

'AN INVESTIGATION OF TEACHER EDUCATORS' USE OF A LEARNING MANAGEMENT SYSTEM'

ErdalDogan

London Metropolitan University-UK

Context

This study investigates how teacher educators use a Learning Management System (Blackboard) in their teaching practice and focuses on the role of learning technologies. The key issue explored is how students' learning and understanding is developed at a higher education institution, London Metropolitan University. London Metropolitan University refers to their LMS as *WebLearn*. The research I conducted took place at the Faculty of Social Sciences and Humanities in the Education Department of London Metropolitan University. The research study considers Learning Management Systems (LMS) and their "affordances" in developing students' learning and understanding. "Affordance" can be described in the context of human-machine interaction as actions which are performed by an individual. The investigation was intended to address the research question:

How do teacher educators use a Learning Management System (LMS) in their learning and teaching?

The qualitative paradigm is used as a framework for this study. The reason I have chosen the qualitative paradigm is:

- firstly because it is a small-scale-research study, and
- secondly, I wanted to observe teacher educators' involvement and thoughts, and to explore their engagement with the technology and
- thirdly, I wanted to have a "**thick description**" (Geertz, 1973) of how they engaged with the technology since the study aimed to have holistic perspective

on how teacher educators use LMS in their practices and how it is perceived by them.

For the data collection I have used the semi-structured interview method because it has all the natural affordance to collect detailed evidence of the social interactions which are performed by teacher educators using an LMS platform.

There has been a strong trend in the use of virtual communities and information communications technologies (ICT) in Higher Education (HEI) settings and it is becoming increasingly important to explore the challenges faced by teacher educators in their engagement with the LMS. I believe this approach enabled me to achieve a better understanding of the challenges educators face, and their views on the benefits of the technology which they have adopted or, which they have been compelled to use.

This study has more than one intention. Although my main intention was to seek more elaborate descriptions and perceptions of the engagement of teacher educators regarding the learning technologies, in this study, I also aimed to describe the challenges faced by educators in using learning technologies so that these challenges could be addressed. In this study, I discuss my personal experiences and my involvement as an insider (emic) researcher in the study. Using key literature from the field, as well as London Metropolitan University policy on blended learning, I have attempted to justify my choice of research methodology, methods and instruments of data collection. I then move on to discuss my findings and end with recommendations for the way forward, as I see it.

Background and rationale to the research

Working as an ICT technician and learning technologist at the Faculty of Social Sciences and Humanities, I recently gained a SEDA (Staff and Education Development Association) award and, qualifying as a blended learning practitioner enabled me to develop both technical and pedagogical knowledge about the use of LMS's in Higher Education. This has enabled me to develop an insider's or emic

perspective of the challenges and practices of educators in my setting. I will go on to explain in a later section of this study the positives and negatives of emic research. I have worked with students and staff from all kinds of disciplines providing technical support on their ICT modules as well as supporting them in using LMS's in their teaching. This has enabled me to have wider perspectives on how staff themselves learn in complex settings. Some staff have very limited knowledge of the use of the technologies and of educational applications, however some are quite knowledgeable, therefore the amount of support need changes according to staff capabilities. I had to judge the amount of the support I gave to staff because my aim was to bridge the gap between how to use the technologies and for them to perform particular activities on the LMS themselves. Demonstrating the procedures of the application on how to import sound and images, rather than doing all this for them, can be shown as one of the examples of this intention.

Supporting teaching staff on the use of *WebLearn* has enabled me to collate useful information about their existing knowledge, capabilities and skills of ICT as Bruner (1967) highlight the importance of accessing learners existing knowledge to provide assistance. I have also recommended staff to use appropriate file formats such as PDF files instead of *Word* files because *Word exe* files may create a number of conflicts. Another example of the advice and support I gave is, I have advised educators to consider students' home computers when they develop e-learning environments since some file formats may not be compatible with the older versions. I have advised teaching staff to use appropriate LMS tools and features to create user friendly and productive learning environments and encouraged them to move from a static approach to a dynamic approach. A dynamic approach involves the need for increased student online participation. According to a report from the Organisation for Economic Cooperation and Development (OECD, 2005): *"Use of information and communication technologies (ICT's) in higher education may not have yet made significant impact on teaching and learning nor revolutionised classroom practices as expected."* (p 1)

Literature review

"A shift from the Industrial Age to the Information and Collaboration Age is evident in the changes in our lives. (McLuhan, 2011, p 6)

Mezirow (2009) mentions that transformation is at the heart of learning. Challenges arise when institutions deploy new technology and educators have to adapt to the change. E-learning adoption has been considered as a threat amongst some educators – for example, computer mediated communication (CMC) might have an impact on their employment and overlap with their roles as educators (Wellet, 2007). Educators build e-learning environments in the light of their pedagogical and not necessarily their technical expertise, although they may have basic knowledge on how to upload and display content materials and so on. However, a Learning Management System (LMS) such as Blackboard provides opportunities for educators to use a wider range of flexible deliveries to cater for more learning styles depending on educator preferences and how they interact with their LMS. Each tool may play a role in student learning especially by providing opportunities for the use of multiple delivery channels such as accessing the content and, at the same time, contributing to online discussion. McLuhan (2011) mentions that e-learning meets the requirement of the twenty-first century learning and supplements traditional modes. Higgins (2002) states that e-learning can deliver many benefits but only

if learner-centred opportunities are provided by the educator.

One of the key questions that arises is how teacher educators use an LMS in their practice? If they do, how? If not, why not? Therefore this study investigates how teacher educators in London Metropolitan University's Education Department perceive and use a LMS especially given that online interactions are still likely to be used in a limited way which is mentioned in Haythornthwaite and Andrews (2011).

Definition of Terms

It is necessary to distinguish between the terms “virtual learning environment” (VLE) and “learning management system” (LMS) for the purposes of this study as there are misconceptions regarding the use of these terms. The principal components of a VLE package include curriculum mapping(i.e. breaking the curriculum into sections that can be assigned and assessed); student tracking; online support for both teacher and student; electronic communication; threaded discussion; chat; wikis and internet links to outside curriculum resources (Weller, 2007 p.3).

The Joint information Systems Committee (JISC 2000) in the UK states that a VLE refers to the components in which learners and tutors participate in online interactions for various kinds of learning. Furthermore, JISC makes the comment below:

“The Virtual Learning Environment is loaded with tools and features which can be added to the modern educator’s tool box, to be used or consider in their learning design which focuses on the student rather than the educator as in instructional design” (JISC, 2011).

A learning management system (LMS) provides an instructor with a way to create and deliver content, monitor student participation and assess student performance. Students can use interactive features such as threaded discussion, video conferencing and discussion forums (Weller, 2007 p.3). Paulsen (2000) describes an LMS as a system which provides a range of services to organise and provide access to online learning services for students, teachers and administrators. LMS’s include access control, provision of learning content, communication tools and organisation of groups. This suggests that an LMS ‘manages’ the students’ learning in a very direct manner. (Weller, 2007 p.2). One of its functions is to allow educators to track students’ engagement on a particular activity.

Other terms used to define online learning environments are:

- Learning Content Management Systems (LCMS) – this reflects the idea of storing learning content and
- Managed Learning Environments (MLE) - which covers all university systems such as students records and not just focusing on the learning process (JICS 2000).

“Creativity is an important part of modern teaching and learning. It makes sense to take students’ ideas and upgrade them using emerging twenty-first century technology”. Scott (2006)

Brown and Jenkins (2003) mention that VLE’s might not be the most universal innovative technology in recent years, but that it is one of the most widespread technologies in higher education with 86 per cent of respondents from UK Higher Education using VLE’s - just like a Trojan horse which has slipped into most of the institutions without them realising it. An LMS has a technological layer which accommodates and supports various media, e.g. text, audio, visuals, videos, animation, HTML templates and other objects. Secondly it includes technological components/tools such as chat rooms, wikis, blogs and tools managing assessment so that educators can monitor student performance. Finally, an LMS facilitates course materials being delivered. These tools are facilitated with the improvement of Internet connections and the power of Web 2.0. Web 2.0 is a technology which facilitates information sharing, user generated design in virtual communities such as *Twitter, Facebook, Skype* which permits users to interact and collaborate with each other on the World Wide Web (Rennie&Mason, 2008.).

According to Vygotsky (1979), we construct meaning through interactions in our social and cultural environments. If we are to apply some of his principles, in the technological world of today, we could argue that the world of digital systems can best be contextualised through the exploration of LMS’s as culturally specific collaborative learning environments enhancing students’ learning in higher education settings. ICT has made a huge impact in our lives and is an important factor in all aspect of our lives. Therefore universities are most likely to be influenced by the use

of virtual learning platforms. With this view in mind the role of the LMS's can be perceived as significant and as enhancing learning and teaching as a collaborative activity. It is envisaged that through this process the interaction between the educator and the student moves beyond the traditional interpretations of teaching and learning.

LMS software provides opportunities for educators to develop e-learning environments which enhance student learning since students tend to become flexible and mobile learners by using these technologies (McLuhan, 2011) in their learning – for example, using multimedia-compatible smart phones and Tablet PC's to access content knowledge via social networking sites such as *Facebook*, blogs and wikis, as well as having asynchronous and synchronous communication. These developments have already created significant shifts in our lives (Mason and Rennie, 2008) Therefore, the availability of e-learning environments becomes an important part in Higher Education to lessen the gap between the educator and student since knowledge accessibility and sharing no longer depends geographical location. We are living in a global information society and communication can be done immediately via the support of modern technologies (McLuhan, 2011).

Garrison and Anderson (2001) say that e-learning can be viewed as learning facilitated on-line through network technologies. National Vocational Educational and Training Systems (2005, p.7) defines e-learning as having components of flexible learning through electronic media in the education.

McDonald, (2008), describes e-learning as transforming learning and teaching from a campus to a non-campus base. Illinios (1999) states that the growth of e-learning is revolutionary in Higher Education since it provides opportunities for flexible learning because it allows learners to become virtually mobile and it can accommodate multimedia materials to be accessed via network technologies. Hayhronthwaite and Andrews (2011, p.46) draws attention to e-learning which supports "*technology-encased learning*" in modern learning

A report of the US web-based education Commissions states:

"The question is no longer if the internet can be used to transform learning in new and powerful ways. The commission has found that it can. The web-based education commission calls upon the new congress and administration to embrace an 'e-learning' agenda as a centrepiece of your nation's federal educational policy" (July 2001).

On the other hand, there has been conflict and criticism of e-learning and innovative technologies by educators because it has been perceived as primarily covering cost-efficiency (McDonald, 2008). Secondly, computer mediated communication (CMC) is seen as a threat into their employability by overlapping their roles as educators (Weller, 2007). Thirdly, e-learning could have a radical impact on university pedagogy because it can create learning opportunities for institutions that can only occur online and not in 'real'

classrooms (Burbules and Callister 2000, p. 277).

Rennie and Mason (2008) mention that instead of seeing Web 2.0 tools as an opportunity, educators see it as a threat to their traditional ways of teaching delivery. They perceive that their role as educator will be diminished as the role of technology increases, although most studies suggest that *the role of educators changes but not necessarily diminishes* (p.142).

Information Communication Technology (ICT) has transformed the way we live and how we operate in our social context and it will continue do so (Garrison and Anderson, 2001). For example during the times when I was a student in Further and Higher Education, there was no technology which supported virtual communities. It did not exist. All the teaching was done in face to face classroom interaction and when I was off campus, learning stopped because there was no system to support continuation of learning beyond the physical interaction. Nevertheless, I used the e-mail medium to communicate or exchange some materials, in a limited mode. Therefore I believe that 21st century technology has transformed ways in which we learn and how we interact. If we judge the transformation of learning and teaching in

Higher Education only as a means to cover cost related aspects, the argument would be inadequate.

Nor does this study judge whether online is better than offline learning, but investigates the idea that if educators cannot meet student needs using a traditional classroom approach, it may be the case that online or e-learning is of particular benefit, particularly if the students are in work placement. The idea behind this study is to find out if a blended learning approach creates a productive learning environment that can support students in or off campus. Mason and Rennie (2006) state that blended learning firstly provides opportunities to present learning resources and ways of communication between educator-student and student-student which are more flexible and more desirable than narrower, one-track solutions. Secondly, they say that students can be encouraged to play an active part in their own educational development by selecting resources from different media and sources that are more convenient and appropriate for their personal situation. Weller (2007, p. 12) mentions that blended learning is productive when it's aligned with a traditional approach.

Sharpe (2006) argues that e-learning environments should focus on student centred perspectives rather than from a tutor or an institutional view. Here, he argues that, due to institutions' diminishing budgets, LMS's should not be implemented with a view of cost saving for teaching time or replacing the traditional approaches. Furthermore Sharpe (2006) says that the literature on blended learning suggests that e-learning designed in LMS's must provide flexibility for students in order for them to interact in a dynamic learning environment and it needs to have a clear rationale for the selected media and methods.

Mason and Rennie (2008) describe how online engagement should be set up. Educators should create a collaborative community spirit by embedding shared activities between the students and themselves. Ensuring that timely feedback is given can be categorised as constructive criticism, maintaining motivation and

providing assessment. It suggests that educators need to have on-going online interaction with their students as they would normally do in traditional interactions.

Research Methodology

In approaching the question of how teacher educators use an LMS in their teaching, a qualitative research approach seems appropriate as it provides the researcher a way to understand things through the eyes of someone else describing the essence of human experience (Denscombe, 2010, p.6). Patton, 2001, p 104) states that *"Phenomenology aims at gaining a deeper understanding of the nature or meaning of everyday experiences."*

Denscombe states:

"Researcher who use a phenomenological approach need to be explicit about their own ways of making sense of the world and, in order to get a clear view of how others see the world, they need to suspend (or bracket off) their own beliefs temporarily for the purpose of research" (Denscombe, 2010, p.99).

A phenomenological approach seeks to describe an instance rather than explain everything (see Husserl 1970). From this viewpoint, a phenomenological approach can be applied into my case study since I am investigating description of the processes in an LMS *as seen by the educators*. Patton, (2001) describes a phenomenon as a program, an organisation or a culture.

In this regard, the research focused on the social reality perception of teacher educators on the use of LMS. (See Patton, 2001.) However, I am aware that I am part of the setting and a participant in my investigation, as well as a researcher.

"People who are insider to a setting being studied often have a view of the setting being studied often have a view of the setting and any findings about it quite different

from that of the outsider researchers who are conducting the study" (Bartunek and Louis, 1996 p.80).

There are criticisms of phenomenology about subjectivity not being "*scientific*" since it does not remove all *influences* of the researcher. Although the main task of the researcher is maintaining objectivity throughout the investigation, I agree with Nortway (2000) that total neutrality is impossible. I have prior knowledge and experiences of the subject matter which I have investigated. This means that I must be careful because I am not totally immune from *biases* or *prejudices* as a participant researcher in the study. Social research involves rigorous and empirical inquiry but most of all requires objectivity as far as possible in data collection in conducting qualitative research to meet such requirements. (see Bogdan & Bilken, 1982).

Ethical considerations

There are ethical considerations relating to my role as a researcher and a member of staff interviewing my colleagues. Here it is vital that my role as a researcher is explained to all teacher educators to assure them of my objectivity. I have also declared my interest as a researcher to my line manager and to my colleagues with regards to using the LMS. Teacher educators' consent was obtained from the educators' line manager; I have also obtained permission from the academic leader in order to conduct research within the Department. I have fully explained the purpose of the study and informed them that the results will be published anonymously and their identity will not be disclosed, I have also explained that I would be happy for them to review their interview transcripts before they have published.

DATA COLLECTION AND ANALYSIS

Data Collection Procedure

I asked 6 questions. There were 5 teacher educators. I made summaries of the responses. I then analysed the summarised responses by examining them to see differences and similarities in the responses by the different teacher educators. In the process of interpretation of data, I analysed common themes which had emerged from

the answers given in the interviews. In this way, by iteratively classifying the responses as similar or different I found the themes emerging as follows in the next section.

The questions asked in the interview were:

- 1) *Tell me about your experience on the use of WebLearn (LMS)?*
- 2) *What roles can LMS's play in developing your students' learning and understanding?*
- 3) *Do you feel that courses can be taught entirely through WebLearn?*
If yes how- if No why? Can you give me some examples?
- 4) *In what ways have you found WebLearn useful in your session/Module delivery?*
- 5) *Have you experienced any difficulties in developing /using WebLearn? Can you give me some examples?*
- 6) *Which feature did you find beneficial in WebLearn?*

"Interviews generate data from people's experiences, opinions feeling and knowledge". (Patton, 2001, p3).

Interviewing is a method in social research to collect data through face-to-face conversations. Patton, (2001) describes the interview process as allowing us to enter into other person's perspective. Kvale (1996, p.14) describes qualitative research interview as a construction of knowledge between two persons with a common interest.

Design of the Qualitative Semi-structured Interview

All interview questions were semi-structured and open-ended. In the interview guide presented below, the questions were designed for teacher educators are shown. In accordance with Crotty's (1998) advice, I began the interview with a general question: *Tell me about your experience on the use of LMS*. This was to enable the teacher educators to explore their prior knowledge in the area. I believe this approach may have empowered the informants to express their experiences more freely. I wanted to create a friendly atmosphere at the beginning of the interview to make

them feel comfortable during the interview and I wanted to keep their focus on the questions.

The next question was: *What role can an LMS play in developing your student understanding.* This question is the main question of the study, aiming to achieve specific outcomes: i.e. to get them to engage with considering which tools they use in their teaching practices such as threaded discussions, announcement and so on. I allowed some flexibility during the interviews in order to obtain open-ended answers because it was important as a researcher to gain insight of the educator's involvement with the LMS; however, I kept the focus on the main research question. In the event of deviating from the interview brief, I tried to bring the educators back to the main purpose of the interview. This shift occurred frequently (see Bryman, 2012,). I kept in mind that an interview is not an ordinary everyday conversation (Dyer, 1995, p.56-8).

- 1) Tell me about your experience on the use of WebLearn (LMS)?
- 2) What roles can LMS's play in developing your students' learning and understanding?
- 3) Do you feel that courses can be taught entirely through WebLearn?
If yes how- if No why? Can you give me some examples?
- 4) In what ways have you found WebLearn useful in your session/Module delivery?
- 5) Have you experienced any difficulties in developing /using WebLearn? Can you give me some examples?
- 6) Which feature did you find beneficial in WebLearn?

Participants

As a blended learning practitioner and ICT technician, I have managed to work with all the teacher educators who took part in this study in a variety of contexts. This has enabled me to collate useful information about their ICT capabilities as well as support them in different ways. Below I give a brief account of their current ICT capabilities and their involvement. All the teacher educators in this study seem to be digital "residents" (see David White, 2011).

Discussion of Findings

Here I present my findings from the investigation.

Findings of Question 1) Tell me about your experiences in the use of WebLearn?

To the question about their experiences in the use of *WebLearn* the main points that emerged were:

- Teacher Educator 1 said that *Weblearn* was a completely different mode of delivering a module for her and that she had been in a traditional mode for many years. She also mentioned that she was mainly engaged with uploading content to her module, for example session slides, web links and developing a shared area for her students to access knowledge.
- Teacher Educator 2 on the other hand talked about his experience on *WebLearn* as essentially uploading PowerPoint slides, posting messages and removing content.
- Teacher Educator 3 discussed her experiences as uploading weekly PowerPoint sessions, providing relevant reading and creating video links. She also used the assignment tool for students to upload their assignments.
- Teacher Educator 4 has been using *WebLearn* for past two years. She is trying to shift her use of *WebLearn* from providing a repository, i.e. storage for documents, to creating a more interactive space for her students. She said that her *WebLearn* engagement consists of uploading PowerPoint slides, articles and PDF files.
- Teacher Educator 5 uses *WebLearn* to drive her sessions; all her teaching is done via *WebLearn*. She developed the *WebLearn* environment with her students, using this method because when students access *WebLearn* without assistance they can become familiar with it uses. She uploads content, and uses the discussion tool, *Blogger*, has a *Facebook* link and uses assessment tools, which allows her to create three kinds of assessment they are:
 - A quiz (graded)
 - A survey (without grades)

- Self-tests (quizzes with feedback and *unrecorded grades*)

Responses show that all the teacher educators are using the uploading function to upload their e-learning materials into *WebLearn* (the Learning Management System). The materials they are mainly uploading are PowerPoint slides, PDF files, articles, module handbooks and relevant reading. The *WebLearn* tools they are engaging with are creating web-links, threaded discussion sessions and embedding videos. It suggests that all teacher educators are using *Weblearn* in their teaching practices as well as engaging with some of its tools. However, Teacher Educators 3 and 5 move beyond others in using *WebLearn* in more complex ways because both appeared to have used the assessment tool which enabled them, having asynchronous communication. Because of using assessment tool it appears that both of the educators shifted the way they provided feedback from hardcopy to online mode. In addition to using the assignment tool.

Teacher Educator 5 also has a *Facebook* link, which suggests that she communicates with her students in synchronous communication mode. Teacher Educator 5 also mentioned that she designs her e-learning environment with the students' input. It appears that she is using this approach to engage and involve her students with *WebLearn* at early stages of their online engagement and learning.

This approach may empower students to take part on the ownership of their online learning by choosing appropriate tools and design layout as well as reduces the possible challenges students might face in the use of *WebLearn*; for example, getting to know how it works, how to use its tools and when there are such problems how to overcome them.

As she also uses *Slideshare* and *Slideboom* applications. These social media sites allow users to upload images, videos and audio resources and provide special features such as effects and animations to create multimedia objects. It appears that she also spends time on the design layout in order to build a user friendly environment to enhance students *WebLearn* participation, therefore levels of interaction are likely to increase in the learning environment. Rennie and Mason (2008) mentions that

students tend to spend more time being engaged with learning in user-friendly learning environments because online learning can be isolated and may prevent student participation. Also, it shows that she is capable of using different kind of applications which can be incorporated in *WebLearn*, whereas other teacher educators only engaged with common *WebLearn* tools such as discussion tool and using uploading functions. Interestingly, Teacher Educator 4 indicated that “*she is trying to shift the use of WebLearn from repository to more interactive way*”.

Findings of Question 2) In your views what role can WebLearn play in developing your students’ learning and understanding?

The main points that emerged in analysing the responses to this question were:.

Views of teacher educators are more varied and more difficult to classify in this question, if we compare the agreement in responses to Question 1

their responses appeared to indicate that the role of *WebLearn* plays in developing students understanding is knowledge sharing and communication . It also provides content storage for students to access and acquire information at any time in any location with the support of the technologies such as the Internet and finally provides opportunities for students to develop independent learning styles.

Findings of Question3) Do you feel that courses can be taught entirely through WebLearn? If yes how - if No why? Can you give me some examples?

All the Teacher Educators said no to the notion of teaching purely online and commented firstly that learning is a social interaction and it is still directed by human input and secondly teaching is best done through face-to face with the support of technology completing each other rather than being separate. They mentioned that it needs to be aligned with the traditional approach. And Finally, they mentioned that classroom interaction is essential for teacher educators.

Findings of Question 4) In what ways have you found Web-learn useful in your session/Module delivery?

Teacher Educators 1 and 2 articulated almost the same responses in Question 2 as each other with regard to the fact that the tools they find useful are uploading content. Teacher Educator 5 talked about the advantages LMS provides in her teaching for storing all her course materials; therefore she doesn't need to carry piles of books or session hardcopies. She mentions that *WebLearn* accommodates all the course information for her students, which provides a one stop place to access them. It appears that Teacher Educator 5 uses the *WebLearn* environment as a central base for her students to access all session materials including links to e-books and e-journals - an activity often done by the student via the library catalogue search. Therefore, she created number of virtual communities in her LMS to meet all her students' requirements since the LMS often accommodates a number of virtual communities such as threaded discussion blogs and so on.

These forms of engagement with the LMS suggests that learning is a situated online activity in accordance with Lave and Wenger,(1991) theory on situated learning; therefore the responses of the teacher educators support the view that an LMS provides educators the means to design activity according to their student's needs .. It also suggests that the needs of students with diverse backgrounds can met by use of an LMS which can provide flexible delivery to students and educators.

Findings of Question 5) Have you experienced any difficulties in developing /using WebLearn? Can you give me some examples?

Teacher Educators 1 to 4 expressed the problems they are experiencing as being associated with technical issues especially on uploading content into *WebLearn*. Issues were related to *Flash* and *Java* pop ups. They were also concerned with how to tailor their *WebLearn* environment, for example how to arranging icons and control the design layout.

All the teacher educators mentioned that they will need to develop their skills further in the use of *WebLearn* by attending more drop in sessions at CELT. Furthermore, they mentioned that they would like to learn the new *WebLearn* system

(Blackboard 9.1).

It appears that more they are engaged with *WebLearn* environment, the more problems they face in terms of uploading, customising and organising their *WebLearn* environment. However, the findings suggests that teacher educators are very much engaged with the use of *WebLearn* regardless of the problems they are experiencing and are keen to adapt new technologies in early stages of their practice. They could be seen that they are *early adopter* and *early majority* practitioners according to the model proposed by Rogers (1963).

It also appears that teacher educators would like to have dedicated ICT support staff within departments to provide robust support when is required rather than a centralised service. It suggests that they may feel more comfortable to demonstrate their problems to an insider rather than someone from outside since technical problems are not easy to express through written and verbal communication as they do not know which technical terms to use to express what the problem is.

To summarise the findings and discussion I have classified the responses to the questions as follows

A Summary of Themes that Emerged from the analysis of responses

FIGURE 1

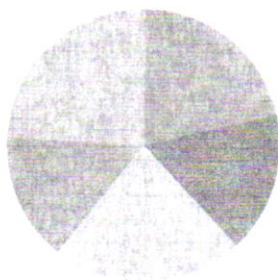
Q1) Tell me about your experiences in the use of WebLearn? • Uploading Content • Managing students • Building Confidence • Student engagement • Improving skill and Knowledge	Q2) in your view what role can WebLearnplay in developing your students learning and understanding? • Promote Sharing of ideas and knowledge • Communication • Prior accessibility of content to session
Q3) Do you feel that courses can be taught entirely through WebLearn? • No to the notion of teaching purely online • Human input necessary • Course nature not suitable for distance learning • Face-to-face learning required • Blended learning is preferred	Q4) In what ways have you find WebLearnuseful in your session /Module delivery? • WebLearnprovides One place to obtain data • No hard copy to carry
Q5) Have you experienced any difficulties in developing/using WebLearn? • Technical problems uploading • Technical problems • Design & Customisation skills lacking • Dedicated support required • Attending training sessions	Q6) Which feature did you find beneficial in WebLearn? • Collaborative learning • Communicating • Passing module on year on year without having to redo content • Track student engagement,

In order to illustrate the teacher educators’ LMS engagement I have designed a model to show the relative sophistication of each teacher educator’s engagement with the LMS (see FIGURE 1.2) below. I classified their level of engagement according to the points which I assigned to each type of engagement to reach a generalised view of the overall level of interaction which may have occurred for each educator. My model is designed provided a “*thick description*” which was the aim of this study. FIGURE 2demonstrates the sub-themes extricated from the analysis of all the questions above. The matrix was drawn from all the responses of the respondents. I used the data represented in the diagram below to rank the educators’ interaction which is explained in Figure 5 below.

Figure 2
Educator Level of Engaging with WebLearn

Key

Each number
with the colour
represents a
Teacher Educator



Teacher Educator 1
Teacher Educator 2
Teacher Educator 3
Teacher Educator 4
Teacher Educator 5

If we analyse each teacher educator's *WebLearn* (LMS) engagement in turn it appears that the teacher educators are familiar with the main tools and how to operate them despite the technical issues they face.

The most beneficial aspect of *WebLearn* appears to be seen as enabling students to share knowledge in a collaborative learning environment by providing communication channels through both synchronous and asynchronous modes - for example, an asynchronous channel of communication is threaded discussion for, text-based communication. Students of the forum can post messages for other members to read and reply at any time. Synchronous modes of communication are used by the Teacher Educator 5. This mode of communication provides simultaneous communication which is often associated with live video streaming and text based instant messaging communication such as *Facebook*. According to Hampel, 2003, these communication modes cater for different learning styles and allow users to select mode which best suits their needs. Haythornthwaite & Andrews (2011) and Mason and Rennie (2008) describes collaborative learning as providing active engagement and knowledge construction.

Concluding remarks

This investigation has shown that teacher educators have adopted the change and applied these changes according to their needs, rather than rejecting the role of innovative technologies entirely. None of the educators consider technology as a threat to their employability nor has this view been forced by the University or Faculty management to use it. They do see the importance of the role of technology and adopting some of the features of LMS into their teaching practice. All the educators talked about the benefits and the importance of having such technologies which provide advantages as mentioned above.

This study highlighted that notion of teacher educators are keen to take on the new *WebLearn* system (Blackboard 9.1). The findings highlighted the point that they believe that technical issues may be resolved with the new *WebLearn* system especially the *Flash* and *Java* problems. They emphasised the importance of using innovative technologies in 21st century learning and teaching. They said that they felt isolated when it came to developing their e-learning environments, especially when there is no active support as the issue arises.

These findings also suggest that when educators are confident with the use of the technology and the necessary support is available from IT services, they may be much more engaged with these technologies as it is highly likely that in the foreseeable future we are going to have a generation of students who are not digital immigrants but digital “residents”(See White, 2011) .

Bibliography:

Bruner, J. (1977) *The Process of Education*, Harvard Press.

Bryman, A. (2012) *Social research Methods* (4th edition) Oxford

Bartunek M. Jean and Louis, Reis Merlyl 1996, *Insider & Outsider Team Research* (Qualitative Research Methods : A Sage University Press .

Denscombe, M. (2010), *The good Research guide, for small-scale social research projects* (fourth edition).

Garrison, D.R and Anderson T. (2003), *E-Learning in the 21st Century, A Framework for Research and Practice*.

Haythornthwaite, C.and Andrews R, (2011) *E-learning Theory & Practice*.

McLuhan, M. (2011) *Education for a Digital world*.

McDonald, J. (2008), *Blended learning and online planning Support and Activity Design*.

Mason, R. And Rennie, F (2008) *E-Learning and Social Networking Handbook*.

Patton, M Q. (2001), *Qualitative Research & Evaluation methods* (third edition).

Kvale, S. (1996) *Interviews: an Introduction to Qualitative Research Interviewing*, Thousand Oaks, Sage.

Weller, M. (2007), *Virtual learning Environment, Using choosing and developing your VLE*.

<http://www.jiscinfonet.ac.uk/InfoKits/effective-use-of-VLEs/intro-to-VLEs/introtoVLE-student/introtoVLE-prepare-studs>