

# Operation of Distance Education at the Tertiary Level: A Case Study of Students of Cape Coast University, Valley View University and University of Education Winneba

Samuel Osei

Assistant Headmaster, S.D.A. Senior High School, Kenyasi, Ashanti  
Email: [kooseei@yahoo.co.uk](mailto:kooseei@yahoo.co.uk)

Emmanuel Kofi Mintah

Head of ICT Department, SDA Senior High School, Bekwai-Ashanti, Ghana  
Email: [adontsen@yahoo.com](mailto:adontsen@yahoo.com)

To Link this Article: <http://dx.doi.org/10.6007/IJARPED/v3-i2/911>

DOI:10.6007/IJARPED/v3-i2/911

---

*Published Online:* 24 June 2014

## Abstract

The Operation of Distance Education has become a major mode of education because the conventional education is unable to meet the growing demand for admission into tertiary institutions. Through application of purposive sampling technique (procedure) this research brings to light the operations of Distance Education in Ghana at the tertiary level. In establishing this, literature covering different aspects of operational challenges is reviewed. Both qualitative and quantitative analyses were applied. The results from the respondents denote "good" impression about the operation of Distance Education in that the students can add more academic and professional value to their careers while working. However, socio-economic and financial factors posed problems for Distance Education participants. Combination of work and studies identified as major challenge in pursuing Distance Education. The use of electronic media, employing more tutors, ensuring relatively permanent teaching- learning venues and other factors facilitate efficacy and considerable improvement of Distance Education operation in Ghana. To make distance education more effective, the following recommendations are made: modern I.C.T. tools must be used in the operation Distance Education; institutions and organizations should be made to accept Distance Education Certificates; more lecturers/instructors should be employed; study leave for Distance Education students to solve financial difficulty the students face; and the scope of Distance Education should be widen to cover many subjects taught.

**Keywords:** Distance Education, Operations, Tertiary Level of Education, Opening Learning, Socio-economic Background.

## **Introduction**

The Operation of Distance Education has become one of the global issues in recent years. This is because it is obvious that the conventional education is unable to meet the growing demand for admission into tertiary institutions. This has called for international interest in operation of open and distance learning and its subsequent expansion of the respective institutions and programmes is a most remarkable development in the field of education. This new method of education delivery has established greatly through new developments in information and communication technologies. The United Nations Education and Scientific Cultural Organization (UNESCO), which since its foundation is committed to the provision of both formal and non-formal learning opportunities within the framework of the principle of lifelong education, has supported the use of distance education.

When conventional systems and methodology cannot meet the needs of education, one has to look for a new strategy to resolve educational challenges. The nine high populated countries for example, (Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan) have recently decided to launch a joint initiative on distance education operation. The European Union has in recent years consistently increased distance education components of its educational programmes, and has included open and distance learning explicitly in its Maastricht Treaty. In Central and Eastern Europe, distance education is seen as an important means of supporting the transformation process towards democratic and market oriented societies. Similar initiatives and statements are forthcoming from a wide range of individual countries as well as from regional and international organizations and agencies (Jenkins, 1989).

The history of distance education goes back more than one hundred years in North America and it is now firmly rooted in the education systems of both Canada and the USA.

Operation of Distance Education is used for outreach to remote population groups, support of school education, provision of education and training opportunities for adults, vocational courses, corporate and military training, higher and continuing education, life enrichment courses, etc. Modalities in frequent use are correspondence education, television and video courses audio and video teleconferencing, satellite transmission and computer-mediated communication. North America has more extensive experience than most other parts of the world in the application of advanced technologies of telecommunication in distance education. Increasingly, a mix of different technologies is used in the same programmes. Electronic services and networks are available to a considerable proportion of the population, and governments see a future in expanding capacity and access through 'information super highways'. However, there is a pressing need for North American Colleges and Universities to make capital investments needed for this programme. Many institutions lack the necessary networking capacity and internal expertise to fully utilize the opportunities. There is thus a need for continued public investment in the technology infrastructure (Miller, 1993).

In Europe distance education is a well-established form of education, although the status and tradition varies considerably within the region. In Western Europe there is a strong private sector in distance education serving the adult population, mainly through general education programmes at the secondary level, through various forms of vocational and professional training and through non-formal education. A number of countries have implemented

particular legislative measures to ensure quality control of private provision. Some countries have also established major government-funded institutions (France, Spain, and Sweden). Some of these operate mainly at the secondary level; others also have tertiary level programmes. The UK Open University has set the standards for a particular type of university institution, the open universities. Similar institutions have been established in four other European countries (Spain, Germany, The Netherlands and Portugal). In other countries the dual mode type of universities is the dominant model, and in recent years various consortia models have been introduced (Bangemann, 1994).

Sub-Saharan Africa is one of the regions where the "knowledge gap" between North and South takes on the most dramatic character. There is a tradition of distance education in many of the countries, where governmental institutions were often established after the former colonies became independent. Distance education has mainly been used to improve access to basic education for an increasing proportion of the population through open programmes, and to maintain and improve quality in the conventional education system -through in-service training of teachers and support for teaching in schools. For example, UNESCO was involved in the in- service training of all of Botswana's unqualified teachers in the late sixties and seventies. But distance education has also been used in non-formal education and community development by national and international organizations. One example is the pan-African INADES Formation, established in 1962 in the Ivory Coast, with national offices in 10\ countries (UNESCO, 1991). Correspondence education is usually the main medium of instruction in the region. Radio is used to some extent, and in some cases local study groups are organized.

Nevertheless, distance education has shown signs that it is becoming more central to the education policy of some countries. Distance education is seen as a low-cost alternative for the expansion of educational opportunities at all levels. For instance, Zimbabwe's expansion of secondary education from 66,000 students in 1979 to 700.000 in 1989 was only possible by using a system of school-based distance education, supported by short in- service training courses for teachers (Chung, 1990). Recently, South Africa has reinforced its strategy of making extensive use of open and distance learning, and the P ALOP countries have taken initiatives to work on the development of interactive radio instruction. The main challenge for distance education in the region is to secure continued national commitment on policies and funding at a level needed to secure quality and economy of scale. Distance education should play a significant role as a supplement and a backup to conventional systems. Secondary school opportunities, vocational and non-formal education need to be expanded, and gender equality should be strengthened. Also tertiary education lends itself to increased use of distance education.

The demand for higher education in Ghana has increased in recent years as a result of population growth and the increase in the number of secondary school graduates. For the past ten years or so, the universities in Ghana have had the unpleasant duty of turning away a large number of qualified applicants every year as a result of their inability to admit not even half of these applicants (Aggor et al., 1992). This situation has been attributed to limited and deteriorating facilities. Coupled with this limited facilities is the rising cost of providing quality education at the secondary and tertiary levels.

The government of Ghana is finding it increasingly difficult to fund tertiary education all alone. As a result of the above reasons and many others the government of Ghana has adopted distance education as a viable complement to the conventional face-to-face education. This step is inspired by the vision that all Ghanaians should have access to all forms of education and training regardless of where they live. (Article 25 of 1992 Constitution of Republic of Ghana).

Despite the difficulties encountered in the earlier attempts with DE in Ghana, there was still a strong conviction on the part of the Government of Ghana that DE is a viable complement to conventional education especially at the tertiary level. This conviction was partly due to the fact that universities were not able to admit even half of qualified applicants due to limited facilities.

Consequently, between 1991 and 1994, the government of Ghana through the Ministry of Education (MOE) sponsored a number of surveys to assess the DE needs of Ghana. Two important international organisations which were involved in these surveys are the Commonwealth of Learning (COL) and the United Nation Education, Scientific and Cultural Organisation (UNESCO, 2001).

Upon the recommendations from these surveys the universities agreed to start DE programmes. The four universities, University of Ghana (UG), University of Cape Coast, University of Science (UCC) and Technology and University of Education, Winneba (UEW) started preparations for this new model of educational delivery. University of Ghana opted to offer four courses through its DE programme. These are Sociology, English, Religious and Political Science at the Bachelor degree level. For University of Cape Coast, the courses selected were Bachelor of Education in Primary Education and Post graduate Diploma in Education (PGDE). At the University of Science and Technology two programmes were proposed for the programme. These were BSc (Building Technology) and BSc (Biological Sciences).

However, funding of the DE programme was a problem for the universities. Of these four universities only UEW was able to take off in 1996 as a result of assistance from the then British Overseas Development Administration (ODA) now Department for International Development (DFID). UEW took off by admitting a first batch of 196 students to pursue Post-Diploma Bachelor of Education (BEd) degree in four subject areas namely: English Education, Life Skills Education, Mathematics Education and Science Education. UCEW therefore became the pioneer in university level DE in Ghana. UCC and UG just took off in 2001/2002 academic year with diploma programmes in Basic Education and Youth in Development Work respectively (UNESCO, 2000).

The nature and type of distance education in Ghana are clearly identified in two spectra; thus what is employed in this work as the Remote and Semi-remote distance learning. The remote type is essentially electronic based and it is a true distance education in the strictest sense of the term distance. The best examples are the Presidential Special Initiative (PSI) Distance Learning Programme featured on the Ghana Television (GTV) for the JHS and the SHS. The other commonly known one is the African Virtual University, (A VU), also organized among some departments and schools in some of the public universities in Ghana. The Semi-remote

distance learning on the other hand is organized with a group of students who periodically meet their organizers or instructors to take some written materials and instructions as to what they should be doing within a given period. They also meet from time to time to give their stewardship through a written examination.

In spite of the enthusiasm generated by the new thrust in open and distance education, overall problems that impeded proper implementation are highlighted by Olalere (2006), as follow: Lack of consistency in programme/policy implementation, Problem of electricity, poor telecommunication facilities, poor postal system, poor economic situations and its effects on middle level manpower, poor ICT penetration etc.

It must be noted that although the problems outlined above constitute the major bane in the implementation of distance education in general, these challenges are purely akin to the electronically based distance learning programmes.

### **Statement of the Problem**

The pre-test and investigation conducted among some tertiary Distance Education (DE) students made it clear that students on DE course actually encounter a number of challenges and to them, these challenges need to be dealt with before distance education can give significant impact in human capital and national growth and development.

Notwithstanding significance of DE, operation of distance education is not improperly conducted, but also there is no effective national policy supporting it as happening in other African countries such as Nigeria, South Africa as well as the world including America and Europe. For instance, about twenty students from Valley View University, Cape Coast, Winneba Universities and others who engaged in distance education were psychologically disappointed due to accreditation, accommodation, and work and study challenge.

In additional, there is inadequate documentation and publicity, and as such many qualified students have not identified the existence of DE and how it is operated as an alternative option to improve human capital. For example, the existing documents on distance education management and operation in general are foreign based. It will therefore take such a study as this to complete the existing local information to portray Ghanaian situation and how to identify the major operational challenges militating against its smooth implementation.

### **Objectives**

The ultimate aim of this study is to establish the operations of the distance education in Ghana. By so doing, the following objectives are to be achieved.

- a. Assessment of the organisation and operation of distance education in Ghana
- b. Examination of the differences in the impressions about the organisation and operation of Distance Education held by students of the universities under study.
- c. Establish the differences in the views among the students in different universities on the operation of Distance Education in Ghana
- d. Determining the correlation between students' socio-economic background and the choice of Distance Education to pursue higher education

### **Research Questions**

1. How distance education is practised in Ghana?

2. What are the students' opinion about the organisation and the operations of Distance Education in Ghana?
3. Is there any difference in views among the students in different universities on the operation of Distance Education in Ghana?
4. Is there any correlation between students' socio-economic background and their choice to pursue education through distance learning?

### **Theoretical Framework and Literature Review**

This section looks at the theoretical explanations of the systems and the operations of distance educations and the main issues that it entails. It also considers previously done studies on distance education in terms of its conception, implementation, students views among several others areas of its operations.

### **Theories and Philosophies of Distance Education**

The bases of the study have been grounded on Theories and philosophies of distance education postulated by Sherriy (1996) to explain the issues and the concept of distance education. The theories and principles have been adopted to explain the core issue of this study and how it operates.

According to the proponents, the theoretical basis on which instructional model is based affects not only the way in which information is communicated to the student, but also the way in which the student makes sense and constructs new knowledge from the information which is presented.

Currently, there are two opposing views which impact instructional design: symbol-processing and situated cognition (Bredo, 1994)

Until recently, the dominant view has been the traditional, information processing approach, based on the concept of a computer performing formal operations on symbols (Seamans, 1990). The key concept is that the teacher can transmit a fixed body of information to students via an external representation. She represents an abstract idea as a concrete image and then presents the image to the learner via a medium. The learner, in turn, perceives, decodes, and stores it. Seamans, (1990) modifies this approach by adding two additional factors: the student's context (environment, current situation, and other sensory input) and mind (memories, associations, emotions, inference and reasoning, curiosity and interest) to the representation.

The learner then develops his own image and uses it to construct new knowledge, in context, based on his own prior knowledge and abilities.

The alternative approach is based on constructivist principles, in which a learner actively constructs an internal representation of knowledge by interacting with the material to be learned.

This is the basis for both situated cognition (Streibel, 1991) and problem-based learning (Savery & Duffy, 1995).

Prawat and Floden (1994) state that, to implement constructivism in a lesson, one must shift ones focus away from the traditional transmission model to one which is much more complex, interactive, and evolving.

Schlosser and Anderson (1994) refer to Desmond Keegan's theory of distance education, in which the distance learning system must artificially recreate the teaching-learning interaction

and re-integrate it back into the instructional process. This is the basis of their Iowa Model: to offer to the distance learner an experience as much like traditional, face-to-face instruction, via intact classrooms and live, two-way audio-visual interaction. In contrast, the Norwegian Model has a long tradition of combining mediated distance teaching with local face-to-face teaching (Rekkedal, 1994).

Distance education systems now involve a high degree of interactivity between teacher and student, even in rural and isolated communities separated by perhaps thousands of miles.

The Office of Technology Assessment stresses the importance of interactivity: distance learning allows students to hear and perhaps see teachers, as well as allowing teachers to react to their students' comments and questions (US. Congress, 1988). Moreover, virtual learning communities can be formed, in which students and researchers throughout the world who are part of the same class or study group can contact one another at any time of the day or night to share observations, information, and expertise with one another (Vander Ven, 1994; Wolfe, 1994).

As the theory has explained above, the context in which the Distance Education in Ghana is found is as above. The Distance Education in Ghanaian universities is not so much making use of the electronic systems as compared with the developed nations. However, what is most essential is that the way it is run is just akin to what the theory has underlined. The Semi-remote distance learning is organized with a group of students who periodically meet their organizers or instructors to take some written materials and instructions as to what they should be doing within a given period. They also meet from time to time to give their stewardship through a written examination. This promotes a higher degree of interaction between teachers and the learners.

### **Operation of Distance Education in Ghana**

The commonwealth countries in general follow a similar structural arrangement in the management and operation of their DE. This arrangement is akin to the British system. The operations and management of DE in the Universities of Ghana follow commonwealth structure. (UNESCO, 2001)

### **Operation of Distance Education at University levels in Ghana**

The original UNESCO plan for the Universities of Ghana included proposals for the provision of facilities for part-time studies via correspondence and mass-media teaching techniques (Olumide, 1982).

As part of the first phase of its development, the Institute embarked on degree courses in Teacher Education and in Business Administration. The Institute was upgraded to offer degree courses which consist of Science Education courses in Biology, Chemistry, Physics and Mathematics and Business Administration courses in Business Administration and Accounting. A B.Sc. degree is offered to those who successfully complete the course. A two-year postgraduate diploma course in Education (PGDE) is to be terminated for logistic reasons. The courses proposed in the near future include a postgraduate degree course in Public Health, a diploma course in Mass Communication and one in Youth Training

**Operation and Administrative Structure:** Distance Education Institute is headed by a Director who is an academic of professorial or Doctoral calibre. An Administrative Secretary who is of the level of a Deputy Registrar is head of Administration, the Academic Planning and

Development (APD). The Institute consists of academic personnel who are specialists in their course areas and act as Chief Co-coordinators between the Faculties and the Institute for the smooth running of the courses. Each programme run by the Institute has its own Head of Department and it is usually headed by a Senior Lecturer.

### **Board of the Institute**

1. There is a Board of Studies for the Institute, chaired by the Director. Other members of the board are the academic staff, course supervisors from the faculties and heads of department. Administrative secretary acts as the secretary to the Board. The Board of Institute considers matters relating to academics such as, overall admission, students' deferment of admission or examination results etc.

2. A Management committee appointed by the Vice Chancellor of the university oversees Institute staff welfare, staff development and development of infrastructures facilities. The management committee is headed by a chairman who is of professorial calibre. The director and administrative secretary are members. Other members are appointed from Departments. Although the institute is a self-accounting institute it is, however, not autonomous of the Universities of Ghana. Their accounts vouchers are subject to auditing by the audit departments of the universities.

3. The Media units of the institute are responsible for the production and distribution of all course materials. The unit once boasted of a printing press, but this has been absorbed the university press. The media units are yet into the production of electronic audio-visual material for the studies.

**Teaching Methods:** The co-operating faculties are those of business administration, education and science. In the faculty of Business Administration (FBA), two degree course are in operation; and they are Accounting and Business Administration.

The other set of the institute students are the education students who take both education and science courses. To them, education courses are compulsory especially University of Cape Coast and University of Education, Winneba but they can major in the following science combinations; Biology /chemistry, chemistry/Mathematics, chemistry/Physics, Physics Mathematics or Mathematics /Further Mathematics. One of these science courses serves as the major teaching subject and other minor. The various courses lead to a B.Sc. degree in Accounting, Business Administration or Education. Lecture materials are disseminated to the students through the distribution of course text materials and through tutorials in face-to-face meetings between students and their course tutors. Face

**Counselling Services:** Counselling services at campus are grouped into three parts, namely: 1. Pre-course, 2. In-course; and, 3. post-course counselling. The Pre-course counselling involves giving advice to prospective students seeking admission.

**Study Materials:** Course texts are written principally by the lectures of the University who teach the courses. Where the said lecturer is unwilling to write, the text is given to another lecture from a different University. However, about 80 percent of course texts are written by the lecturers who teach the course. Each course text is written as a number of modules. Each module is written in the simplest way for easy following, and is divided into subsections.

At the end of each module are a set of Self of Assessment Questions to test the student's understanding; where the student is unable to answer the question, he can go back to the

text for an answer. The course texts are distributed to the student through their study centres but principally through the main campus of university. Beside course texts, twice a year, Institute prepares newsletter for distribution amongst its student to convey current news such as study centre dates, residential programmes and other information (Olumide, 1982; Okunuga, 1983).

**Assessment and Certificate:** The only forms of assessment currently employed by Institute are quizzes, assignments, power point presentations and end-of-session examinations. The examinations are set by the course lecturers based in the faculty and, where the final year students are concerned, moderated by an external examiner (Otaniyi, 1985).

In Ghana, the universities that have opted to operate the DE follow almost the same operational arrangement with basically slight differences depending on the institutions involved. In each of these Universities, a department is selected to take care and be responsible for all matters involving DE. Distance Education management has been in operation for a few numbers of years and so far, there are a few problems.

### **Student Concerns**

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 (Sherritt, 1996, pg. 4). Hardy and Boaz (1997) 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 in groups". Many distance learners are different from traditional undergraduates in that they are already in professions. They have well defined goals and are more motivated Hardy and Boaz (1997). 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 is true 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 also have a difficult time reading the reactions of the remote location class members.

Lack of such interaction causes 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 and direction and respond with apathy and absenteeism (West, 1994).

### **Research Methodology**

The research was designed to include Valley View University in Accra, the University of Cape Coast and the University of Education, Winneba in Central region of Ghana. The purpose for the choice of these three universities are the number of years distance education has been practiced, the ownership of the University in terms of state owned and private owned, and proximity to the researchers. For the purpose of this study, the population was the students from Valley View Universities (VVU), Universities of Cape Coast (UCC) and Universities of Education, Winneba (UEW) who are currently pursuing university education through the distance education system.

A sample of 139 students was drawn for the study made up of 30 students from VVU, 77 students from UCC and 32 students from UEW. The researchers used stratification and the snowball sampling Techniques in selecting the sample. This research method involved the collection of data from primary and secondary sources. The primary instruments used to collect data were interviews, observation and questionnaire. The questionnaires were pre-tested with five students pursuing distance education at the University of Winneba as they were asked to complete them. This was to check the consistency of understanding of the questions. A few problems which were identified were duly corrected. The main secondary data were information from published text books, researches, newspapers and journals, articles, magazines and the internet.

The data were scored based on the degree of preference by a respondent on the scales. The demographic data and others which are categorical in nature were scored according to the frequency of choice or occurrence. Data collected were analysed using statistical methods. Pearson Moment of Correlation Co-efficiency and the Analysis of variance (ANOVA) were used to test relationships of variables and compare the differences respectively. The analysis was done with the use of SPSS.

### **Analysis and Presentation of Data**

This chapter presents an analysis and discussion of data which was gathered from the field with a questionnaire. The results cover the following objectives:

The analyses focus on general experience and impression of the students and the operation of the DE in Ghana, the reasons and the importance of DE, the differences of the operations among the institutions chosen for the study and the challenges of the operation of the Distance Education in Ghana. The main respondents of the study are the students selected from the three Universities namely, University of Cape Coast, University of Education, Winneba and the Valley View University. Although supplementary information was sought from the departments of these universities, they were not used as part of the discussions.

This section provides the results on the demographic characteristics of the respondents. The section specifically presents results on age, sex, Ethnicity, Religion, Marital Status, and Institution of study, the course pursued and the Level/year of students among others.

The age groups start from 16 years upwards and the age groups with highest concentration of students are those within 26-35, 56.8%. This is followed by the age group of 46-55, 33.1 % from where it slowed down again. On the sex of the students, the females are in the majority with 64.7 and the males, 35.3%. This is very encouraging because it contrary to the to the male/female parity in educational achievement. While this is encouraging there are no

specific reasons given by the work or the respondents to explain the phenomenon. The students who are working are 85.6% while those without work are 14.4%. Students from Brong Ahafo constitute 1.4% and Westerners are 2.9%.

Most of the students 55.4% are from Cape Coast University followed by UEW 23.0% and the least of them 21.6% come from Valley View University. On the religion, only Christianity 81.3% and Traditional Religion 18.7 were represented. In all 59.7% are married, 34.5% are singles and 5.8% are divorced. The Education related courses are the dominant subject taught in the DE level in Ghana with more than 50% of all of them as found on the table 4.1 below.

Most of the students 47.5% are at the level 300 followed by those at level 200 29.5%. Those from level 400 are 15.8% and the level 100 students are 7.2%. On the income levels of the students, some of them 15.1 % receive monthly payment of 300 Gh. or more, those who receive between 201-300 Gh. are 21.6%.

The group with the highest percentage 34.5% of income received per month is those with the 151-200 Gh. Brackets. The income group of 101-150 Gh. are 14.4% while those within 50-100Gh. are 11.5%.

TABLE 4.1

*Demographic information of the respondents*

Age	Frequency	Percent
16-25	8	5.8
26-35	79	56.8
36-45	46	33.1
46-55	6	4.3
Total	139	100.00
Sex	Frequency	Percent
Male	49	35.3
Female	90	64.7
Total	139	100.0
Religion	Frequency	Percent
Traditional Religion	26	18.7
Christianity	113	81.3
Total	139	100.0
Marital Status	Frequency	Percent
Single	48	34.5
Married	83	59.7
Divorced	8	5.8
Total	139	100.0
Institute	Frequency	Percent

UCEW	32	23.0
U. of Cape Coast	77	55.4
Valley View Uni.	30	21.6
Total	139	100.0
<b>Course of study</b>	<b>Frequency</b>	<b>Percent</b>
Dip. In Basic Education	52	37.4
Mathematics and Science	9	6.5
Education	32	23.0
Political Science	10	7.2
English Language	8	5.8
B.A. Religions	16	11.5
Theology	4	2.9
Business management	8	5.8
Total	139	100.0
<b>Year/Level</b>	<b>Frequency</b>	<b>Percent</b>
Level 100	10	7.2
Level 200	41	29.5
Level 300	66	47.5
Level 400	22	15.8
Total	139	100.0

The issue about marital status of the students is very important in this study because the ability - especially the females- to combine education with work and family matters is a critical factor to get insight into in such a discussion. From the cross tabulation sex and marital status below, the women outstrip the men in terms of those married by more than a half. This means that they will be more pressurized by the problems of combining studies and work. The difference between the sexes in terms of the marital status is also statistically significant as indicated on the Chi-Square Test table below at  $p < .011$  which is adequately within the accepted region of .05.

Table 4.2  
*Cross tabulation between Sexes and Marital Status*

Marital Status	Sex		Total
	Male	Female	
Single	17.3%	17.3%	34.5%
Marriage	15.1%	44.6%	59.7%
Divorced	2.9%	2.9%	5.8%
Total	35.3%	64.7%	100.0%

Table 4.2.1

*Chi-Square Tests of Sexes and Marital status*

	Value	df	Asvnm, Siz. (2-sided)
Pearson Chi-Square	8.937	2	.011
Likelihood Ratio	8.894	2	.012
Linear-by-Linear Association	3.403	1	.065
N of Valid Cases	139		

**Impressions about the Operation of Distance Education in Ghana**

The first item on the questionnaire apart from the demographic data was the one that sought the impressions of the students on the running and the operation of the DE in some of the countries Universities in Ghana. The percentages/figures below are the summary of the impressions gathered on all the items under that section (section B).

Table 4.3

*Impressions about the Operation of DE in Ghana*

Impressions about the operations of Distance Education in Ghana measured as 5 very good, 4 good, 3 Uncertain, 2 Good, 1 not Good at all. The numbers are in percentages

Impressions in 0%	5	4	3	2	1	Missing	Total
Organization	7.2	32.4	18.7	25.9	12.9	2.9	100.0
Subject taught		12.9	69.8	5.8	8.6	2.6	100.0
Instructors	7.2	54.0	27.3	8.6	2.9	_____	100.0
Materials/info	20.1	54.0	8.6	10.1	7.2	_____	100.0
Understanding	1.4	54.7	32.4	11.5	_____	_____	100.0
Friends help	12.9	32.4	20.1	21.6	12.9	_____	100.0
Cert Credibility	24.5	36.7	30.2	2.9	5.8	_____	100.0
Future of DE	24.5	35.3	31.7	5.8	2.9	_____	100.0

On the issues given above, the respondents have various impressions and opinions about how they experience them in their pursuit in their various institutions of studies. In general, fewer have "very good" opinions than those have "good" opinions about the issues. Obviously, very few of them think that the organization, the instructors and understanding of the they read are "very good". Most of them however opine that in general, all the issues operation of Distance Education are "good". Even those who are uncertain about the future of the Distance Education are more than those who think that the operation of Distance is "very good". It must however, be stressed that a relatively fewer percentage of the have the impression that the programme is "not good or "not good at all". Compare the percentage above for the

details of the impressions of the issues of the operation of the Distance education in Ghana.

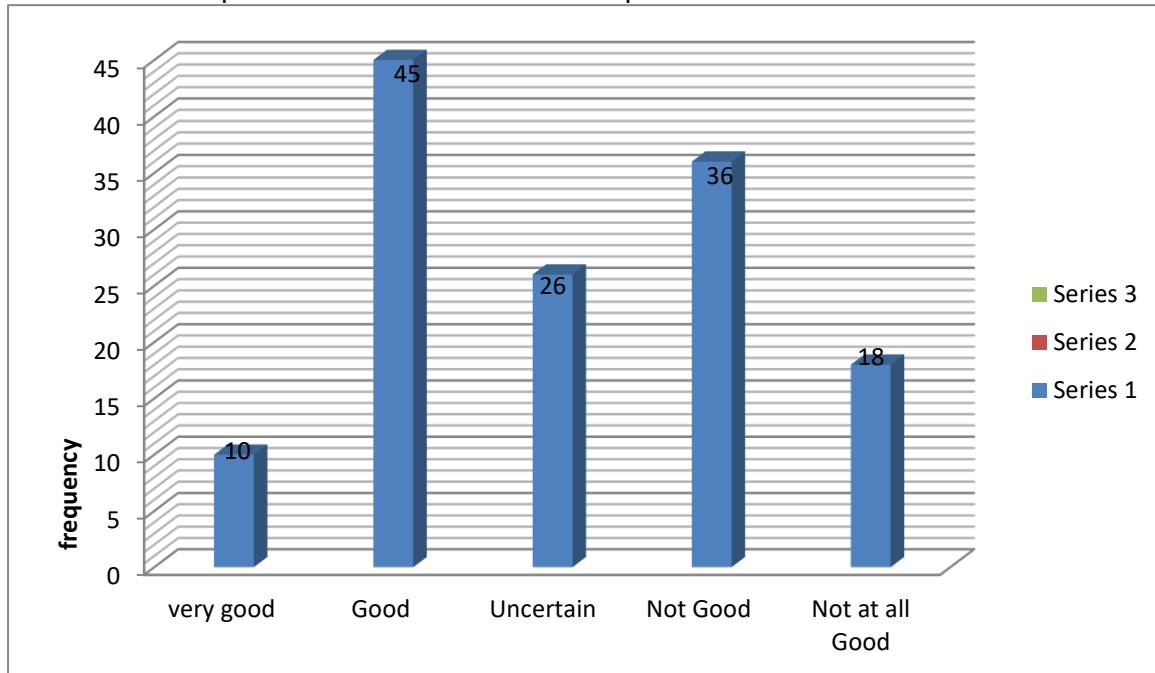


Figure 4.1: Impressions Bout the Organization of Distance Education in Ghana

In considering the individual items, much more detailed information is given by the respondents. The figure 4.1 below highlights the participant’s impression as a whole. From the table, 7.5% have “good: impressions about the programme, 32.4% think that it is very good, 18.7 are uncertain about operation of DE, 25.9% have “not good” impression about it and others, 12.9% say the programme is :not good at all”. Those who said nothing at all were 2.9%.

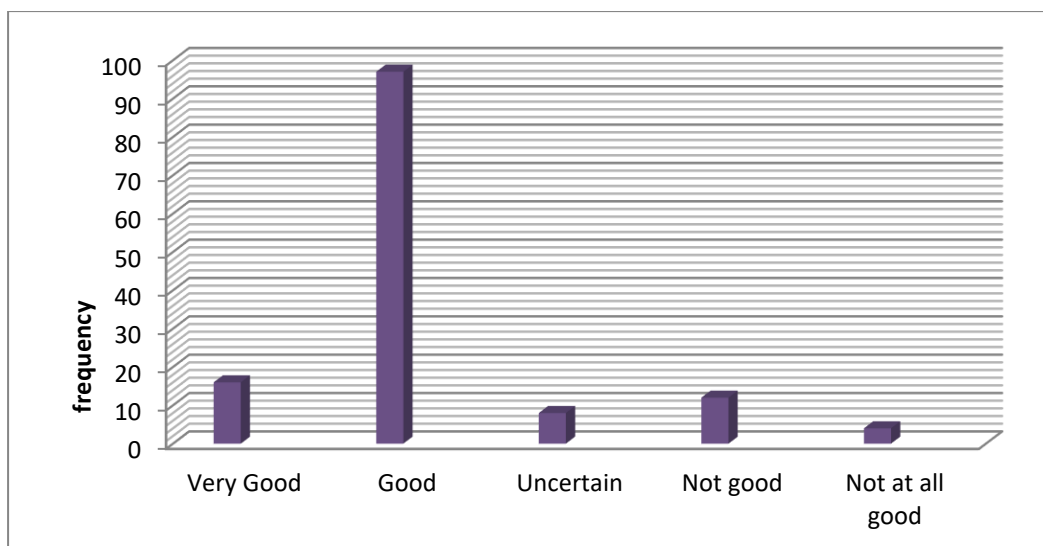


Figure 4.2: Participants impressions about the subjects taught in DE in Ghana

On the subject taught in their institutions, the table 4.2; below explains its details. Some 12/9% claim that it is very good”, 69.8% attest to its goodness, 5.8% are uncertain about the assertion 8.6% see nothing good about it while 2.6% say it not good at all.

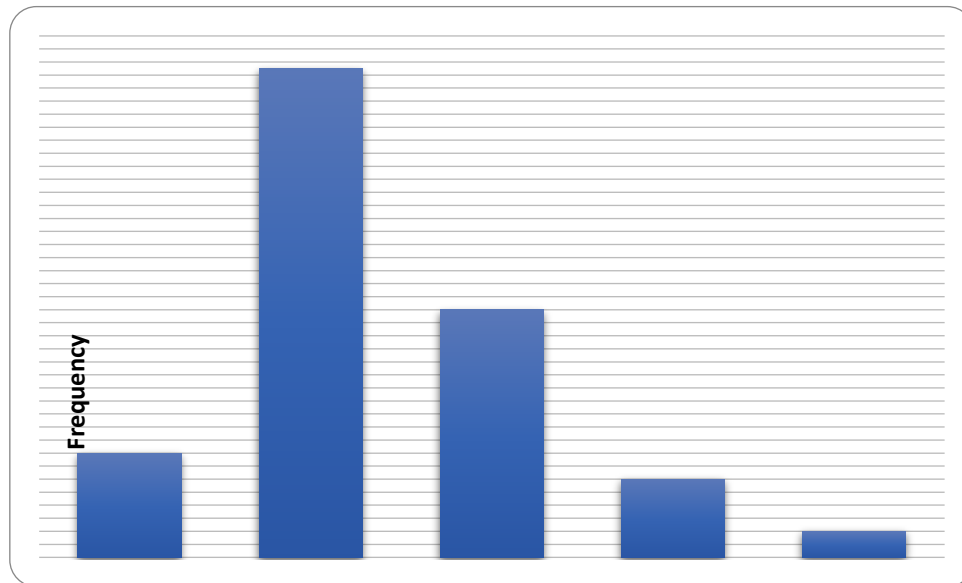


Figure 4:3 participants' impressions about the instructor/Organizers in Distance education in Ghana

As well, the respondents had varied opinions about the instructions and the organizes of the programe and according to the findings, 7.2% had very good views about them, 54.0% of them thought the organizer/instructors were good, 27.3% were uncertain about them. While 8.6% were with that the organizer/instructors were good, the rest 2.9% thought they were not at all good. See the table 4.3 above.

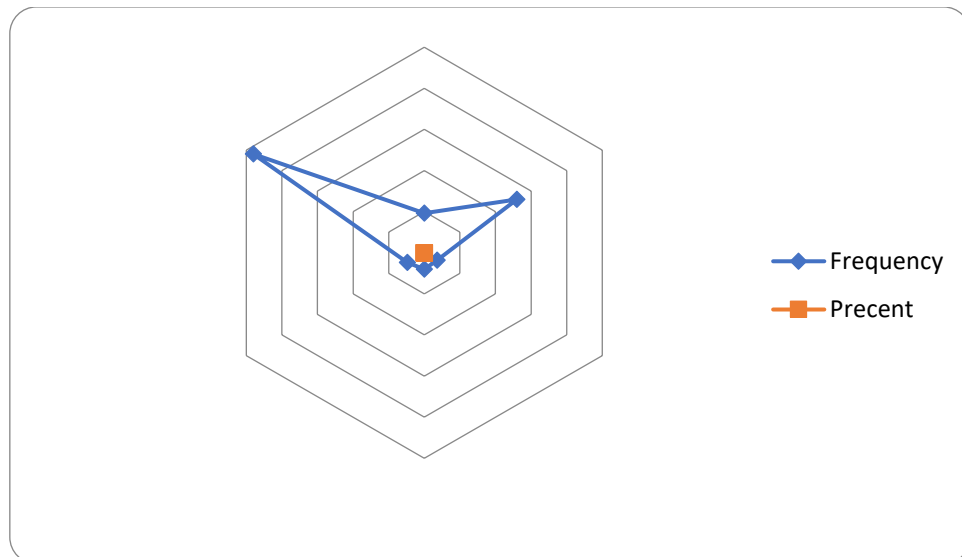


Figure 4.4: Participants' Impressions about the Materials/Source of information

Quality of reading materials and constant sources of educative information for students is very crucial in running any academic programme. Some of the respondents 20.1% indicated that, they have a very good view about its provision in the DE programme. Also, 54.0%, had good impressions about the quality of materials while 8.6% were uncertain about the claims however, 10.1% thought that its provision was not good while 7.2% were not happy at all about them.

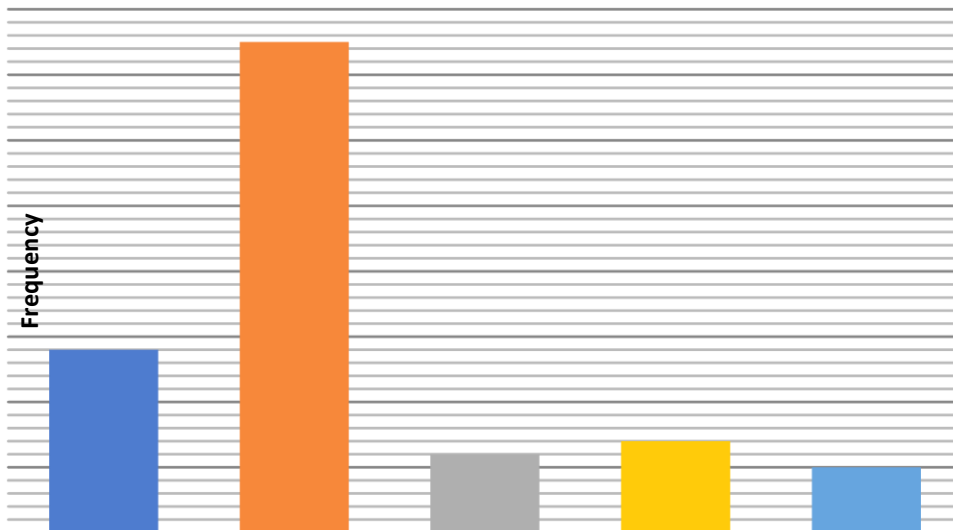


Figure 4.5 participants' impressions about studying and understanding of materials

Students ability to read and understand study materials is key to tier success in their educational pursuit in any academic setting. Due to time and other factors, most students in the distance education system, find difficulty in achieving this purpose. The items that was to see how students are able to understand the study materials suggests that, only 1.4% of the students has a very good thinking about this assertion. Also, 54.7% though it was good. There were 32.4% were who uncertain about the issue while 11.5% of them that the issue is not case at all.

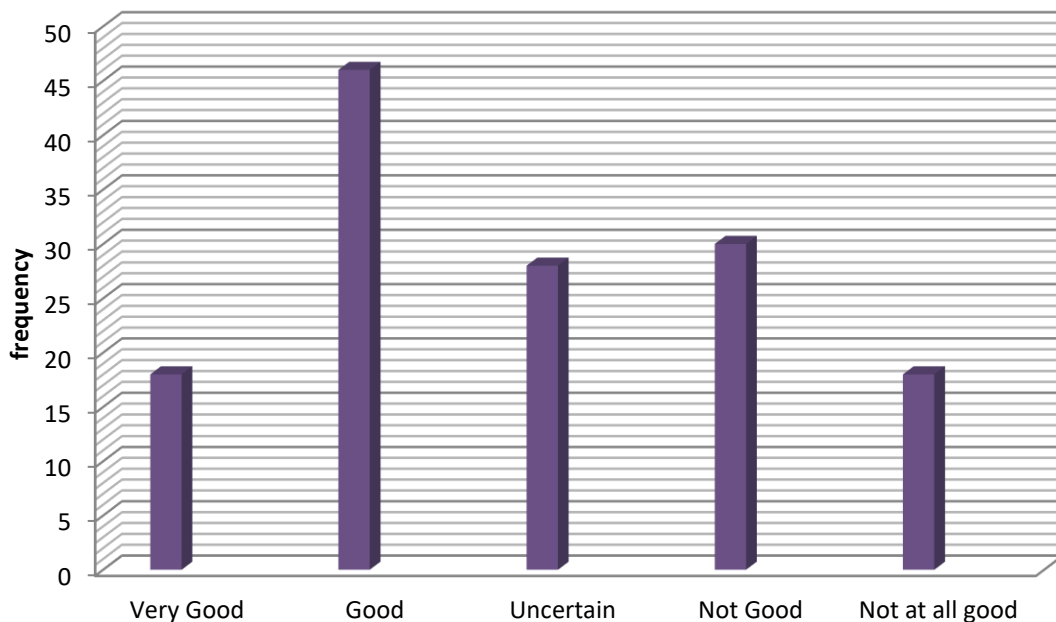


Figure 4.6 Participants' Impressions about help from friends/mates

Studying with one's peers in any educational setting is an advantageous as some gets help from friends and metals. This is more common in traditional institutions than in DE programe. The respondents views on this were varied as some of them thought his has been very good(1.4%. others, 54.7%) were with that this has been good. While 32.4% hoped

that it was not good the rest 11.5% concluded that this symbolic association does not exist at all in the DE Programme.

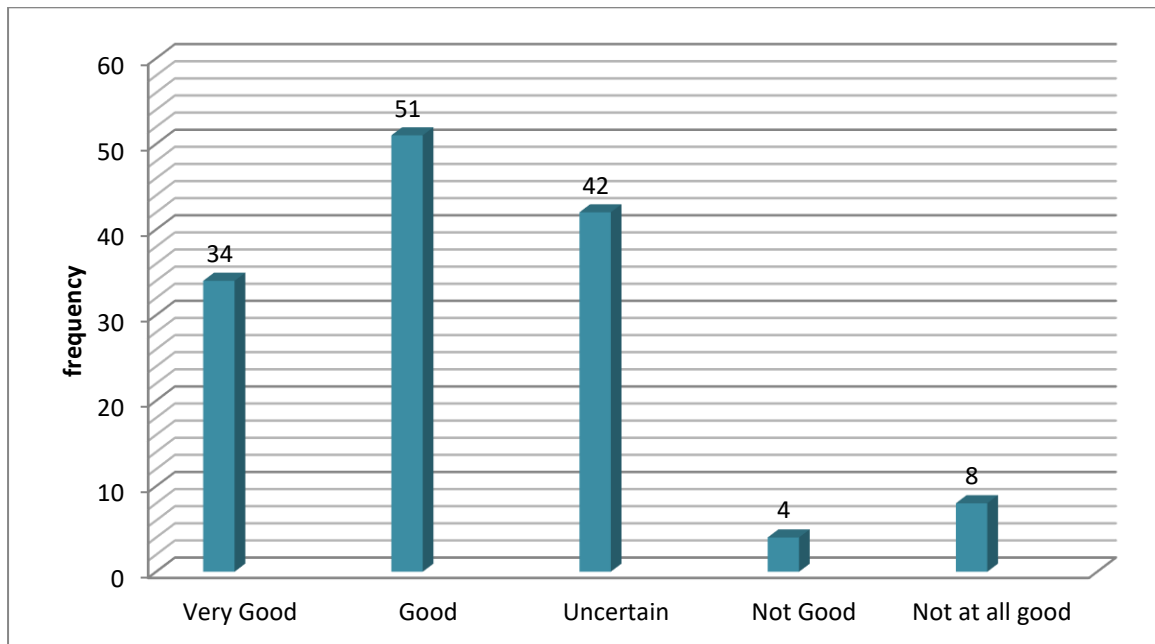


Figure 4.7 Participants’ Impressions about the Credibility of Certificate

The issue of credibility and acceptance of certificates have been raised several times when it comes to the DE programme. Due to the critical nature of the credibility of certificate of DE students are always anxious to get them after the programme. According to the students interviewed in this works, 24.5% have very good opinions on their certificates, 36.7% felt that the certificates are good, 30.2% are uncertain about this issue and while 2.9 had “not good” idea about it, 5.8% had not good at all” opinion about the certificate they would be issued after the course. The table 4.7 shows the highlights of the information given.

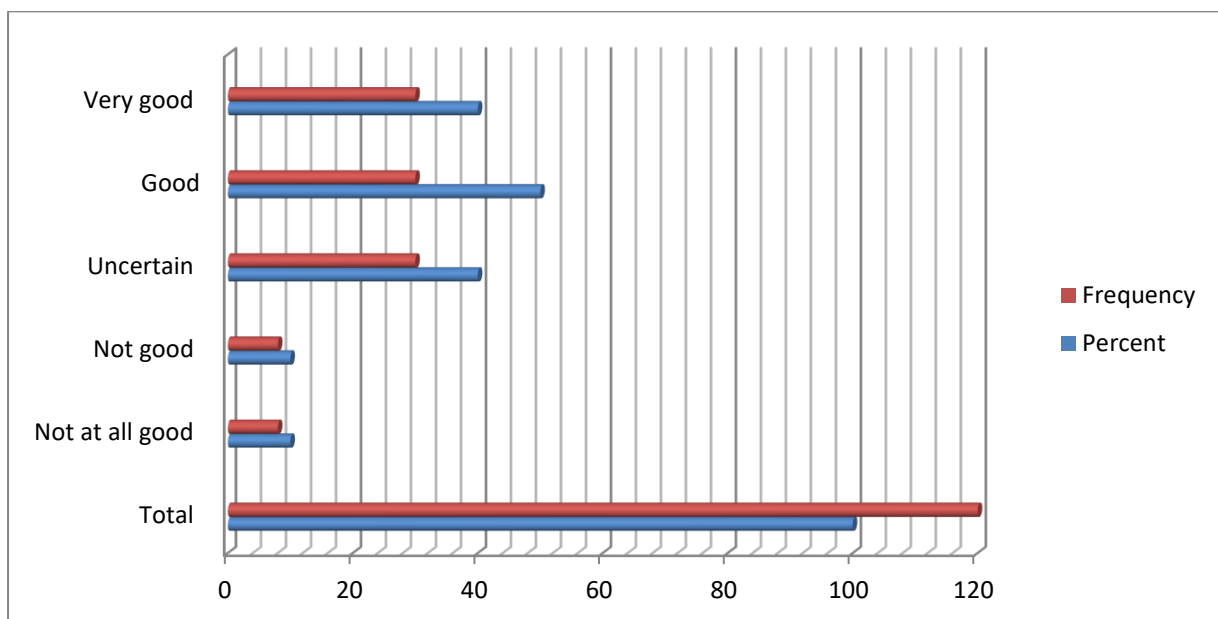


Figure 4.8: Participants’ Impressions about a better Personal Life after the Programme.

People chose to pursue higher education through the DE programme all over the world with the intention of improving their human capital and to brighten their live chances in future. This work was bent on findings out whether the students view their chances to brighter in future as they pursue the programme. It has been established that 24.5% see it to provide a good future, 35.3% have good future. 31.7% were not sure about their future, 5.8% did not have good future and 12.9% did not have good future at all.

**Type of Institution and the Students' Impression about the Organization of Distance Education**

As part of measuring whether there are differences among the opinions on the organization and of operation of DE among the students from the various institutions under study, the analysis of variance- ANOVA has been employed.

Table 4.4.1

*The Mean and Standard Deviation table of Students' Impressions about the operations of DE Classified by the University under study.*

University	N	Mean	Std. Deviation
UCEW	32	2.8750	1.47561
U. of Cape Coast	73	3.3699	1.17269
Valley View University	30	2.4667	.50742

Table 4.4.2 ANOVA.

*Dependent Variable: Students' Impression about the Operations of DE.*

Source	Sum of Squares	Df	Mean Square	F	Sig
Between Groups	18.657	2	9.328		
Within Groups	173.980	132	1.318	7.077	.001
Total	192.637	134			

Table 4.4.3

*Evaluation of Institutions and Students' Impression about the Organization of Distance Education*

Multiplies comparisons

Dependent variable: Your impressions on organization

Tukey HSD

(I) Your Institution (J) Your Impression	Mean Difference (I-J)	Std.	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
UEW U. of Cape Coast Valley View Uni.	-.4949	.24340	.108	-1.0718	.0821
	.4083	.29176	.344	-.2833	1.0999
U.ofCape Coast UCEW Valley View Uni.	.4949	.24340	.108	-.0821	1.0718
	.9032*	.24898	.001	.3130	1.4934
Valley View Uni. UCEW U. of Cape Coast	-.4083	.29176	.344	<i>11.0999</i>	.2833
	-.9032*	.24898	.001	-1.4934	-.3130

\*. The mean difference is significant at the .05 level.

The table above compares the three universities under study in terms of the students' thinking about the operation of Distance Education in Ghana. The finding suggests that at least, there is significant difference between two of the institutions. That is the University of Cape Coast and that of Valley View. It is also established that though there are differences between University of Cape Coast and that of Winneba on one hand and Winneba and Valley view on the other hand, these differences are not statistically significant. Thus, there is no significant difference between the mean and standard deviation of UCC (M=3.3699, SD=1.47561) than that of UEW (M=3.3699, SD= 1.17269),  $p > .108$ . To explain further, the mean difference between them (- .4949)ns. However, the mean and standard deviation of UCC (M=3.3699, SD=1.47561) is significantly different from that of Valley View (M=2.4667, SD=.50742),  $p < .001$ . Also, the mean difference between UCC and VVU are (.9032 \*). This suggests that, the probability that the difference between the two universities in terms of their students' impressions about the operation of DE is not by chance or erroneous only by 1 %. The difference between the UEW (M=3.3699, SD= 1.17269) and Valley View (M=2.4667, SD=.50742),  $p > .344$  is as well not statistically significant. The mean difference between UEW and VVU is (.4083)ns.

## Discussions of the Results

### Introduction

The findings of this study are discussed in this chapter with particular reference to concepts such as distance Education, general impressions about it, reasons and importance of the DE and the challenges of the operation of the system. These are explained because they are very crucial to understanding of the work. The study portrays the true nature of the education values and principles and their implications on the educational development in the country. In this chapter, the objectives, research questions and assumptions are held together against the findings to see where they merge or depart from each other. These are also supported or refuted by other findings from the literature in the study on DE. The chapter makes bare some of the learnt experiences both from the field and literature review including the benchmarks to be adapted as inspirations that lead to solution of educational challenges of the country. All the positive experiences learnt in this respect are highlighted in the recommendations in the concluding chapter for further improvement and also suggestions are given to improve on the negative outcomes.

#### 1 The General Impressions of Operation and Organisation of Distance Education

The subjects' general impressions and opinions about how they experience the operation and organisation of Distance Education as gathered from the various institutions of studies suggest that things are better. Although a few respondents claimed that the organisation and operation are very good, even fewer than that had opinions that the same has been worse or very bad, suggesting that though the operation is not without problems and blemishes, it is also not bad at all.

Obviously, very few of them think that the organization, the instructors and understanding of the materials they read are "very good". Most of them however, opine that in general, all the issues under the operation of DE are "good". However, a considerable number of them who are more than those who think that the operation of DE is "very good" are uncertain about the future of the DE are. It must however, be stressed that a relatively fewer percentage of the students have the impression that the programme is "not good or "not good at all".

Talking about the impression about DE brings about the issue of attitude towards DE in general.

Walcott (1994), cited in Carter, (2000) opines as found in the literature review that some people have either positive or negative attitude towards the system. Clark (1993), found in a national survey of attitudes of higher education faculty that there was a moderately positive attitude about distance learning in general, but moderately negative attitudes about their own use of it. He goes on to say the situation is in place due to so many factors including the quality of its organisational and operational difficulties. Talking about the individual issues on which the respondents have expressed their views, organisation and operation come to mind. From the preceding chapter 7.2% have "good" impressions about the programme, 32.4% think that it is very good, 18.7% are uncertain about operation of DE, 25.9% have "not good" impression about it and others, 12.9% say the programme is "not good at all". Those who said nothing at all were 2.9%. In general they have impression that things are good about the operation of the DE in Ghana.

Again, they are also concerned about the instructors and the organizers of the programme and according to the findings, 7.2% had very good views on that, 54.0% of them thought the organizers/instructors were good, 27.3% were uncertain about them. While 8.6% were with that the organizers/instructors were good, the rest 2.9% thought they were not at all good. Their best view about the instructors and the organizers is that they are good. The varied views about whether the instructors are good or not is a real case of DE According to Noble, (1998) cited in Dibiase, (2000), the administration sometimes hire less skilled, and cheaper workers to deliver the technologically prepackaged course. Instructors are not always convinced that administration is behind distance learning. The rewards are not always there for the good distance-learning instructor. "Tenure and promotion usually does not recognize excellent off campus teaching which, in fact, takes valuable time from research agendas" (Sherritt, 1996, pg. 4). Based on these factors, people sometimes have negative attitude towards DE.

Another issue of concern is the quality of reading materials and constant sources of educative information for students and quality of instruction. To them, this is very crucial in running any academic programme. Some of the respondents 20.1 % have indicated that, they have a very good view about its provision in the DE programme. Those who have good impressions about the same are 54.0%, 8.6% are uncertain about the claim, 10.1 % thought that its provision was not good and 7.2% are not happy at all about access to them. Palloff and Pratt (2000) remind us that "technology does not teach students; effective teachers do" (pg. 4). They make the point that the issue is not technology itself, but how it is used in the design and delivery of courses. Too often instructors do not design their lessons to take advantage of the technology presented. This affects the quality of the instruction. To them, the first issue is the quality of instruction that is given through distance learning programs.

Students ability to read and understand study materials is a key to their success in their educational pursuit in any academic setting. Due to time and other factors, most students in the DE system find difficulty in achieving this purpose. The item that was to see how students are able to understand the study material suggests that, only 1.4% of the students had a very good thinking about this assertion, rather, 54.7% thought it was good. While 32.4% were uncertain about the Issue, 11.5% of them do think that the practice is not successful at all. Also, studying with one's peers in any educational setting is an advantageous as one gets help from friends and mates. This is more common in traditional institutions than in DE

programmes. The respondents' views on this were varied as some of them 1.4% thought this has been very good, others 54.7% were with the view that this has been good. While a group among them 32.4% hoped that it was not good and the rest 11.5% even concluded that this symbiotic association does not exist at all in the DE programme. According to literature being involved in a collaborative learning process, as found in the traditional universities, is an important part of forming the foundation of a learning community. When this is not encouraged, participation is generally low and dialogue is absent (Palloff & Pratt, 2000). To them, students also need the attention of the instructors. Hardy and Boaz (1997), 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" Thus, when students are working together in groups and are closer to the instructors it promotes effective learning but the absence of this is a big challenge.

The issues of credibility and acceptance of certificates have been raised several times when it comes to the DE programmes. Due to the critical nature of the credibility of certificates of DE, literature abounds on the topic some of which are already discussed in the literature review and the discussion section of this work. According to the students interviewed in this work, 24.5% have a very good opinion on their certificates, 36.7% felt that the certificates are good, 30.2% are uncertain about this issue and while 2.9% had "not good" idea about it, 5.8% had "not good at all" opinion about the certificate they would be issued after the course. The other issue of greater concern is the accreditation for the distance education programmes. According to Berg (1998), acquiring accreditation to run distance education is a major problem for the institutions and this has been a frustration for the school authorities as it takes them long periods and cumbersome procedures before they finally get it. It is a source of worry when the learners gather that their institution is not accredited and this gives them some psychological frustration and insecurity.

### **Type of University and Students' Impression about the Organization of Distance Education**

The differences among the opinions on the organization and of operation of Distance Education among the students from the various institutions under study, was established with the analysis of variance- ANOVA. This compared the three universities under study in terms of the students' thinking about the operation of Distance Education in Ghana. The finding suggests that at least, there is significant difference between two of the institutions. That is the University of Cape Coast and that of Valley View. It is also established that though there are differences between University of Cape Coast and that of Winneba on one hand and Winneba and Valley view on the other hand, these differences are not statistically significant.

The reasons for these disparities and similarities may not be simply understood apart from the sample size, but even with the use of ANOVA, which compares means and not the absolute value the issue of sample size may be reasonable enough. Perhaps, Distance Education is more rooted in UCC than the two other as a more aged and established institutions in terms of organisation and operation. As well, the fact that UEW was closest to UCC on upward comparison and closest to Valley View on the downward side may suggest that the length of time of Distance Education organisation and operation affects the efficiency of the system. UCC has practised Distance Education relatively longer and the base of admission is wider than any of the two others. In terms length of time and number of students, UEW is also far ahead of the Valley View. May be this is basis of the picture painted about the three institutions in terms of the students impressions about the organisation and operations of the DE in the country.

## **Summary, Conclusion and Recommendation**

### **Introduction**

In this chapter, the main purpose, statement of the problem, the methodology and the recommendations of the study have been outlined. The ultimate aim of this study was to establish the challenges of the operations of the distance education in Ghana. The objectives are among others

1. To assess the organisation and operation of distance education in Ghana,
2. To examine the differences in the impressions about the organisation and operation of D E among different institutions,
3. To find out the reasons and the importance of pursuing DE,
4. Determining the students' background and the choice DE to pursue higher education.
5. To explain the major problems facing the operation of distance learning in Ghana.

The statement of the problem was based on the suggestion that students actually face a number of problems and to them these problems need to be surmounted if the distance education is to make any impact in national development. It was established among others that in spite of its importance, distance education is not only poorly organized, but also there is no effective state policy backing it. The general notion is that very little information is available in terms of documentation and publicity about the system, given how important its existence is to the nation.

Many qualified students are not aware about the existence of DE facility, how it operates and how it can help them improve their human capital. Thus, the existing documents on distance education in general are basically foreign with very inadequate publication on the local information. This work is to complement the existing local information to portray the Ghanaian situation.

A survey design was employed and largely a snowball (purposive) non-random sampling procedure and a sample 139 students selected both non-randomly and randomly. The instrument was a structured questionnaire based on the main topic "challenges on the operations and organisation of distance education" and on other important variables. The study was largely qualitative with little quantitative analyses.

### **6.2 Summary and conclusion**

The results among others, as compared with the objectives are:

(a.) In line with objective 1 which is to assess the organisation and operation of distance education in Ghana, the respondents have a "good" opinion on the issues of organisation. On the individual issues combining to form the factors of organisation of the DE, the respondents held that the organisation was good. Close to 50% thus, (46.7%) concluded that the organisation was good as compared with about 14.0% who said it was very good

(b.) In line with the second objective which examines the differences in the impressions about the organisation and operation of D E among different institutions. The finding suggests that at least, there is significant difference between two of the institutions. That is the University of Cape Coast and that of Valley View. It is also established that though there are differences between University of Cape Coast and that of Winneba on one hand and Winneba and Valley view on the other hand, these differences are not statistically significant. Thus, there is no significant different between UCC and UEW in terms of differences in the impressions about the organisation and operation of D E.

(c.) In line with objective 3 thus, to find out the reasons and the importance of pursuing D E, it has been established that participants can work and study to upgrade their human capital. There were several reasons from the participants as why they settled to pursue their higher

education through DE system, but the most preferred option and the one with the highest score was the students' ability to work and at the same time get education. This option constituted 85.6% as against 11.5%.

(d.) In line with objective 4 which sought to determine the students' background and the choice of DE to pursue higher education, it has been found that lower socio-economic status of students as a factor does not support participants' reason to pursue DE. This means that students with higher income rather pursue DE as compared to those with lower income. Thus, the thinking that lower socio-economic situation of students propel them to pursue DE is not confirmed by this study.

(e) In line with the fifth objective which is to establish the major problems facing the operation of distance learning in Ghana, it has been established that the major problem of DE is combining work with studies. Thus, (77.7%) of them raised the issue of stress of work and study and this happened to be the greatest concerns among all the challenges raised as problems bedeviling the pursuit of D

### **Recommendations**

Based on the challenges brought forward from the study, the recommendations made are directed at the stakeholders and duty bearers such as the universities especially those practising DE, the government, GES, NGOs and others organisations who have concerns for Ghanaian education.

1. Some of the problems identified could only be solved if the electronic type of DE is firmly introduced. Those that could be averted in this way include the problem with the study centres, travelling from time to time and from place to place for tutorials, access to most of the study materials. By definition of DE, greater percentage of its activities should be remote. In this way, even if lecturers are not available, their materials will be posted to students on regular basis without necessarily having some contact.

2. As suggested by the respondents, the state, the authorities of the universities and all the stake holders in the universities should encourage the employers to accept DE Certificates just as those from other institutions. This cannot just happen, it is a matter of improving upon the quality of teaching and learning and better organisation of the system and also to popularize or make publicity of the of the existence and the quality of their certificates to the employers and the nation as a whole.

3. It as well, the participants of the study came out that their instructors are inadequate. There is therefore the need to employ more lecturers/instructors. The fact is that, once the DE system is not yet electronically operated through the use internet and TV, it can only work if there are more than just enough but a lot of them.

4. The respondents suggested that there is also the need for the government to grant study leave to the DE students to solve financial difficulty. While this can ease the financial burden of the students; it may defeat the actual brain behind the introduction of DE. The students will stop working because their education is paid for. DE is basically organized for workers. Rather, they should be included in the student loan scheme as most of them are already SSNIT contributors. Also as workers, their employers can give them some allowance as they improve their human capital which will improve their rate of production after education.

5. Improving and image of DE is very necessary. Areas of a greater concern are the provision of sustainable study materials, better supervision and control of all aspects the DE especially the examination materials to prevent leakages of papers and also prompt release of results of examination.

6. There is also the need to widen the scope of DE in terms the subjects taught. Even if education subjects will dominate, a major concern should be given to those in the sciences and technical aspects. The respondents concerns were that they are in most cases not allowed to choose their own subjects as the courses are imposed on the students. Students should be allowed to develop their talents.

## References

- Aggor, R. A. (1991) "Justification and challenges of an Expanded Distance Education Programmes in Ghana", Paper Presented by Visiting Fellows, Commonwealth of Learning, Vancouver, Canada.
- Ahem, T. C., and Repman, J. (1994). "The Effects of Technology on online education," *Journal of Research on Computing in Education*, volume 26, number 4, pp. 537-546.
- Badu-Nyako S. K. (2000). " Faculty Attitudes Towards Participation in University -Based Distance Education In Ghana", *Ghana Journal of Literacy and Adult Education*, volume 2,number1,pp194 -212.
- Bates, T. (1995). *Technology: Open learning and distance education*. New York: Routledge.
- Berg, G. A. (1998). Public Policy on Distance Learning in Higher Education: *California State and Western Governors Association Initiatives*, Educational Policy Analysis Archives, Vol6 Number 11 ISSN 1068-2341.
- Bredo, E. (1994). Reconstructing educational psychology: Situated Cognition and Deweyan Pragmatism. *Educational Psychologist*, 29(1), 23-25.
- Chung, F. (1990): Strategies for developing distance education. In Croft, M, Mugridge, I, Daniel, J S and Hirschfield, A (eds): *Distance education: Development and access*. Caracas:
- Clark, T. (1993). Attitudes of higher education faculty toward distance education: A national survey. *The American Journal of Distance Education*, 7, 19-33.
- Dibiase, D. (2000). Is distance education a Faustian bargain? *Journal of Geography in Higher Education*, 24 (1), 130-136.Kantor cf Greenberg 1998
- Harasim, L. M. (1993). "Networked: Networks as social space," In: L.M. Harasim, (editor). *Global networks: Computers and international communication*. Cambridge, Mass.: MIT Press, pp. 15- 34. 5
- Holmberg, B. (1990). Perspectives of research on distance education (2nd edition). Hague: Zentralcs Institut fur Fernstudienforschung. Defining and sustaining useful results. *Education Technology*, 41, (3), 19 - 26.
- Holmberg, B. (1995). *Theory and Practice of Distance Education*. Second edition, London, Routledge.
- Horton, W. (1994). How we communicate. Paper presented at the meeting of the Rocky Mountain Chapter of the Society for Technical Communication. Denver, CO.
- ICDE/Universidad Nacional Abierta Idle, G.(1979)."Designing external studies: A rationale for design". In forum Paper of Australian and south pacific External Studies Association 4th biennial Forum, w. Australia 19<sup>th</sup> \_23<sup>rd</sup> August, 1979, pp 18-26.
- Johnstone, S. M., and Krauth, B. (1996). "Balancing quality and access: Some principles of good practice for the virtual university," *Change*, volume 28, number 2, pp. 38-41.
- Kaufman, R., Watkins, R., & Guerra, I. (2001). *The future of distance learning*:
- Keegan, D. (1996). *Foundations of distance education* (3rd edition). London: Routledge.
- 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. (Eric Document Reproduction Service No. ED 441 270).
- Miller, G (1993): Distance education encounters new technologies. *American Independent Study Newsletter*, Fall
- Oguntonade, C. B. (1982). "An evaluation of the operation of the study centre of the distance education system of the University of Lagos", *Adult Education in Nigeria*, 7:133-159.
- Okunuga, A. A. (1985). "face-to face instruction in distance learning: problems such", *Nigeria Education Forum* 8(2) :169-180. Operation of Distance Education System at COSIT ,Lagos
- Okunuga, A. A. (1983):'Training science teacher through distance education". In science teachers' Association of Nigeria (STAN)24<sup>th</sup> Annual conference proceeding, pp. 253-238.
- Olalere, M. (2006). *Educational Technology* Department of Curriculum Studies and Educational Technology, Faculty of Education University of Ilorin, Ilorin NIGERIA
- Olumide, Y. (1982). "The place of distance in higher education with special Reference to Nigeria". *Adult education in Nigeria*
- Omoregie, M. (1997). *Distance learning: An effective educational delivery system*. (Information Analysis 1070). (ERIC Document Reproduction Service No. ED 418683). *Online Journal of Distance Learning Administration, Volume V, NumberIII, Fall 2002 State University of West Georgia, Distance Education Center*
- Owston, R. D. (1997). "The World Wide Web: A Technology to enhance teaching and learning?" *Educational Researcher*, volume 26, number 2, pp. 27-33.
- Pall off, R., & Pratt, K. (2000). *Making the transition: Helping teachers to teach online*. Paper presented at EDUCAUSE: Thinking it through. Nashville, Tennessee. (ERIC Document Reproduction Service No. ED 452806).
- Prawat, R., and Floden, R. E. (1994). Philosophical perspectives on constructivist views of learning. *Educational Psychology*, 29(1), 37-48.
- Rekkedal, T. (1994). Distance education in Norway. ANDREA [Listserv]. Available: Torstein.Rekkedal@ADM.nki.no
- Saettler, P. (1990). A history of instructional technology. Englewood, Co: Libraries Unlimited. *research*, No 4. Paris: UNESCO
- Savery, J. R., & Duffy, T. M. (1995). Problem based learning: An instructional model and its constructivist framework. *Educational Technology*, 35(5), 31-38.
- Scardamalia, M., & Bereiter, C. (1994). Computer support for knowledge-building communities. *Journal of the Learning Sciences*, 3(3), 265-283.
- Schlosser, C. A., & Anderson, M. L. (1994). Distance education: review of the literature. Washington, DC: Association for Educational Communications and Technology.
- Seamans, M. C. (1990). New perspectives on user-centered design. Presentation at the Interchange Technical Writing Conference. Lowell, MA: University of Lowell.
- Sherritt, C. (1996). *A fundamental problem with distance programs in higher education*. (Opinion paper no. 120). Viewpoints. (ERIC Document Reproduction Service No. ED 389 906
- Sherry, L. (1996). Issues in Distance Learning. *International Journal of Educational Telecommunications*, 1 (4),337-365.
- Simon, H. A. (1994). Interview. *OMNI Magazine*, 16(9),71-89.
- Streibel, M. (1991). Instructional plans and situated learning. In GJ. Anglin, (ed.), *Instructional technology, past, present, and future* (pp. 117-132). Englewood, CO: Libraries Unlimited.

- Students' Frustrations with a Web-Based Distance Education Course by Noriko Hara and Rob Kling First Monday, volume 4, number 12 (December 1999), URL: <http://firstmonday.org/issue4.12/haralindex.html>
- 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.
- Th6rsteinsd6ttir, Gudnir. (2001) "Information-seeking behaviour of distance learning students". *Information Research*, 6(2) Available at: <http://InformationR.net/lir/6-2/ws7.html>
- Threlkeld, R., & Brezoska, K. (1994). Research in distance education. In Willis, B. (ed) *Distance Education Strategies and Tools*. Englewood Cliffs: Educational Technology Publications. Noble of Dibiase 2000
- UNESCO (1991 a): Africa: A survey of distance education 1991. *New papers on higher education: Studies and US*. Congress, Office of Technology Assessment. (1988). Power on! New tools for teaching and learning. OTA-SET-379. Washington, DC: US. Government Printing Office.
- VanderVen, K. (1994). Viewpoint: The power and paradox of distance education. *The On-line Chronicle of Distance Education and Communication [On-line journal]* 7(2). Available Usenet Newsgroup alt. education. distance, May 3, 1994.
- Weber, J. (1996). *The compressed video experience*. Paper presented at Summer Conference of the Association of Small Computer Users. North Myrtle Beach, South Carolina. (ERIC Document Reproduction Service No. ED 405 838).
- West, G. (1994). Teaching and learning adaptations in the use of interactive compressed video. *T HE Journal*, 21 (9),71-74.