

# Study effectively in an elearning environment education essay

[Education](#)



**ASSIGN  
BUSTER**

Supporting teachers and students in University to teach and study effectively in an e-learning environment. Son Nguyen MSc Information Technology, May 2013 Supervisor: Dr Glyn Watkins

**Dedication & Acknowledgments**

First and foremost, this dissertation is dedicated to my parents, my sister and brother, who always encourage me to study higher. And most of all for their unconditional love that made me today. Furthermore, this dissertation is dedicated to my lovely girlfriend, who is my source of encouragement and emotional support. I especially thank her for all her positive words when I felt negative during the time of doing the dissertation. I would like to express my gratitude to Professor Glyn Watkins. This dissertation would never have been completed without his suggestion, guidance, and encouragement. I am grateful for all his helps and I know that I could not have done it without him. My Personal thanks are for Sue Scott for reviewing many parts of the draft dissertation, and helping me with my language. Finally, appreciative thanks are for friends and all of those, who assist me with this research, such as the interviewees, tutors, and students who took part in this research. Without their contributions, this dissertation would never have been completed.

**Title** Supporting teachers and students in University to teach and study effectively in an e-learning environment. **Abstract** Taking a Further Education college as a case study, this dissertation identifies relevant e-learning technologies, explores the extent to which they are in use and to which they may be appropriate for future use. The dissertation also considers the effect that the planning and managing of resources has, on both the teaching staff and students within the college, and considers relevant staff development needs. A range of qualitative methods, interviews with managers,

observations of classroom sessions and questionnaires address the primary aim, to evaluate the support provided to staff to determine the extent to which it equips them to design and implement online e-learning strategies to enhance teaching and learning. The main findings of this research are that staff has to be given sufficient time to develop themselves and adequate time is provided for familiarization of e-learning technologies. A further investment into resources and adequate maintenance of existing resources is crucial but moreover, that these resources are spread equally across all college sites.

## 1. 0 Introduction to the Research

This dissertation considers the role of e-learning in a typical university and its contribution to teaching and learning. The research will also identify what e-learning technologies are currently used as well as the extent that these technologies have been applied in a high education institution. Besides, the appropriation of these technologies for future use will be explored. Furthermore, this dissertation examines the effects that planning and managing resources has on staff, teachers and students within the university.


## 1. 1 Background and Context

### 1. 1 Topic Area: There has been a great development in educational process.

Traditional teaching classroom are gradually moving to more dynamic learning approaches for students under the application of ICT. The developments and infrastructures in ICT such as Internet speed, mobility, and capacity of data storage now become more important in education sector. Higher Education has also recognized the importance and benefits of those ICT resources for enhancing teaching and learning. In Vietnam, the government strongly supports ICT integration in education. The UNESCO report of Vietnam stated that the country had been eager to be one of the

hubs for ICT development in South-East Asia (Farrell and Wachholz, 2003). According to the latest ICT Development report of International Telecommunication Union (2011), Vietnam gained a great achievement from 2007 to 2010, and jumped up eleven places to 81st position on a worldwide list of ICT development measurement, and becoming one of the top 10 developing countries.

1. 1. 2 Organization: Ho Chi Minh City International University (HCMIU), a member of Vietnam National University, was established in December 2003. This university is the first public HE institution who uses English as a primary language in teaching and learning. It follows standards of the Adult Basic Education and Training (ABET) and the Association to Advance Collegiate Schools of Business (AACSB) for quality assessment and aims to become one of the top oriented-research and high-quality university with an excellent international learning environment in Vietnam and Asia (HCMIU, 2011b). Being a member of Vietnam National University, HCMIU received many investments from government to develop ICT infrastructure in order to support teaching and learning in e-learning environment. In order to achieve this goal, HCMIU has made a large financial investment to upgrade all facilities to support teaching and doing research. HCMIU (2011c) stated that this institution has been motivated to successfully build 14 modern laboratories for doing research and made it meet the national society and industry requirements. A great rate of human resources has attracted work in HCMIU and do research based on this excellent modern environment. More than 50% of its human resources obtained a PhD degree. More policies were created to ensure staff having professional training in from domestic and overseas to sustain the high quality. As a result, more

and more papers that are specialized in Mathematics, Biotechnology, or Computer Science, etc... have been published in the Institute for Scientific Information (ISI) journal system. Besides, HCMIU wants to guarantee that the graduate students will have successful careers following the international standards. HCMIU has been using the credit-based system and opening cooperative study programs with foreign institutions. These programs offer students more opportunities to obtain the international degrees by studying the last two years of their courses abroad. At the moment, HCMIU has implemented the partnerships with high prestigious universities such as University of the West of England and University of Nottingham (The United Kingdom), University of Auckland (New Zealand), University of New South Wales (Australia), Rutgers University (New Jersey), Suny Binghamton University and University of Houston (The United State of America), and recently with Asian Institute of Technology (Thailand), as mentioned by HCMIU (2011d). This important step of HCMIU has made a large contribution to the society and the new innovation of Vietnamese education. At the moment, HCMIU has applied different Virtual Learning Environment (VLE) tools, including Blackboard and Intranet (called Edusoft) to support teaching, learning, and parental supervisions. In 2008, HCMIU decided to establish the Quality Management Centre (QMC) who are required to support teachers and student in applying new innovative technologies to improve educational quality in e-learning environment. In 2010  2015 plan of QMC, learners are the center and target of education, along with improving teaching standard according to the Adult Basic Education and Training (ABET) and the Association to Advance Collegiate Schools of Business (AACSB), and

encouraging e-learning technologies among staff (Nguyen, 2010). 1. 1. 3

Reason for choosing organization The reason for choosing HCMIU for this research is that it is a typical organization that has strong motivation to build a professional research and e-learning environment. Besides, HCMIU is the first public university who completely use English in teaching and learning and follow ABET and AACSB standards for its quality. Furthermore, HCMIU has already built a system to enhance teaching and learning in e-learning environment. Researcher is a student who study in the cooperative program between HCMIU and The University of the West of England (UWE) and have relationships with HCMIU staff for more opportunities in information access. The study experiences of the researcher could support a clearer insight of the organizations. In addition, the experiences of exchange students make a contribution to the comparison of e-learning environments between HCMIU and its partnership universities.

1. 2 Aims, Objectives, Research question, and Scope of Study: 1. 2. 1 Aim of Research: This research aims to investigate information and communication technologies and continuous professional development available to teachers and students in HCMIU. According to the findings, the research can determine the extent to which those approaches support them in implementing e-learning strategies to improve the quality of education in university environment.

1. 2. 2 Objectives: \* To examine modes of learning, benefits, advantages as well as effects and changes that e-learning brings to teaching and learning. \* To investigate current issues, practices and policies from government and organizational initiatives, and to what extent they affect the teaching and learning process in higher education. \* To identify CPD approaches and e-

learning technologies that are currently used and future desired to support teaching and learning for HCMIU.\* To find out current knowledge about e-learning, and how teachers use the technologies in teaching and how students perceive in learning.\* To identify desired and preferred technologies by comparing educational environments of HCMIU and other international partnership institutions basing on the experiences of students in HCMIU and in cooperative programs at those institutions.\* To determine the effectiveness of HCMIU management in planning and managing resources towards e-learning applications to consider the required resources and development in order to support teachers and students in e-learning environment. The study will be guided by the above objectives to achieve the aim of the research. 1. 2. 3 Scope of Study: The scope of this research is for the Quality Management Centre together with the manager of HCMIU. It will explore how teachers and students in HCMIU benefit from using e-learning technologies. It will also include the comparison between the e-learning environments of HCMIU and partnership institutions, then explore how they affect the exchange students. This research is focused on the current e-learning technology used by teachers and students in HCMIU. Therefore, the context of this research is limited to HCMIU and universities which offer the cooperative programs in partnership with some foreign institutions. This study does not cover the universities which only use the traditional pedagogical approaches in teaching and learning or have no connection with other universities abroad. 1. 2. 4 Rationale of the Research: This research is important because its contribution may promote:\*

Acknowledgement of the natures and impacts of e-learning on HE institutions

in Vietnam.\* Resolution for strategies to support teachers and students to take advantage of innovative technologies in teaching and learning\*

Recognition of the role of planning and managing e-learning resources to support teaching and learning.\* Establishment of strategies to support

exchange students in studying under different environments of innovative technologies. 1. 3 Research Questions\* How does HCMIU plan and manage

resources to implement e-learning technology initiatives to enhance

teaching and learning?\* What are the current innovative technologies

applied in HCMIU and how this environment has supported teachers and

students?\* How e-learning environment of HCMIU prepares exchange

students for differences in international e-learning environments? 1. 4

Dissertation Overview: The dissertation has been divided into a series of

chapters as following: Introduction ♦ This section includes Background and Context of the study with a brief overview of E-learning environment in

Vietnam and Ho Chi Minh International University. It also explains the Aims,

Objectives, Scope and Rationale of the Research, as well as the Research

Questions. Literature Review ♦ This chapter focuses on objectives 1 - 5 and

considers historical, recent and future issues, policies and strategies relevant

to this study. Research Methodology ♦ This chapter identifies the choice of

methodologies and explains how objectives 6 - 9 are important to this

research. Moreover, it also considers the effects of different qualities such as reliability, validity, generalizability, triangulation, and ethics on those

objectives. Results ♦ This chapter describes the findings in the form of

charts and tables which provide a thorough analysis of the action research

undertaken for this study. Analysis and Discussion ♦ The chapter compares



the findings of this research to previous works of other authors and highlights the positive aspects of this research. Conclusion and Recommendation ♦ An overall conclusion has been drawn from the recommendations. HCMIU and other HE institutions can obtain relevant information in order to promote the use of ICT to enhance teaching and learning within an e-learning environment. It concludes with a section that evaluates the methods used as well as identifies how quality has been met throughout this dissertation.

## 2. 0 Literature Review

### 2. 1 Rationale for Literature Review

The main purpose of this research is to establish the rationale of putting e-learning into the Higher Education institutions. In order to achieve this goal, literature review section will propose a conceptual framework which is considered to be the guideline and foundation of the research. This theoretical framework is rather important because this research is a interpretive and descriptive qualitative case study of HCMIU. The literature review will be designed into 6 parts following the objectives of this research. In each section, readers will have a better understanding based on the evaluated researches which are related to the research questions and main issues of the case study. The literature review begins with a part about e-learning that identify modes of learning, benefits, advantages as well as effects and changes that e-learning brings to teaching and learning. The second part will consider current issues, practices and policies from government and organizational initiatives, and to what extent they affect the teaching and learning process in higher education. The third part will investigate pedagogical elements, as well as requirements, approaches, benefits, and implications of continuous professional

development in e-learning environment. The final part will examine roles and effectiveness of management within an organization in planning and managing resources towards e-learning implementation.

2. 1 Definitions: According to Richard and Caroline (2007), E-learning is considered to be a hybrid which is formed from two separate elements: **e** and **learning**. In their book, **E** stands for **electronic** which refers

to a wide range of technologies. As a result, the definition of e-learning has not been clearly agreed on because of the complexity of **electronic** technologies. The technology that was first applied into education is the

computer in 1960s. It not only helps the teachers to deliver the training but also helps students learn Math or language easier, especially for the people with disabilities. During this period, we have seen a big evolution of

Computer Assisted Instruction (CAI) and Computer Assisted Learning (CAL) in teaching and learning (Saettler, 1990). Therefore, Computer-Based Learning (CBL) has been integrated into the definition of e-learning (Hackbarth, 1996).

However, since then, the technology has been developed rapidly with the appearance of CD-ROM, satellite broadcast, interactive TV, etc. Then, more researchers define e-learning based on all the applications and processes

being used to carry out e-learning such as online learning, digital collaboration or virtual classroom besides CBL (Beamish et al, 2002).

Engelbrecht (2005) also suggested a similar definition when he considered e-learning to be a delivery of teaching materials via all kind of electronic media. In recent years, an evolution of bandwidth and Internet has

contributed a great impact to all users. From being a normal data processor in the school lab, CBL has been evolved to the technology of Web-Based

Training (WBT) which enhance teaching and learning, store the student records or administration (White, 2005). More teachers and students get familiar with using the World Wide Web which allows them to search useful information. WBT utilizes web-based communication, collaboration, knowledge transfer, and training to add values to the individuals and the organizations (Kelly and Bauer, 2004). Therefore, while it is generally accepted by most researchers that e-learning can be delivered by any electronic media other than web-based media, WBT still makes e-learning more widely accepted by academic institutions and business organizations (Pituch and Lee, 2006). Although, Web-Based Training is a new combination of Computer-Based Training, distance learning and Internet (Horton, 2000), it is still very limiting in describing the word e-learning (Rosenberge, 2001). In 2002, Salmon has demonstrated a broader, all-encompassing definition. He considered e-learning to be an approach which supports and enhances learning based on both computers and communications technology. However, the sophistication and extent of the technology still lead to many debates about the definition of e-learning among researchers (Sambrook, 2003).

2. 2. 2 Benefits of e-learning: According to Pegrum (2009), e-learning has made a big contribution to make the access of knowledge and information easier. In education sector, institutions such as schools or universities accepted applying e-learning because of the cost advantage (Clarke and Hermens, 2001). Various researchers such as Alexander (2001), Hijazi et al (2003) have demonstrated that e-learning can help the process of replicating and delivering the study material easier with a lower cost. Institutions can also have the access to resources which may be not

available in local (Warner, 1999) and it can serve the large numbers of learner simultaneously based on the technology of virtual lectures and e-libraries (Volery, 2000). Directly or indirectly, the students and tutors will be the people who most receive the advantages of e-learning in education sector.

2. 2. 2. 1 For students: When comparing to the traditional learning environment, students can receive more flexibility because e-learning can remove the constraints of time and location (Arbaugh & Duray, 2002). Caudron (1999) stated that students can learn at the time and pace which is more suitable to them. Students have the access to higher education at their own location (Sadler-Smith, 2000). Besides, e-learning also becomes appeal to the learner with disabilities who want to pursue studying at home (Brown et al, 2001). Therefore, Liu & Hwang (2009) have emphasized the ability of overcoming the physical distance between students and teachers in their research. E-learning also sustain the flexibility among students, they can take part in many group activities without being at the same place (Hartley, 2000). Based on the new technology such as virtual lecture, chat or forum discussion, the communication and interaction between students and lecturers have been enhanced (Holley 2000). O'Donoghue and Singh (2001) also demonstrated the same opinion that the relationship within an online community has been improved. Beside the flexibility benefit, in the research of Helen et al (2006), three main impacts that students can have within the e-learning environment have been mentioned. These factors related to the acquisition of knowledge and skills include: Engagement, cognition and performance.\* Engagement factor: Makes students more receptive in learning by increasing their attention, concentration and ability

to remember knowledge and information. However, other researches claim that the students can not become self-motivated because it depends on the level of interaction between students and teachers (Kershaw, 1996).\*

Cognition factor: Helps students access the resources easier and aid understanding. Students are able to search through a collection of e-books, past examination papers and easily contact mentors, experts or researchers.

As a result, learners will have more opportunities to get just-in-time resources (Young, 2002). Besides, the appearance of World Wide Web also plays an important role when it provides an international material resource (Loveless, 2003).\*

Performance factor: Helps student to achieve a better grade and create opportunities for learners to develop new skills. Holly (2002) found the same findings in his research, the students who use virtual lectures or bulletin boards tend to gain a better result than students in traditional learning environment. E-learning can increase the learners' creativity (O'Hara, 2008) and their problem-solving skills are also enhanced (Sarama & Clement, 2001).

However, other researchers like Hawkes and Cambre (2000) suggested that students should take their own responsibility in learning in order to get good grade, e-learning cannot guarantee that all learners will have better performance. Besides, learner will be more

successful within e-learning environment when they have prior experience of using information technology (Volery & Lord 2000). 2. 2. 2. 2 For Tutors:

Tutors and teachers also receive similar benefits to students in acquiring easier access to more resources. According to Larson & Bruning (1996), this impact can make teacher deliver the knowledge efficiently. Therefore, the quality of teaching can satisfy the national curriculum and standard

(McCollum, 1997). Besides, in the e-learning environment, the teachers can sustain the constant educational support to the learners because information technology enable them to communicate with the students or access the course material even they are not in the same place or time (McClelland, 2001). Teare (2000) also stated that the World Wide Web offered teachers up-to-date information which can help them give the correct knowledge to learners in some contemporary situations. However, in order to take advantage of e-learning completely and make it become successful in education, teachers must possess 3 main characteristics: teaching style, control of technology and their attitude toward technology (Webster and Hackley, 1997). In 2001, Wilson also reached the same conclusion when he demonstrated that these characteristics of teachers can control the degree of learning and affect the performance of students. Besides, some teachers can be reluctant in applying the new teaching methods or struggle with using the new technology. Therefore, there should be a pedagogical support from design team in order to enhance the teaching (Bates, 2000).

### 2. 2. 3 Models of e-learning delivery:

In order to measure the impact of e-learning to tutors and learners, we must identify that to what extent e-learning has been used in universities. Models of e-learning will enable the people to explore what happens in the learning environment. Various models have been examined with different purposes and they depend on the role of people who carry out the research such as practitioners, researchers or developers (Beetham, 2004). As a researcher, this literature review will focus on the theoretical model of Rashty (1992). This delivery system model categorizes the e-learning into 3 separate types: adjunct, blended, and online. This will

be helpful to identify what kind of e-learning environment existing in the institutions.\* Adjunct model: the traditional learning style still exists but e-learning becomes an extra optional choice for learners in the curriculum. The process of exchange information between learners and tutors can take place beyond school hours based on technology such as email.\* Blended model: e-learning is integrated directly into the curriculum and plays an important role to help teachers evaluate the performance of students. This model is the combination of the face-to-face and online methods to deliver the teaching.\* Online model: All interaction will take place completely online through a communication network with the help of computers. The common technologies which are being used can be streaming video, audio or hyperlinked course materials. Various technologies have been used in higher education system to make sure that the advantages of e-learning can be sustained. To define which technology should be equipped and necessary, the characteristics of exchange activities between students and teachers must be identified. Crumpacker (2001) classified the activities into three types: ◆local, synchronous and asynchronous◆:\* Local: can be seen as a traditional model where activities of students and teachers take place at the same time and same place with the use of whiteboards.\* Synchronous: teaching and learning process occur at the same time but in different locations. Many transmission technologies are being used such as audio or video conference, chat conversation or Skype.\* Asynchronous: students can access the learning wherever they are at the time that suits to them. All the communication will be carried out through the Internet, so this model has a strong relationship to Web-Based Learning. How technology is adopted and





applied in the educational institutions will affect the impact of e-learning. Besides, there is a mutual relationship among e-learning impacts, and objectives, strategies of organizations or Government. Therefore, e-learning can be established successfully if having been effectively supported by strategies from government and organizations (Prince and Stewart, 2002).

### 2.3 Initiatives of Government and Organizations

Kozma considered that strategic policies can provide institutions with a rationale, goals, and visions for a good application of ICT technologies (2008). To achieve positive results of ICT improvement, the government of a nation should consider multifaceted elements in policy development (Pick and Azaki, 2008). Lee et al. (2008) observed that IT-in-education policies in the Asia-Pacific region always involve a national or IT master plan coexisting with localized planning documents such as provincial or school initiatives. In Vietnam, the government is the highest organ of state administration of the Socialist Republic. The Ministry of Education and Training (MOET) is a body of the government responsible for all levels of education and training of the country. Hayden and Khanh stated that MOET was the only one that has significant capacity to affect decisions about academic standards, curriculum and its delivery, or academic work conditions in educational institutions (2010). But after Vietnamese economic reconstruction with an emphasis on free market mechanism, the role of the state has diminished (Huong and Fry 2004). In 2005, the government adopted a Higher Education Renovation Agenda (HERA) (MOET, 2005), a reform plan seeking to achieve a comprehensive modernization of higher education system by 2020. HERA has signaled that the relationship between the state and the higher



education system must change, from one characterized by state control of the system to one characterized by state supervision. A critical issue of governance in the context of higher education concerns institutional autonomy (Hayden and Khanh 2010). (Ph? n xanh l? c? y l? sutu c? ch? nh s? t?, nh? ng ch? a ch? c ? n, ph? n cam th? c? n ch? nh l? i ?? tr?nh b? ?? o v? n, hehehe, m?o con coi gi?m sutu nh?).) MOET of Vietnam emphasizes the role of building and developing E-learning as one of the advanced teaching and learning manners of the essential education innovation process in the new era. According to Vuth et al (2007), many issues in geography and workforce of the country make the government to pay more attention on distance education to solve the problems. More investments on distance education are supported through the development plans and projects from the government, which is documented through many issued policies by MOET. Those programs aim to creating more learning opportunities for students who are unable to participate with traditional classes at school's campus. The application of E-learning and internet-based distance education in these programs are employed as utilized transference of knowledge and skills across nations. These issues have actually led to the deployment of E-learning technologies in education and training at universities in Vietnam and promoted involving researches. In 2000, the MOET launched a Master Plan for ICT improvement in education sector for the period 2001-2005, aiming to establish the direction for IT application and development. All guidelines and policies were issued by governmental organs, mainly the MOET, but also include decisions of the Prime Minister, approvals, and guidelines from the MOET to the provincial District Offices of Education and

Training (DOET). The Master Plan concentrated on building IT infrastructure for education and training that all education institutions were required to connect to the Internet, and build their own networks. The MOET also planned to set up and utilize EduNet as an educational portal. Directive No. 55/CT-BGDDT issued 30th Sep 2008 focused on integration of ICT in education to enhance teaching, training, and applying information technology in education for the period 2008-2012. The Directive requested all educational institutions to collaborate with telecommunication providers to locally implement education networks. It also defined that IT plays a role in building friendly schools and active students by supporting a rich, lively and attractive learning environment. In addition, it encouraged teachers and trainers to design slideshow lessons, e-lectures and lesson plans on computer. Furthermore, to stimulate, encourage and promote teaching and applying IT on the whole education sector, contributing to the effective implementation of Directive No. 55, the MOET and Lawrence S. Ting Memorial Fund hold the national contest in the school year 2008-2009 for  Creative Teachers  with the slogan  Each teacher to build an electronic lecture . The same measures on developing e-content, on promotion of ICT for educational management, on training and retraining of educators, on computing as a subject, and on investment in facilities were repeated in the MOET guidelines for the school year 2009-2010. In addition, the government also issued many policies, directives, and decisions in the field to boost positive ICT direction of the country. Directive No. 58/CT-TW issued on 17th Oct 2000 promoted ICT application and development in service of industrialization and modernization of the country. The Directive stated that

all sectors of economic, cultural, social, security and defense must apply IT in their development. The Directive guided the development of a national information network including telecommunication systems and the Internet in Vietnam. Internet development plans were carried out for the period 2001-2005 through Decision No 33/Q?-TTg issued on 8th Feb 2002. Moreover, Decision No. 95/QD-TTg issued on 17th Jul 2002 approved the master plan on development and application of information technology of the country until 2005. Likewise, Decision No. 56/QD-TTg issued on 3rd May 2007 approved the development program of digital content industry until 2010. And Decree No. 97/ND-CP issued 28th Aug 2008 was about management, provision and use of Internet service and electrical content on the Net. According to Delegation of German Industry and Commerce in Vietnam (2011), four licenses for 3G mobile-phones services were granted to VNPT (Vinaphone and VMS Mobifone), Viettel and to a consortium of EVN Telecom and Ha Noi Telecom in 2009. The report also showed that Vietnam has made remarkable progress in implementing ICT strategies with an annual growth rate of 25 per cent in 2010. These remarkable achievements in telecom sector also made significant contribution to ICT and e-learning development strategies of the country. In addition, MOET also co-operated with Viettel to support, set up and provide free Internet services for all educational institutions of the country in 2007. Viettel finished setting up Internet connections to 100 per cent of education institutions and upgraded 3G modems for institutions in current 3G-coverage network. The corporation also collaborates with IT department of MOET to develop IT infrastructures and services such as e-library, e-learning system, and information management system. The

government also supported E-learning in educational institutions by issuing Decision No. 201/Q?-TTg on 28th Dec 2001 about approval of education development strategies for the period 2001-2010. The development of distance education project in the period 2005-2010 was approved through Decision No. 164/QD-TTg issued 4th Jul 2005. Besides, Decision No. 698/QD-TTg issued 1st Jun 2009 approved the master development plan of IT human resources until 2015 and orientations to 2020.

#### 2. 4 Pedagogical Factors

Crumpacker (2001) emphasized that to make the shift in the pedagogical approach successful, the role and attitude of the teacher and the learner has to change, as e-learning requires new skills, training and development. This was also reiterated by Crowne (2009): It is about giving teachers a wider range of pedagogic skills to exploit the potential of technology - and ensuring they have the right support and development to meet these challenges. In order to make this transition successful, educational establishments have to look at their current pedagogical approach to distance learning and will have to invest in a change of their course design, teaching strategies/styles and technological resources.

Björke et al (2003) support the change and explain that in order to meet the pedagogical approach and the challenge of distance learning; the new approaches have to include the integration of the nature of goals, tasks, resources, roles, pacing and social structure. At the same time, the learners' approach will have to change, as the learner will be required to become a more dynamic participant. Meaning that individual learners will be expected to discover, build upon, implement and substantiate their acquired knowledge throughout the learning process. This is reiterated by Curzon

(2004, p. 105) using Bruner's (1966) notions of the learning process, thus: Learning is a cognitive process involving the learner acquiring new information, transforming his state of existing knowledge and checking the adequacy of that state of knowledge against the demands of the situation... We learn best, not by committing a body of knowledge to mind, but by participating in the process that makes possible the establishment of knowledge. Knowledge is a process, not a product. Again, the Home Access programme will be a positive step towards changing learner attitudes and will enhance teaching and learning, as students will become more independent learners. Prior to e/m-learning this was only achieved via active interaction and social collaboration with others, Crumpacker (2001). The above explains the principles and methods of instruction and demonstrates the changes and attitudes that are required of the individual learners, so that pedagogy can take its place within the e/m-learning environment. Consequently, the analysis section will compare the findings with the literature review to pedagogy. However, as already identified, the successful implementation of pedagogy would not be possible without the individual tutors. This requires tutors to receive and/or attend training seminars to enhance their knowledge and understanding of pedagogy in an e/m-learning environment. Completed CPD will then supply them with the appropriate tools to make a change to their course design, teaching strategies/styles and provide an opportunity to acquire the appropriate resources.