UNIVERSITY OF CAPE COAST

INCREASING ACCESS TO HIGHER EDUCATION FOR TEACHERS IN GHANA THROUGH THE UNIVERSITY OF CAPE COAST DISTANCE EDUCATION PROGRAMME

BY

PRISCILLA OBIRIBEA-ADDO

DISSERTATION SUBMITTED TO THE INSTITUTE FOR DEVELOPMENT STUDIES OF THE FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF CAPE COAST IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR AWARD OF MASTER OF ARTS DEGREE IN HUMAN RESOURCE DEVELOPMENT

MARCH 2010

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature:……. Date:……...……

Name: Priscilla Obiribea-Addo

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature:…… Date:……...……

Name: Dr. E. K. Ekumah

ABSTRACT

Distance education is an excellent method of learning which gives learners the greatest possible control over the time, place and pace of education. However, it is not without problems. This study examined the status and growth of distance education programmes at the University of Cape Coast (UCC). It also examined the significance as an alternative to attaining higher tertiary education, strengths, weaknesses, opportunities and threats as well as the concerns of learners on the programmes.

The explorative and descriptive surveys were the designs chosen for the study. A sample size of 209 was considered out of a population of 1210 and with a simple lottery method the respondents were selected. Data were collected from both field and secondary sources. The primary data was collated through structured and unstructured questionnaire for students and interview schedule for the key informants (coordinators and DESAG representatives) while the secondary source of information was from documents. The field data were analysed using Statistical Product and Service Solutions (SPSS).

The study revealed that the UCC distance education is of great importance to the competence development of teachers who enroll on the programmes. Nonetheless the challenges students face during the course of their study should be given attention. Students on the programmes recommended among other things to the authorities of the University of Cape Coast that all effort must be made to sustain the good standard of the distance education programmes.

ACKNOWLEDGEMENTS

The success of this research is due to the encouragement and support I had from some individuals. I wish to register my gratitude to my supervisor, Dr. E. K. Ekumah for his guidance through all the phases of this work.

I will express my greatest debt of gratitude to my mentor Dr. Francis Enu-Kwesi (IDS) and Mr. Alfred Martey (Immediate Past Liberian, UCC) for all the trouble I gave them. Also to all others who in a way or the other have contributed to the completion of this work I am grateful.

I also desire to extend my indebt gratitude to Mr. Daniel Obuobi (Computer Centre, UCC) and Auntie Mildred (formally of exchange, UCC) for contributing to the genesis of my university education.

DEDICATION

To my parents (Mr. and Mrs. Addo), my siblings (Lawrenda, Solomon, Abigail and Ebenezer), nieces (Jillian and Vanessa) and nephew (Jerrel).

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

CCE	-	Centre for Continuing Education
EOLSS	-	Encyclopedia of Life Support Systems
FTF	-	Face to face
OECD	-	Organistion for Economic Development and Cooperation
PCK	-	Pedagogical Content Knowledge
SWOT	-	Strengths, Weaknesses, Opportunities and Threats
T:A:S	-	Teacher: Asynchronous: Students
T:S:S	-	Teacher: Synchronous: Students
UCC	-	University of Cape Coast
UNESCO	-	United Nations Educational, Scientific and Cultural Organisation
USDLA	-	United States Distance Learning Association

CHAPTER ONE

INTRODUCTION

Background to study

The era of knowledge-based society has internationally prompted human capital building to be viewed as critical factor of economic and democratic development that determines the competitiveness and fate of a nation. This represents a vision of relationship between individuals and society regarding their capabilities and capacities for sustainable economic development which result in policy change of environment that many nations strive to develop human resources and knowledge at the national level. The existence of increased growth in population and deep income inequality create demands on the physical environment and its resources.

The disproportionate investment in human education resources also hinders people from accessing higher education. Like many developing countries, Ghana is also characterized by wide gaps in wealth distribution, with 20 percent of its population functionally illiterate and living below the poverty line. Distance education, therefore, could be used to help train Ghanaian citizens. Indeed imbalances and inadequate educational infrastructure at the disposal of the university make it impossible for adequate intake of more qualified students to be realised. For this reason, governments worldwide are promoting more and more

the use of open and distance learning; a complementary approach to traditional educational structures to meet new and changing demands for education. It is also to limit, possibly the long-term effects caused by insufficiency in resources (infrastructure, lecturers, and equipment) available and the uneven distribution density of education witnessed in the geo-demographic of Ghana.

The challenge of continuing education and human development for teachers needs the versatile existing resources as supplement to enhance their knowledge base (Centre for Continuing Education, 2006).This requires distance education to fill the gap of equitable access to education by all. For that reason entry points to learning, training and retraining opportunities for personal enrichment, balancing inequalities between geo-demographic groups is improved. The continuing professional development enables teachers to expand knowledge base. Some professional development takes the form of long structured courses leading to formal qualifications (diploma's or bachelor's or master's degrees). Other forms are shorter and concentrate on skills in managing children's learning or curriculum change. This does not lead to additional qualifications. In some countries, qualified and unqualified teachers alike participate in continuing professional development.

The wake of development compels the principle of equal opportunities for individuals who require access to education in all walks of life. Although there is wide recognition that teacher education, training and professional development need to be integrated to optimise lifelong learning in response to challenges continuing teacher education experiences. In using a variety of technologies, the

resources allocated are usually inadequate and opportunities too few. The successful expansion of distance education provision has ensured lifelong combination of education with work and family life. One major advantage for combining work and study is that people continue to contribute to the economy by way of work and payment of taxes. It is perhaps cheaper to train people by way of distance education than to provide full time training at considerable cost. The distance education programme plays a crucial role as it caters for the requirement of those who are on the job, helping the economic development of a country in meeting it human resources development efforts and needs. Generally, an increase in students' numbers has not been matched by a similar increase in public funds. For this reason new approaches and efficient methods of teaching and learning have become crucial.

Distance education represents an approach that focuses on education and training, freeing learners from constraints of time and space and offers flexible learning opportunities to individuals and groups of learners (http://unesdoc.unesco.org/images/0012). It provides additional means to reach students in different geographic locations. These may be students with individual needs, family and work responsibilities. It is also for others who need to update their knowledge and skills for their current and future careers. The distance education programme is acquisition of knowledge and skills through mediated information and instruction. It encompasses all technologies and other forms of learning. It plays a complementary role to the traditional education given to individuals' for development. The learning and training opportunities transcend

geographical barriers and contribute in widening access to higher education. The most valuable resource in the world is not gold, oil, any unique mineral, but the people and the development of their human competencies. These are of great commercial value to a nation.

The University of Cape Coast is an institution established in 1962, to primarily train graduate professional teachers for the country's second cycle institutions and assist in meeting the manpower accelerated needs of the nation at the time (University of Cape Coast, 2003). Its mission is to produce highly qualified teachers with opportunities to promote upgrade the quality and output of teachers and also to train and raise the professional competence of serving teachers at all levels of education in the Ghana Education Service. Its inception has not realised the desired objectives due to a number of problems. Paramount on the list of the problem is financial constraints. This has lead to pressure on the available resources hence the inception of distance education to assuage the problem. It has long been recognised in Ghana that the conventional or traditional campus based education system can no longer cope with the extremely high demand for higher education. The advent of distance or continuing education and its allied technology, now makes it possible for students to stay in the comfort of their homes and pursue higher education at their own pace with maximum time convenience.

The demand for teachers at the basic schools has outstripped its supply (Centre for Continuing Education, 2006). This made the Ministry of Education to adopt measures to improve upon teachers' instructional efficiency. The level of

competence of teachers' knowledge, skills, and attitude as they get higher education through distance education programme can be realise. A policy formulated by the Ministry of Education for the implementation by the Ghana Education Service was aimed to train teachers to acquire minimum qualification of diploma (http://www.educatejournal.org). This raised a question of how the over two hundred thousand basic school teachers in the public and private schools who predominantly hold the teachers' certificate 'A', obtain diploma. Worse still, several teachers in the basic schools are disillusioned about the teaching profession due to limited opportunities for self-development, academically and professionally. It is a fact that education and training leads to quality life.

An enthusiasm for education and arrival of knowledge information society has increased the demand for continuing education. By the principle of equal opportunities for every individual access to education for the non-traditional student should be encouraged at all level. The distance education programme strategy has been designed to meet the criteria of feasibility, affordability, high skills and flexibility. It is to complement the traditional delivery of education and increase expectations about corporate social responsibility in a wide variety of values and morals at the workplace Garrison (1990).

The Centre for Continuing Education (distance education) is a department under the Faculty of Education at the UCC. It has a staff strength of about seventy-five made up of the Director, supporting staff of Senior Members (Senior Assistant Registrar, Chief Accounting Assistant and Coordinators: Unit and Regional) with perspective responsibility including assessment, examination,

academic affairs, etc and Other Staff: Senior and Junior caliber (University of Cape Coast, 2009). The hierarchy of Figure 1 shows the line of authority at the Centre for Continuing Education.

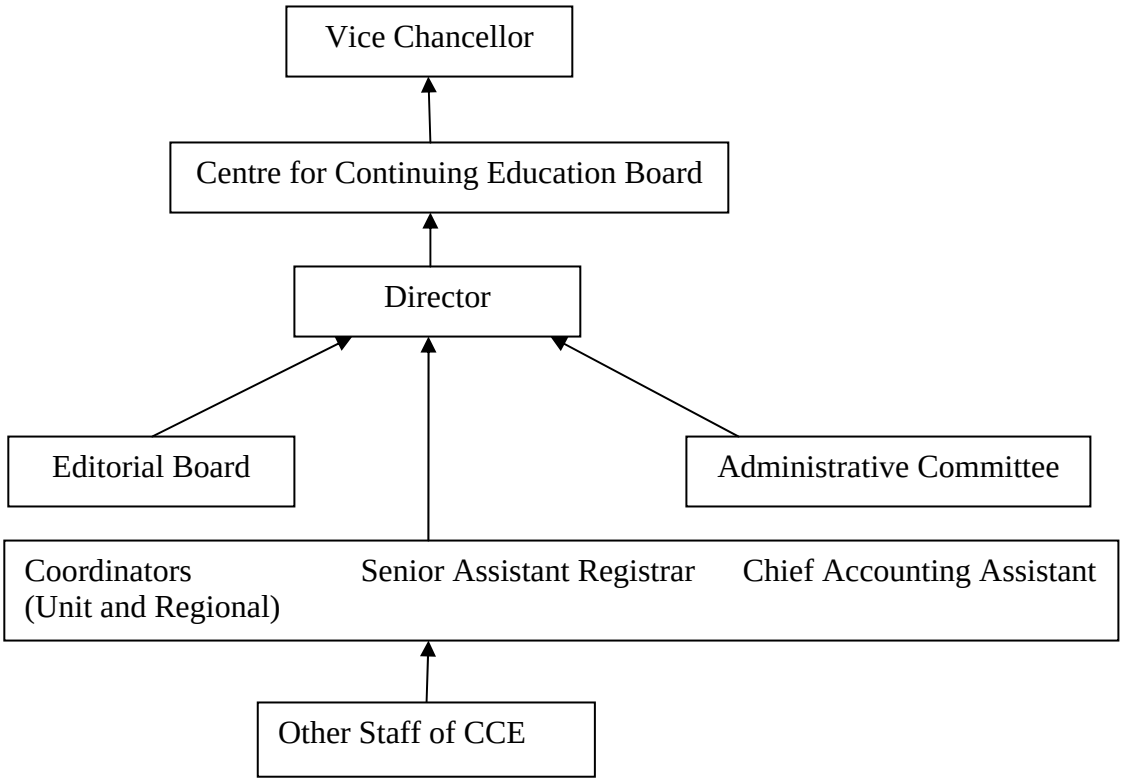

Figure 1: Organisational structure of CCE-UCC

Note: There is the need for constant interaction and consultation with the Director, Regional and Unit Coordinators.

Source: Author's construct, 2009

Since 2001, fresh students are yearly admitted to read either education programme or a business programme of commerce or management at the University of Cape Coast. The department has 21 study centres for the education programme, situated in all the ten regional capitals and some district capitals.

There is a learner support service in the form of tutorials at weekends in all 21 study centres around the country for the distance learners (Centre for Continuing Education, 2006). Students attend these tutorials to address difficulties in the course of the study of their modules. There are also revision and examination sessions. Supervision of tutorial sessions and assessment in the form of quizzes are administered to students at the centres. These are carried out by staff from the university who visit students' centres at each weekend of their FTF, every forth-night for each year group and assess them against standardized performance-based assessment criteria of quizzes conducted. Continuous assessment of three tests and the best two assessed constitute 40% of the final grade, examinations runs for 60%.

Statement of the problem

A developing nation like Ghana has a youthful and growing population that needs to be trained to attain knowledge for the development of the country. One way by which this knowledge can be attained is through making higher education equitable and accessible to the wider growing population. Most of the universities in Ghana are concentrated in the urban areas. Admittedly this does not mean that those in the rural or remote places are denied higher education but they do so at an economic cost with respect to transportation and accommodation thereby escalating poverty levels. These constraints do not motivate the rural folks enough to acquire higher education. It has threatened to make higher education look very much like a luxury rather than necessity. Even though it is easy to state

that universities should be established in the rural areas but there are inevitable challenges to contend with.

Surely in everywhere higher education is faced with great challenges. The challenges depend mainly on a political, social, technological, human, financial and infrastructural resource which makes conditions to access difficult (Amenumey, 2007:79). For economic reasons, most lectures leave for greener pasture leaving the burden of training on very few people in the educational sector of most developing nations, Ghana not being an exception. For this reason the University of Cape Coast finds it as a stakeholder's social responsibility to help alleviate the problem individuals' go through as they desire higher education. A relatively remote place like Jasikan in the Northern Volta, and Tumu in the Upper West Regions of Ghana would not have had more of its teacher population experiencing higher education had it not been distance education programme; because higher education is almost not in existence in these areas. By this, distance education programme, an alternative of the traditional form of education has evolved to restore dreams of these individuals'.

However, despite the university's success in bringing forth the distance education programme, there had been few challenges that need to be addressed. These are access to information other than the modules, inadequate course tutors for some programmes, a structure that needs to be decentralised to address administrative lapses, unavailability of permanent study centres and so the university spends considerable time locating a new centre each time they are evicted, inadequate distribution of information, and lack of strategic plan for the

Centre for Continuing Education at UCC for the distance education programme. These need to be addressed to bridge educational gap between the rural and urban folks. The focus of the study therefore seeks to explore and describe issues related to equity and accessibility of higher education regardless on the of race, gender, language, religion, age, economic, social distinctions or physical disabilities.

Objectives of the study

The main objective of the study was to examine access to higher teacher education through distance learning at the University of Cape Coast.

Specifically the study sought to:

- Examine the status and growth of distance education at the UCC.
- Conduct SWOT analysis of the distance education programme.
- Examine how the concerns of learners can be addressed.
- Recommend how distance education can be improved to meet the intended objectives.

Research questions

- What is the status and growth of distance education at the UCC?
- What are the internal strengths and weaknesses as well as the external opportunities and threats of the distance education programme?
- How are the concerns of individual learners addressed?
- What recommendations on distance education can bridge the gap for equal access to higher education?

Significance of the study

The study is conducted to ensure that access and equity of teacher education through distance learning at the University of Cape Coast can help numerous classroom teachers who desire higher education while they still back at school to teach their pupils. The study seeks to know the competency level of student teachers after completion of the diploma and degree programmes. It also identifies the strengths and possible weaknesses of the programme, and any weaknesses are corrected or eliminated whiles decisions are taken on what appropriate approaches and strategies are to be used in future to improve the programme. Hopefully, the findings particularly the strengths can go a long way to influence or strengthen policy in the Ministry of Education on participatory methodologies for human development.

Limitations

Under normal circumstance, the study should have covered the entire distance education programme in all other universities in Ghana. However, because of time and resource constraint, the study was narrowed to only study centres selected at the University of Cape Coast distance programme and no generaisation was attempted beyond this.

Organisation of the study

The dissertation is organised into given chapters. Chapter one gives overview of the study. It presents the background to the study, problem statement

and the objective. It also includes the questions the study answers and the organisation of the study.

Chapter two reviews the related literature on distance education, its benefits and associated challenges. Chapter three provides an overview of the research methodology, including the research design, study population, sampling procedure and procedure employed for collecting and analysis of the data.

Chapter four presents results and discussion. Finally, chapter five gives the summary of the study, major findings, conclusions and recommendations suggested for future research efforts.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

This review of related literature and current information related to distance learning deals with several primary issues pertinent to the study. It is made of issues regarding status and growth of distance education, SWOT analysis of distance education. Finally, the concerns of learners are considered.

Status and growth of distance education

Issues reviewed here include history of distance learning and education on a global perspective.

History of distance learning

According to Knowles, Holton and Swanson (1998), adults start to learn again when circumstances in life require additional learning. Learning, defined as the bringing about of change in the thinking process, resulting in the acquiring of knowledge or skills, is typically based on the teacher and student interaction and instructional process. In the field of non-traditional learning, open learning and distance learning are terms often used interchangeably, and literature abounds with overlapping terminology and conflicting viewpoints. Some propose that

there is no distinction between the two (Rumble, 1989). By that "distance learning is a sub-category of open learning" (Lewis & Spencer, 1986:17); others opine that "open learning is not synonymous with distance education" (Foks, 1987:74), a view echoed by Garrison (1990: 119) who states that, "open learning systems are not equivalent to ... distance education". There are significant differences between the two terms, although much modern usage blurs the distinction. Distance learning refers mainly to a mode of delivery; independent learning at a distance through the means of self-study texts and non-contiguous communication, while open learning includes the notions of both openness and flexibility; whereby students have personal autonomy over their studies and where access restrictions and privileges have been removed and distance as in independence from the teacher (Garrison, 1990).

Keegan (1990:44) identifies five main elements of distance education:

- the separation of teacher and learner,
- the influence of an educational organization,
- the use of technical media (usually print) to unite the teacher and learner and to carry educational content,
- the provision of two-way communication so that the student may benefit from or even initiate dialogue and
- the possibility of occasional meetings for both didactic and socialization purposes.

Keegan's formulation is a useful one (and one which appears to have been generally accepted by researchers, although one criticised by Garrison (1990), as

being too narrow) and is considered to be a suitable since the distance learning programme included these five elements. Distance education, in which the teacher is removed by time and place from the student (McIsaac, 1993), started out as an alternative to the classic educational process. It has been defined in the past and currently in the literature; the term can be used to describe any of a number of instructional situations. Although it is thought of as a new term, distance learning has been around for well over 100 years. One of the earlier forms of distance learning was done through correspondence courses started in Europe. This stayed the primary means of distance learning until the middle of the 20th century when instructional radio and television became more popular (Imel, 1996).

The mandates and shortages of teachers in rural schools produced a climate in the late 1980s conducive to the rapid development of distance learning (McIsaac, 1993). The term distance education or learning had been in wide use for several decades, but was coined at a time when the technological possibilities for distance instruction were more limited. Distance education originally involved the traditional, paper-based correspondence course where students worked independently, submitted assignments via mail and then waited for written feedback from a teacher. Over time, as new technologies emerged, distance educators developed new educational models. Early use of educational television included broadcasts of class lectures. Students could watch the lectures and then complete assignments for submission. Today, distance education has expanded to include a variety of educational models and media. As technology has changed, so has the definition of distance learning. Videotaped lectures have been a standard

in university and professional courses for the last two decades (Moore & Lockee, 1998). Audiotapes and lessons sent through the mail have been used in correspondence courses to teach subjects such as foreign language for quite some time (Teaster & Blieszner, 1999). Today, the Internet and compressed video have taken distance learning in new directions, allowing distance learning to occur in real time. Live video instruction is the most popular and fastest growing delivery mode in the United States (Ostendorf, 1997).

According to Morabito (1999), the growth of distance education is categorized into four generations: printed instruction, early technology, online instruction, and web-based teleconferencing. There are three different types of schools in higher education describing distance education. They are correspondence schools, open universities, and virtual universities (Klesius, Homan & Tompson, 1997). The benchmark of distance education was in the late 1980s, when computers became mass media as the Internet was spread. According to Webster (2002), computer technology started between 1945 and 1970 and it was mostly used in the field of big science and in national scale projects such as national defense and space exploration. It was gradually used in government, organizations, and schools, and most distance learning institutions added the Internet capabilities by the 1990s. In addition, new instructional methods based on computer technology (i.e. computer-based education, computer assisted education) were developed to improve students' learning environments for both conventional and distance education. In 1997, the University of South Africa which started distance learning programs in 1946 (http://www.unisa.ac.za),

started offering programmes from certificate to doctoral level degrees using instructional materials such as study guides, tutorial letters, audiocassettes, books, and the Internet services to help students with their learning (Morabito, 1999).

In a report by the United States (US) Department of Commerce on Computer and Internet use (2001), individuals continuously expand their uses of computers and the Internet. According to Dunn (2001), hundreds of university degrees and about 90,000 university-level courses are available online, and about two-thirds of higher education institutions offer at least some courses online. The development of online education improves instructional environments tremendously, not just for education systems but also for business organizations, providing courses, resources, and performance support systems. However, in many cases, interactivity of instructional materials and interactions between learners and instructors and among learners have been the biggest concern in online learning environments.

Currently, online information technology plays a major role in operating distance classes, reaching people worldwide. Online education changes the concept of time and space by allowing global access to education and more advanced tools to provide optimal learning environments for students. People form learning communities with shared interests such as computer groups and discussion groups have fruitful social interactions. In addition, virtual learning environments in which students act like they are in a real classroom are introduced and tested by many universities.

Moreover, traditional programmes tend to overwhelm its distance education components, and thus the pedagogies more relevant to face-to-face instruction and negate the power and effectiveness of its distance education components. Distance education should ideally, be premised on pedagogical models that best underpin that delivery and learning method. Litto (2001; 2002) determined that hybridization, that is the combination of face-to-face and distance delivery modalities, is nonetheless currently the best method to tap into distance education's potentialities. Indeed, experts in charge of distance education in Brazil tend to be "academics with only a theoretical knowledge of distance education. . ." with "their practical experience firmly rooted in the conventional face-to-face practices of the existing higher education institutions" (Romiszowski, 2005:6).

According to Savery and Duffy (1995), there are two factors that affect learners' attitudes toward learning: the familiarity with the instructional medium and their ability to make something meaningful out of the material presented. Savery and Duffy's (1995) research found that television proved to be mentally less demanding than printed text when comparable content was employed. When students do not make meaningful connection between instruction and their needs, it is hard for them to be motivated to learn. In recent years, there have been significant changes in the field of instructional technology. Instructional activities have been upgraded with the integration of various technologies. Online network systems, multimedia and artificial intelligence are integrated into online instructional modules. They empower instructional presentation, interactions

among individuals, students' engagement with a class and flexibility in time and space.

The 1996, the Instructional Telecommunications Council defined distance education as "the process of extending learning or delivering instructional resource-sharing opportunities, to locations away from a classroom, building or site to another classroom, building or site by using video, audio, computer, multimedia communications or some combination of these with other traditional delivery methods" (Gross, D. & Pirkl, R. 1994). Today's distance education encourages students to become active learners. The scope and target audience of distance education have been broadened as online technology became available. Information online helps people with their everyday lives. Online instruction makes the purpose and functions of education to be expanded from academic levels of learning to managing our general problems. Online based performance technology proposes effective and efficient solutions for performance problems in workplaces, replacing traditional training. Therefore, current trends suggest that distance education is replaced by online education.

Education on a global perspective

This is learning provided to improve performance on future job or to enable one to accept more responsibility, new assignments or both. It is a key to modernization and is necessary for success in opening markets (Sen Ammartya 1998). According to Horn (2002), to gain access to knowledge of mankind, education is necessary and starts at the beginning of the history of humankind.

Even though the International organizations and National government continually set new goals: gender parity, universal basic education by 2015, education in democracy, peace and social cohesion, multi-grade teaching, increased accountability for achieving learning targets, development of learners who are self-managing and independent- skilled in critical thinking and problem solving, equipped with life-skills, and the preparation of learners who are competent for knowledge-based economies, capable in the use of information technology, and the expansion of teachers' roles to include social work in communities as in many international reports (e.g. UNESCO 1998 & 2000; OECD 2001).There are still many teachers who are untrained, under qualified or teaching subjects in which they are not qualified or trained mostly at the basic level. Besides we need to raise the skills and knowledge of the existing million teachers whose needs are no longer fixed and familiar targets but moving ones.

The Dakar conference revealed that there were still more than 100 million children out of school who need teachers as the world moves towards the 2015 target of education for all. Teachers therefore need more opportunities than ever before to go on learning throughout their careers. One of the ways of strengthening the teaching profession is to use distance. In achieving 'Education for All' goals set in Dakar and at the Millennium Development Summit entails a commitment to embracing access, quality and equity in education in all forms and at all levels. It means ensuring that the digital divide does not further marginalise the poorest sectors of the population and finding creative, alternative paths to learning. Distance learning is fast becoming an accepted and indispensable part of

the mainstream of educational systems in both developed and developing countries, with particular emphasis for the latter.

This growth has been stimulated in part by the interest among decision makers, educators and trainers in the use of, and also by the recognition that traditional ways of organizing education need to be reinforced by innovative methods, if the fundamental right of all people to learning is to be realised. Many countries still do not have enough teachers just like Ghana for their basic level. In some, particularly the rural place, the expansion needed in the teaching force is far beyond the capacity. The supply of teachers is also adversely affected where retention rates are low for newly trained teachers or in rural areas which lack educational infrastructure and resource to recruit and retain teachers.

The need for training, retraining, and lifelong learning by professionals, demand that continuing education and staff development accommodate diverse learning environments, including the home, office or offsite conference room. It is a daunting task to maintain an educated, high-performance workforce in today's global economy through distance education, an alternative to traditional education to offer degree and diploma granting programmes, to battle illiteracy in developing countries, to provide training opportunities for economic growth. The adaptation of distance education for continuing education could be an effective way to supplement professional knowledge, transfer of new knowledge and skills. When considering the processes in human resource development, it seems obvious that traditional education methods are not suitable to meet all the new requirements and therefore substantial changes (“paradigm shift”) are needed,

towards more accessible, open, flexible, professional, cost effective, responsive education, which can meet the special needs of lifelong learning.

The education method, distance learning remains basically on the periphery of the human resource development sphere. It is generally agreed that if overall human conditions are to improve, there must be increase emphasis on human resources through education. By that ignorance is eradicated through acquisition of knowledge which is the cornerstone to development and everything is subject to change. This means empowering disadvantaged people to understand the quality of their community, take part in decision-making about issues and work environments to take action to remedy negative situations that concern their daily lives. As asserted by Kwegyir Aggrey “if you educate a man, you educate an individual but if you educate a woman you educate a whole nation” (*http://memorisze.com/quotes*). It can as well be related to it that an educated individual will result in the development of a nation and not the individual and his family alone. Individuals will not be able to make substantive contributions to their respective societies without access to training and education. It has become increasingly clear that the well-being of nations considered from both economic and social perspectives is dependent in large measure on the know how of its people (Ashton et al., 1999).

Distance education and its significance

Issues discussed are regarding distance education in the era of today and the significance of distance education.

Distance education in today's era

With the history of distance learning encompassing so many different learning environments, we need to find a definition that fits in all situations. There have been many definitions put forward in modern literature. Greenberg (1998:36) defines contemporary distance learning as "a planned teaching and learning experience that uses a wide spectrum of technologies to reach learners at a distance and is designed to encourage learner interaction and certification of learning". Teaster and Blieszner (1999:741) say "the term distance learning has been applied to many instructional methods: however, its primary distinction is that the teacher and the learner are separate in space and possibly time".

McIsaac (1993) also defines distance education as an alternative to the classic educational process in which the teacher is removed by time and place from the student. Keegan (1995:7) gives the most thorough definition and observes that distance education and training result from the technological separation of teacher and learner which frees the student from the necessity of traveling to "a fixed place, at a fixed time, to meet a fixed person, in order to be trained". From the above definitions we can see that the student and teacher are separated by space, but not necessarily by time. This would include compressed video, which is delivered in real time. As stated earlier, this type of live video instruction is the fastest growing means of distance learning today.

Moore (1973) introduced the theory of independent study. An important foundation of distance education, it suggests that successful teaching can take place even though teacher and learner are physically separated during the learning

process. While this separation can occur in several ways depending on the nature of the course content and delivery medium, this paper will not differentiate between non-traditional, electronically mediated (i.e. real-time, computer network or video teleconferencing) and traditional coursework (i.e., correspondence courses). Electronic mediated courses use telephone lines, cable, satellite, and microwave networks to transmit voice, video, and data. Most distance education programmes employ a combination of audiovisual media to facilitate learning.

As in the entertainment industry, audiocassette, telephone, radio, compact disc, television, video, computer and printed resources are used to deliver instruction. The mobility of today's workforce; the need for frequent skill upgrading of workers in geographically dispersed workplaces; the demand for equity of educational access for all citizens; the need for an educated public to sustain the process of commerce and democracy; and the overwhelming desire by highly individualistic for flexibility, options, and control of one's life make distance education a predictable development (Holloway & Ohler, 1991).

The distance education, or learning, is a field of education that focuses on the pedagogy technology and instructional systems design that are effectively incorporated in delivering education to students who are not physically "on site" to receive their education. Instead, teachers and students may communicate asynchronously (at times of their own choosing) by exchanging printed or electronic media, or through technology that allows them to communicate in real time (synchronously). Various definitions have been suggested in defining distance education, depending on the emphasis of characteristics in delivery and

instructional methods. Moore and Kearsley (1996) describe distance education as a planned learning by using special techniques and methods for designing and delivering instruction. The California Distance Learning Group defines it as a process of learning at a distance by connecting learners and educational resources. The USDLA (United States Distance Learning Association) in 2008 explained distance education as a way to acquire knowledge and skills through mediated information and instruction that is transferred by any types of technologies or learning medium at a distance (*http://www.education dynamics.com)*.

Keegan (1986) describes distance education as "noncontiguous communication between learner and teacher mediated by print or some form of technology." While most previous definitions focused on instructional medium and recent definitions tend to be more specific, dealing with the accessibility, functionality and utility of learning systems. Distance education became significant because of its divergence from the common centralized school model by bringing the school to the student instead of sending the student to the school. Likewise it has become successful because it filled a need generated by an increasing number of nontraditional students. In effect the potential audience for distance education is much more varied and much larger than any educational establishment estimated; needs for nontraditional students based on the rapidly changing world around them. The increased mobility of the work force and the need for upgrading skills and knowledge to remain current with newly emerging technologies requires a flexible and efficient form of education that can react quickly to the changing needs.

Illeris (2003) suggests that lifelong learning does not only have a quantitative focus on more learning for people, but also suggests that individuals need to respond to on-going social changes. The increased stresses of today's workplace that include misunderstandings and conflict can allow people to get along in the workplace through training and development. The distance education provides an alternative but equivalent route to higher qualifications for primary teachers where conventional university education output cannot meet demand. Its courses and qualifications are equivalent to those of conventional students. The human competence defined as potential to achieve valued accomplishments primarily from an economic perspective, is whereby individuals improve their competence to improve performance and productivity in organizations (Gilbert, 1978; Jacobs, 2001). However, there is a larger focus of competence to participate in civic society or competence to engage in social action, which is important particularly from an education perspective.

Significance of distance education

Distance education is broadly defined as any formal instructional approach in which the majority of the instruction occurs at a distance (Grimes, 1993). In preparing to enter the next century, educators face the challenge of serving a student population and society that is increasingly diverse. Moving into the next century, the students' learner population is expected to be the fastest growing segment of higher education. Cantelon (1995), notes that "... most of higher education will take place off-campus through technological methods of delivery.

While distance education is already a fact of life for most universities and an increasing number of community colleges, knowing the intrinsic problems and overcoming them will be critical to successful implementation of distance programmes on a larger scale in the future.

Figure 1

The Four Square Map of Distance Education Technology Options
(Adapted from R. Johansen, et. al. 1991, p. 16)

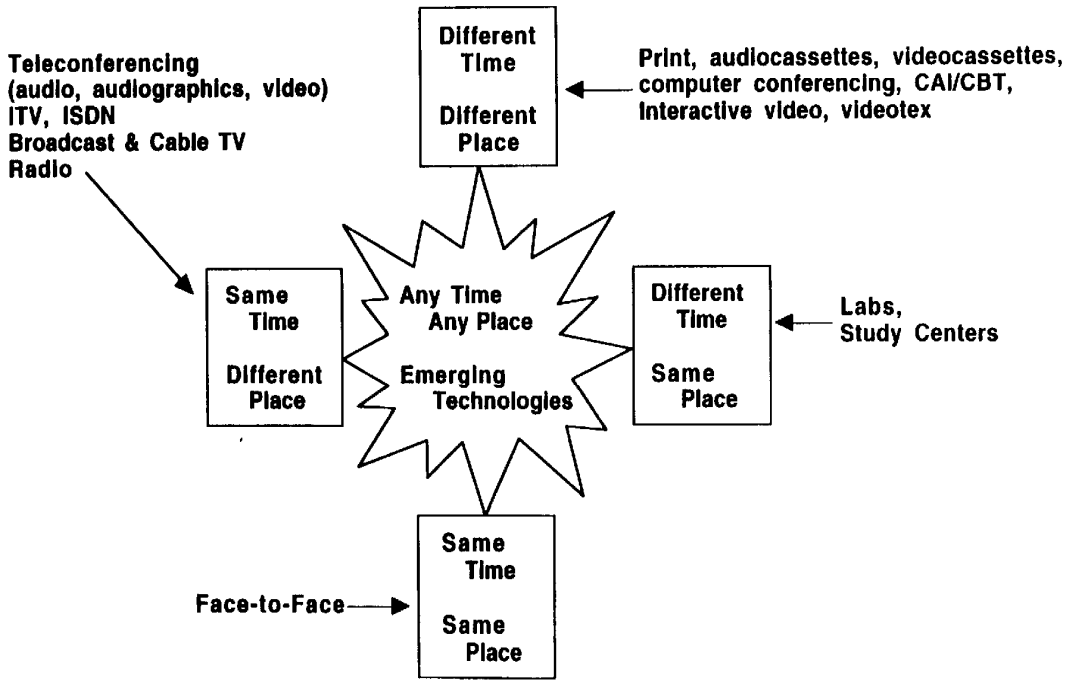

Figure 2: The four square map of distance education technology options

Source: Adopted from Jonassens, D. H., Davidson, M., Collins, M., Campbell, J. & Haag, B. (1991:1)

In distance learning students and teachers find themselves playing different roles than is the norm in traditional education. The teacher is no longer the sole source of knowledge but instead becomes a facilitator to support student

learning, while the student actively participates in what and how knowledge is imparted. More than any other teaching method, distance learning requires a collaborative effort between student and teacher, unbounded by the traditional limits of time, space, and single-instructor effort.

SWOT analysis of distance education

The issues of interest discussed are strengths and weaknesses of distance education as well as the potential, prospects, and promises of distance learning.

The strengths and weaknesses of distance education

Distance learning, like any kind of learning, can serve different ends, but distance learning appears mainly to serve those who cannot or do not want to make use of classroom teaching. Demanding professional commitments and family responsibilities of many adults often make attending a conventional, full-time, face-to-face course with fixed timetables a rather unrealistic proposition and the reasons why adults choose distance education are primarily "the convenience, flexibility and adaptability of this mode of education to suit individual students' needs" (Holmberg, 1989:24). All learning requires a degree of motivation, self-discipline and independence on behalf of the learner but these aspects are arguably more pertinent in the case of distance learning, where the student is largely self-directed and unsupervised and expected to be more autonomous. Threlkeld and Brezoska (1994:53) state that "maturity, high motivation levels,

and self-discipline have been shown to be necessary characteristics of successful, satisfied students".

Distance study is self-study but the student is not alone. As Holmberg (1989:27) describes it, "A kind of conversation in the form of two-way traffic occurs through the written or otherwise mediated interaction between the students and the tutors and others belonging to the supporting institution". Holmberg goes on to state that, "conversation is brought about by the presentation of the study matter if this is characterised by a personal approach...and causes the students to discuss the contents with themselves". Such a development can be brought about by a readable style of presentation. The issue of course materials is directly relevant to the current study. Kirkup and Jones (1996: 277) believe that the success of distance learning courses "cannot be assumed". Sharp cut-off dates for tutor-marked assignments, rigidity of learning content and materials and inflexible learning structures are all common in distance education systems (Keegan, 1990), and are factors which clearly will not meet the needs of all learners. Kirkup and Jones (1996) summarise the most significant weaknesses of distance education as (a) its inability to offer dialogue in the way that conventional face-to-face education does; (b) the inflexibility of its content and study method; and (c) the isolation and individualisation of the student.

The potential, prospects and promises of distance learning

Many of the promises of distance learning are financial in nature. Universities hope to save money by delivering education to students that are

unable to attend classes because of time or distance. The theory is that class size increases while the overhead remains the same. Bollag and Overland (2001), note that developing countries are turning to state run distance education programs to take the place of ever increasing enrolments and a lack of physical building space. Places such as Beijing, Jakarta, and South American countries such as Brazil and Argentina have all begun to use distance learning techniques to reach those that would by any other means be unreachable. China is moving from elite to mass education and its traditional universities cannot meet the demand. China uses a radio and television delivery system to serve 1.5 million students, two-thirds of which are in degree programmes.

In Australia, certain universities use compressed video conferencing to reach remote students in Western Australia and to enhance classes in Business Studies by connecting with students in Singapore. Other examples can be found in the United Kingdom (UK) and Norway where several sites have been linked together (Keegan, 1995). Of course there is also wide use in the United States, both in the public and private sectors. It should be obvious by these examples and by the definition of distance learning, that it can meet the promise to deliver classes to a geographically broad and diverse population. Not only that, but the need seems to be strong for such programmes. According to the American Council on Education (2002), the number of students in distance learning doubled from 1995 to 1998 totaling 1.6 million (Dervarics, 2001). Many Universities are feeling the pressure to control their costs, improve quality of instruction, focus on customer needs and respond to the competitive pressures (Horgan, 1998).

Distance learning technologies have the potential to assist in solving these problems. Basom and Sherritt (1992) surveyed higher education administrators and state politicians to find out what they thought would be the major problems facing American higher education in the next millennium. The answers they most often received were: "meeting increased demands at a time of decreased resources, increasing or maintaining access, using technology more efficiently and sharing resources across state lines so that colleges won't have to be all things to all people". Distance learning seems to address all of these issues. Administrators hope that distance learning methods will help make higher education more cost-effective (Dibiase, 2000). This type of answer may be seen as a quick fix for many administrators. If not approached seriously however, the distance programme can quickly become second rate.

The convenience of time and space is a big promise made by distance learning. Students do not have to physically be with the instructor in space, and depending on the method used, they do not have to be together in time as well (Peters & Keegan, 1994). This is a great advantage for non-traditional students who cannot attend classes at regular times. Satellite campuses such as the ones Arkansas State University had recently opened and are drawing out a "hidden market" of adult students in small towns and recent high school graduates who don't want to go away to a bigger city to get an education. The satellite campuses could conceivably help the school's enrollment to grow tenfold (Savoye, 2001).

In efforts to meet the new demands, open and distance learning may be seen not only as a complementary but also as an alternative method of providing

education and training, compared with the ‘conventional’ face-to-face method of most educational systems. Its benefits can be evaluated based on mainly technical, social and economic criteria. To the learner, open and distance learning means more open access and thereby a wider range of opportunities for learning and qualification. The barriers that may be overcome by distance learning include not only geographical distance, but also other confining circumstances, such as personal constraints, cultural and social barriers and lack of educational infrastructure (Amenumey, 2007). It is often cheaper to the student as an alternative to pursuing a course through conventional methods. It is important that education and training may be combined with work, since many people cannot afford to leave their work. Open learning also means a more learner-centred approach, allowing greater flexibility and choice of content as well as organization of the learning programme. For employers, open and distance learning has several advantages. It offers the possibility of organising learning and professional development in the workplace, which is often more flexible and saves costs of travel substantially (Bullen, 1996).

The use of distance learning often puts both the firm and employees in a position of co-investment (of money and time) in order to pursue common goals, based on shared values and culture (Jacobs, 2001). It increases productivity and supports the development of communication and other work-related skills. With sufficient numbers of employees being trained, open and distance learning is usually cost effective. Other advantages for the employer include the increased availability of the employee during the course of the training programme and the

portability of training programmes and processes. The advantages to learners and employers are important features from the perspective of governments. Traditionally, governments have introduced distance education provision in order to:

- increase access to learning and training opportunity
- provide increased opportunities for updating, retraining and personal enrichment
- improve cost effectiveness
- support the quality and variety of existing educational structures
- enhance and consolidate capacity.

Today, there is an increasing recognition of the place and role of open and distance learning as an element in any national system of education and training (Berge, 1998). Some of the potential roles are seen as: balancing inequalities between age groups, extending geographical access to education, dealing with educational campaigns and regular education for large audiences, providing speedy and efficient training for key target groups, providing education for otherwise neglected populations, expanding the capacity for education in new and multidisciplinary subject areas, offering the combination of education with work and family life, developing multiple competencies through recurrent and continuing education, enhancing the international dimension of educational experience, and improving the quality of existing education services (Rumble, 1989; Ljosa, 1992).

The last two decades have seen considerable growth in education and training. But the world still suffers from intolerable inequalities at the international level and sometimes within nations. Many countries are struggling with limited access to education and training for children and young people, and at the same time have to address the basic needs of an older generation. At the root is often the problem of financing adequate provision of education and training. The rapid development of information and communication technologies and the move towards a more knowledge-intensive, interdependent society create new challenges and opportunities for the design and delivery of education.

For the student or learner open and distance learning means increased access and flexibility, as well as the combination of work and education. It may also mean a more learner-centered approach, higher quality and new ways of interaction. For employers it offers high quality and often cost-effective professional development in the workplace. It allows upgrading of skills, increased productivity and development of a new learning culture. In addition, it means sharing of costs, of training time, and increased portability of training. For governments the main potential is to increase the capacity of education and training systems, to reach target groups with limited access to conventional education and training, to support and enhance the quality and relevance of existing educational structures, to achieve more cost effective education and training and to promote innovation and opportunities for lifelong learning.

Concerns of learners

The issues discussed here include students' satisfaction and concerns of students. With student satisfaction, Garrison (1990:103) states that, "the majority of distance education is concerned with meeting the educational needs of adults", and Holmberg (1986:123) states "distance teaching will support student motivation, promote learning pleasure and effectiveness if offered in a way to make the study relevant to the individual learner needs". Defining and categorising adult learners' needs is, though, a difficult task. Distance education offers students an opportunity to "study and learn in a peer-free environment, when and if they prefer it" (Verduin & Clark, 1991:27), while also providing support during the learning experience in terms of guidance, planning and feedback that is necessary for continued student motivation and completion of the course.

A review of the literature demonstrates that while there is no significant difference in achievement levels between distant and traditional learners, there is "considerable variance in student attitudes and satisfaction levels" (Johnstone, 1991, cited in Threlkeld & Brezoska, 1994:49). Student satisfaction in distance education has been examined by a number of researchers (Beare, 1989; Hilgenberg & Tolone, 2000; Jones, 1992; McCleary & Egan, 1989). One of the most common problems of many distance learning courses is the limitation of dialogue between teachers and learners, and amongst learners themselves. As Kirkup and Jones (1996) state "Students need dialogue with their teachers and with other students in order to consolidate and check on their own learning". Chen

(1997) supports this view, finding student-instructor dialogue an important factor in distance learning. Furthermore, dialogue allows students to assess their learning and develop a sense of community with other students (a measure that can counter the effects of isolation often experienced by distance learners) and also allows the institution to assess its teaching objectives and see if they are being fulfilled.
Not all students are suited to this type of learning and not all subjects are best taught via this medium.

More mature students are the most likely to find success with distance learning. The successful student needs to have a number of characteristics such as tolerance for ambiguity, a need for autonomy and an ability to be flexible (Threkeld & Brezoska, 1994). Hardy and Boaz (1997:43) found that "compared to most face-to-face learning environments, distance learning requires students to be more focused, better time managers and to be able to work independently and with group members". Many distance learners are different from traditional undergraduates in that they are already in professions. They have well defined goals and are more motivated (Dibiase, 2000). As discussed earlier, distance education students need to feel a part of a community, Greenburg (1998) describes this as a virtual learning community.

Students in these communities often feel less pressure to perform individually and more pressure to collaborate and be part of the team (Kantor, 1998 cited in Greenberg, 1998). Being involved in a collaborative learning process is an important part of forming the foundation of a learning community. When this is not encouraged, participation is generally low and dialog is absent

(Palloff & Pratt, 2000). Students also need the attention of the instructors. This may be truer in a distance situation than in a traditional classroom. In a situation where eye contact and proximity are limited, students cannot be disciplined nor affirmed by eye contact and body language (McKnight, 2000). Students may also have a difficult time reading the reactions of the remote location class members. This lack of interaction can cause problems when there is a dissenting opinion that cannot be picked up on with non-verbal cues and is misperceived as a verbal attack. This type of miscommunication can cause the community problems as the class progresses. It is fair to say that compressed video can magnify the strengths and weaknesses of the instructor. Students are prone to pick up on a lack of organization, direction and respond with apathy and absenteeism (West, 1994).

Learning models and concepts of distance education

Until just a few years ago, distance education was conceptualized as involving a teacher (T) interacting asynchronously (A) with a single student (S). Separated by distance, the teacher and student engaged in a structured two-way exchange (Keegan, 1986, 1993; Moore, 1973; Moore & Kearsley, 1996; Peters & Keegan, 1994) mediated by print and electronic technologies (T:A:S:1>1). Wedemeyer (1981) emphasized the independence of learner action within this model and Keegan (1990:44) specifically excluded the learning group as a primary context for distance education learning and teaching, although he acknowledged the possibility of "occasional meetings for didactic and social purposes". This model of learning was adopted in university correspondence or

independent learning courses in the United States at the turn of the 20th century and was expanded dramatically with the development of open universities in the latter half of the century. In the United Kingdom, Europe, Australia, New Zealand and many other countries, print-based materials, audiocassettes and other learning resources were used to create a common framework for learners to access university courses and degree programmes at times and schedules convenient to learners.

Over the past two decades, a large number of countries, especially those with higher education systems unable to meet the burgeoning demand created by rapidly growing populations and economic circumstances, have responded to the demand by creating open universities based on the independent learner model. As noted many of these universities have very large enrollments, in the hundreds of thousands (Daniel, 1996). This development led Peters to suggest that distance education could be described as an industrial form of education, where mass distribution, standardization, division of labour and assembly-line procedures were defining characteristics (Peters & Keegan, 1994). Referring to the development of national open universities, Evans (1999) called these focused efforts “single-mode” distance teaching universities, in contrast to single-mode campus-based universities or the mixed-mode universities described by Rumble (1986).

In the United States, Thomas Edison (New Jersey) and Empire State (New York) were created based on the concept of offering degrees using the T:A:S:1>1 model. Until the past decade or two, other more established universities in the

United States offered courses but usually not full degrees using this model. In Australia and New Zealand, on the other hand, many campus-based universities long ago started offering full degree programmes at a distance using the T:A:S:1>1 model; these universities were known as dual-mode institutions, reflecting the fact that they offered degrees both on-campus and at a distance. The term *dual-mode* has gradually been supplanted in Australia by *flexible learning* but the structures of the universities have remained largely unchanged (Evans, 1999). From a policy perspective, this model fit well within traditional universities in that it involved little change in curriculum, placed minimal demands on faculty and could be budgeted in such a way as to be self-sufficient. The model relies upon intrinsic independent learner motivation for success (Holmberg, 1989; Keegan & Holmberg, 1983). For example, the University of Wollongong defines flexible learning as allowing the duration and intensity, place, method and delivery medium of the instruction to reflect the learning objectives, the needs of the student, the subject and course requirements, and the judgment of the teacher (http://cedir.uow.edu.au/NCODE/info/definitions).

Some scholars have argued that low completion rates occur because adults have targeted learning goals other than course and degree completion (Wedemeyer, 1981). However, it is also the case that, from a program financial perspective, low course completion rates have resulted in greater institutional profit per student served and such financial reinforcement of negative outcomes acts as an unfortunate disincentive to rectify this weakness of the model.

In a more recent type of distance education programme, a teacher (T) is connected synchronously (S) with students S2 in remote locations (T:S:S2:1>S2). The most common form, prevalent in the United States, involves connecting a teacher with off-campus learners via audio-conferencing, video-conferencing, or computer-conferencing at scheduled times. Very often, especially when video connections are used, students still travel to a central location, such as a community site or an educational centre, to access the technology and to meet with other students. Yet this requirement is rapidly changing as systems become more robust in their connective capabilities and technology access in homes and businesses improves. Both of these traditionally structured types of distance education and the associated pedagogical strategies are heavily dependent on teacher-directed instructional goals and activities and have become quite limiting as the Internet and the Worldwide Web have developed. Indeed, they still largely represent Schlecty's first dimension of change, that of the adoption of procedural changes that alter how the task of teaching is accomplished. Although the T:S:S2:1>S2 model has been effective in addressing the issues of completion rates and course comparability, its requirement that students meet together in real time presents a serious impediment for many busy adult students.

A third set of distance education models are currently being developed. In these models, students are dynamically connected through the Internet and other advanced technologies with each other, with faculty mentors and with institutional academic support structures in ways not imagined just a few years ago and the available choices regarding pedagogy, technology, culture and

strategy are becoming increasingly complex and blurred. Students are provided with continuous and regular opportunities to interact with each other and with the teacher but to do so asynchronously. The teacher (T) is connected asynchronously (A) with students (S2) who are able to interact with both the teacher and with other students around collaborative discussions, assignments and team projects (T:A:S2:1>S2).

In these emerging models, what is on-campus and what is off-campus in most traditional institutions is growing more difficult to discern and independent learning is increasingly mixed with collaborative learning (Hanna, 2000). Technologies are also rapidly converging, so that video, audio and print are all coming together through the Web in support of learning and access to these advanced technologies is growing (Dede, 2000; Graves, 1997). Even today, however, whether learners in online Web-based courses are required to interact only with their instructors or also with other learners is a point of distinction between instructors and between organizational models that are in place or under development at many universities (Hanna, Glowacki-Dudka, & Concei¸c˜ao-Runlee, 2000). In fact, this may emerge as a singular point of distinction between degree programs and courses offered at a distance, which otherwise will likely become more and more similar from one institution to another in the areas of technology employed, modes of access, services provided and content delivered.

CHAPTER THREE

METHODOLOGY

Introduction

The issues discussed in this chapter include the research design, population, sampling techniques employed, instruments used for data collection and analysis of the data collected. The statistical methods employed are also described.

Research design

As the aim of the study focused on addressing issues in a relatively new area, it was found appropriate to use an exploratory and descriptive survey. The study was non interventional and relied on a cross section of the population. A vivid and critical analysis of the situation considering the nature of research problem and purpose of study design were considered.

Descriptive survey was appropriate when the researcher wanted to describe some aspect of population by selecting unbiased samples that completed questionnaires and interviews. According to Osuala (1987), descriptive survey interprets, synthesises and integrates data by pointing out implications and relationships. The greater advantage of the descriptive survey design was its potential to provide a lot of information from quite a large number of individuals.

Babbie (1990) recommends that descriptive survey is for purposes of generalising from a sample to a population so as to make inferences about some characteristics or behaviour of the population. Gay (1992) and Fraenkel and Wallen (2000) agree that a descriptive survey involves the collection of data through the use of questionnaire. The survey was useful in investigating problems of the demographic information, opinions etc. Pilot and Hungler (1995) explains descriptive survey as primarily describing, observing and documenting aspects of a situation as it naturally occurs rather than explaining the situation. Descriptive events or actions were observed and reported (what is going on?). Of course, the quality of the observations is crucial, as well as the issue of generalization. This design was employed because of its flexibility and a wider range of the population that it could cover for the study.

Exploratory research design is a method often used when the problem is unclear or the subject is new to researchers (Selnes, 1997). This is best suited for formulating problems, hypotheses and clarifying terms to give better insight and understanding of a given area. Exploratory research design forms the basis of subsequent, conclusive research design methodologies namely descriptive or causal design. While exploratory design does have its strengths, its main weakness lies in its inability to specify relationships between variables and their lack of representativeness of facts, that their findings are very rudimentary (basic). This owes to the lack of theory and insight into the nature of the problem. The strength is high internal validity and “the researcher is the primary instrument

for data collection and analysis" (Merriam & Simpson, 1995). The study used particularly offers a greater opportunity to discuss issues as realized.

Study population

The accessible population was 1210 of seven regional capitals out of a total of 1607 level 200 students. The accessible seven regional capitals had these students numbers; Takoradi (147), UCC (182), Accra (230), Koforidua (116), Ho (63), Kumasi (372) and Sunyani (100). The three northern regions were not considered partially because they respectively have a very low students numbers; Bolgatanga (35), Tamale (10) and Wa (13) and also due to time and financial constraints. The level 200 was selected for the study because if not for anything the students have had some experience with the whole distance education programme and would surely be available for completion of questionnaire by the time the researcher desires to draw responses from them. Some Units such as admission, assessment and examination as well as Regional Coordinators and DESAG (Distance Education Students' Association of Ghana) representatives comprised the key informants. The Units were chosen because they deal directly with students records. However due to limited time frame and cost constraints, samples of the level 200 students population was used. The unit of analysis included the individual students and key informants.

Sampling procedure

Sampling is a procedure for selecting part of a population on which research can be conducted, which ensures that conclusion drawn from the study can be generalised to the entire population. If the design of the sampling procedure was flawed, the rest of the research was likely to be a waste of time. It was ensured that the constituent structure of the sample was as representative of the population as possible. Sampling refers to the systematic selection of a limited number of elements (persons, objects or events) out of a theoretically specified population of elements, from which information was collected (http://www.socialresearchmethods.net/kb/sampling.htm). This selection was systematic so that bias was avoided. Depending on sampling procedure, a research site was selected, observations were made and questions asked within the natural setting.

The sampling procedure was designed to best suit the collection of data, i.e. to measure the attributes of the observation units with regard to certain variables. Depending on theoretical concerns and choice of method, probability and non-probability sampling designs were appropriate for the research. Sampling is not a technique in itself for getting information but it ensures that any technique used to get information from a small group would accurately represent the entire group.

Sample size was determined by the level of confidence required from the results. The larger the sample, the smaller the confidence interval and therefore the smaller the risk that the reported result would not be representative of the

population as a whole. Kirk (1995) describes an accessible population of 1210 for the seven regional capitals to have a sample size of 209. A proportion of the various samples were determined for Takoradi (38), Cape Coast (47), Accra (59), Koforidua (31), Ho (16), Kumasi (94), and Sunyani (28). The simple lottery method was used to select the students' respondents. In other words, '0's and '1's were written on pieces of papers and put in a basin that was well shaken before students were made to pick up one each. When students picked '0' it meant their involvement in the completion of the questionnaire. The number of '0's written was representative of the total number of proportion of students for the various centres. Three Units Heads, 6 Regional Coordinator's and 2 DESAG representatives were purposively selected to be the key informants. Six regional Coordinators were selected from the seven regions because two regions precisely Eastern and Volta regions have the same Coordinator.

Probability sampling of both qualitative and quantitative was used to collect the data for the study. It allowed respondents to be selected as and when necessary using the discretion of the researcher. A randomly selected sample of sufficiently large size (absolute size, not size proportionate to the population) was assumed to be more representative for the population because the relevant statistics was more closely approximate the parameters, or the findings in the sample were more generalised to the population. Representativeness of samples, or generalisation of sample findings, both matters of degree, was the main advantages of probability sampling designed. The accuracy of a sample statistic was described in terms of a level of confidence with which the statistic fell within

a specified interval from the parameter (the broader the interval, the higher the confidence). The main disadvantage of probability sampling was that the theoretical assumptions (of infinity) never "really" applied.

Methods of data collection

Data were collected from both primary and secondary sources. Primary data were collected on issues regarding growth of distance education, strengths, weaknesses, opportunities and threats and concerns of learners on the UCC distance education programme. The sources for the primary data were students and key informants (Regional and Units Coordinators as well as DESAG representatives).

Secondary research was conducted to provide a general overview and to aid the design of subsequent primary research which provided more specific understanding of distance learners needs. Secondary research, also known as ‘desk research’ can be conducted from the office rather than having to go out into the field (http://en.wikipedia.org/wiki/Desk_research). A number of different sources were available to the researcher and most appropriate selection based on:

- How recently it was collated
- Relevance to the objectives of the research
- Validity of the methods used
- Cost of procurement

It was recommended that the following sources were used in this case:

- Journals on distance education

- Documented students complains
- Students assessments

The period of desk research provided an understanding of:

- Potential gaps to be bridged by distance education
- Demographic size in gender perspective
- Trend in peoples zeal to participate
- Key players

The secondary information regarding students' enrolment, academic programmes and growth of distance education was collected from the department's records.

The primary research was essential to help us understand distance education better in particular respect to the objectives of the study and how these might shape future behaviour. Yin (1994) identifies two types of research approaches; qualitative and quantitative for primary and secondary data sources of information respectively.

A qualitative research approach characterised by descriptive nature takes the form of text, in-depth interviews or the use of focus groups. It main methods are the open ended interview accmpanied by a formal questionnaire. The main purpose was to understand people's perception rather than to measure them. Qualitative research is undertaken using an unstructured research approach with a small number of selected individuals to produce non quantifiable insight into behavior, motivation and attitudes (Wilson, 2002). The use of qualitative data gave respondents a lot of room to freely express themselves. In so doing, they

provided the researcher with a good overview of the problem that had to be addressed. Yin (1994) recommends the use of qualitative methods when examining previously unexplored areas. The problem with qualitative methods was that answers obtained from raising open questions were unstructured. This made data analysis difficult and time-consuming task. In addition, respondents expressed their subjective views, which may be biased, hence resulting in a higher margin of error. Given the need to delve into the research questions, primarily qualitative method of research was used. Qualitative research was best using questionnaire, as this allowed the interviewer to jot their opinions on paper as they responded to questions raised in the questionnaire.

Quantitative studies on the other hand involved the extensive use of statistical data as a tool. A quantitative method was used to provide more precision when interpreting the collected data. By triangulating across data sources, the weaknesses of one method were compensated for by the strengths of the other (Halvorsen, 1997). Questionnaires and structured interview schedule was used to collect data from students and key informants respectively for the study. Self-completion questionnaire selected was the most appropriate tool for two reasons because it was an effective small-scale research tool, and because "the knowledge needed was controlled by the questions; therefore it afforded a good deal of precision and clarity" (McDonough & McDonough, 1997). Since all of the respondents were literates the instrument was presumed to be an effective one. It was made up of open and close ended items to solicit responses from the respondents. Using the structured list, respondents voted on the alternatives in a

quantitative way. This was done in order to gain some of the advantages of descriptive design as well as address the weaknesses with purely qualitative data and an exploratory design. To further ensure the quality of the results a discussion on the results was conducted as a final step.

Permission was sought from the coordinators of the study centres, students from Diploma levels 200 randomly selected for the study contacted, time scheduled and questionnaire distributed among them. It was retrieved after the elapse of the scheduled time. The primary information pertaining to status and growth, SWOT (strengths, weaknesses, opportunities, and threats) analysis, and concerns of learners was collected from the students and key informants. The primary data was sought to obtain answers to the research questions based on expert's opinion (Skumanich & Silbernagel, 1997).

Data interpretation and analysis procedure

This stage involved getting the data into a computer and using statistics (quantitative data). Other means of analysis of the field data involved describing, summarising and interpreting data (qualitative data) in finding out what it revealed. Data collected was edited, coded, open ended items put under themes, tallies and frequencies changed into percentages with the help of Statistical Product and Service Solutions (SPSS), a software that ensure easy and comprehensive interaction between quantitative and qualitative data. There are also tables to represent issues where necessary.

Descriptive statistics (frequencies and percentages) were computed and ranked for the descriptive data. The analysis was done systematically, following each objective of the study using percentage, frequencies and cross tabulation between the groups of variables by describing and interpreting data obtained.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter is devoted to the analysis of data under the research questions gathered in the field. The section is concentrated on issues presented in two parts: demographic characteristics of respondents and substantive matters of the research objectives. It was done by analysing and addressing questions on data collected from both primary and secondary sources for these specifics:

- Status and growth of distance education at UCC
- Internal strengths and weaknesses as well as the external opportunities and threats of the distance education programme and
- Concerns of learners and how is it addressed

Out of the 210 questionnaires administered to the level 200 diploma students on the distance education programme, 176 were retrieved. Hence the analysis was based on two separate groups of key informants and students': Units and Regional Coordinators (9); DESAG representatives (2) and the 176 students'.

Background of respondents

The demographic variables of the respondents addressed here are gender, age, marital status, designation, and study centre. These variables were considered

because the respondents are matured male or female, old enough to settle down as spouse or remain single, occupying the status as early childhood teacher, basic school teacher, junior high school teacher, or even a head teacher. These students' teachers of distance education were also of various centres.

With respect to gender, out of the 176 respondents, 110 (62.5%) were males while 63 (35.8%) were female. The wide disparity in sex could be concluded from the fact that married women would usually encourage their husbands to obtain higher education since they are bread winners of the house. Females who may be yet married would usually also encourage their prospective husbands to rather obtain higher education.

Table 1: Age distribution of respondents

Age (years)	Frequency	Percent
20-29	28	15.9
30-39	104	59.1
40-49	34	19.3
50-59	10	5.7
Total	176	100.0

Source: Field Survey, 2009

The age distribution of respondents in Table 1 indicates that most of the people who participate in the distance education programme are aged 30-39 (59.1%). Others are aged 40-49 (19.3%), 50-59 (5.7%) being the lowest age group

on the distance education programme and 20-29 (15.9%). They respectively have these frequencies; 104, 34, 10 and 28.

Response on marital status was categorised as single, married, or widowed. The result of the respondents came as 88 persons (50%) of the distance education programme were single and 84 (47.7%) were married. This concludes that almost all of the distance learning students are either married or single.

The designation of the respondents as early childhood teacher, basic school teacher, junior high school teacher or a head teacher was also considered. Out of the 176 respondents, there is relatively an uneven distribution of designation for teachers in the schools. Table 2 indicates basic school teachers 114 (64.8%) as the highest frequency of people on the distance education programme.

Table 2: Designation of respondents

Designation	Frequency	Percent
Early childhood teacher	17	9.7
Basic school teacher	114	64.8
Junior high teacher	14	8.0
Head teacher	27	15.3
Total	176	100.0

Source: Field Survey, 2009

This is followed by 27 (15.3%) of the respondents who are head teachers, then, 17 (9.7%) answered as an early childhood teacher, with 14 (8%) who are junior high teachers.

The summary of views of respondents in seven regional study centres is considered as in Table 3.

Table 3: Distribution of respondents by study centres

Centre	Frequency	Percent
UCC	22	12.5
Takoradi	22	12.5
Accra	34	19.3
Kumasi	56	31.8
Ho	9	5.1
Koforidua	14	8.0
Sunyani	19	10.8
Total	176	100.0

Source: Field Survey, 2009

It is realised that out of the 176 respondents in the seven regional centres, Kumasi has the highest number of students 56 (31.8%). This is so because of all the regional capitals, it is only Kumasi that has two study centres for the education programme while the remaining centres have only one each. The table also indicates that of the remaining centres, Ho has the least number of students representing 9 (5.1%).

Status and growth of distance education at UCC

The mandate and shortage of teachers in rural schools produced a climate conducive for rapid development of distance learning (McIsaac, 1993). According to Talanquer (2005), in the past few years teacher educators and educational researchers have emphasized the need to focus teacher preparation efforts on the development of the pedagogical content knowledge (PCK) of prospective teachers. PCK refers to knowledge of how to foster the understanding of specific concepts and ideas in a given discipline(s). It includes among other things, the understanding of what makes the learning of a topic easy or difficult; the knowledge of the most common alternative concepts that students may bring to the lesson; and the recognition of powerful analogies, illustrations, examples and demonstrations that may help students better understand a concept of idea.

Table 4: Reasons for learning again

Reasons	Frequency	Percent
More salary	66	18.5
Attain higher qualification	107	30.0
Become diplomat/graduate	75	21.0
Improve competence/skills	108	30.3
Total	357*	100.0

Note: * Multiple responses

Source: Field Survey, 2009

The issues discussed here includes reasons why people start learning again, benefits of obtaining higher education, preferred instructional medium and modality, commitment of access and feeling of empowerment through higher education.

In the opinion of Knowles, Holton, & Swanson (1998) people start to learn again when circumstances in life require additional learning. They defined learning as bringing about change in thinking process, resulting in acquisition of knowledge or skills. This can clearly be related to the views of respondents.

Out of 357 multiple responses the most preponderant was for competence and skills 108 (30.3%). This was followed by attainment of higher education, a very close margin of 107 (30%). Others 75 (21%) opine that they will become diplomats and graduate. The least 66 (18.5%) cited more salary as reason(s) for learning again.

The findings support the view that the performance of individuals depends on the knowledge, skills and capabilities, (Stiles and Kulvisaechana, 2003). An experienced and skilful teachers obviously is an asset and the important these individuals need to access cannot be gainsaid. Answers to the benefits of obtaining higher education, responses were ranked as knowledge, professional development, good salary have graduate certificate or higher qualification. Other responses are competence experience and skills, social status, high standard of education and serving society.

Of the multiple responses, 58 (32%) selected knowledge as highest benefit to access higher education. This is in line with the opinion of key informants who

think of some benefit to be; effective discharge of duties, better job placement, job satisfaction, acquisition of knowledge, development of professional skills, competence and opportunity for further education. As Illeris (2003) suggests, lifelong learning does not only have a quantitative focus on more learning for people, but also suggests that individuals need to respond to on-going social changes that can only be achieved through the acquisition of knowledge. Another key informant is of the opinion that an individual has his job, get paid, so they can support their families and as well get education.

Table 5: Benefits from obtaining higher education

Benefits	Frequency	Percent
Knowledge	58	32.0
Good salary	24	13.3
Competence/improve skills/experience	8	4.4
Professional development	33	18.2
Graduate/certificate/higher qualification	18	9.9
Promotion/Good job opportunities	12	6.6
Better life/comfortable life/good living	2	1.1
Social status/respect form society/acceptance	6	3.3
Serve society	6	3.3
Occupy high office/position	1	0.6
High standard of education	2	1.1
Total	181 *	100.0

Note: * Multiple responses

Source: Field Survey, 2009

It has become increasingly clear that the well-being of nations considered from both economic and social perspectives is dependent in large measure on the competence of its people (Ashton et al., 1999). This raises the need for training and development that bridges the gap between desired targets and actual levels of performance (Davenport, 1999).

The summary on students preferred instructional medium is shown in Table 6. It was evidence from the response that 154 (86.5%) agree to the use of modules/course book as the preferred instructional medium of the distance education programme. As Keegan (1990:44) identifies, the use of technical media (usually print) unite the teacher and learner to carry educational content as one of the elements of distance education.

Table 6: Preferred instructional medium of distance education programme

Medium	Frequency	Percent
Online internet	17	9.7
Module/course book on FTF tutorials	154	86.5
Electronic like goes on television	1	0.6
Online internet/modules/course book	2	1.1
Total	175 *	100.0

Note: * Multiple responses

Source: Field Survey, 2009

The response from respondents reveals that relatively more students might lack the technological knowhow of the use of online internet and remote residence

students lack electrical grid in most developing nations. The main argument echoed by the key informants is that, the use of module is the most expedient mode at the moment, cheaper to rural learners, user friendly, increases accessibility, and students also have the chance to enjoy lecture-student tutorial.

This finding confirms the assertion of Savery and Duffy (1995) that two factors affect learners' attitudes toward learning: the familiarity with the instructional medium and their ability to make something meaningful out of the material presented. When students do not make meaningful connection between instruction and their needs, it is hard for them to be motivated to learn. Learning materials resources are very important in the teaching and learning.

To acknowledge the status and growth of distance education, study centre was cross tabulated with students' preferred instructional medium. It was realized that out of the total responses of 176, the most preponderant 154 was for modules or course book (88%). This was followed by a wide range difference for use of online internet 17 (10.3%). The responses were in line with the views of key informants who think most people are not technologically developed enough to use the internet and that the use of module/course books is best. Even though internet usage gives greater opportunity to access information, people who live hinterland where internet facilities are unavailable and electricity is non- existent, the course model is most ideal. Experts in charge of distance education in Brazil a developing nation like Ghana tend to be "academics with only a theoretical knowledge of distance education. . ." with "their practical experience, firmly

rooted in the conventional face-to-face practices of the existing higher education institutions" (Romiszowski, 2005:6).

According Dunn (2001), the development of online education improves instructional environments tremendously, not just for education systems but also for business organisations, providing courses, resources and performance support systems. However the interactivity of instructional materials and interactions, between learners and instructors and among learners has been the biggest concern in online learning environments since majority of the developing nations are yet getting abreast with electronic technology. The summary of preferred delivery modality is shown in Table 7.

Table 7: Preferred delivery modalities

Instructional modality	Frequency	Percent
Face to face tutorial and TV	51	29.0
Face to face tutorial & Online internet	21	12.0
Face to face tutorial and Seminar	44	25.0
Face to face tutorial entirely	59	33.7
Total	176	100.0

Source: Field Survey, 2009

Litto (2001) determined that hybridization, that is the combination of face-to-face and distance delivery modalities is currently the best method to tap into distance education's potentialities. The responses given as reason for the choice when they were asked what their most preferred medium of instruction was, did

not differ significantly as expressed in Table 7, the use of face to face tutorial entirely 59 (33.7%), as preferred delivery modalities. The general picture above notwithstanding, there were marked differences in responses due to difference in their social background whereby students are living at all corners of the nation. By this assertion, students on the distance education programme are widely spread all over at even, most remote dwellings where electricity is inaccessible and even if electricity was not a problem, the Ghanaian educational system and its students is not technologically advanced enough to embrace the use of online internet.

The development of online education improves instructional environments tremendously, not just for education systems but also for business organizations, providing courses, resources and performance support systems. However, in many cases, interactivity of instructional materials and interactions between learners and instructors and among learners has been the biggest concern in online learning environments. Many Universities are feeling the pressure to control their costs, improve quality of instruction, focus on customer needs and respond to the competitive pressures (Horgan, 1998). Distance learning technologies have the potential to assist in solving these problems. In 1994, Basom and Sherritt surveyed higher education administrators and state politicians to find out what they thought would be the major problems facing American higher education in the next millennium. The answers they most often received were: “meeting increased demands at a time of decreased resources, increasing or maintaining access, using technology more efficiently and sharing resources across state lines so that colleges would not have to be all things to all people”.

According to the response in Table 8, commitment of access is well on track with 83 (47.2%) out of a total of 178 holding for that. The respective 28 (15.9%) and 22 (12.5%) are of the opinion that commitment of access is not very well and not well met while 23 (13.1%) answered that commitment of access is very well met.

Table 8: Commitment of access through distance education

Response	Frequency	Percent
Not very well	28	15.9
Not well	22	12.5
Not sure	17	9.7
Well	83	47.2
Very well	23	13.1
Total	176	100.0

Source: Field Survey, 2009

In achieving 'Education for All' goals set in Dakar and at the Millennium Development Summit entails a commitment to a triad embracing access, quality and equity in education in all forms and at all levels. It means ensuring that the digital divide does not further marginalize the poorest sectors of the population and finding creative, alternative paths to learning. By this distance education is regarded.

When respondent were asked to indicate whether they feel empowered accessing higher education, 158 (89.8%) far above average answered yes, with reasons of fitting well in society, having what it takes to give off best, opportunity

to further upgrade oneself academically etc. The proponent of the response is being buttressed by the response from the key informants who think students study and work at the same time, they will get better job placement at the end, their competence will increase, have the opportunity for higher academic advancement and then they also become more enlightened. Besides, their feel of empowerment students also experience greater impact of knowledge than before.

Learning is provided to improve performance of individuals on future job or to enable one to accept more responsibility, new assignments or both. It is a key to modernization and is necessary for success in opening markets (Sen Amartya, 1998). The adaptation of distance education for continuing education could be an effective way to supplement professional knowledge, transfer of new knowledge and skills. The distance education provides an alternative but equivalent route to higher qualifications for primary teachers where conventional university education output cannot meet demand. The human competence defined as potential to achieve valued accomplishments (Gilbert, 1978; Jacobs, 2001) primarily from an economic perspective, is whereby individuals improve their competence to improve performance and productivity in organizations. However, there is a larger focus of competence to participate in civic society or competence to engage in social action, which is important particularly from an education perspective.

Internal strengths and weaknesses with external opportunities and threats of the distance education programme at UCC

SWOT analysis draws the critical strengths, weaknesses, opportunities and threats (SWOT) technique from the distance education programme on the study. SWOT analysis distils these data to show the critical items from the internal and external issues. The strengths and weaknesses are relative not absolute (Marketing Tips, 2009:11). The strengths and weaknesses only discuss features relating to critical successful factors.

Many Universities are feeling the pressure to improve quality of instruction, focus on customer needs and respond to the competitive pressures (Horgan, 1998:1). Distance learning technologies have the potential to assist in solving these problems. In 1992, Basom and Sherritt surveyed higher education administrators and state politicians to find out what they thought would be the major problems facing American higher education in the next millennium. The answers they most often received were: “meeting increased demands at a time of decreased resources, increasing or maintaining access, using technology more efficiently and sharing resources across state lines so that colleges would not have to be ‘all things’ to all people”.

Strengths

The strengths are the abilities/capabilities/capacities of the programme. They are the things that augur well for the distance education programme and which the respondents were proud of or spoke well in off in other to bring to the

attention of the others. They are the activities that engender development and must be encouraged. In Table 9, gender was cross tabulated with what encourage people to choose distance education. Of the total responses, professional commitment 116 (33.8%) is considered to be the greatest reason for the choice of distance education as an option of higher education. Other reasons are respectively family responsibility 83 (24.2%), convenience 77 (22.4%) and flexibility 64 (18.7%). In all people feel encouraged because their reasons for pursuing higher education are achieved.

Table 9: Gender perspective and reason for the choice of distance education

Response	Male		Female		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Professional commitment	75	33.8	41	34.2	116	33.9
Family responsibility	54	24.3	29	24.2	83	24.3
Convenience	50	22.5	27	22.5	77	22.5
Flexibility	43	19.4	21	17.5	64	18.7
Total	222*	100.0	120*	100.0	342*	100.0

Note: * Multiple responses

Source: Field Survey, 2009

It can be deduced from the above response that people both males and females can hardly afford to resign from their work to obtain higher education at the expense of professional commitment, family responsibility, convenience and

flexibility. People for that matter, are of the opinion that their reasons for pursing higher education can equally be met by distance education.

Demanding professional commitments and family responsibilities of many people often make attending a conventional, full-time, face-to-face course with fixed timetables a rather unrealistic proposition and the reasons why people especially adults, choose distance education are primarily "the convenience, flexibility and adaptability of this mode of education to suit individual students' needs" (Holmberg, 1989:24). Distance learning, like any kind of learning, can serve different ends, but distance learning appears mainly to serve those who cannot or do not want to make use of classroom teaching. All learning requires a degree of motivation, self-discipline and independence on behalf of the learner but these aspects are arguably more pertinent in the case of distance learning, where the student is largely self-directed and unsupervised and expected to be more autonomous. Threlkeld and Brezoska (1994:53) state that "maturity, high motivation levels and self-discipline have been shown to be necessary characteristics of successful, satisfied students".

Distance study is self-study but the student is not alone. As Holmberg (1989:24) describes it, "A kind of conversation in the form of two-way traffic occurs through the written or otherwise mediated interaction between the students and the tutors and others belonging to the supporting institution". The issue of course materials is directly relevant to the current study. Kirkup and Jones (1996: 277) believe that the success of distance learning courses "cannot be assumed". Sharp cut-off dates for tutor-marked assignments, rigidity of learning content and

materials and inflexible learning structures are all common in distance education systems (Keegan, 1990) and are factors which clearly will not meet the needs of all learners.

With regards to the response on how distance education support students motivation in respect of further studies and the positive impact on the individuals, respondents 86 (48.9%), 78 (44.3%) and 60 (34.1%), 82 (46.6%) respectively agreed that distance education ‘well’ and ‘very well’ support their motivation towards further studies and has positive impact on their studies. This is far above the percentage of respondents who were ‘not sure’ and ‘not very well’ in agreement to the assertion of the other respondents.

Weaknesses

Kirkup and Jones (1996:277) believe that the success of distance learning courses "cannot be assumed". Sharp cut-off dates for tutor-marked assignments, rigidity of learning content and materials and inflexible learning structures are all common in distance education systems (Keegan, 1990) and are factors which clearly will not meet the needs of all learners. Kirkup and Jones (1996) summarise the most significant weaknesses of distance education as its inability to offer dialogue in the way that conventional face-to-face education does, the inflexibility of its content and study method and the isolation and individualisation of the student.

On the assumption that respondents are faced with challenges, they were asked to write down at least three of those challenges. It was assumed that

respondents' answers might give an indication of their level of challenges. The survey result is shown in Table 10.

Table 10: Challenges of distance education programme

Challenges	Frequency	Percent
Lack of access to other information sources	17	3.7
Financial problems	58	12.8
Study centers relative at distance to some people	69	15.2
Bad exams questions	35	7.7
Limited time for students to study by themselves	92	20.3
Bad facilitators absenteeism, poor tutorial	52	11.5
Overloaded content of module	27	5.9
Family responsibility with studies	42	9.3
Delay in release of result	21	4.6
Poor communication	41	9.0
Total	454*	100.0

Note:* Multiple responses

Source: Field Survey, 2009

After much deliberation, 454 multiple responses from participants agreed that their greatest challenge is limited time to study on their own, 92 (20.3%). This can be attributed to their commitment to their family responsibility. Despite the general response above, there were differences which suggest that individual students have what they place premium on what they face up to. Other responses

are; financial problem 58 (12.8%), bad facilitators (truancy or leading tutorial poorly) 52 (11.5%), students having to journey relatively a distance to reach the study centres 69 (15.2%), combining family responsibility with studies 42 (9.3%), poor communication between the university and students 41 (9%), overloaded content of the module 27 (5.9%), delay in release of result, bad examination questions and short duration of quizzes were considered to be their challenges.

The weaknesses of the programme are the inabilities, inadequacies and the deficient performance of the distance education programme. It can also be considered as the actions and inactions of anything that had not worked well for the development of the programme and therefore the need to overcome shortcomings, correct mistakes and improve upon the limitations. This is linked to most problem of financing education accords to present and future needs. Lack of infrastructure resources in developing countries is obvious and at the same time demographic trends increase the need to expand educational provision. The issue of the weakness of the distance education programme is discussed in respect to the challenges student learners experience as they climb on the academic ladder. Unfortunately working personnel have been overstretched as well as infrastructure in the regional capitals.

Opportunities

The opportunities are the possibilities and chances available to the programme which has yet not been ultilised or tapped for improving the welfare of individuals and the group as a whole. The opportunities occur when an

environmental trend plays to the strength. The purpose of the analysis is to anticipate important development that can have impact on the distance education programme.

Table 11: Resolving the challenges of distance education

Solution	Frequency	Percent
Provide more study centers and accommodation	78	18.0
Vary delivery method with (TV, seminars etc)	89	21.2
Examiners should be considerate	70	16.7
Access performance of facilitators	55	13.0
Government support fees	60	14.3
Reduce content of module	15	3.6
Provide CD to facilitate learning	27	6.4
Communication gap should be bridged	4	1.0
Total	421 *	100.0

NB: * Multiple response

Source: Field Survey, 2009

As can be seen from Table 11, of the 421 multiple responses, relatively close proportion of the responses focus on the need to vary tutorial delivery method by adding seminars and making TV presentations as well 89 (21.2%), provide more study centres that will be very close to students place of residence 78 (18%), examiners to be very considerate 70 (16.7%), government give out

bursary to students 60 (14.3%), the need for the university to critically access performance of facilitators and also engage committed ones 55 (13%).

An effective and potential way to improve students' motivation in teaching may be to design lessons that include discussions about societal issues related to the subject and about the actual and potential application of the subject. This approach may also improve students' attitude towards achievement of life desire. An opportunity for distance learning is seen as means of increased access and flexibility, as well as the combination of work and education. In raising work efficiency, it is important that the challenges of distance education have to be considered. To ascertain what respondents perceive to be the opportunities of the distance education programme, they were asked how the challenges of distance education could be resolved.

Threats

The threats are the things that have prevented the institution from performing their functions effectively in order to achieve their aims. Threats can also be considered as the things that put impediments in the way of the institution in their bid to perform their function. Respondents' opinion on the threats to the distance education programme was sought. The purpose was to find out what the respondents' considered as the challenges to the institution. The SWOT analysis is necessary because the advantages of the distance education programme can be discussed for maximization and disadvantages minimized.

Respondents were asked if they could leave their work in pursuit of higher education and whether again, students teachers reasons for pursuing higher education was been met. It came to view that out of a total of 176 respondents, 101 (57.4%) of the people can hardly leave their job to pursue higher education whiles 71 (40.3%) think they can abandon their jobs for further education. For response on the latter question, 132 (75%) out of 176 respondents were of the opinion that their reason(s) for accessing higher education through distance education is been met. The preponderant reason for their affirmative response are because; they are able to honour family responsibilities, increase teaching skills, working to earn salary and still learning and above all they will be diplomat at the end of their programme. Meanwhile 40 (22.7%) respondents did not agree with the assertion that their reasons for pursing higher education was been met. The respondents had these as their reasons for their choice; financial difficulty and unsatisfactory results.

Hardy and Boaz (1997:43) found that “compared to most face-to-face learning environments, distance learning requires students to be more focused, be able to work independently with group members and be better time managers”. It was in the interest of the researcher to find out how distance education has had positive impact on the teacher students’. This is what was said as summarized in Table 12. Approximately, 160 (90.9%) respondents believe that the distance education programme has well and very well had positive impact on them as students.

Table 12: Positive impact of distance education on students

Positive impact	Frequency	Percent
Not very well	6	3.4
Not well	1	0.6
Not sure	3	1.7
Well	78	44.3
Very well	82	46.6
Total	176	100.0

Source: Field Survey, 2009

Concerns of learners

According to McFarland (1973), people and places are good resources for teaching. Individual access to adequate education should be considered a fundamental right, which may contribute decisively to personal dignity, survival and welfare of the individual and his/her family and to the social and cultural development of local communities.

The analysis on concerns of learners, brought to view issues, raised for respondents to confirm on the responses category as ‘not very well, not well, well and very well’ by raising questions in regards to coherent presentation of tutorial during face to face, explanation of concepts and issues in module done to the understanding of students and assessment and examination questions been

comfortable and promoting critical thinking. The above questions had about same responses respectively of 138 (78.5%), 137 (77.8%) and 136 (77.3%) respondents agreeing to 'well and very well' out of the 176 respondents. Students also indicated that their biggest problem was that they did not get enough time to learn on their own before they go for face to face.

The response on the item, structure of course content that makes learning easy and promotes self-learning also had 112 (63.6%) contending to 'well' out of a total respondent of 176. In all, an average of 57% respondents gave a positive answer to the questions raised on issues regarding students concerns except constraint of time to study on their own. For the remaining percentages of respondents who did not give credit to the responses, it bestows on the university to endeavour to address those problems in order to bring about efficiency in the distance education programme.

The key informants (coordinators) also raised a concern that students had to occasionally be moved from one centre to another anytime the university was evicted from the place of study or they had to compete for venue with other learning institutions.

In addition, respondents were asked to provide their general impression with respect to the above issues. Out of the 176 multiple respondents, 36 (20.4%) were of the opinion that even though the distance education programme is very good and useful to students. Seventy (39.8%) think the use of module as delivery modality should be maintained, but were quick to add that it content should be corrected of typographical errors. Fifty-nine (30.5%) respondents did not give

their opinion whiles 11 (6.3%) think that the whole concerns of students have not being satisfactory considered. The issues on the general impression are summarized in Table 13.

Table 13: Students impression on distance education

Responses	Frequency	Percent
Useful to students	36	20.4
Maintain use of module but correct mistakes	70	39.8
Not satisfactory	11	6.3
Total	176*	100.0

NB: * Multiple responses

Source: Field Survey, 2009

In other to fully understand the concerns of the students, age was cross tabulated with their general impression. Out of the 176 multiple responses, those who are below age 25 have an impression relating to maintaining the module use.

An investigation conducted by Lagowski (1990) revealed that people retain 90% of what they say as they do something but 10% of what they read and only 50% of what they hear. It is therefore important to help students develop a deeper understanding of the discipline or subject matter that they claim to instruct others about for them to teach more effectively. The usefulness of content of module as source of information which is accurately presented, structure of course that makes learning easy and promote self learning, content of module being based on learners experience, objectives of module relating to its contents and it

being current and finally, assessment and examination questions being comfortable and promoting critical thinking were questions also raised.

Other variables investigated in the study were to find out if distance education improves teaching skills and raises competence. Respondents of 164 (93.2%) out of 176 ascertain the assertion that the distance education programme is indeed going to improve their teaching skills. Eighty four (47.7%) and 74 (42%) respondents agree to the claim that their knowledge approximated to competencies are respectively credibly and very credibly achieved. A very negligible percentage of respondents have the view that the distance education programme is not going to improve their teaching skills and that their competencies are not very credibly and credibly achieved.

When the views of respondents regarding commitment of distance education to training and developing the human resource for manpower development of the country was solicited, 63 (35.8%) and 81 (46%) out of a total of 176 opine that training and development for man power development of the country were ‘well’ and ‘very well’ respectively honoured. seventeen (9.7%) were not sure of the assertion, with 4 (2.3 %) responding ‘not very well’ and an individual ascertaining ‘not well’ to the question.

The final variable discussed on concerns of learners was their expectation at the end of the distance education programme. It was evidence that the responses given was in line with that of the key informant who think that learners are expected to be knowledgeable that will make them productive, perform better than before and also zeal to academically upgrade themselves much further. Since

the ladder of education should be limitless to all people at the completion of one educational level. The views of respondents have been summarized in Table 14.

Out of the 543 multiple responses the preponderant opinion 174 (32%) went for the desire of learners becoming professional and skillful teachers in their field of job. Other expectations of learners are to earn high salary 113 (20.8%), improve academic competence 70 (12.9%), impact knowledge 55 (10.1%) and finally the least response is to acquire high qualification 24 (4.4%).

Table 14: Learners expectation at the end of the distance education programme

Expectation	Frequency	Percent
Professional/skillful teacher	232	42.7
Improve academic competence	70	12.9
High salary	113	20.8
High qualification	24	4.4
Impact knowledge	55	10.1
Total	543 *	100.0

NB: * Multiple responses

Source: Field Survey, 2009

Garrison (1990:103) states that, "the majority of distance education is concerned with meeting the educational needs of adults" and Holmberg (1986:123) states "distance teaching will support student motivation, promote learning pleasure and effectiveness if offered in a way to make the study relevant

to the individual learner and his/her needs". Defining and categorising adult learners' needs is, though, a difficult task. Distance education offers students an opportunity to "study and learn in a peer-free environment, when and if they prefer it" (Verduin & Clark, 1991:27), while also providing support during the learning experience in terms of guidance, planning and feedback that is necessary for continued student motivation and completion of the course.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This final chapter gives summary of the study, major findings, conclusions and recommendations.

Summary of the study

The general objective of this study was to examine access to higher teacher education through UCC distance education. Descriptive and exploratory research designs were employed. The main sampling technique employed was simple random sampling which was proportionately done for all of the study centres according to the total number of students at each centre. A total number of 176 respondents' views were collated. Data collection instruments used included structured and unstructured questionnaire and interview schedule. Both qualitative and quantitative data collection techniques were employed in the methodology.

Major findings

The first objective brought into focus, the status and growth of the distance education programme at UCC. The key issues were:

- About 30% and 30.3% of students started learning again to respectively attain higher education and improve upon their competence and skills.
- Students claimed that acquisition of knowledge, professional development, and good salary are the expected benefits from obtaining higher education.
- Most of the students (86.5%) prefer entirely the use of modules or course book on face to face tutorials as delivery modality.
- Students felt empowered by accessing higher education. They added that they experienced greater impact of knowledge than before.

With respect to the second objective which focused on a SWOT analysis of the UCC distance education programme, it was evident that:

- Tutorials during FTF are presented in a coherent way that engages learners' attention.
- Approximately 81.1% of the students think that the distance education programme is plausible and is committed to training and developing the human resource for manpower development of Ghana.
- The highest percentage of students (33.9%) agreed that professional commitment was what encouraged them to choose distance education as an option whiles the least percentage (18.7%) was for a reason of flexibility.
- A greater number of the students (57.4%) believe they 'cannot' abandon their work in pursuit of higher education whiles 40.3% of the students believe and 'can' abandon their work in pursuit of higher education.

- About 83% of the students believe that the distance education programme is good and supports their motivation for further studies while 90.9% also believe that the programme has had positive impact on their studies.
- Students are faced with various degrees of challenges. They mentioned limited time to study on their own, financial obligations and bad facilitators (truancy or leading tutorials poorly) as some of the challenges.

The last objective considered the concerns of learners. The evolving issues are:

- The key informants (coordinators) expressed the displeasure of students being moved from one place to another anytime the university was being evicted.
- Some course tutors are not committed enough in their responsibility of delivering to the understanding of some students. This is reflected in the 18.2% of the respondents who think the concepts and issues in the modules are unreliably explained to the understanding of students.
- Students also claimed that they could hardly have enough time to learn on their own.
- Students would want their face to face tutorial delivery method to be varied with TV, seminars etc.

Conclusions

Based on the findings of the research, the following conclusions can be drawn.

The distance education programme has become important and proven to be a great means through which teachers can develop themselves without the need to leave the children at the classrooms. It could also be realized that individuals desire to excel to a higher academic ladder is assured and that individuals competence/skills is being improved through UCC distance education programme. Students are also able to realize the benefits of attaining higher education.

The established strengths and opportunities to be applauded are seen to be individuals' feel of empowerment, individuals' having their own share of educational impact, conceiving knowledge and impacting the knowledge to their students in the classroom, also geographical distance and other confining circumstances such as personal constraints, culture and social barriers and lack of educational infrastructure are being removed. Meanwhile it is an underscoring factor that every organization is faced with challenges. The study recognizes and submits some weaknesses and threats of the distance education programme. These are seen as the university engaging some course tutors who are not committed enough in tutoring, visible typographical errors in modules, etc.

The concerns of learners relates to the late release of quizzes scripts, short duration of quizzes, bad examination questions and the occasional time wastage in search of venue for classes. The findings have emphasized that these concerns when managed well will be of credit to the university's image.

Recommendations

From the findings and conclusions, the following recommendations are made;

- Students' who are faced with the challenge of time on learning to understand the subject matter, should squeeze enough time from their schedule to get involved with group discussion where they will have a better chance of utilizing their little time to understanding the subject content from their own colleagues.
- On the issue of students who are faced with financial responsibility. It is recommended that the students' representative plan effective strategies on meeting the managements and impress upon management to seek avenues for redress.
- Students should recommend the replacement of uncommitted course tutors by officially writing to inform the university about acts of such course tutors.
- It will be of great important for both teachers and students to be respectively motivated to the teaching and learning. Incentives to keep encouraging course tutors to give off their potential capabilities at best should be continuously facilitated by the managements of the distance education programme whiles students who excel with excellent are to be given scholarship for further studies.
- As a long term measure the university authority in collaboration with the government, should create an ideal learning environment by erecting

infrastructures that would serve as the universities colleges outside the main campus within which students would be encouraged to perceive distance education as just another great way to attaining academic excellence.

- The students' representative group should be really functional. The association should be encouraged to participate fully in the formulation of decisions that affect students' well being. Again all opportunities for dialogue should be fully utilized to remove misconceptions, create rapport and understanding between the students' and the authorities of the university.
- In other to experience variation in the delivery modalities which results in significant changes in learning, students should recommend to the authorities of the programme to include modalities like seminars, visuals and television in their face to face tutorial delivery.
- The students' representative body should recommend to the authorities of UCC distance education programme to sustain its good standard.

REFERENCES

Amenumey, D. E. K. (Ed.). ((2007). *Challenges of education in Ghana in the 21st century.* Ghana: Woeli Publishing Service.

Ashton, D., Green, F., James, D., & Sung, J. (1999). *Education and training for development in East Asia: The political economy of skill formation in newly industrialized economies.* London: Routledge.

Babbie, E. R. (1990). *Survey research methods* (2nd ed.). Belmont, CA: Wadsworth Publishing.

Basom, M., & Sherritt, C. (1992). *Higher education problems in the twenty-first century: A survey of higher education administrators and politicians.* Paper presented at the Annual Conference for International Higher Education Administrators, Nice, France. Retrieved January 12, 2009 from Internet.

Beare, P. L. (1989). The comparative effectiveness of videotape, audiotape and telelecture in delivering continuing teacher education. *The American Journal of Distance Education* 3(2), 57-66.

Berge, Z. L. (1998). *Using technology to maximize learning and meet business objectives*. London:Routledge.

Bollag, B., & Overland M.A. (2001). Developing countries turn to distance education. *Chronicle of Higher Education* 47 (40), 29-31.

Bullen, M. (1996). Distance education and technology continuing studies. *Journal of Distance Education* 13(2), 1-1-32.

Cantelon, J.E. (1995). *Facilitating distance education.* U.S.: Kluwer Publishers.

Centre for Continuing Education. (2006). *Higher education for all.* [Brochure]. UCC: CCE-UCC.

Chen, L. (1997). Distance delivery systems in terms of pedagogical considerations: A revolution. *Educational Technology* 37(4), 34-37.

Daniel, J. (1996). *The mega-universities and knowledge media.* London: Routledge.

Davenport, T. O. (Ed.). (1999). *Handbook of human resource management practices.* India: *K*ogan Publishers.

Dede, C. (2000). Advanced technologies and distributed learning in higher education. In D. E. Hanna (Ed.), *Higher education in an era of digital competition: Choices and challenges* (pp.71-91). Madison, WI: Atwood.

Dervarics, C. (2001). Support builds for distance learning. *Community college Week Development* 14 (1), 3-5. United Kingdom: Published in association with PricewaterhouseCoopers.

Dibiase, D. (2000). Is distance education a bargain? *Journal of Geography in Higher Education* 24 (1), 130-136.

Dunn, S. (2001). *Fuel for the future: Predictions about online higher education, USA Today Magazine*, Retrieved March 16 2004, from http://www. Findarticles.com/cf_0/m1272/2668_129/69698406/p1/article.jhtml?term

Evans, T. (1999). Globalism, post-fordism and open distance education. *Distance Education 16* (2), 256-269.

Foks, J. (1987). Towards open learning. In P. Smith & M. Kelly (Eds.). *Distance education and the mainstream* (pp. 74-92). London: Croom Helm.

Fraenkel, J. R., & Wallen, N. E. (2000). *How to design and evaluate research in education.* New York: McGraw-Hill.

Garrison, G. R. (1990). *Understanding distance education: A framework for the future.* London: Routledge.

Gay, L.R. (1992). *Research methods for business and management.* New York: Macmillan.

Gilbert, T. (1978). *Human competence: Engineering worthy performance.* New York: McGraw-Hill.

Graves, W. H. (1997). Order the change and change the order. *Campus Technology* 1(2), 24-26.

Greenberg, G. (1998). Distance education technologies: Best practices for K-12 settings. *IEEE Technology and Society Magazine (Winter)* 36-40.

Grimes, G. (1993) "Going the distance with technology . . . *Happy 100th anniversary to distance education"* 6-8.

Gross, D., & Pirkl, R. (1994). New connections: A college president's guide to distance education. *Instructional Telecommunications Council,* 4.

Halvorsen, J. G. (1997). *Designing self report instrument for family assessment: Anatomy of a residence research project.* [Research manual]. Wichita: Kansas University.

Hanna, D.E., Glowacki-Dudka, M & Conceicao-Runlee (2000). *Higher education in an era of digital competition: Choices and challenges*. Madison, WI: Atwood.

Hardy, R. M. & Boaz A. (1997). The internet and higher education. Retrieved June 11, 2009, from *http://www.google.com.*

Hilgenberg, C.& Tolone, W. (2000). Students' perception of satisfaction and opportunities for critical thinking distance education. *American Journal of Distance Education* 14 (3)59-73.

Holloway, R. E., & Ohler, J. (1991). Distance education in the next decade. In G. J. Anglin, (Ed.), *Instructional technology. Past, present, and future* (59-66). Englewood, CO: Libraries Unlimited.

Holmberg, B. (1986). *Growth and structure of distance education.* Kent, England: Croom Helm.

Holmberg, B. (1989). *Theory and practice of distance education.* New York: Routledge.

Horgan, B. (1998). *Transforming higher education using information technology: First steps.* Retrieved January 13, 2009, from Internet.

Horn, P. A. (2002). *Foundations and characteristics of culture.* South Africa: University of Cape Town.

Illeris, K. (2003). Towards a contemporary and comprehensive theory of learning. *International Journal of Lifelong Education* 22(4), 396-406.

Imel, S. (1996). *Myths and realities of distance learning: Clearinghouse on adult, career and vocational education.* Columbus: Ohio State University.

Instructional Telecommunications Council. (1996). *Technology archives: Learners success in distance education environments.* North Carolina: University of North Carolina

Jacobs, R. L. (2001). Managing employee competence and human intelligence in global organizations. In F. Richter (Ed.), *Maximizing human intelligence in Asia business: The sixth generation project*. New York: Prentice-Hall.

Johnstone, S. (1991). Research on telecommunicated learning: Past, present and future. *The Annals of the American Academy of Political Science 514,* 49

Jonassens, D. H., Davidson, M., Collins, M., Campbell, J., & Haag, B. (1991). Applications and limitations of hypertext technology for Distance learning. *Journal of Distance Education* 2(1), 63-72.

Jones, T. (1992, March 20). *IITS students' evaluation questionnaires for the fall semester of 1991,* [A summary and report].

Kantor, P. B. (1998). An investigation of the conditions for effective data fusion in information retrieval: A pilot study. *Journal of American Society for Information Science,* Under review.

Keegan, D. (1986). *The foundations of distance education.* London: Croom Helm.

Keegan, D. (1990). *Foundations of distance education* (2nd ed.). London: Routledge.

Keegan, D. (1995). *Distance education technology for the new millennium: Compressed video teaching.* Hagen, Germany: Institute for Research into Distance Education.

Kirk, B. (1995). *Reliability and validity in qualitative research.* London: Sage Publications.

Kirkup, G., & Jones, A. (1996). New technologies for open learning: The superhighway to the learning society? In P. Raggatt, R. Edwards, & N. Small (Eds.), *Adult learners, education and training: The learning society challenges and trends* (pp.272-291). London: Routledge.

Klesius, J. P., Homan, S. & Tompson, T. (1997). *Handbook of distance learning.* New York: McGraw-Hill.

Knowles, M. S., Holton III, E. F., & Swanson, R. A. (1998). *The adult learner.* Butterworth: Heinemann.

Kwegyir A. (n.d.). *USA/Africa dialogue, No.21: Bangura, the hero that Africa needs.* Retrieved March, 31, 2010 from www.utexas.edu/conferences/africa/ads/21.html

Lewis, R., & Spencer, D. (1986). *What is open learning?* London: Council for Educational Technology.

Litto, F. M. (2001). Public policy and distance learning in Brazil. *White paper. Personal communication* 12(4,) 8-9.

Ljosa, E (1992): Distance education in a modern society. *Open Learning* 7.

Logowski J. (1990). *Integrated Control of the Brain.* Kenya: Kahneeta.

Marketing Tips. (2009). *SWOT analysis* (9th ed.) [Brochure]. Ghana: Author.

McCleary, I. D., & Egan, M. W. (1989). Program design and evaluation: Two-way interactive television. *The American Journal of Distance Education.*

McDonough, J., & McDonough, S. (1997). *Research methods for english language teachers.* London: Arnold.

McFarland, F.W. (1973). Information technology changes the way you compete. *Harvard Business Review* 61(3), 98-103.

McIsaac, M. S. (1993). Economic, political, and social considerations in the use of global computer-based distance education, In R. Muffoletto & N. N. Knupfer (Eds.), *Computers in education: Social, political, and historical perspectives* (pp. 219-232). Cresskill, NJ: Hampton Press Inc.

McKnight, M. (2000). *Distance education: Expressing emotions in video-based classes.* Paper presented at the Annual meeting of the Conference on College Composition and Communication. Minneapolis: Minnesota.

Merriam, S. B., & Simpson, J. (1995). Andragogy and self-directed learning: Pillars of adult learning theory. In S. Merriam (Ed.), *New directions for adult and continuing education* (pp. 24). San Francisco, CA: Jossey-Bass.

Ministry of Education (n.d.). *Education: Training, retraining and retaining teachers in Ghana.* Retrieved May 31, 2010 from http://www.educatejournal.org.

Moore M. G. (1973). Foundational paper: Towards a theory of independent learning and teaching. *Journal of Higher Education* 44(2), 661-679.

Moore, Michael G., & Kearsley, G. (1996). *Distance education: A systems view.* Belmont, CA: Wadsworth.

Moore D. R., & Lockee B. B. (1998). *Distance learning: Promises, problems and possibilities.* San-Francisco: Pfeiffer &Jossey-Base.

Morabito, M. G. (1999). *Online distance education: Historical perspective and practical application.* Retrieved December 23, 2009 from Universal Publishers/uPUBLISH.com.

Organization for Economic Co-operation and Development. (2001). *Sustainable development and the new economy.* OECD: Author.

Ostendorf, V.A. (1997). Teaching and learning at a distance: what it takes to effectively design, deliver and evaluate programs. *Teaching by Television* (71), 51-57.

Osuala, E. C. (1987). *Introduction to research methodology.* Benin City; African Feb Publishers.

Palloff, R., & Pratt, K. (2000). *Making the transition: Helping teachers to teach online.* Nashville: Tennessee.

Peters O. & Keegan D. (1994). *On distance education: The industrialization of teaching and learning.* New York: Routledge.

Polit, D. F., & Hungler, B. P. (1995). *Nursing research: Principles and methods (3rd ed.).* Philadelphia: J. B. Lippincott.

Romiszowski, A. (2005). *A study of distance education public policy and practice in the higher education sectors of selected countries: Synthesis of key findings.* South Africa: South African council on Higher education.

Rumble. G. (1989). The role of distance education in national and international development: An overview. *Distance Education* 10, 18-35.

Savery, J. R., & Duffy, T. M. (1995). Problem based learning: An instructional model and its constructivist framework. *Educational Technology* 35(5), 31-38.

Savoye, C. (2001). Distance learning with twist-real campuses. *Christian Science Monitor* 2, 15-21.

Selnes, F. (1997), Antecedents and consequences of trust and satisfaction in buyer-seller relationship. *European Journal of Marketing* 32, 305-322.

Sen, A. (1998). *Commonwealth of learning: Success and failure in the global campaign for education for all.* USA: Harvard University Press.

Skumanich, M., & Silbernagel, M. (1997). *Foresighting around the World: A review of seven best-in-kind programs.* [Press release]. U.S.: Department of Energy. Retrieved October 16, 2009, from http://www.seattle.battelle.org/Services/E&S/foresite/index.htm

Stiles, P., & Kulvisaechana, S. (2003). *Human capital and performance: A literature review*. Cambridge: Cambridge University Judge Institute of Management.

Talanquer V. A. (2005). Teacher education. *Journal of Science* 3 (2) 89.

Teaster, P., & Blieszner, R. (1999). Promises and pitfalls of the interactive television approach to teaching adult development and aging. *Educational Gerontology* 25 (8), 741-754.

Threlkeld, R., & Brezoska, K. (1994). Research in distance education. In B. Willis. *Distance education strategies and tools.* Englewood Cliffs: Educational Technology Publications.

United States (US) Department of Commerce on Computer and Internet (2001). Retrieved March 13, 2010, from http://www.educause.edu/edudomain

USDLA (2008). *Education dynamics.* Retrieved March 5, 2010 from http://www.educationdynamics.com

UNESCO (1998). *World education report: Teachers and teaching in a changing World*. Paris: UNESCO

UNESCO (2000). *Education for All: Meeting our collective commitments.* Paris: UNESCO.

University of Cape Coast (2003). *Faculty of Education: Academic Programmes*. UCC: University Press.

University of Cape Coast (2009). *Vice-Chancellor's Annual Report: The 40th congregation.*UCC: University Press.

Verduin, J. R., & Clark, T. A. (1991). *The foundations of effective practice*. San Francisco, CA: Jossey-Bass Publishers.

Webster, F. (2002). *Theories of the information society*. New York: Routledge.

Wedemeyer, C. A. (1981). *Learning at the back door: Reflections on non-traditional learning in the lifespan.* Madison, WI: University of Madison Press.

West, G. (1994). Teaching and learning adaptations in the use of interactive compressed video. *The Journal* 21 (9), 71-74.

Wilson, T.D. (2002). Information management. In J. Feather & P. Sturges, (Eds.). *International encyclopedia of information and library science* (pp. 263-278). London: Routledge.

Yin, R. K. (1994). *Case study research: Design and methods*, (2nd ed.). Thousand Oaks, CA: Sage Publications.

APPENDICES

APPENDIX A: QUESTIONNAIRE FOR STUDENTS

A STUDY ON 'INCREASING ACCESS TO HIGHER EDUCATION FOR TEACHERS IN GHANA THROUGH UCC DISTANCE EDUCATION PROGRAMME'

Dear Sir/Madam,

This questionnaire forms part of the above study. It is aimed at finding out if distance education is indeed a complement to traditional education for all who wish to access higher education. All answers will be treated confidentially. Please you are invited to share your candid opinions.

Tick [√] where appropriate

Section A: Bio-data

1. Gender. Male [ ] Female [ ]
2. Age. 20-29 [ ] 30-30 [ ] 40-49 [ ] 50-59 [ ]
3. Marital status. Single[ ] Married[ ] widowed[ ]
4. Designation. Early Childhood Teacher[ ] Basic School Teacher[ ] Junior High Teacher [ ] Head teacher[ ]
5. Study centre…….

Section B: Status and Growth of Distance Education Programme

6. What made you to start learning again? Rank in order of 1- 4, 1 been highest option and 4 least option.

   More salary [ ]

Attain higher qualification [ ]

Become a Diplomat/Graduate [ ]

Improve competence/Skills [ ]

7. What benefit do you expect to receive from obtaining higher education?.....
8. What is your preferred instructional medium of the distance education programme? Online internet [ ] Modules/Course book [ ] Any other specify [ ]……
9. Give reason(s) for your choice in Q9? I am not a computer literate [ ] I cannot access information online [ ] I cannot communicate on-line [ ] Any other specify ……
10. What delivery modalities would you prefer? Combination of Tutorial and TV[ ] Tutorial and online[ ] Tutorial and Seminar[ ] Tutorial entirely[ ]
11. In your view do you think through distance education commitment of access is been met? Not very well [ ] Not well [ ] Not sure [ ] Well [ ] Very well [ ]
12. Do you feel empowered by accessing higher education? Yes [ ] No [ ]. Give reason…….

Section C: Strengths and Weaknesses of Distance Education

13. What encouraged you to choose distance education as an option? Rank in order of 1-4, 1 been highest preference and 4 least preference.

    Professional commitment [ ] Family responsibility [ ]

Convenience [ ] Flexibility [ ]

14. Can you afford to leave your work and obtain higher education? Yes [ ] No [ ]
15. Are your reason(s) for pursuing distance education being met? Yes [ ] No [ ]. Give reason…….……
16. How does distance education support your motivation regarding further studies? Not very well[ ] Not well[ ] Not sure[ ] Well [ ] Very well [ ]
17. In my estimation the distance education programme has had positive impact on students. Not very well[ ] Not well [ ] Not sure [ ] Well [ ] Very well [ ]
18. Mention three (3) challenges of the distance education programme?

i

ii

iii

19. How do you think the challenges can be resolved?

i

ii

iii

Section D: Concerns of students on Distance Education Programme

Complete the responses for the following items by ticking in the box.

	Item	Not very well	Not well	Well	Very well

20	Tutorials during FTF are presented in a coherent way that engages learners' attention.				
21	Concepts and issues in the module are explained to the understanding of students'.				
22	The structure of course content makes learning easy and promote self-learning.				
23	Learner gets enough time to learn content of the module.				
24	Assessment and examination questions are comfortable and promote critical thinking.				

25. Provide your general impression with respect to the above issues.

    ……..……

26. Do you think distance education programme is going to improve your teaching skills? Yes [ ] No [ ]

27. How would you describe distance education programme to be helping to raise your competencies as a classroom teacher or your job. Not very credible [ ] Not credible [ ] Not sure [ ] Credible [ ] Very credible [ ]

28. Do you think distance education programme is committed enough to training and developing the human resource for manpower development of the country? Not very well [ ] Not well [ ] Not sure [ ] Well [ ] Very well [ ]
29. What is your expectation at the end of the distance education programme?

……

APPENDIX B: INTERVIEW SCHEDULE FOR UNITS AND REGIONAL COORDINATORS

ON THE STUDY 'INCREASING ACCESS TO HIGHER EDUCATION FOR TEACHERS IN GHANA THROUGH UCC DISTANCE EDUCATION PROGRAMME'

This interview schedule forms part of the study to satisfy one of the requirements for the M.A (HRD) aimed at finding out if distance education is indeed an alternative/ complement to the traditional education for all who wish to attain higher education. Your responses will be treated with utmost confidentiality. Please you are invited to share clearly your objective and candid opinions.

Section B: Status and Growth of Distance Education Programme

1. What benefit do you expect learners of distance education to receive from obtaining higher education?.....
2. How will distance education affect learners?.....
3. What preferred instructional medium would you suggest for the distance education programme? Online internet [ ] Modules/Course book [ ] Any other specify [ ]…… Give reason,……
4. What delivery modalities would you prefer for the distance learners? Combination of Tutorial and TV [ ] Tutorial and online [ ] Tutorial and Seminar [ ] Tutorial entirely [ ] Give reason,…….....
5. How do you think access to higher education is been met?

……

6. How are distance learners empowered by accessing higher education?

……

Section C: Strengths weaknesses opportunities and threats of distance education

7. How does distance education support learners motivation regarding further studies?.....……
8. Mention three (3) challenges of the distance education programme?

i

ii

iii

9. How do you think the challenges can be resolved?

i

ii

iii

10. How do you think distance education programme improves learners' teaching skills?.....……
11. How would you evaluate the distance education programme with respect to its contribution to teachers' competence in subject content?

……

12. Do you think distance education programme is committed enough to training and developing the human resource for manpower development of the country? Yes [ ] No [ ] Give reason,….....

APPENDIX C: INTERVIEW SCHEDULE FOR DESAG REPRESENTATIVES

ON THE STUDY 'INCREASING ACCESS TO HIGHER EDUCATION FOR TEACHERS IN GHANA THROUGH UCC DISTANCE EDUCATION PROGRAMME'

Dear Sir/Madam,

This questionnaire forms part of the above study. It is aimed at finding out if distance education is indeed a complement to traditional education for all who wish to access higher education. All answers will be treated confidentially. Please you are invited to share your candid opinions.

Tick [√] where appropriate

Section A: Status and Growth of Distance Education Programme

1. What benefit do students expect to receive from obtaining higher education?.....
2. What is the preferred instructional medium of the distance education programme? Online internet [ ] Modules/Course book [ ] Any other specify [ ].……
3. Give reason(s) for the choice in Q2? Most students are not computer literate [ ] Most students cannot access information online [ ] Most students cannot communicate on-line [ ] Any other specify ……
4. What delivery modalities do students prefer? Combination of Tutorial and TV[ ] Tutorial and online[ ] Tutorial and Seminar[ ] Tutorial entirely[ ]

5. Do students think through distance education commitment of access is been met? Not very well [ ] Not well [ ] Not sure[ ] Well [ ] Very well [ ]
6. Do students feel empowered by accessing higher education? Yes [ ] No [ ]. Give reason……..……..

Section B: Strengths weaknesses opportunities and threats of distance education

7. Can students afford to leave your work and obtain higher education? Yes [ ] No [ ]
8. Are students' reason(s) for pursuing distance education being met? Yes [ ] No [ ]. Give reason……
9. How does distance education support students motivation regarding further studies? Not very well [ ] Not well [ ] Not sure [ ] Well [ ] Very well [ ]
10. In estimation the distance education programme has had positive impact on students'. Not very well [ ] Not well [ ] Not sure [ ] Well [ ] Very well [ ]
11. What three (3) challenges of the distance education programme do students' experience?

i

ii

iii

12. How do students' think these challenges can be resolved?

i

ii

iii

Section C: Concerns of students on distance education programme

13. Do students' get enough time to learn on their own before they report for face to face? Yes [ ] No [ ]
14. How would students' describe distance education programme to be helping to raise your competencies as a classroom teacher or in your job.

    Not very credible [ ] Not credible [ ] Not sure Credible [ ] Very credible [ ]
15. Do students' think distance education programme is committed enough to training and developing the human resource for manpower development of the country? Not very credible [ ] Not credible [ ] Not sure Credible [ ] Very credible [ ]
16. What is learners' expectation at the end of the distance education programme?.....……