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E-Learning Challenges Faced by Academics in Higher Education: A Literature Review

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Abstract

E-learning has become a necessity in higher education institutions and is being deployed in educational establishments throughout the world. Researchers have made much emphasis on its benefits but not much is discussed on the disadvantages of e-learning technology. This paper references some of the research work on the limitations of e-learning technology, categorises it in five challenges that teachers are faced with and suggestions for a successful e-learning outcome. This paper also discusses the use of e-learning technology in Middlesex University and some of the challenges they face. Lastly this paper identifies gaps in e-learning literature and calls for further works on this subject.

Keywords: e-learning, higher education, academic challenges, e-learning in Middlesex University

1. Introduction

With the advent of e-learning technology, academics are facing the challenges of acquiring and implementing IT skills for the purposes of teaching. According to some distinguished researchers that internet is a perfect tool of learning that offers flexibility and expediency to learners at the same time offering endless opportunities for innovate teaching (Applebome, 1999; Moos and Azevedo, 2009; Zhang et al., 2004; Huddlestone and Pike, 2008; Wang and Wang, 2009; Hardaker and Singh, 2011; Macharia and Pelser, 2012).

Other researchers stated for some of the reasons for e-learning success is that e-learning systems would likely to encourage student learning resulting in a higher level of student engagement (Hiltz, 1993; Wang and Wang, 2009; Hardaker and Singh, 2011; Macharia and Pelser, 2012). E-learning can be better than face-to-face learning, the quality of interaction and timely feedback is superior, with good course design can untangle the geographical limitations to education (Chen et al., 2006).

Since then many research articles and case studies have been completed on how best to use the technology. The vast majority of the research is focused on the needs of the student. Ever more ideas, recommendations and solutions have been developed to improve student learning. For example, Macharia and Pelser's (2012) study of computing technology in Kenyan Higher Education formed valuable insights into the reasons that influence e-learning acceptance by students, the study provided new ideas for higher education management for dissemination and infusion of computing technology for the purposes of learning. They concluded that the availability and access to computing technology, the quality and character of the institution leaders play an essential role to the success in E-Learning diffusion.

However, very little research has been undertaken that discusses the perspective of the academic staff compared to students' perspective. Even less research has been conducted on the effects of e-learning on the academic staff in UK. This is at a time when administrators and academic managers are increasingly pressuring academic staff to incorporate technology into teaching for more active learning (Steele and Hudson, 2001; Eynon, 2005; Olaniran, 2006).

2. Underlining Factor of Growth

The rise of e-learning technology used by higher education institutions can be attributed to globalisation. This is referring to political and economical phenomena, a worldwide integration of views, culture and products (Hall, 1996; Clegg et al, 2003; Sidhu, 2005; Spring, 2008; Raghuram, 2013). The growth in the use of e-learning technology no doubt adds to globalisation as educational institutions are trying their utmost to break down geographical and social

boundaries to offer distance learning education, this leads to integrations of academic standards and views.

Advances in technology, infrastructure and transportation are major factors in the rapid pace of globalisation. Globalisation has been named to explain all sorts of effects such as reduction in household income, introduction of student fees, growth of international tourism and even the cutting of the public sector budget (Brown, 1999).

Globalisation can be further identified where the fusion of technology and the pace of globalisation meet. This growth is spurred on by companies competing in national and international markets for profits that require technological advances over their competitors. Not only is technology used for industrial competiveness but also collaborations, sharing of information and knowledge used by international organisations, governments, academic establishments, researchers and non-profit organisations (Archibugi and Michie, 1995).

The rapid pace of advances in e-learning technology can no doubt be attributed to this force as institutions in UK are competing to gain more fee paying students without geographical boundaries and where institutions are trying their utmost to offer flexible education so age, academics background, experiences are not a hindrance to pursue academic studies. The rapid pace of embracing e-learning technology has ramifications on academic staff, it creates unwanted pressure and the results are hard to monitor whether e-learning technology is being used effectively (Clegg et al., 2003).

Software and hardware companies involved in the creation of applications are always seeking advances to give them the edge over other software providers to gain profit and establish their brand name. The previous Labour Government in 1997 using the globalisation argument to justify and encourage UK higher education institution to adopt ICT for learning. Since then, the Government agenda remains the same to push forward with technology to enhance learning (Brown, 1999 and 2006; Mee, 2012; Allan et al., 2012; Jackson and Fearon, 2013).

Globalisation has affected academic staff and student learning with increased use of networked medium and telecommunications for the purposes of flexible learning. In other words education has been globalised by computing technology (Ally, 2004; Selinger, 2005; Zondiros, 2012)

3. The Five Challenges

As can be expected there are many challenges faced by academics regarding the use and success of e-learning in an academic environment. Current discussion around the challenges in this area can be divided into five categories: learning styles and culture, pedagogical e-learning, technology, technical training, and time management challenges.

3.1 Learning Style and Cultural Challenges

Everyone has their own learning style along with their cultural influences; the ones who are taught using their own learning style and taking into consideration cultural aspects of individuals will perform better academically (Sywelem et al., 2012).

To achieve the best learning outcome it is desirable to have an understanding of students' learning styles. Online students' learning styles can be unclear, this has implications on how academics develop learning 2material. Some students learn through interacting, some prefer learning through visual presentation, and some by listening to instructions and using written notes. This challenge has an implication on the learning outcomes and poses a serious issue for academics to understand the learning styles of their students in an e-learning environment.

There are various teaching styles; notable approaches are didactic, facilitative and socratic and the experimental method (Banning, 2005). The didactic is the traditional method mainly involves lecturing and is very much teacher-centred where learning is involved mainly through note taking and listening to teachers. Traditional methods of teaching continue to use the lecture as a means of teaching and an economical one where one academic can disperse knowledge to large audience (Walkin, 2000). However didactic can mean full responsibility of teaching on academics as it is strongly teacher centred; the teacher is the knowledge expert, all the learning objects and knowledge flows from the teacher

The facilitative learning moves away from the strong teacher centred learning to what is known as self directed learning, where the academic uses various strategies by acknowledging students past experience and learning styles to encourage student to become independent learners. To be a competent academic to be a facilitator they have to be competent in their knowledge base, have confidence, authority and be empathic to students needs and individual learning style.

The Socratic method is heavily student orientated learning so students are able to think independently and various strategies can be used by academic such as quizzes, discussion, strong group work sessions with strong emphases on communicating with peers, self assessment and research for the purposes of making student critical thinkers. However not all students may able to reach this position of critical thinkers without proper guidance, encouragement and nurturing. The time and effort spent nurturing students can be enormous (Banning, 2005).

Researchers have pointed out that no particular learning style is dominant amongst students; therefore teachers are

expected to understand various learning styles to accommodate students (Mupinga, 2006). When a student has a strong preference to a particular learning style it becomes impossible for them to learn if materials and resources are not delivered using that particular method (Zapalska and Brozik, 2006).

A popular method of identifying the learning style of an individual is the VARK questionnaire. This process identifies a learning style of a student and categorises it as Aural, Read/Write, Visual and kinaesthetic. Aural (A) refers to students who prefer to learn through receiving verbal instructions. Read/Write refers to the learning style of students who prefer reading instruction and writing notes as the best way to learn. Visual (V) are students who prefer the utilisation of visual objects as a way to learn such as graphs, charts and videos. Kinaesthetic (K) is when learners prefer to learn by a doing approach. It should be noted that a student may fall into two categories but one may be a stronger preference than the other (Zapalska and Brozik, 2006).

A current challenge for academics in an e-learning environment is to understand the different learning styles of different students for better learning outcomes. The traditional method of learning may not be adequate in the modern day classroom where e-learning technology is playing a major role in the delivery of education. In principal the key to understanding the student needs is to understand the diversity in the virtual class (Folley, 2010; Donahue and Glodstein, 2013).

Researchers have pointed out various problems when instructors use e-learning technology. Phipps and Merisotis (1999) authored a 48-page report reviewing and examining research papers throughout the 1990s on the effectiveness of e-learning technology. They put forward recommendations to cover the gaps in research that require further investigation. They recommend that "there needs to be more emphasis on individual differences such as gender, age, educational experience, motivation and learning style" (p.3). Implying current research on e-learning learning does not identify individual needs. This poses a question as how instructors are coping with the technology to teach a variety of students with different educational needs, and coming from different backgrounds. It is common that students, lecturers and institutions use a variety of different application platforms for learning and teaching, therefore they suggest that in the future "research should focus on the interaction of multiple technologies rather than the impact of single technologies" (p.3).

Taylor (2002) describes e-learning as exceptional for courses that require cognitive learning. However for teachers dealing with cultural barriers, differences in student attitude do not work well in the e-learning environment. Academic staffs that are better trained will bear the fruits of higher student learning. However if the teaching staff are not trained in using the e-learning technology and do not have a strong grasp of the operation of the technology then student learning is likely to suffer.

Teachers must understand and recognise individual learning styles of the many hundreds of students (how they learn and how they perceive) in the context of online education. It is important to convey and share the information with students (Brozik and Zapalska, 2006). For the hundreds of students who usually are not seen by academics in the e-learning environment, at present, the technology practice does not help such a scenario.

Hannon and D'Netto (2007: 419) state "instructors usually fail to take into account cultural differences when designing and delivering courses". He argues that because pedagogy and technology do not reflect the culture of the student, it reduces his or her learning outcome and the cultural differences affect their ability to work with e-learning technologies. The outcome is reduced because students of different languages respond differently to how things are organised in e-learning technologies and also students of different cultures have different abilities to work with e-learning technology.

Although there are models and theories proposed to deal with individual and cultural learning differences in the e-learning environment, there is a greater urgency for content providers to design courses and materials that take into consideration these differences and "engages culturally diverse audiences" (Callaghan et al., 2008: p.56).

When a student has a preference to a particular learning style then it become difficult to learn other ways, which means academic must be aware of different styles and needs to design learning materials that enables students to learn. This is the most important role of an academic. Therefore understanding learning style is critical consideration during course design and institutions should provide resources and training for academics to meet this challenge. However this is a time consuming and costly task, lot of time and effort is required and the courses material and students learning style has to be assessed when new student cohort joins. If learning style is not recognised then a possibility of learning will not be achieved and it is the most important challenge to meet.

3.2 Pedagogical E-learning Challenges

Pedagogy is concerned with enabling the best way to achieve learning (Teo, 2006); if pedagogy is not considered then the desired learning outcome will not be achieved. Successful pedagogy requires the teacher to understand how students

learn then design and deliver course materials, and mentor students appropriately, so that knowledge and skills are passed on. In this way, e-learning will produce the return on investment. Pedagogy should be the cornerstone to any e-learning technology; without pedagogical principals learning will be hampered.

E-learning requires a different approach to pedagogy especially in areas such as individual and group interaction and online assessment. However these skills are not alien to all, distance education has been around for decades using postal services, TV, and telephone.

As e-learning is currently widespread, academics who are not equipped technically to handle developments of materials and delivering online modules are hampering progress, and they require extensive skills development (Ellis, O' Reilly and Debreceny, 1998).

However, not only are the technical skills an issue but content should be appropriately designed for distance learning; it is not simply about "dumping large amounts of text onto a website" as this is inefficient (Leask, 2004: p.347). In order for academics to effectively make the transition to become online teachers they need to do more than just develop new ICT skills; it should be pedagogy based (Morley, 2010).

Other researchers went further and stated learning different pedagogical online strategies by teachers is not sufficient in an online learning environment, it should include academics correctly interpreting students' online written text, understanding the context, and understating group dynamics with individual needs. This will then make online learning more successful (Turvey, 2008; Loveless, 2011). Having a well designed course that is pedagogically focused, and academics understanding the different strategies of online learning with the understating of diversity, context, group dynamics is not sufficient, all require the institution management marketing the pedagogical benefits of online learning with practice examples that academics can relate to so they are encouraged to use the e-learning technology (Jackson and Fearon, 2013).

Conrad (2004) highlights four areas of expertise required to be an effective online instructor; Pedagogical, Social, Managerial, and Technical. His study is based around a questionnaire delivered to five new academics, new to the e-learning environment, to learn their views and experience. The numbers of participants was small, but the study gives insight into first time e-learning experiences from the perspective of academic staff. Some of the concerns academics raised related to pedagogy and e-learning as follows:

They were concerned about loss of control, of the technology structure not giving them time to concentrate on certain topics before moving in to a different topic in contrast to traditional methods of learning where lecturers can stop, explain, quiz their students to see if they understood, if not then they can explain further until happy to move on.

One lecturer found it difficult using the WebCT platform to look back thorough different postings to retrieve the messages of interest.

It was pointed out that when teaching online a lecturer could feel they are "left in the dark" (2004: 35) where they are unable to observe students.

Management issues involving "agenda setting, pacing, objective setting, rule making and decision making is so closely related to pedagogical and the social roles", (2004: 36) that the academics did not separate online teaching and management duties. Some of it was due to the online course structure where management process is already set. However, some course management decisions were applied from academics' past experience without reflection. It would be interesting to learn where e-learning systems management process stop and academics' management decisions start.

Since a lot of the management process is inbuilt into the course structure, once the course is mounted and initialised it is hard to change the structure or modify the course material.

Concern was raised in the discussion chapter where the author picks up on the social issue and that it should be comfortable for online learners. He suggests lots of the lecturers are unaware of emoticons. The emoticons can be a source of providing a comfortable environment and also giving a sense of feeling to the discussion with students.

Conrad's study highlighted good pointers but did not concentrate on how much training or what a programme of enrichment required to fulfil the areas of expertise needed within an academic department to solve to pedagogical and the e-learning concerns.

Burd and Buchanan (2004) suggest four distinct learning styles: imaginative, common sense, analytic and dynamic. The dilemma to instructors is how to identify and understand the learning styles of online students when they cannot be visualised, especially when they have limited time and many students enrolled. Also they recommend "to be effective, teachers need to communicate with non-participants privately to encourage discussion (p.24)". This is a brilliant idea, however finding non-participants may not be easy; it may require time and effort that may not be practical for

academics to accommodate.

Govindasamy (2001) says e-learning pedagogy should consist of a few important aspects:

First content: material should be in learning objects, it is an independent class room session comprising small instructions and independent to other learning objects. A test should be assigned before access is given to the learning object. Students that fail the test should be directed to relevant learning material enabling them to gain sufficient understanding to start the learning object. After the learning object is completed a test should be conducted to determine if they learned the required learning targets.

Second storing: The learning object should be removed when the task or knowledge is outdated. The learning objects should be reviewed, modified and corrected to reflect current task.

Third availability: the learning objects should be available when students require them, called 'just-in-time learning'.

Fourth student support: correct support should be put in place as e-learning can be different to class room learning where the teacher is available to answer student queries. Support should be programmed into the learning object and ample feedback should be provided. Even keeping track on student progress is required so the instructor can target areas of weakness.

Fifth assessment: appropriate test and assessment should be in place such as MCQ, essays, exam questions and project deliverables. All should be incorporated within a course for a successful learning outcome.

As well as student learning style, the Pedagogy is an important and serious consideration for learning, for it is the way an academic administers learning, it is not about dumping information on a website and hoping students will learn it, but a process to be followed to enable pedagogy in the e-learning tools, which institutions should show utmost importance.

3.3 Technological Challenges

Technical challenge refers to development issues such as the bugs, the speed, the errors, functions and features not correctly working or do not work according to what academics require.

In reviewing e-learning literature there are various criticisms of the quality of the e-learning systems currently being used. Issues have been raised that include: usability problems, bad performance, institutions being unable to customise according to their requirements and sometimes criticised for having a teacher centred system rather than learner centred system (Chua and Dyson, 2004).

There are more than 35 e-learning technology vendors in the market (Edu tools, 2009); however, a study carried out in Australia found Blackboard to be very popular amongst educational establishments (Paulson, 2002). However Blackboard "is limited to its environment'" (Farmer, 2004: 5), this is referring to Blackboard's features restricted to its own environment. It does not allow discussion, updates, notices and various other messaging within blogs and topics from different vendors, and it does not allow discussion forums to be directed to students' personal email addresses which is a disadvantage to student engagement. This limits the academic staff and students to a particular environment even if they are not familiar with it or do not like it.

Technical support to academics is lacking in comparison to the desire of learning success and the profound use of e-learning technology. The great desire is met with insufficient investment in infrastructure and technological assistance (Reeder et al., 2004: 91-92).

Institutions have a variety of applications and computer operating systems for various uses such as the student registration system, and research support applications such as NVIVO and SPSS. All these applications have to be merged and linked within one e-learning environment to make it accessible and enable central support; however, this requires the merging and linking of various applications. This creates increased network traffic to support the centralised infrastructure, thus it should be robust and have enough capacity and capability to handle student academic communication. This is a complex process especially where old and new applications meet, and is a challenging process effecting academics who have to use the system (Nielsen et al., 2011).

Technical errors, bugs, slowness is critical if academics are to use the system and is critical to the success of the e-learning technology, if the system does not function correctly then the technology will not be used and negativity will arise in using e-learning technology, which has a big ramification for institutions as they have invested hugely so the technology should be used effectively for the return in investment.

3.4 Technical Training Challenges

Training challenge refers to the training requirement that will enable academics to learn the e-learning features and functions correctly and to use them effectively.

In reviewing e-learning literature, there are various criticisms of poor training provided by institutions to academics. Issues have been raised that include not enough training, inadequate training, training styles in use that do not fit academics personal preferences, lack of hands on practice, and also how to create materials according the pedagogical requirement was missing from the training scenario.

Volery and Lord (2000) explain the three requirements needed for effective e-learning success:

- Technology
- Instructor characteristics
- Student characteristics

Technology needs to improve; however, the instructor's characteristics and familiarity with technology are most important in terms of having a successful learning experience. Teachers who are motivated and have an encouraging attitude towards the e-learning technology will enable a positive learning outcome. They state it is "crucial that the instructor has good control of technology and is able to perform basic trouble shooting tasks (e.g. adding a student at the last minute, modifying student's password, changing course settings)" (2000: 218).

They also state that the instructor must have the ability to motivate students, show empathy, resolve emergency problems and respond to emails rapidly. A positive attitude to e-learning depends on how confident they feel about the technology; if one of the requirements is the ability to troubleshoot basic problems in the e-learning system, then academics in the UK would potentially not feel confident as they are not trained to troubleshoot, nor change passwords or course settings never mind resolve emergency technical problems.

They state student characteristics such as intelligence, motivation, and computer experience are crucial to the success of online learning. We cannot agree that all students will join university with computer experience as students may be novices or intermediate at using computers (Smith and Morris, 2003). If the capabilities of students are at best intermediate then there has to be organised training for the students. If sufficient training is not implemented then the burden of training will fall on the overburdened academics. This is supported by Salmon (2000) who suggests that instructors do not have sufficient training to make them successful and productive to online learners. Similarly Gerrard (2002) states the need of academics is understood as technological skill improvement such as how to create a better presentation and how to upload it on e-learning systems rather than learning new E-teaching skills to improve and aid student learning.

According to Taylor (2002) academics are only good as much as they can adapt to the new technology; this is a challenge for most academics. There is not always the technical challenge but also time management, busy schedules and not all content can be presented well in an e-learning environment.

According to Gerrard (2005) two types of training are required for online teachers. First is in-depth training for those who spend the majority of their time teaching by using e-learning technology and the second is a shorter course for teachers who will use the technology in addition to face to face learning.

A case study by Wijekumar and Spielvogel (2006) discusses and recommends many ways the intelligent discussion boards of the traditional e-learning system can be improved to help students' learning. The case study also advises that teachers must be trained and developed. To support their opinion they quote Bilgnaut and Trolip (2003: p.200) that the tool can be "a powerful resource for learning if the instructor knows how to encourage thoughtful posting".

A study carried out by Cornelius & Macdonald (2008) states academics that teach distance learning programmes for the Open University in Scotland, who are not based on campus, fail to acknowledge the needs of distance learning in terms of training and support. The Open University is one of the first institutions in the UK to take distance learning as their core method of delivering education and if their online support and training is not adequate to support their teachers, then a reasonable question can be posed to the state of all other institutions who have taken up e-learning much later than the Open University. Those academics who attended training complained that training was not as they expected; it was an overview session without emphasis on practice, it did not give them enough confidence, it was not inspiring enough for them to carry on learning, training sessions was badly planned with errors, and it was rushed and not fully functional (Jackson and Fearon, 2013).

Therefore providing adequate training would help academics do their job effectively whether this relates to managing online discussion forums, or identifying pedagogical needs amongst students (Allan et al., 2012). Training is vital how to academics utilise pedagogy in the e-learning environment, how do they adapt learning style in their material, correctly using the e-learning features are important, if academics do not know then investment will not yield the expected result.

3.5 Time Management Challenges

Academics that use e-learning systems face difficulties in managing their time. According to Reeder (2004) some of the "cyber culture values" are characterised by speed, reach and quick response. However in recommendations set out by Burd and Buchman (2004), the prerequisite needed to be an effective online instructor is that academics must visit the discussion page at least once a day to see if there is a posting by students. A viable question is that visiting the discussion board once a day may not be seen as adequate according to cyber culture values. Some researchers have stated that academics should always maintain a vigorous presence on online discussion boards so they control discussion, provide answers and feedback so students do not disengage from the course (Vonderwall et al., 2007; Mayes et al., 2011; Nandi et al., 2012).

A case study conducted by Mihhailova (2006) aimed to find some of the challenges faced by lecturers who were trialling e-learning technology in an Estonian University. It concentrated on ten interviews conducted with lecturers and found that time management was complicated as answering queries or preparing lecture notes took longer than expected and there was "no compensation system or clarity in pay for the lecturers" (2006: 275). Understanding and improving how academics can balance their workload was a key recommendation of this case study.

Academics in the UK are finding it difficult to keep pace with postings in the discussion boards and forums. "The volume of traffic on the forum affected the time needed to keep up to date" (Cornelius and Macdonald 2008: 52), causing academics sometimes to skim over posted messages. They also found that other academics who are persistent about checking every posting become selective when traffic increases.

There is a difference of opinion whether e-learning reduces time and effort of academics. Some of the literature states e-learning has automated and streamlined some of the administrative tasks making communication easier and that having a central repository to place content is freeing up time for quality contact (Feldstein and Masson, 2006; Heinrich, Milne and Moore, 2009; Kotzé and Nageland, 2010). However other researchers state that e-learning becomes 30% more time consuming for academics than traditional classroom teaching (Conrad, 2004), not just due to the increase in working hours but also academics' efforts increase by 14% to teach effectively (Tomei, 2006).

Literature points out that while the traditional methods of learning have changed, teacher and student roles remain, but e-learning allows the 24 hours a day for a class to run, and verbal conversation have been replaced with a permanent written discussion forum where students can update any time of the day or night (Clark, 2001). This means academics have to be working nights, weekends and holidays as the student expects to have a reply immediately and "if things go wrong then they have a semi-permanent existence on the screen" (Gustafson and Gibbs, 2010:p208). The literature shows a heavy demand is made on academics when e-learning is introduced, if academics are overworked and do not have time then student learning will suffer, especially when they are not being compensated for the extra work they are carrying out, which will lead to low academic moral and may jeopardise learning and institution image to be damaged.

4. E-learning in Middlesex University London

Current e-learning platforms can be improved as Khoos states (2010) to have an active online learning community and the formation of online communities is the key for e-learning success (Lupicini, 2007; Pallof and Parot, 1999).

The formations of online communities are the main developments on second and third generation e-learning applications. The major difference with third generation is it attempts to remove the authentication and security feature that creates a small community within an institution domain (Makino, 2010). Third generation e-learning tools saw authentication and identity checking as restrictive to learning; hence third generation applications allow open access to anyone to join their learning community. These online applications primarily feature access without authentication. Allowing learners to publish and discuss their ideas with an open community so their work is criticised, approved and appraised by the wider online audience. However, the rate of acceptance from institution has been slow, perhaps reason being institutions fear loss of control.

Middlesex University in London implemented Blackboard system in 2000; recently they have put in a plan to migrate to Moodle. In an internal report by Chapman (2012) states due to funding and costing issues a new direction was sought. The new direction reduced cost, offered value for money at the same time maintaining academic goals and student expectations. Middlesex University considered the increase use of mobile technology by student and staff with the vast number of e-learning applications that are freely available to support learning as a key point in their decision to move to Moodle. Middlesex University's view is that freely available tools that do not exist within current Blackboard environment are Wikis, podcasting, E-Portfolio, RSS and Web2.0 which are vital tools of learning. This has led to many academics within Middlesex incorporating applications such as Youtube and Twitter in their own personal websites. Academics within Middlesex say that commercial VLEs such as Blackboard are slow to respond to change and whilst latest tools are available freely but Blackboard has not incorporated them, hence they have decided to upgrade to

Moodle.

Middlesex's view on recent technology trend is supported by literature as Ge Jian (2010) states may be institutions and learning provider's ubiquitous services are overwhelming and are the future. Shu-ying (2010) encourages and argues for the implementation of new evaluation methods such as "learning portfolio, work display and work group discussion" (p.408) are the "new ways of thinking", (p.409).

Developments in e-learning include podcasts where academics record their lecture or instructions; students are then able to download the podcast into an iPad. Middlesex students are able to communicate between themselves and academics using mobile texting services and phoning their tutors with their mobile during a student group session or working individually to clarify any issues. They also have the option of going to blogs and forums relating to their subject to get instruction, ask questions to clarify issues where an academic often check and answer any relevant queries.

5. Conclusion

The literature review has identified a gap in research existing in understanding the academics' perspective. There are many areas within this perspective that give cause for concern; they have been grouped as challenges facing higher education institutions. The five broad categories are: learning style and cultural challenges, pedagogical e-learning challenges, technological challenges, technical training challenges and time management challenges.

These challenges are vital to understand for any institution wishing for a successful e-learning outcome. Instructors need to have a good grip on technology and encouraging attitude towards e-learning for a positive learning outcome. This means relevant raining has to be passed onto all academics for an institution to be successful in achieving their higher academics targets. Academics should not be there for technical support for students, rather they need to be trained on the technology so thoughtful posts, videos and tutorials are used effectively. The training should not be an overview but practical, hands on until academics are confident using the systems in place.

Student attitude and experience is important, with the right training to use technology for learning, if students do not have the right training and support then academics will be the first line of contact to help with technical problems.

All the challenges appear have a permanent relation to each other, if one of the challenges is not faced adequately or deficient then the overall delivery and learning will have a deficiency. For example, if the correct training is not provided then academics can waste time than necessary, or academics may have difficulty identifying student needs. If the e-learning system is not stable, prone to downtime, slow, persistent bugs and technical faults can lead to frustration and annoyance amongst academics. Middlesex University has to bear in mind these challenges and has to offer high standard of support, guidance and clear policy for a successful e-learning outcome.

6. Further Research

According to the literature, further research needs to be carried out on how University policy, Government policy and the software vendors marketing statements and description of e-learning is shaping academics' expectations, and how this expectations should be met by institution management (Macharia & Pelsers, 2012).

Cheon et.al, (2012) spoke about the gap in literature in factors affecting acceptance of mobile learning in Higher Education institutions, there is no doubt this also applies to academics, what factors affect academics accepting of mobile learning? What effect does m-learning have on academics? What is the technical and training requirement for academics in a mobile learning environment?

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