

Meeting the challenges of e-learning: achieving and maintaining an e-learning ethos in an academic library.

Lindsey Martin
Information and Research Co-ordinator
Learning and Teaching Fellow
Learning Services
Edge Hill University
Email: martinl@edgehill.ac.uk

INTRODUCTION

The perceptions that internet technologies can transform learning and teaching, promote diversity, widening participation and social inclusion have seen e-learning impact upon all sectors of society. In business and industry for example, Kurchner-Hawkins (2003) suggests that the acceptance and growth of e-learning by business and industry can be gauged by the amount spent on it: an estimated \$14 billion in 2004. In the United Kingdom, e-learning is increasingly regarded as an integral part of education and consequently requiring a strategic input by Government. (DfES, 2005). The importance of e-learning in higher education has been further underlined by a strategy produced by the Higher Education Funding Council for England (HEfCE, 2005) that aims to embed sustainable e-learning in all higher education institutions by 2015.

While few would argue the central role that academic libraries have traditionally held in supporting learning and teaching within universities, the impact of e-learning on them has been mixed. According to Secker (2004), many of the early initiatives in e-learning in higher education were led only in a few instances by librarians, hampered in many organisations by a lack of understanding of the valuable contributions that librarians could make. This view is supported by Childs *et al* (2005: 29) who state “the problem is often one of perception by non-librarians who do not recognise what librarians can contribute.”

This paper therefore examines the impact of e-learning on academic libraries and aims to situate the experience of one academic library within the context of the literature. It will focus upon two of the key factors that determine how well a service is placed to embrace e-learning; firstly, the implementation a strategic approach to instituting the necessary organisational and cultural change within a library service and secondly, its sustainability and maintenance.

E-learning in higher education

The higher education sector has undergone massive changes in the last few decades of which e-learning has been but one factor. Ever increasing student numbers and widening participation, set against a declining unit of resource have produced many challenges to educators. In parallel to these structural changes, the fundamental business of traditional teacher and classroom-centred practice has been challenged by learner-centred, social-constructivist pedagogical approaches, where learners are encouraged to construct their own knowledge through “collaborative learning, authentic tasks, reflection and dialogue” (Mayes, 2001a: 16). A corollary of this is the view that since online environments can provide learners with greater flexibility and control over “*when, where, how and with whom* they learn” (Jamieson, 2004:32), they are widely perceived to have the capacity to deliver on the promise of social

constructivist pedagogy. (ESRC, 2002). Advances in technology should not be regarded as having driven such pedagogical shifts, rather they should be viewed as having *enabled* them.

A theme running through the literature on e-learning and higher education is that it has now become 'mainstream' and is no longer the preserve of enthusiasts or 'early adopters', (Mayes, 2001b; Hunter *et al*, 2005) and that in recent years, almost all universities have adopted some use of web-based methods for delivering learning and teaching to students. Many universities have, as a result undergone organisational and cultural transformation at all levels that has impacted upon all staff. (Jenkins and Hanson, 2003; Jones and O'Shea, 2004).

The term e-learning is not, however, one that is universally understood and there remains a proliferation of definitions and 'e-terminology' within the literature on technology and education. For the purpose of this paper, it is therefore timely to consider what is meant by e-learning or online learning in the context of higher education, as both these terms are often used interchangeably. It is noticeable that the most frequently cited definitions do not offer a purely technological perspective; rather they focus upon the process of learning and are couched in the language of learning and teaching generally:

E-learning is learning facilitated and supported through the use of information and communication technologies.

(Jenkins and Hanson, 2003: 4)

Networked e-learning refers to those learning situations and contexts which, through the use of ICT, allow learners to be connected with other people (for example, learners, teachers/tutors, mentors, librarians, technical assistants) and with shared, information-rich resources.

(ESRC, 2002: 5)

It should also be noted for the purposes of this paper that the terms e-learning, networked learning and supported online learning are used interchangeably.

E-learning and academic libraries

The INSPIRAL project's review of the literature around the successful integration of library services, digital resources and e-learning identified three key success factors: "strategic vision, staff development and collaboration." (Currier, 2001:18). In the United Kingdom, the Society of College, National and University Libraries (SCONUL) have produced a strategic vision for e-learning that articulates its own role as a key player influencing the national e-learning agenda, the role of academic libraries and also the impact of e-learning on libraries. It recognises that e-learning "offers the potential to engage as true partners in learning and teaching and in some instances to take the lead" and advises that "the contribution by libraries and librarians can enrich the e-learning experience" (SCONUL, 2005: 6).

A commonly held view of e-learning is that it offers the potential for staff within academic libraries to work collaboratively with academics and staff from other central support services such as Educational Development and Learning Technology Units. A clear theme in the literature is that support for e-learning in higher education demands a range of expert skills. The concept of the single academic who undertakes every aspect of course design and delivery, and student support, is changing with the 'professionalisation' of teaching, the development and application of learning technologies and the need to meet increasingly more complex needs of learners. (Beetham, 2001; Dunkin, 2003; Roberts, 2005). These drivers are providing catalysts for the emergence of multi-professional teams that draw upon wider services and professional roles, for example, library, IT, Educational Development, new e-Learning Development Units. (Core *et al*, 2003; Currier, 2002; ESRC, 2003; Jenkins and Hanson, 2003; Laurillard, 2002).

New formal and informal organisational models involving the convergence or bringing together of separate support services are also providing new opportunities for collaboration across services with many practitioners regarding e-learning as having the potential to “inform strategic direction, to influence and reposition library and information services.” (Roberts, 2005: 208). However, Melling (2005: xiii) cautions against complacency by suggesting that “we have hardly started to address relevant questions in relation to the fundamental cultural changes that are required.” This view is supported by Beetham (2001) who suggests that innovation in learning and teaching is still largely focused at short-term, local project level and that the strategic and organisational development necessary for ‘mainstreaming’ is not yet widely established.

Nevertheless, the literature provides evidence of library and information services becoming increasingly involved in e-learning in a range of ways, for example, technical support, learner support, discovery and embedding of e-resources, the design of materials and e-tutoring. (Core et al, 2003; Currier, et al, 2001; Hunter *et al*, 2005; SCONUL, 2005, Secker, 2004). There is also evidence that e-learning is becoming increasingly important to library induction and information literacy skills training and staff development, with library staff active at all stages of the design, development and delivery of e-learning. (Allan, 2002; Currier *et al*, 2001; Secker, 2004; Stubbings and Brine, 2003; Stubbley, 2005).

The impact of e-learning on staff roles

The literature on changing staff roles in academic libraries pre-dates the rise of e-learning, reflecting the change in focus in higher education from teaching to learning. In the past decade, much has been written in particular about the changing role of the subject librarian or information professional who is widely regarded as being at the forefront of change and role development, requiring a broader skill-set than before. (Levy and Roberts, 2005; Moore, 2003; Pinfield, 2001).

According to Roberts (2005: 209), these can be categorised as broadly comprising:

- More proactive approach to academic liaison
- Role in delivery of learning and teaching particularly but not exclusively in relation to information literacy development
- Technology related change for example, skills required for networked learner support
- Move towards more strategic alliances and partnerships via both formal and informal convergence.

As a result of the changes outlined above, the role of the academic librarian is increasingly regarded as growing closer to that of the academic and related to the relatively new role of learning technologist:

Particularly in the context of e-learning where information professionals have developed new approaches to supporting learners in the electronic environment, for example, using online tutorials and embedding e-resources into VLE’s (virtual learning environments).

(Bury *et al*, 2005)

Indeed, a theme has emerged within the literature on libraries and e-learning that is related to the notion of collaboration but focuses on the erosion or blurring of roles as a result of the growth of e-learning. We are told that the move to learner-centred, online environments will change the nature of pastoral and educational support with staff from a range of support services providing the kind of support traditionally associated with academics. (Dunkin, 2003; Jones and O’Shea, 2004; Wallace, 2002). Clearly, this will have an impact on a much wider group of library staff than subject librarians, taking in front-line support staff and those involved in the acquisition and management of e-resources.

As a result of changing roles and the impact of e-learning, library staff are now undertaking work that bears little relation to their professional training. In order that libraries can rise to the challenges of e-learning, they must adopt a strategic approach that ensures that the wide-spread acquisition of their new skills and knowledge are consciously planned for staff at all levels and at every stage of their working life. (Currier, 2001; Oldroyd, 1996) and the promotion of a service-wide e-learning ethos that accepts “cultural change, professional identity and boundary crossing”. (Black and Roberts, 2004).

MEETING THE CHALLENGE OF E-LEARNING AT EDGE HILL

The following case study describes the role of strategy, staff development and multi-professional team activity in effecting cultural change within the library service at Edge Hill that resulted in a service-wide e-ethos as outlined above. It will also describe the challenges experienced over time and the strategies employed to ensure that the commitment to e-learning is ongoing.

The context

One of the United Kingdom's newest universities, Edge Hill is located in the North West of England, with 9,000 students on a range of degree and diploma courses and a further 6,000 on continuing professional development courses, particular in education and health related areas. It has a strong vision of itself as a 'learning-led' university, seeking to promote enquiry, enhance learning and teaching, learning environments and the learner experience. The university has strong centralised academic support structures enhanced by the formation of Learning Services in 2003. Learning Services incorporates learning resource centres and information provision, learning support, ICT user support for learning and teaching, e-learning development and support, media services, and dyslexia support. There are a range of staff actively involved in learning and teaching developments and delivery. Learning Services staff also work across formal structures with colleagues in the Teaching and Learning Development Unit, a separate academic support department within the institution. This has been particularly beneficial in terms of learning and teaching innovation and partnerships.

E-learning at Edge Hill University

The institutional VLE (WebCT), which was introduced in 1999, supports over 400 courses delivered across the curriculum and currently has approximately 8,000 registered users studying on a range of courses, both undergraduate and postgraduate. The concept of supported online learning is well established with many students experiencing mixed mode teaching. The administration, development and support for the VLE and other learning technologies are managed within Learning Services by a team of learning technologists with staff working closely with subject librarians and academic colleagues.

Edge Hill has not adopted a 'big bang' approach to the introduction of e-learning. Instead, two umbrella projects (COMET and COMET 2) supported smaller e-learning initiatives across the institution that aimed to harness the enthusiasm of innovators and early adopters to champion e-learning. (COMET 2, 2005). Subject librarians and other information professionals were early beneficiaries of this approach and took advantage of the pedagogical and technological development opportunities offered. These staff were then equipped to work creatively with academic staff and learning technologists in developing and supporting e-learning at all levels of study at Edge Hill.

Leadership, strategy and vision

The most crucial precursor to ensuring organisational readiness for e-learning is leadership that visibly values learning. Waight and Stewart (2005: 338) argue that in particular, “leaders must empower a learning culture, support deuterio-learning, provide financial support and most importantly, encourage learning internally and externally.” Within Edge Hill’s Learning Services, this has been evidenced by the commitment of the Dean of Service and the senior management team to their own scholarship of learning and teaching and the ongoing development of staff at all levels within the service. Sue Roberts, Dean of Learning Services here describes her approach as providing:

Strategic leadership at a service level – creating vision, direction and ‘conditions for learning’ for staff within the service who provide excellent learning opportunities and learning environments for all Edge Hill students on a day-to-day basis.

The development of WebCT within the institution has coincided with the worldwide expansion of electronic book and journal publishing. The potential for integrating electronic resources within WebCT has had a huge impact on staff in learning support roles in their identification and purchase of appropriate e-resources and in provision of support and training for students. At an early stage, the Dean and senior management team recognised the importance of WebCT and e-resources and their likely impact on staff roles across the department. Their vision was to embed e-learning opportunities into the already comprehensive staff development programme for the service with the aims of promoting an e-ethos and equipping staff at all levels with the necessary skills that would enable them to support learners more effectively and would allow for them to develop their roles further where appropriate.

The earliest staff development activity was to raise awareness of the potential of e-learning amongst the subject librarians and those responsible for developing electronic resources. The purpose was to provide these staff with the skills needed to develop bespoke e-learning opportunities for learning services staff and students. Of critical importance was the use of appraisal and review to target specific staff together with the freeing up of their time through remission from help desks, evening shifts and cataloguing. In the first instance, they participated in an eight week online module for academic and professional learning support staff wishing to develop modules and resources within WebCT. Subsequent project work would ensure that through experiential learning, they would be able to apply lessons learned. The first priority would be to develop e-learning opportunities for all levels of staff to be delivered through the learning services staff development programme.

Initial staff development and training for the rest of Learning Services staff was in the early stages ad hoc and attendance was voluntary, attracting only the early adopters of the new e-learning technology. Training sessions ranged from general awareness raising, Help Desk troubleshooting and password changing to writing and designing materials. It soon became apparent, however, that while staff found the sessions enjoyable, they did not address the issue of all Learning Services staff having awareness of this new medium. Nor did they provide an experience of online learning or WebCT. In order to do this, it was recognised that it would be necessary to embed the use of WebCT into the everyday working practices of all Learning Services staff and to harness WebCT as a vehicle for delivering staff development relating to online learning. This solution was adopted because according to Salmon (2002), “for staff development to be successful, training needs to be rooted in the peculiarities and requirements of the online environment itself” and “if your staff cannot easily navigate, interact, find what they need and fully participate, feel friendly and enthused by your VLE ... why would they expect the students to feel differently?”

The staff development life cycle

A cyclical approach to staff development has been developed with a number of e-support mechanisms providing frameworks for the development and skills at various points in the staff life cycle. (Roberts, 2005). Supporting Learning Services staff with their e-learning role would, therefore, start from the first day of their appointment, irrespective of their job role. All staff are expected to reach a baseline understanding of e-learning while developing skills in using WebCT.

One e-support mechanism, ProVIDE, has been developed that enables this baseline understanding. Another is S.O.L. (Supporting Online Learning) aimed at front line and learner support staff. This in-house, customised approach to developing e-learning was adopted because it would:

- demonstrate exemplars of the online medium for teaching and learning
- use the most appropriate tool for training in online learning
- provide staff with an opportunity to experience how it feels to learn online
- give staff working in remote sites or in fractional posts flexible access to course materials and resources
- make the learning authentic and relevant to staff roles and responsibilities

ProVIDE - a baseline understanding of e-learning: This resource ensures that all staff use WebCT within their everyday role. It is called ProVIDE (Providing a Virtual Induction and Development Environment) and achieved the Society of Colleges, National and University Libraries (SCONUL) Staff Development Award for innovative practice, 2001. ProVIDE is an information base for all Learning Services staff regardless of their role or position within the department. It offers flexible and equal access to information, support, guidance and training opportunities. It is also a key tool for staff induction, being embedded within the departmental staff development programme. Examples of activities that new staff are expected to accomplish include downloading and printing their induction timetable, obtaining information about key staff and uploading a photograph of themselves along with biographical information. ProVIDE enables all staff to experience WebCT at a basic level through developing navigation and information retrieval skills.

S.O.L - Supporting Online Learning, a four week online module: this short module was developed to meet the needs of front-line staff. The primary aim was to introduce staff to the e-learning experience while also learning about pedagogy, e-learning technology and support issues. The module runs over a period of four weeks, starting with an introductory face-to-face session. It requires a commitment of approximately 2-4 hours per week and participants produce a portfolio that demonstrates their engagement with the module content and each other. Six cohorts have now completed the module, with participants mostly been drawn from help desk and learner support staff.

These mechanisms are supplemented by further staff development opportunities:

- An online Customer Care training module developed for all staff
- Help desk staff have access to an online information skills tutorial
- The management of functional tasks including hosting the Help Desk Intranet and various booking systems are accessed from WebCT
- Additional, specialised workshops, for example, e-administration, e-moderating, technical skills
- An 8 week Developing and Delivering Online Learning online course where academic staff, learning technologists, librarians and other learner support staff learn together
- Multi-professional teams collaborating on innovations in learning and technology

Experiential learning through small project work

The production of the online modules described above was not created by subject librarians in isolation. Whilst this group of staff have developed new skills in e-learning pedagogy, instructional design, e-tutoring and administration, this has occurred through collaboration with their colleagues in learning technology. This project work has been a powerful tool for shared learning across these two professional groups housed within Learning Services. This has been evident in the continuing willingness of both groups to work together on multiple projects beyond internal staff development for the benefit of the wider institution and its learners. The staff involved with these projects are conscious that their roles have changed and that in some cases the boundaries between roles blurred but that the strategic approach to the development of their skills and roles has meant that there is an appreciation of the benefits of collaborative working that they have each taken with them into work within their Faculties. (Bury *et al*, 2005).

REVIEWING THE STRATEGY: AN ACTION RESEARCH APPROACH

The concerns

Senior management [including myself] remain convinced that it is necessary to maintain the cultural change within the service that embraces the opportunities that e-learning brings. The ultimate beneficiaries of this 'e-ethos' are the learners at Edge Hill who have access to skilled and knowledgeable support staff at their point of need. However, exploring and reflecting upon my role as a senior manager who is also responsible for designing and delivering e-learning modules to staff, leads me to hypothesise that for many staff, engagement with these e-learning modules is inhibited by a lack of preparation for and understanding of the demands of the online medium. I have begun to speculate on whether the e-ethos is not shared by all staff, that there is a gap between the rhetoric around the e-ethos and the reality for staff across the service. I therefore aimed to explore this gap and determine how [assuming such a gap exists] the rhetoric and reality might become more closely aligned.

When I first began developing and delivering e-learning to Learning Services staff, there was great enthusiasm and uptake from those who participated, numbers signing up were large, activity online was considerable and attrition was low. I have noticed recently that the enthusiasm for e-learning has dwindled and completion rates have dropped significantly. Staff seemed ill-prepared for their online courses and seem not to understand the demands of the online medium despite their competence in using technology. The online products and the process of delivery remained the same, so it was unclear what had caused the apparent lack of enthusiasm for e-learning.

The action research rationale

Rather than undertake a formal review of the continuing effectiveness of the service's e-strategy and e-ethos, I decided to adopt an action research methodology. Elliot (1991: 69) describes action research as "the study of a social situation with a view to improving the quality of action within it" where "theories' are not validated independently and then applied to practice, they are validated through practice." The action research approach contains five stages; clarifying the problem, reconnaissance of the problem, planning, acting and evaluating and resonated with me because:

- My concerns around the continuing effectiveness of the 'e-strategy and e-ethos were initially difficult to articulate and would take time to understand. Action research emphasises the

cyclical research process more than the solutions – with the cycle being interrupted and/or repeated for as long as the researcher deems necessary

- Action research is not the scrutiny of static structures and situations; by bringing together enquiry, practice and reflection it seeks to create change and study the results
- The researcher acknowledges that they cannot be a neutral observer in the research process but is instead an active participant collaborating in the research. The aim is to improve personal practice and does not attempt to produce solutions that are immediately transferable to other situations. If presented with sufficient detail, the reader is able to make their own judgement about transferability
- It takes a 'naturalistic' perspective that recognises that the research is engaging with human behaviour (in this case, staff attitudes) and therefore, the subjective nature of experience
- Data may be accumulated by both qualitative and quantitative methods, analysed and triangulated to develop a multi-dimensional understanding of a complex situation

Reconnaissance

My reconnaissance before taking action involved reflection and a review of past e-learning modules and staff development activities. This phase has drawn upon the qualitative and quantitative data generated from usage of WebCT, contributions to discussion fora, module evaluations and completed staff portfolios. A questionnaire was also circulated to all staff with the aim of eliciting their attitudes to learning and e-learning, an assessment of their skills and where they think e-learning fits with their job role. I also continued to deliver online modules within the staff development programme and maintained a reflective journal of my experiences.

The key issues arising from my analysis of data generated through reconnaissance and reflection on my own practice are as follows:

- Our vision is not published anywhere which has meant that there is no continuing point of reference for staff after the initial awareness raising or participation of an online module or event
- Whilst the online modules have been carefully crafted to represent exemplars of social-constructivist e-learning, other supporting materials and artefacts such as pre-module information has not been so carefully considered
- Staff perceptions of e-learning are that it is less effective than traditional face-to-face learning
- There has been no marketing of e-learning and e-learning opportunities other than the brief, functional information provided through the staff development programme which describes content not the value of the learning
- Although senior managers have discussed all staff having baseline e-skills we have not defined or communicated what these might be
- Similarly, we have not defined those e-skills and competences that might apply to specific roles within the service
- Staff report lack of time to complete online modules. This is a combination of studying at their desk where they are either distracted by incoming work, simply feeling aware that others might think they are not pulling their weight or of more concern, line managers not providing any formal dedicated learning time

- Staff report lack of opportunities to follow up what they have learned after the training is completed
- Line managers and supervisors of staff do not seem to think that promoting or ascribing to the e-ethos is anything to do with them

A review of the literature around e-learning and cultural change was also undertaken as part of reconnaissance and the themes identified used to inform the action phase of the project. Research into the adoption of e-learning for staff development in organisations has been carried out by a commercial provider of e-learning, Skillsoft (Baldwin-Evans, 2004). The company carried out a survey of over 200 employees over a range of organisations in over fourteen countries across Europe, Middle East and Africa to identify the workplace learners' perspectives of e-learning. They identified the following barriers to the effective adoption of e-learning:

- lack of time (50% of respondents cited this). Learning in small chunks of 10-30 minutes at a time. They are learning with little or no formal, dedicated time
- 47% said e-learning has an image problem (includes fear of technology and a lack of understanding about e-learning)
- 14% were ignorant about what e-learning was available
- 33% cited lack of management support

Whilst recognising that the survey and its outcomes may be biased in favour of e-learning due to the commercial interest in it expressed by the organising body, on the whole the survey results do mirror the local experience as expressed by staff within learning services.

Lessons learned

The process of reconnaissance and analysis has been protracted with the need to sift through what has felt like a chaotic mess of information that had accrued on my desk, computer hard drive and in my mind. I felt as if the problem was greater than my ability to resolve it. I now understand that this is not unusual with action research and was reassured by Cook's (1998: 93) description of the importance of 'mess' in action research when she stated:

One of the problems I encountered whilst undertaking the research was that although I knew there was an area of work that was causing me difficulties I could not recognise what the nub of the problem was. The bulk of the research therefore became highlighting the problem, not finding solutions to it.

I was able to confirm to my own satisfaction that my concerns around lack of staff preparedness for e-learning were not an IT skills or a technology issue. Out of the range of issues described above, I have been able to identify three broad areas that are within my locus of control and am ready to commence the second stage of the action research project which will be implementing my plan of action. This will consist of introducing and analysing changes in the following themed areas:

Theme 1: Marketing and communication: publishing and promoting the vision. Actions involve placing a section on the ProVIDE information base that includes a podcast or video recording of the Dean of Learning Services talking about the vision and what it means to her. Other actions include reviewing all pre-module communications and ensuring they promote the modules effectively, focusing on the value of the learning rather than the quality of the content. Producing a newsletter for staff entitled 'e-Learning Matters' that will aim to entertain, inform and alter perceptions around e-learning. Introduce face-to-face awareness-raising sessions within the staff development timetable that also seek to explore perceptions towards e-learning and provide more positive mental models.

Theme 2: articulating and communicating skills and competencies. Two sets of e-competencies have been produced and are currently under consideration. Baseline e-competencies will apply to all staff regardless of role. The next level of competencies will apply to all staff supporting learners at help desks. It is interesting to note that there are as yet no nationally agreed set of e-competencies of this nature for higher education although the Learning and Skills Development Agency have identified a range of e-competencies and corresponding continual professional development opportunities for a wide range of staff in the post 16 sector including support staff who directly support learning and teaching and learning resources staff. (LSDA, 2006). Learning Services staff at all levels will be consulted on the e-competencies before implementation.

Theme 3: management issues around e-learning. Work needs to be done to promote the value of e-learning to line managers and supervisors. Senior management must articulate to line managers and supervisors their expectations concerning the promotion of an e-ethos. They should also articulate and communicate their expectations concerning line managers' and supervisors support for staff participating on online modules. An appraisal is required of alternative locations suitable for staff participating on online modules so that they do not have to learn at their desks.

The role of line managers and supervisors in promoting an e-ethos is particularly important as they are effectively the gatekeepers to staff participating in online learning and can through therefore enable or inhibit the learning process. Baldwin-Evans (2004) and Dublin (2004) recommend marketing e-learning to all the stakeholders, not just the learners, and making this marketing a rolling programme to keep e-learning at the forefront of people's minds. This would also help to redress the issue of lack of line manager understanding of and support for e-learning as well as the issue of staff preparedness for e-learning.

CONCLUSIONS

Although the impact of e-learning on academic libraries has not yet been fully realised across the higher education sector, the experience of one academic library, Edge Hill has demonstrated that the adoption of a strategic vision and the promotion of an e-ethos that is inclusive of all staff, grounded in the new online environment and which incorporates new skills and roles will produce cultural change. Using an action research approach, we have however found that over time the sustainability of the e-ethos may wane without the continued articulation and communication of the vision and senior management's expectations around engagement with e-learning. The continuing promotion of the value of e-learning to all stakeholders was also found to be crucial in producing a positive attitude to e-learning among all staff.

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