development Association (SEDA) events*	42%	-	-	-	-	-
Universities and Colleges Information Systems Association (UCISA) events	36%	47%	40%	38%	45%	46%
International conferences/seminars	35%	44%	41%	46%	57%	-
Open learning opportunities (including badges)*	31%	-	-	-	-	-
Higher Education Academy (HEA) discipline cluster events	26%	44%	45%	63%	76%	32%
Fellowship of the Staff and Education Development Association (FSEDA)*	13%	-	-	-	-	-
Other training activity	3%	9%	15%	5%	14%	3%
None are promoted	1%	1%	2%	-	1%	-
Not answered	-	-	7%	-	-	-

Question 5.1: What, in your opinion, are the barriers in your institution to any (further) development to promote TEL tools over the coming years?

Table C5.1: Ranked potential barriers to any (further) development of processes to promote and support TEL tools

Extent to which ...	Rank 2016	Rank 2014	Rank 2012	Rank 2010	Rank 2008	Rank 2005	Rank 2003
Lack of time	1	1	1	1	1	1	2
Departmental/school culture	2	5	3	-	-	-	-
Lack of internal sources of funding to support development*	3	-	-	-	-	-	-
Lack of money	-	3	2	2	3	2	1
Lack of academic staff commitment	4	7	6	5	-	-	-
Institutional culture	5	4	8	7	4	8	-
Lack of academic staff knowledge	6	2	5	3	2	7	4
Lack of recognition for career development	7	8	4	4	6	4	-
Lack of support staff	8	10	9	8	5	3	5
Competing strategic initiatives	9	9	-	-	-	-	-
Lack of incentives	10	6	7	6	8	5	8=
Changing administrative processes	11	12	11	11	11	9	-
Lack of academic staff development opportunities	12=	14	14	9	7	6	3
Lack of external sources of funding (e.g. HEA, HEFCE, Jisc) to support project development*	12=	-	-	-	-	-	-
Technical and infrastructure limitations (e.g. wireless)*	14	-	-	-	-	-	-
Technical problems	-	15	12	10	9	12	8=
Organisational structure	15	13	10	12	10	11	7
Lack of strategy and leadership	16	11	13	13	12	10	-
Other technical problems	17	-	-	-	-	-	-
Lack of student engagement	18	18	-	-	-	-	-
Lack of institutional support for open learning*	19	-	-	-	-	-	-
Too few standards and guidelines	20	16	17	16	16	16	-
Inappropriate policies and procedures	21	17	15	14	13	13	-
Too many/diffuse/diverse standards and guidelines	22	19	-	-	-	-	-

Note: The categories of *Lack of money* and *Technical problems* used in previous Surveys have been included in this table to enable longitudinal comparison with the revised categories noted in the main report.
This has been done by combining data from the new options for 2016 (e.g. combining data on lack of internal and external sources of funding from the 2016 Survey) to determine the ranking of the lack of money item).

Question 5.4: Has your institution formally considered *collaboration with other HE institutions* in the delivery of technology enhanced learning services or resources to staff?

Table C5.4: Considered collaboration with other HE institutions

	2016		2014		2012	
	No.	%	No.	%	No.	%
No, not considered	61	61%	61	69%	56	63%
Yes, and do collaborate as a result	15	15%	18	20%	33	37%
Yes, currently under consideration so no decision reached*	10	10%	-	-	-	-
Don't know*	10	10%	-	-	-	-
Yes, did consider but decided not to collaborate	4	4%	10	11%	-	-

Question 5.5: Have any recent and prospective developments in technology started to make new demands upon you in terms of the support required by users?

Table C5.5: Whether there are any recent and prospective developments in technology that have started to make new demands upon institutions in terms of the support required by users

	HE Total 2016		HE Total 2014	
	No.	%	No.	%
Yes	62	62%	72	81%
No	38	38%	17	19%

Question 5.5a: Please write in details of up to three developments that are starting to make new demands upon you in terms of the support required by users – those you think are most important.

Table C5.5a: Recent and prospective developments in technology that are starting to make new demands terms of the support required by user

	2016		2014		2012		2010	
	No.	%	No.	%	No.	%	No.	%
Electronic management of assessment (e-submission, e-marking, e-feedback)	24	39%	24	34%	26	31%	18	23%
Lecture capture	21	34%	26	37%	18	22%	13	16%
Mobile technologies/bring your own device (support, access to systems/content)	19	31%	32	45%	49	59%	18	23%
Multimedia (use, provision, management, support)	9	15%	8	11%	10	12%	18	23%
Distance learning/fully online courses	8	13%	2	3%	-	-	-	-
Learning analytics	8	13%	6	8%	3	4%	-	-
MOOCs	6	10%	12	17%	-	-	-	-
VLE – new/change, embed, extend, customise	6	10%	10	14%	11	13%	12	16%
E-portfolio	5	8%	4	6%	9	11%	12	15%
Accessibility (in particular captioning and response to the change in Disabled Students' Allowance)	4	6%	-	-	-	-	-	-
Cloud services	4	6%	2	3%	8	10%	6	8%
New modes of delivery (e.g. flipped classroom)	4	6%	4	6%	-	-	-	-
Real-time communication (e.g. video conferencing/ webinar software)	4	6%	2	3%	8	10%	-	-
Social media/networking	4	6%	2	3%	8	10%	10	13%
Collaboration	3	5%	1	1%	3	4%	1	1%
Development of policy	3	5%	-	-	-	-	-	-
Digital literacy/capability	3	5%	4	6%	2	2%	-	-
Learning spaces	3	5%	-	-	-	-	-	-
Meeting staff/student expectations	3	5%	2	3%	1	1%	-	-
24/7 access/support	2	3%	1	1%	2	2%	-	-
Classroom interactivity (e.g. voting technologies)	2	3%	4	6%	3	4%	-	-
Curriculum development/design	2	3%	1	1%	2	2%	-	-
Developing/curating content and resources	2	3%	2	3%	-	-	-	-
File management (storage, sharing)	2	3%	1	1%	3	4%	-	-
Lack of TEL staffing	2	3%	-	-	-	-	-	-
Office 365	2	3%	-	-	-	-	-	-
Restructure/reorganisation	2	3%	-	-	-	-	-	-
Staff development	2	3%	2	3%	2	2%	6	8%
Supporting remote students	2	3%	-	-	-	-	-	-
Awareness raising	1	2%	-	-	-	-	-	-

	2016		2014		2012		2010	
	No.	%	No.	%	No.	%	No.	%
Badges	1	2%	-	-	-	-	-	-
Blended learning	1	2%	-	-	-	-	-	-
Employability	1	2%	2	3%	-	-	-	-
EU tenders	1	2%	-	-	-	-	-	-
Information security	1	2%	1	1%	-	-	-	-
Interoperability	1	2%	1	1%	4	5%	10	13%
Managing expectations of new TEL staff	1	2%	-	-	-	-	-	-
Open educational resources	1	2%	2	3%	3	4%	6	8%
Overseas campus	1	2%	-	-	-	-	-	-
Research into effective use of technology	1	2%	-	-	-	-	-	-
Summative and formative e-assessment	1	2%	-	-	-	-	-	-
Wireless	1	2%	2	3%	4	5%	1	1%
Workplace assessments	1	2%	-	-	-	-	-	-

Question 5.6: Do you see these developments posing any challenges over the next two to three years in terms of the support that will be required for staff and students?

Table C5.6: Whether institutions consider that the developments identified in Question 5.5 will pose support challenges over the next two to three years

	HE Total 2016		HE Total 2014	
	No.	%	No.	%
Yes	44	72%	59	82%
No	17	28%	13	18%

Question 5.6a: Please write in the challenges you see these developments posing over the next two to three years in terms of the support that will be required for staff and students? Please write in details of up to three challenges – those you think are most important.

Table C5.6a: Challenges that these developments pose over the next two to three years in terms of support that will be required for staff and students

	2016		2014		2012		2010	
	No.	%	No.	%	No.	%	No.	%
Staff development	15	35%	12	20%	19	24%	28	36%
E-assessment (e-submission, e-marking, e-feedback)	10	23%	11	19%	12	15%	12	16%
Lecture capture/recording	9	21%	10	17%	6	8%	-	-
Technical infrastructure – addressing growth, new technologies	9	21%	7	12%	7	9%	14	18%
Lack of support staff/specialist skills/resources	7	16%	19	32%	10	13%	-	-
Mobile technologies/learning, BYOD (support, creating content and compatibility with systems)	7	16%	16	27%	23	29%	7	9%
Budgets/funding/financial constraints	6	14%	6	10%	8	10%		
Legal/policy issues (inc. IPR, copyright, data security, system contingency)	5	12%	3	5%	14	18%	13	17%
New modes of delivery (e.g. open/online/distance courses, flipped classroom)	5	12%	7	12%	-	-	-	-
Increased/diverse support (inc. 24/7 support, support for remote students/staff)	4	9%	1	2%	-	-	-	-
Learning analytics	4	9%	4	7%	8	10%	-	-
Managing/meeting expectations	4	9%	1	2%	9	11%	4	5%
Culture change	3	7%	3	5%	3	4%	5	6%

	2016		2014		2012		2010	
	No.	%	No.	%	No.	%	No.	%
Keeping up with emerging technologies	3	7%	-	-	-	-	-	-
Staff incentives	3	7%	-	-	-	-	-	-
Cloud services	2	5%	2	3%	1	1%	1	1%
Digital literacy/capability	2	5%	7	12%	2	3%	-	-
Diversity of platforms/technologies	2	5%	2	3%	6	8%	-	-
Internal collaboration	2	5%	-	-	-	-	-	-
Interoperability	2	5%	1	2%	2	3%	11	14%
Lack of time	2	5%	5	8%	2	3%	-	-
Multimedia (production, management, delivery storage)	2	5%	2	3%	9	11%	3	4%
Peer support networks	2	5%	-	-	-	-	-	-
Prioritisation of teaching in line other activities	2	5%	-	-	-	-	-	-
Wireless	2	5%	2	3%	5	6%	-	-
Accessibility (in response to the change in Disabled Students' Allowance)	1	2%	-	-	-	-	-	-
Blackboard Collaborate	1	2%	-	-	-	-	-	-
Developing/supporting content creation and collections	1	2%	2	3%	-	-	-	-
E-portfolios	1	2%	-	-	-	-	-	-
Learning spaces	1	2%	1	2%	-	-	-	-
Pedagogic support	1	2%	-	-	-	-	-	-
Reorganisation	1	2%	-	-	-	-	-	-
Senior management support	1	2%	-	-	-	-	-	-
Sharing good practice	1	2%	-	-	-	-	-	-
Social media	1	2%	1	2%	2	3%	-	-
Supplier communications	1	2%	-	-	-	-	-	-
Turnitin/plagiarism	1	2%	1	2%	-	-	-	-
VLE (change/extend)	1	2%	2	3%	5	6%	-	-
Differing levels of staff engagement/resistance	-	-	4	7%	-	-	-	-
MOOCs	-	-	4	7%	-	-	-	-
Recognising value of TEL/acceptance	-	-	2	3%	6	8%	-	-

Question 5.6b: How do you see these challenges being overcome?

Table C5.6b: How institutions see the challenges identified in Question 5.6a being overcome

	2016		2014		2012		2010	
	No.	%	No.	%	No.	%	No.	%
Investment (time, money, resources, support staff)	15	35%	16	27%	19	25%	28	34%
Staff development (e.g. training courses)	15	35%	15	25%	24	32%	31	40%
Improve technical infrastructure (inc. wireless)	13	30%	6	10%	-	-	4	5%
Development of/integration with strategies/policies	11	26%	11	19%	14	18%	24	31%
Review and revise support provision (increased/ improved/devolved/extended hours)	8	19%	15	25%	6	8%	-	-
Mobile devices (support, provision of apps)	6	14%	6	10%	7	9%	-	-
Provision of guidance to staff/students (e.g. online resources)	5	12%	3	5%	3	4%	-	-
Communities of practice – sharing good practice, success stories, case studies	4	9%	3	5%	9	12%	13	17%
Internal collaboration/joined-up approach	4	9%	4	7%	3	4%		
Senior management leadership/commitment to TEL	4	9%	2	3%	4	5%	9	12%
Staff/student engagement/buy-in	4	9%	2	3%	-	-	-	-
E-assessment (e-submission, e-marking, e-feedback)	3	7%	2	3%	3	4%	3	4%
Improve/increase use of existing technologies	3	7%	-	-	-	-	-	-
Interoperability/extending systems	3	7%	2	3%	4	5%	5	6%
Learning analytics	3	7%	-	-	-	-	-	-
Lecture capture	3	7%	-	-	-	-	-	-
Accessibility	2	5%	-	-	-	-	-	-
Greater use of multimedia	2	5%	-	-	-	-	-	-
Reorganisation/restructure	2	5%	-	-	-	-	-	-
System testing	2	5%	-	-	-	-	-	-
Awareness-raising	1	2%	1	2%	5	7%	-	-
Cloud solutions	1	2%	1	2%	3	4%	1	1%
Collaboration with external partners	1	2%	-	-	-	-	-	-
Cultural changes/embedding	1	2%	1	2%	6	8%	4	5%
Develop digital literacy skills	1	2%	2	3%	-	-	-	-
Improve learning spaces	1	2%	-	-	-	-	-	-
Improve skills and knowledge of support staff	1	2%	-	-	-	-	-	-
Keeping up to date with new technologies	1	2%	1	2%	3	4%	-	-
Managing expectations	1	2%	-	-	-	-	-	-
New governance model	1	2%	-	-	-	-	-	-
Outsourcing content creation	1	2%	-	-	-	-	-	-
Providing access to software	1	2%	-	-	-	-	-	-
Provision of incentives	1	2%	-	-	-	-	-	-
Rollout of Office 365/SharePoint	1	2%	-	-	-	-	-	-
Student demand/experience	1	2%	1	2%	7	9%	5	6%
Student development	1	2%	-	-	-	-	-	-
Understanding the value of TEL	1	2%	-	-	-	-	-	-

Appendix D: Specification of the questions from the 2016, 2014, 2012, 2010, 2008, 2005, 2003 and 2001 Surveys for which longitudinal analysis was used in this Report

Table C1.1: How important, if at all, have each of the following driving factors been for developing TEL and the processes that promote it in *your institution* to date?

2014: Q1.1 How important, if at all, have each of the following driving factors been for developing TEL and the processes that promote it in your institution to date?

2012: Q1.1 How important, if at all, have each of the following driving factors been for developing TEL and the processes that promote it in your institution to date?

2010: Q1.1 How important, if at all, have each of the following drivers been in your institution to date?

2008: Q1.1 How important, if at all, have each of the following drivers been in your institution to date?

2005: Q1.3 Listed below are possible driving factors for MLE development and the environments and processes that support *e*-learning. Which of those have been important in your institution to date? Please indicate the importance of each of these.

2003: Q1.4 Listed below are possible drivers that can encourage MLE development. Which have driven development of your MLE to date? Please indicate the importance of each of these in your institution.

Table C1.3: How important, if at all are the following factors in *encouraging* the development of TEL and processes that promote it?

2014: Q1.3: How important, if at all are the following factors in encouraging the development of TEL and processes that promote it?

2012: Q1.3: How important, if at all are the following factors in encouraging the development of TEL and processes that promote it?

2010: Q1.3 How important, if at all, are the following factors in encouraging the development of TEL and processes that promote it?

2008: Q1.3 How important, if at all are the following factors in *encouraging* the development of TEL and processes that promote it?

2005: Q1.4 Listed below are possible *supporting factors* for MLE development and the environments and processes that support *e*-learning. Which of those have been important in your institution to date? Please indicate the importance of each of these in your institution.

2003: Q 1.4 Listed below are possible drivers that can encourage MLE development. Which have driven development of your MLE to date? Please indicate the importance of each of these in your institution.

Table C2.1: Institutional strategies that have informed TEL development

2014: Q2.1: Which, if any institutional strategies, inform the development of technology enhanced learning in your institution?

2012: Q2.1: Which, if any institutional strategies, inform the development of technology enhanced learning in your institution?

2010: Q2.1: Which, if any institutional strategies, inform the development of technology enhanced learning in your institution?

2008: Q2.1 Which, if any, institutional strategies inform the development of technology enhanced learning in your institution?

2005: Q3.3 Which institutional strategies inform the development of processes to support e-learning in your institution? Please tick all that apply.

2003: Q3.6 Which institutional strategy documents consider development of your MLE? Please tick all that apply.

Table C2.2: External strategy documents that have informed the development of TEL

2014: Q2.2: Which, if any external strategy documents inform the development of technology enhanced learning in your institution?

2012: Q2.2: Which, if any external strategy documents inform the development of technology enhanced learning in your institution?

2010: Q2.2: Which, if any external strategy documents inform the development of technology enhanced learning in your institution?

2008: Q2.2 Which, if any, external strategy documents inform the development of technology enhanced learning in your institution?

2005: Q3.4 Which external strategy documents inform the development of processes to support e-learning in your institution? Please tick all that apply.

Table C2.3: External reports or documents that have informed the development of TEL

2014: Q2.3: Which, if any external reports or documents inform the development of technology enhanced learning in your institution?

2012: Q2.3: Which, if any external reports or documents inform the development of technology enhanced learning in your institution?

2010: Q2.3: Which, if any external reports or documents inform the development of technology enhanced learning in your institution?

Table C2.5: Institutional policies which link strategy with implementation of TEL tools

2014: Q2.5 What institutional policies, if any, link strategy and implementation of technology enhanced learning tools? For example, VLE usage guidelines, faculty or school-based teaching and learning policies on usage of technology and online provision.

2012: Q2.5 What institutional policies, if any, link strategy and implementation of technology enhanced learning tools? For example, VLE usage guidelines, faculty or school-based teaching and learning policies on usage of technology and online provision.

2010: Q3.2 What institutional policies, if any, link strategy and implementation of technology enhanced learning tools?

2008: Q3.2 What institutional policies, if any, link strategy and implementation of technology enhanced learning tools?

Table C2.6: Enabling approaches for the adoption and use of TEL tools within an institution

2014: Q2.6: How is the adoption and use of technology enhanced learning tools enabled within your institution?

2012: Q2.6: How is the adoption and use of technology enhanced learning tools enabled within your institution?

2010: Q3.3: How is the adoption and use of technology enhanced learning tools enabled within your institution?

2008: Q3.3: How is the adoption and use of technology enhanced learning tools enabled within your institution?

2005: Q4.15: How is VLE development supported or encouraged within your institution? Please tick all that apply.

2003: Q4.15: How is VLE development supported or encouraged within your institution? Please tick all that apply.

Table C2.7: In what ways, if any, have you sought to raise awareness amongst staff of the benefits of using technology enhanced learning tools, engaging them in greater use of technology in their teaching and assessment practices?

2014:Q2.7: In what ways, if any, have you sought to raise awareness amongst staff of the benefits of using technology enhanced learning tools, engaging them in greater use of technology in their teaching and assessment practices?

Table C3.1: Institutional VLE currently in use

2014: Q3.1: Is there a VLE currently in use in your institution?

Table C3.1a: VLEs currently used

2014: Q3.1a: Which VLE(s), if any, is currently used in your institution? Please select all VLEs in use across your institution (including departmental VLEs)

2012: Q3.1a: What VLE, if any, is currently used in your institution?

2010: Q3.4: What VLE, if any, is currently used in your institution?

2008: Q3.4: What VLE, if any, is currently used in your institution?

2005: Q4.2: What VLE(s) are used in your institution? Please tick all that apply.

2003: Q4.2: What VLEs, commercial or in house, are used in your institution? Please tick all that apply.

2001: Q6: What virtual learning environments (VLEs) are used at your institution? Please tick all that apply and indicate how long they have been used.

Table C3.1b: The *main* VLE in use

2014: Q3.1b: Out of the above, which is the *main* VLE in use across your institution?

2012: Q3.1b: What is the *main* VLE currently used in your institution?

2010: Q3.4c: What is the *main* VLE currently in use?

2008: Q3.4b: What is the *main* VLE currently in use?

Table C3.2: Hosting results for the main institutional VLE

2014: Q3.2: Thinking about the (main) VLE in use, is it locally managed or hosted by a third party?

2012: Q3.2: Thinking about the (main) VLE in use, is it locally managed or hosted by a third party?

Table C3.3: Review of the VLE in the last two years

2014: Q3.3: Have you undertaken a review of the (main) institutional VLE in the last two years?

2012: Q3.3: Have you undertaken a review of the (main) institutional VLE in the last two years?

Table C3.3b (i): Outcomes of the VLE review

2014: Q3.5: What was the outcome, or likely outcome, of the review? Which product did you review? And if relevant, which did you switch to, or did you decide to continue with the same product?

2012: Q3.5: What was the outcome, or likely outcome, of the review? What product did you switch from and to, or did you decide to continue with the same product?

Table C3.6a: Planning for review of the VLE in the next two years

2014: Q3.6: Are you planning to undertake a review of the (main) institutional VLE in the *next two years*? (Or reviewing the case for a main VLE, if your institution currently does not have one, in the next two years.)

2012: Q3.6: Are you planning to undertake a review of the (main) institutional VLE in the *next two years*?

Table C3.8: Departmental VLEs in use

2014: Q3.8: Are there departments within your institution using a VLE in addition to the main centrally provided VLE?

2012: Q3.8: Are there departments within your institution using a VLE in addition to the main centrally provided VLE?

2010: Q3.5: Are there departments within your institution hosting a VLE in addition to the main centrally provided VLE?

Table C3.9: Context for hosting of VLEs within departments

2014: Q3.9: What is the context for this localised provision?

2012: Q3.9: What is the context for this localised provision?

2010: Q3.6: What is the context for this localised provision?

Table C3.10: Centrally-supported software tools used by students

2014: Q3.10: Which, if any, centrally supported technology enhanced software tools are used by students in your institution?

2012: Q3.10: Which, if any, centrally supported technology enhanced software tools are used by students in your institution?

2010: Q3.7: Which, if any, centrally supported technology enhanced software tools are used by students in your institution?

2008: Q3.5: Which, if any, centrally supported technology enhanced learning software tools are used by students in your institution?

Table C3.11: Software tools used by students which are *not* centrally-supported

2014: Q3.11: And which, if any, technology enhanced learning tools that are used by students are *not* centrally supported?

2012: Q3.11: Which, if any, technology enhanced learning tools that are used by students are not centrally supported?

2010: Q3.8: Which, if any, technology enhanced learning tools that are used by students are not centrally supported?

2008: Q3.6: Which, if any, technology enhanced learning tools that are used by students are *not* centrally supported?

Table C3.13: Institutions with subjects that make *more extensive* use of technology enhanced learning tools than the institutional norm

2014: Q3.13: Are there any particular subject areas that make *more extensive* use of technology enhanced learning tools than your institutional norm?

2012: Q3.13: Are there any particular subject areas that make more extensive use of technology enhanced learning tools than your institutional norm?

2010: Q3.10: Are there any particular subject areas that make more extensive use of technology enhanced learning tools than your institutional norm?

2008: Q3.8: Are there any particular subject areas or departments that make more extensive use of technology enhanced learning tools than your institutional norm?

Table C3.14: Institutions with subjects that make *less extensive* use of technology enhanced learning tools than the institutional norm

2014: Q3.14: Are there any particular subject areas that make *less extensive* use of technology enhanced learning tools than your institutional norm?

2012: Q3.14: Are there any particular subject areas that make less extensive use of technology enhanced learning tools than your institutional norm?

2010: Q3.11: Are there any particular subject areas that make less extensive use of technology enhanced learning tools than your institutional norm?

2008: Q3.9: Are there any particular subject areas or departments that make less extensive use of technology enhanced learning tools than your institutional norm?

Table C3.15: Proportion of courses using TEL tools

2014: Q3.15: Approximately, what proportion of courses within your institution use each of the following technology enhanced learning tools?

2012: Q3.16: Approximately, what proportion of courses within your institution use each of the following technology enhanced learning tools?

2010: Q3.12: Approximately, what proportion of courses within your institution use each of the following technology enhanced learning tools?

2008: Q3.10: Approximately, what proportion of courses within your institution use each of the following technology enhanced learning tools?

Table C3.16: Optimised services for mobile devices

2014: Q3.16: Which of the following types of services, if any, have been optimised by your institution to be *accessible via mobile devices* (e.g. smart phone, tablet) beyond standard web based access?

2012: Q3.17: Which of the following types of services, if any, have been optimised by your institution to be accessible via mobile devices beyond standard web based access?

Table C3.17: Devices with active user support

2014: Q3.17: For which types of devices does the institution provide active user (staff and student) support (e.g. documentation, training, service desk support) to connect to these services?

2012: Q3.19: For which types of devices does the institution provide active user (staff and student) support to connect to these services?

Table C3.18: Methods used to promote mobile device usage

2014: Q3.18: How does your institution promote the use of student/staff owned mobiles devices in support of learning, teaching and assessment activities?

Table C3.19: Systems linked to the VLE

2014: Q3.19: Please indicate from the list below the systems which are *linked* (i.e. some form of data flow is supported between the systems) to the *main* VLE within your institution.

2012: Q3.20: Please use the grid below to indicate which systems are *linked* (i.e. some form of data flow is supported between the systems) within your institution.

2010: Q3.14: Please use the grid below to indicate which systems are linked (i.e. some form of data flow is supported between the systems) within your institution.

2005: Q4.14: What systems are linked to your VLE(s)? Please tick all that apply, indicating if it is an automated link or manual process. Add detail as necessary.

Table C3.20: Evaluation of the impact of TEL on *student learning experience*

2014: Q3.20: Have you evaluated the impact of technology enhanced learning tools and systems on the *student learning experience* across the institution as a whole?

2012: Q3.21: Have you evaluated the impact of technology enhanced learning tools and systems on the student learning experience?

Table C3.21(i): How the impact on student learning experience has been evaluated

Table C3.21(ii): When the impact on student learning experience has been evaluated

Table C3.21(iii): Purpose of the impact on student learning experience that has been evaluated

2014: Q3.21: *How* the impact has been measured, *when*, *by whom*, and for *what purpose*?

Table C3.21a: Broad conclusions from the evaluations undertaken into the impact of TEL on the *student learning experience*

2014: Q3.21a: And what have these evaluations revealed? Please describe the broad conclusions from the evaluations and, if any have been published, provide the appropriate references or links.

Table C3.22: Evaluation of the impact of TEL on *pedagogic practices*

2014: Q3.22: Have you evaluated the impact of technology enhanced learning tools and systems on *pedagogic practices* across the institution as a whole?

2012: Q3.23: Have you evaluated the impact of technology enhanced learning tools and systems on pedagogic practices?

Table C3.23(i): How the impact on pedagogical practices has been evaluated

Table C3.23(ii): When the impact on pedagogical practices has been evaluated

Table C3.23(iii): Purpose of the evaluation on pedagogical practices

2014: Q3.23: *How* has the impact on *pedagogic practices* been measured, *when*, *by whom* and for *what purpose*?

Table C3.23a: Broad conclusions from the evaluations undertaken into the impact of TEL on *pedagogical practices*

2014: Q3.23a: And what have these evaluations revealed? Please describe the broad conclusions from the evaluations and, if any have been published, provide the appropriate references or links.

Table C4.1a: Support units that provide support for technology enhanced learning

Table C4.1b: Number of units providing support for TEL per institution

2014: Q4.1: Which, if any, support units are there in your institution that provide support for *technology enhanced learning*? Please include both centrally provided and local units.

2012: Q4.1: Which, if any, support units are there in your institution that provide support for technology enhanced learning?

2010: Q4.1: Which, if any, support units are there in your institution that provide support for technology enhanced learning?

2008: Q4.1: Which, if any, support units are there in your institution that provide support for technology enhanced learning?

Table C4.4: Whether changes in staffing provision have been made

Table C4.4a: Changes made in staffing provision

2014: Q4.4: What changes in staffing provision for technology enhanced learning tools, if any, have been made over the *last two years* due to budgetary pressures or other reasons?

2012: Q4.4: What changes in staffing provision, if any, have been made over the last two years due to budgetary pressures or other reasons?

Table C4.5: Whether changes in staffing provision are foreseen in the near future

Table C4.5a: Foreseen changes in staffing provision in the near future

2014: Q4.5: Do you foresee changes in the staffing provision in supporting staff and students in their use of technology enhanced learning tools in the near future?

2012: Q4.5: Do you foresee changes in the staffing provision in supporting staff and students in their use of technology enhanced learning tools in the near future?

Table C4.6: Training and development activities promoted to support staff

2014: Q4.6: Which, if any, training and development activities are promoted to support *staff that help others* in the use of technology enhanced learning tools? Please include both face to face and online activities.

2012: Q4.6: Which, if any, training and development activities are promoted to support staff that help others in the use of technology enhanced learning tools?

2010: Q4.4: Which, if any, training and development activities are promoted to support staff that help others in the use of technology enhanced learning tools?

2008: Q4.4 Training and development activities promoted to support staff that help others in the use of technology enhanced learning tools.

2005: Q4.18 What training and development activities are offered to support staff who help other staff in the use of VLE(s)?

Table C5.1: Ranked potential barriers to any (further) development of processes to promote and support TEL tools

2014: Q5.1: Listed below are potential *barriers* to any (further) development of processes to promote and support technology enhanced learning tools. What, in your opinion, are the barriers in your institution to any (further) development to promote TEL tools over the coming years?

2012: Q5.1: What, in your opinion, are the barriers in your institution to any (further) development to promote TEL tools over the coming years?

2010: Q5.1: What, in your opinion, are the barriers in your institution to any (further) development to promote TEL tools over the coming years?

2008: Q5.1: What, in your opinion, are the barriers in your institution to any (further) development to promote TEL tools over the coming years?

2005: Q3.5 What, in your opinion, are the barriers to any (further) development of processes to support e-learning in your institution over the coming years?

2003: Q3.7 What, in your opinion, are the barriers to any (further) development of your(or any potential) MLE over the coming years?

Table C5.4: Considered collaboration with other HE institutions

2014: Q5.4: Has your institution formally considered *collaboration with other HE institutions* in the delivery of technology enhanced learning services or resources to staff?

2012: Q5.4: Has your institution formally considered *collaboration with other HE institutions* in the delivery of technology enhanced learning services or resources to staff?

Table C5.5: Whether there are any recent and prospective developments in technology that have started to make new demands upon institutions in terms of the support required by users

2014: Q5.5: Have any recent and prospective developments in technology started to make new demands upon you in terms of the support required by users?

Table C5.5a: Recent and prospective developments in technology that are starting to make new demands terms of the support required by users

2014: Q5.5a: Please write in details of up to three developments that are starting to make new demands upon you in terms of the support required by users – those you think are most important.

2012: Q5.5: What if any, recent and prospective developments in technology are starting to make new demands upon you in terms of the support required by users?

2010: Question 5.3: What if any, recent and prospective developments in technology are starting to make new demands upon you in terms of the support required by users?

Table C5.6: Whether institutions consider that the developments identified in question 5.5 will pose support challenges over the next two to three years

2014: Q5.6: Do you see these developments posing any challenges over the next two to three years in terms of the support that will be required for staff and students?

Table C5.6a: Challenges that these developments pose over the next two to three years in terms of support that will be required for staff and students

2014: Q5.6a: Please write in the challenges you see these developments posing over the next two to three years in terms of the support that will be required for staff and students? Please write in details of up to three challenges – those you think are most important.

2012: Q5.6: What challenges do you see these developments posing over the next two to three years in terms of support that will be required for staff and students?

2010: Q5.4: What challenges do you see these developments posing over the next two to three years in terms of support that will be required for staff and students?

Table C5.6b: How institutions see the challenges identified in question 5.6a being overcome

2014: Q5.6a: Also, please write in how you see these challenges being overcome.

2012: Q5.7: In general, how do you see these challenges being overcome?

2010: Q5.5: In general, how do you see these challenges being overcome?