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DOOR OF HOPE OR DESPAIR: Students' Perception of Distance Education At University of Ghana

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ABSTRACT

Distance Education has globally become one of the important solutions for increasing admission into the universities, decongesting campuses and efficient utilization of time and space. To ensure the sustainability of the programmes' noble objectives calls for periodic re-evaluation of its modus operandi including the assessment of the perception of its intended beneficiaries. Using exploratory factor analysis, this study analyzes the perceptions of DE students from the University of Ghana.

The results of the study show that students have positive perception on the usefulness, satisfaction and flexibility of the programme but have a negative attitude towards examination related issues. The underlying factors include the untimely delivery and poorly edited modules as well as poor arranged examination schedules.

The study recommends the implementation of electronic mediated services as one of the main ways of making the objectives of DE a reality.

Keywords: **Distance education; Student perception; Leaner satisfaction; Computer mediated services; University of Ghana.**

INTRODUCTION

For the past decade or so, the University of Ghana has had to decline lots of applications from otherwise, many qualified candidates annually as a result of their inability to meet the increasing application. This situation has been partly attributed to the limited and deteriorating infrastructural facilities.

Coupled with this is the rising cost of providing quality education which the government is increasingly finding it difficult to handle all alone. These problems have necessitated the adoption of the distance education (DE) concept as a viable complement to the conventional face-to-face education.

The decision is further inspired by the government's vision that all Ghanaians should have access to all forms of education and training regardless of where one lives. Distance education is thus uniquely seen as a tool for widening access to higher education (Tagoe, 2007) and bridging the gap between those who have ambition for scholarship but are challenged because of limited infrastructure or their peculiar financial or social or occupational circumstances.

The unique characteristic of DE in bringing education to the door-step of people resonates with government desire to make tertiary education highly accessible to all Ghanaians. This has given opportunity to many public and civil servants to engage in work and study, which is undoubtedly, contributing to the development of the country's human resource capacity.

Admittedly, some studies have been done in terms of the justification of policy and perhaps benefits for the introduction of the concept (Mensah and Owusu-Mensah, 2002). However, the perception of the students on the current status of the programme seems to have escaped the attention of scholars. In other words, the debate has not engaged students as it does with programme implementers, yet the lack of such data can potentially compromise the programme's overall objectives and sustainability. The study thus seeks to contribute to the debate by helping to fill this lacuna. It accesses the perception of distance education students from the University of Ghana. The introductory section is followed by an overview of the DE concept in Ghana, with emphasise on the challenges confronting tertiary education in general. This is followed by an analysis of field data on students' perception of the DE concept and some recommendations for policy considerations.

The challenges of tertiary education in Ghana

Tertiary education is generally seen as a formal, non-compulsory education that follows secondary education (Compbell and Razsnyai, 2002; HEA, 2004). In Ghana a report of a Presidential Committee which reported on the 'Review of Education Reforms' defined tertiary education as the education offered after secondary level at a university, polytechnic, specialized institutions, open university and any other institutions to provide training that lead to the award of diploma and degree qualifications. It is therefore not always clear, what tertiary education include. Is it only that which results in a formal qualification or might it includes leisure classes? Is professional upgrading or on-the job training part of tertiary education, even if it does not follow successful completion of secondary? Admittedly, the subject raises some challenges. However, most definitions emphasize certification and continuation from successful secondary education, which may include vocational, post secondary education (leading to a certificate) and higher education (leading to a degree) (Campbell and Razsnyai, 2002 p. 133).

The genesis of tertiary education in Ghana dates back to 1948 when the University of Ghana was founded as the University College of the Gold Coast on the recommendation of the Asquith Commission on Higher Education in the then British colonies. The Commission set up in 1943 to investigate Higher Education recommended the setting up of the University College in association with the University of London.

The monopoly of University of Ghana on the country's tertiary education landscape was broken with the establishment of Kwame Nkrumah University of Science and Technology in 1952, University of Cape Coast in 1962 and within the last two decades the University of Education, Winneba (UEW) and the University for Development Studies (UDS) in Tamale both in 1992. In addition, each of the ten regions of Ghana has a Polytechnic, which has been elevated to tertiary status.It is also instructive to add that, since 1998 a number of private universities (28 as at 2010), have also been given government accreditation.

The above notwithstanding, the realities of access to tertiary education in Ghana today is causing wry amusement because the apparent expansion of tertiary institution is not commensurate with the increasing application by prospective candidates.

Access in this respect is defined as places and facilities available for potential candidates to tertiary education, especially into public institutions (Ghana, 2002). According to NCTE (2006), between 1991 and 2001, on the average only 32% and 54% of qualified applicants for admission into the universities and polytechnics respectively actually get admitted. The report further revealed that for the 2005/2006 academic year, 55% of qualified applicants were admitted into all the public universities and 78% into the polytechnics.

Figure: 1 presents the trend analysis of applicants for admission into the University of Ghana who were not admitted since 1991. The data reveals that apart from 1995, when the University received 5016 applicants and admitted 4996 (only 20 students were not admitted) the rest of the years have recorded a non-admission mean of 51%, with a standard deviation of 15%.

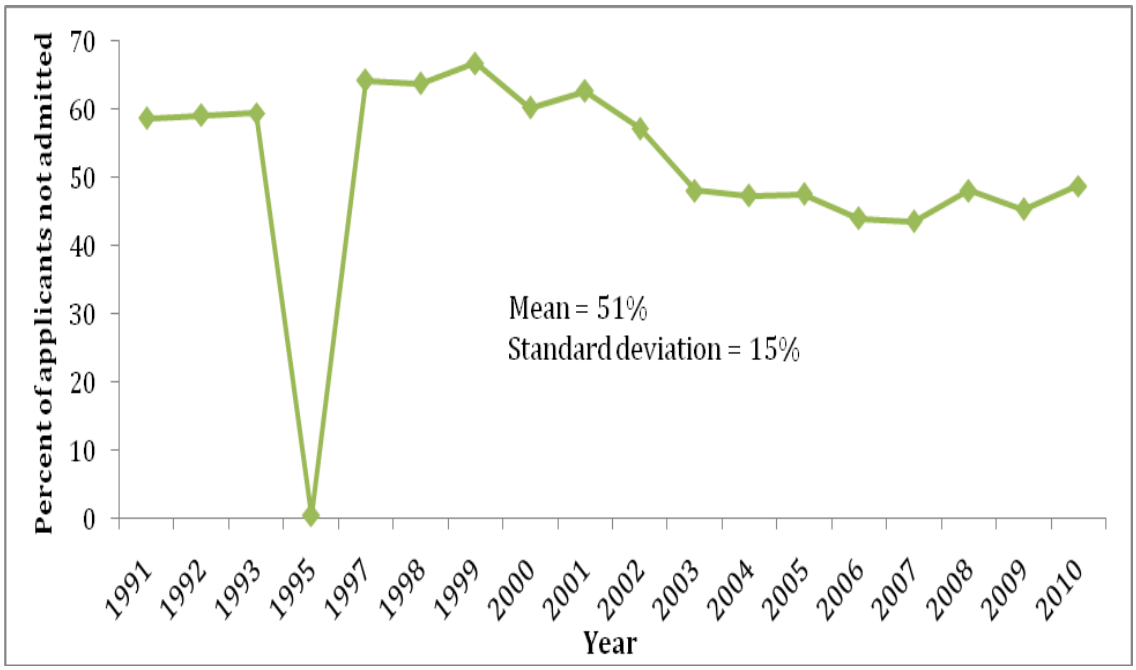

Figure: 1
Trend Analysis of Applicants for Admission into the University of Ghana who were not Admitted since 1991. Source: University of Ghana Annual Report, 2010

Various reasons have been identified as accounting for this discrepancy. These include, but not limited to the following:

- **The rapid growth in population and the expansion in pre-tertiary education, following the introduction of the educational reforms in 1987.**
- **The mismatch between existing academic facilities and physical infrastructure on the one hand, and the increasing number of students admitted into tertiary institutions on the other.**
- **The limited (non-existent) opportunities and avenues for working people and those who, for some reasons, have had to terminate their education for a period to re-enter or acquire higher education through other modes.**

- **Public tertiary institutions being originally conceived as residential institutions because of their national character and the model adopted.**
- **Limited opportunities for academic and professional progression, especially for those who enter the technical/vocational streams;**
- **Limited opportunities for those who end their education at senior secondary school level and decide to re-enter the formal system at a later point in time, and,**
- **Inadequate opportunities for life-long learning**

These challenges motivated Government to promote the DE concept and the subsequent establishment of open universities as one of the key measures for widening access without depending on traditional space and time. While distance education provides collaborative learning setting (Moars, 2003), it also challenges the designers to develop appropriate educational materials and software (Yang and Cornelines, 2005; Ardito et al, 2006) in which students' perceptions and needs are fulfilled.

As already stated, much research has been conducted on the operations of DE (Chambers, 2006; Lee et al, 2003; Hong et al, 2005; Liao, 2006; Hagel and Staaw, 2006). In Ghana, the available literature emphasises on the importance (need) of DE (Mensah and Owusu-Mensah, 2002). However, in designing, developing and delivering DE courses, students needs and perceptions should be central (Sahin and Shalley, 2008). Any course failing to meet student's needs may lead to low levels of student involvement (Hall, 2001). Without interrogating the perceptions of students in DE programmes, it is daunting to appreciate their needs and improve on their participation in the programme.

This study conceptualizes that the outcome of any DE programme (courses) hinges on meeting the needs and expectations of students which in turn affect their level of participation. Indeed, the concept of DE demands a student-cantered approach in which the instructor takes the role of the facilitator and the student engages in peer learning (Moar, 2003; Mitchell, Clen and Marcredie, 2005). It is therefore important to appreciate the variables that affect students' perception on DE programmes. This article reports on the results of a research study investigating predictions of perceptions of students of University of Ghana to the DE programme.

A Historical Perspective of DE in Ghana

The idea of DE is not new in Ghana. According to Ansere (2002) the provision of DE predates the period Ghana attained political independence in 1957. Records show that some prominent political elite like J.B. Danquah and Kwame Nkrumah who were at the center stage of the independence struggle used what was then called 'Correspondence Courses' to further their education because there was hardly any higher place of learning at the time. Aggor et al (1992) also note that as far back as March 1964, correspondence education remained one of the main avenue through which a number of workers and professionals upgraded themselves.

However, when the economy of Ghana started deteriorating after independence it became difficult for many student-workers to afford the cost of upgrading themselves through the corresponding education. Their income levels were so low that they could not simply afford to pay their fees.

As a result, many then relied preferably on the public institutions to satisfy their ambition of acquiring a tertiary education. This led to intense competition in the face of limited spaces for the large army of candidates who had sought admission.

As early as the mid-1980s, the universities began to look to the DE concept for a cost-effective solution to the problem of limited access.

In 1986, a sub committee of the Academic Planning Committee of the University of Ghana recommended the adoption of the DE concept as a partial solution to the university's problems of space and staffing.

From the early 1990s this received government attention (Spronk, 1999). This marked the beginning of exploring the potential of using DE to widening access and help address the excessive demand for tertiary education.

Since then, there have continuous efforts by government and its development partners to expand the DE programmes in all the public universities with the hope of turning them into dual mode institutions.

Among the many information include those listed in Table: 1.

Table: 1
Policy Intervention for the successful implementation of DE

Year	Intervention	Conducted the intervention	Outcome
June 1992	Survey of DE in Ghana by Minstry of Education	Commonwealth of Learning	Identified the challenges facing tertiaryeducation and as a policy option, made several recommendation forsuccessive implementation of DE
June 1994	Ghana DE Development project by Ministry of Education	UNESCO	Recommended Systems needed to be put in place for effective implementataion of DE
September 1995	Ghana DE Development project By UPCD*	Sımon Frazer University	Developed a 5-year Project for building the national level DE consortuim and developing the University-level expertice and programing as recommended in the various DE reports
April 1999	Mid-term evaluation of the Ghana DE Development project by UPCD	Barbara Sponke	An evaluation study that helped access the progress of implementation of DE and made Recommendation for the way forward.

***UPCD means University Partnership in Coperation and Development Programme**

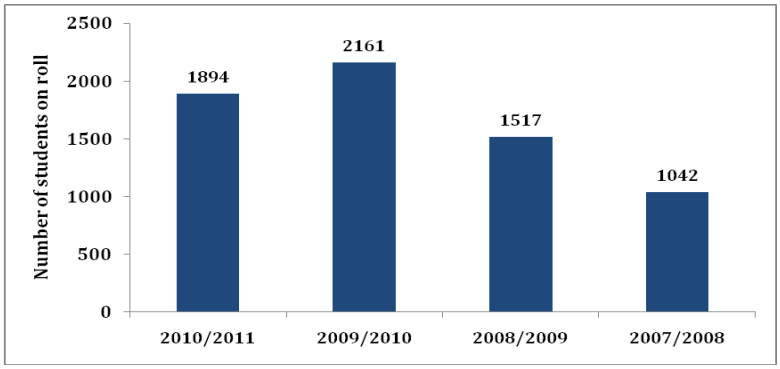

Figure: 2
The Number of students on roll at the various at DE programme in University of Ghana
Source: University of Ghana Annual Report, 2010

Despite these interventions, the tertiary institutions continue to be saddled with unacceptably high numbers which makes teaching and learning difficult. At the same time, many more qualified candidates are denied access. The Government of Ghana continues to have faith in the concept as the having the "magic bullet" to widen access to tertiary education, most especially for the marginalised in education. A recent educational reforms report (2002) proposes the establishment of an Open Universities and Open Colleges to help provide work-study programmes using both print and electronic delivery systems. The policy is expected to provide avenues for further studies or/and training for those who may end their education at the JSS/SSS levels, and meet the multiplicity of needs of different learners as well as encourage life-long learning. The University of Ghana degree programme through DE is in it fourth year; this study accesses the perception of students enrolled in the programme concerning its usefulness, availability and flexibility as a way of identifying any challenges for policy consideration.

METHODOLOGY

The study sought to analyze students' perception of DE programme. To achieve the set objectives, a survey of 150 students each in levels 200, 300 and 400 were conducted. It was believed that after at least, a year in a programme, a student should have had enough experience to be able to share his or her experiences. This section describes the survey design and data collection process. It also reports the descriptive statistics of the variables of interest. Further, exploratory factor analysis was conducted to reduce the number of the attitudinal variables used in the study into a few interpretable factors.

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Data Collection Method

To achieve the objective of the study, data was collected through students' self-reported perception regarding the DE programme. This was captured by their responses to a structured questionnaire, part of which solicited their demographic information such as age, gender, education, employment, income and marital status. The survey also included a set of questions assessing how long a respondent has been in the programme and his/her perception about the flexibility, usefulness and satisfaction. In answering these questions, respondents were asked to indicate the extent to which they agree or disagree with the statements on a five-point Likert-scale ranging from strongly agree to strongly disagree.The questionnaire was pre-tested and improved before conducting the actual survey. The pretest was conducted by interviewing some of the students during their revision period in October, 2010.

The pretest resulted in some wording refinements and re-arrangement of the questions in the instrument. The final survey was conducted for four weeks, between January and February 2011 when the students were taking their end of semester examination. Interviews were conducted at the premises of the examination centers, mainly after a day's final paper. This strategy was adopted because that was the only time that the nationwide disaggregated students converges at the campus of University of Ghana, and therefore offered greater potential of ensuring unbiased sampling. During the survey, students were randomly approached for interviews. In all, 450 students were approached but 424 managed to complete the interviews given a 68% response rate.

RESULTS/FINDINGS

Table: 2
Summary statistics on demographic profile of respondents

Variable	Categories	Male		Female		Total	
		Freq.	%	Freq.	%	Freq.	%
Level of study	200	98	23	46	11	144	34
	300	68	16	77	18	145	34
	400	70	17	65	15	135	32
Sub-total		*236*	*56*	*188*	*44*	*424*	*100*
Previous educational level	SSCE/WASSCE	113	27	71	17	184	43
	'O' Level	5	1	5	1	10	2
	'A' Level	15	4	4	1	19	4
	Vocational training institute	10	2	37	9	47	11
	Polytechnic	26	6	23	5	49	12
	Nursing/Teacher/ Agric College	64	15	42	10	106	25
	Diploma or non tertiary	3	1	6	1	9	2
Sub-total		*236*	*56*	*188*	*44*	*424*	*100*
Employment Status	Unemployed	72	17	50	12	122	29
	Employee	144	34	116	27	260	61
	Employer	6	1	2	0	8	2
	Self employed	14	3	20	5	34	8
Sub-total		*236*	*56*	*188*	*44*	*424*	*100*
Age	20 – 24yrs	53	13	36	8	89	21
	25 – 29yrs	85	20	77	18	162	38
	30 – 34yrs	54	13	56	13	110	26
	35 – 49yrs	19	4	14	3	33	8
	40yrs and above	25	6	5	1	30	7
Sub-total		*236*	*56*	*188*	*44*	*424*	*100*
Marital status	Never married	158	37	77	18	235	55
	Married	75	18	109	26	184	43
	Divorced	2	0	2	0	4	1
	Widowed	1	0	0	0	1	0
Sub-total		*236*	*56*	*188*	*44*	*424*	*100*
Household Size	1 – 5 persons	191	45	160	38	351	83
	6 – 10 persons	28	7	26	6	54	13
	11 – 15 persons	13	3	2	0	15	4
	Above 15 persons	4	1	0	0	4	1
Sub-total		*236*	*56*	*188*	*44*	*424*	*100*

Source: Field Survey, 2010

The summary statistics of the variables (Table 2) indicate that students from levels 200, 300 and 400 were fairly represented in the sample (34%, 34% and 32% respectively). Majority of the respondents (43%) had SSCE/WASSCE qualification while vocational, polytechnic and nursing/teacher training recorded 11%, 12% and 25% respectively. In terms of male/female ratio, the sample recorded 56% against 44% respectively indicating rough gender balance in DE participation. Forty three percent of the respondents were married and the average age or household sizes were 29 and 5 respectively.

The sample also recorded 29% unemployed youth who probably are pursuing the programme because they could not make the grades for admission into the traditional programmes. Only 8% of the respondents indicated that they were self-employed.

Sixty-one percent of the respondents were either civil or public servants. This observation is in tandem with the tenets of the DE programme which primarily seeks to provide opportunities to applicants of tertiary education who cannot access the traditional institutions because they could not meet the threshold grades or due to other socio-occupational challenges.

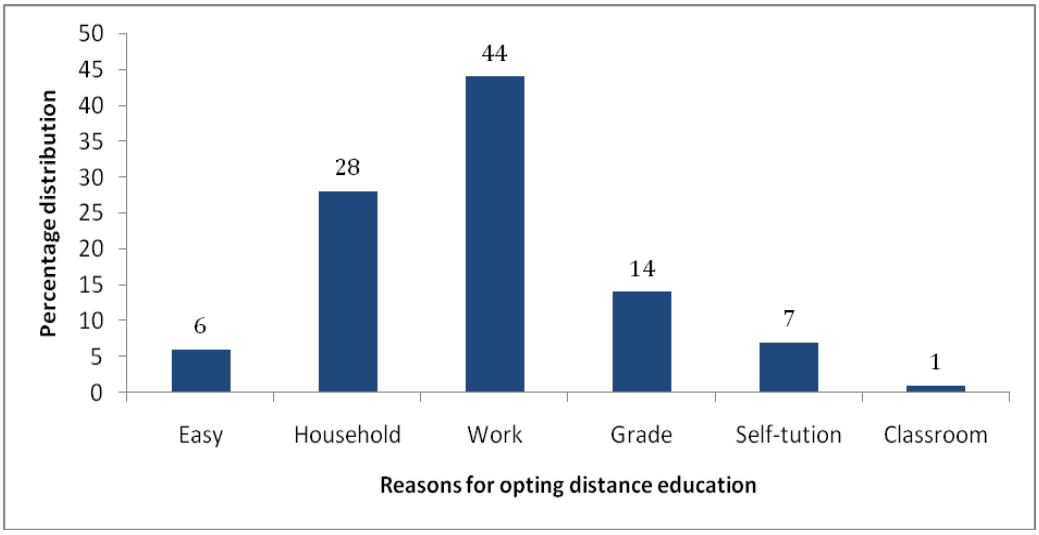


Figure: 3
Reasons why Respondents opted for DE programme Source: Field Survey, 2010

The exceptionally high percentage of civil and public servants is not surprising in a society where occupational promotion in most government institutions is partly consequent upon one's academic status.

Thus, many public/civil servants avail themselves to tertiary education primarily to upgrade themselves to facilitate their promotion in their respective workplaces. Figure 3 captures reasons why respondents opted for DE programme. Their views are consistent with literature with 44% attributing their reason to occupational challenges which 28% pointed to household constraints. On the expected outcome of the programme, 39% anticipated an equivalent of a university degree.

Additionally, 18% of the respondents hope the programme will improve their work performance while 20% anticipated on improvement in their income generating opportunities. Only 22% see the programme as helping build the learning capacity.

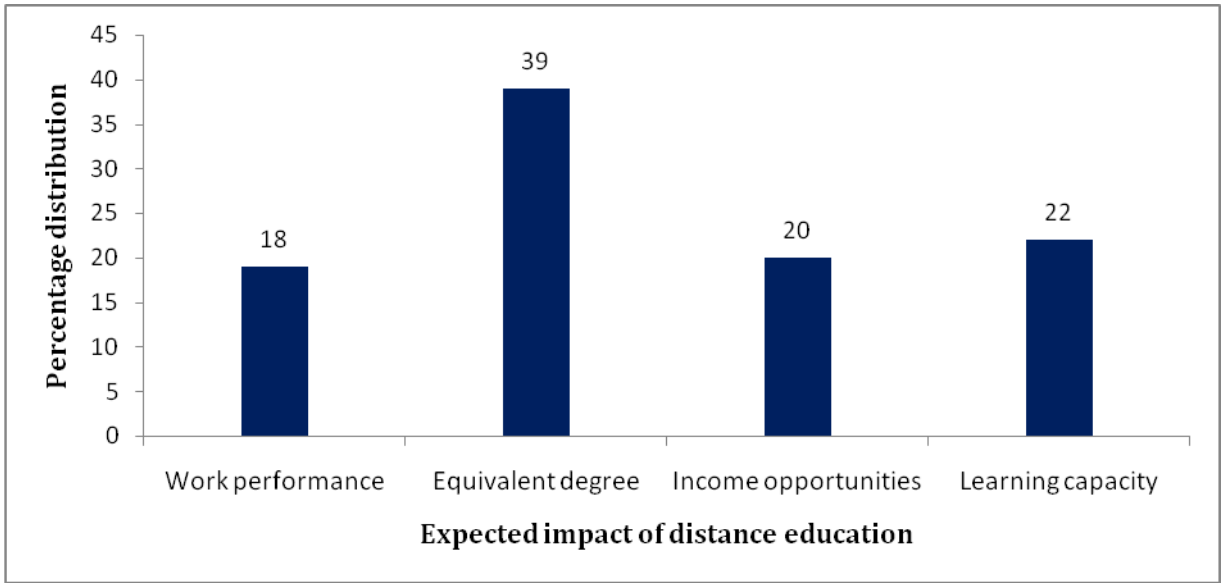


Figure: 4
Respondents Perception of the Expected Outcome of the programme.
Source: Field Survey, 2010

Description of variables

The list of demographic and other related variables and their definitions that were used in the analysis is presented in Table 2. For example, the variable, level of study, indicates how long a student has been enrolled in the programme, i.e., level 200 means a student in his second year, while previous educational level indicates the highest level of education attained by a student before enrolling into the programme.

Table: 3 shows the statements that were used in the survey to elicit the respondent's perception about the DE programme. As ready stated, the likert scale of measurement was employed in this study and was defined as (1) strongly agree, (2) agree, (3) neither agree nor disagree, (4) disagree and (5) strongly disagree. To ensure consistencies in the interpretation of the mean scores, the following categorization was adopted; strongly agree (1.00-1.490), agree (1.50-2.50), indifferent (2.51-3.50), disagree (3.51-4.50) and finally strongly disagree (4.51-5.00). Based on the mean score, it can be deduced that students' agree with the perception that DE is as valuable as the traditional education (*M*=1.76 SD= 0.90) and gives requisite knowledge to solving real life situation issues (M=1.83 SD= 0.93).

They also agree with the perception that DE provides students with a valuable learning experience (M=1.86 SD= 0.80), minimizes the inequalities in educational system (*M*=1.88 SD= 0.85), boost students' confidence in handling issues (M=1.90 SD= 1.10) and aids in solving real issues in life (M=2.09 SD=0.91). Students also agree that DE does not only enable students to work comfortably at home (M=2.51, SD=1.02), but more importantly, it is appropriate for students with different learning capacities (M=2.51, SD=1.06).

An equally important observation is that even though students agree that the available modules help in acquiring relevant knowledge (M=2.22 SD=0.84), and the fact that the appearance and layout is attractive and gives comfortable reading (M=2.38 SD=0.95), they at the same time agrees that some modules are difficult to understand without the instructors guide (M=2.12 SD=1.16),

Table: 3
Descriptive statistics of variables used

Variable	Survey statement	Mean	Std. dev	Obs.
Degree	A degree in distance education is as valuable as the traditional education	1.76	0.90	424
Lifeissues	I now have the requisite knowledge to solve real life situation issues	1.83	0.93	424
Learnexp	Distance education provides me with a valuable learning experience	1.86	0.80	424
Inequality	Distance education minimizes the inequalities in education	1.88	0.85	424
Confidence	Distance education has boost my confidence in handling issues	1.90	1.10	424
Income	Distance education would increased my income earning opportunities	2.03	1.13	424
Ownbusiness	Distance education has equipped me to establish my own business	2.05	0.89	424
Lifeproblems	The course content aids me in solving real life problems	2.09	0.91	424
Currentwork	Distance education has increased my current performance at work	2.11	0.91	424
Noguide	Some modules are difficult to comprehend without the instructors guide	2.12	1.16	424
Knowledge	The contents of the modules help me acquire the relevant knowledge	2.22	0.84	424
Evaluation	Evaluation of the success in distance education is quite objective	2.24	0.89	424
Futurework	I perceived to performed better with future work	2.34	0.82	424
Enjoyreading	I enjoy reading the materials	2.37	0.95	424
Layout	The appearance and layout is attractive and gives comfortable reading	2.38	0.95	424
Content	I like the content of distance education from real life	2.38	0.80	424
Homecomfort	Distance education allows me to work at home comfortably	2.51	1.02	424
Learncapacity	Distance education is appropriate to students with different learning capacities	2.51	1.06	424
Learning	Activities presented in the modules makes learning easier	2.58	0.98	424
Expectation	The content of this class meets my expectations	2.61	0.92	424
Easy	Activities presented in the modules are easy to comprehend	2.78	1.04	424
Exams	Examinations are well conducted and arranged	2.78	1.62	424
Participate	The instructor encourages my participation in class	2.79	1.69	424
Questions	The instructor responds promptly to my questions	2.89	1.07	424
Time	More time is spent learning with distance education than traditional sch.	2.95	1.20	424
Examtime	Time allowed for examinations are adequate	3.03	1.73	424
Contact	It is easy to contact the instructor	3.49	3.03	424
Timetable	The examination timetable schedule has always been favorable	3.56	1.73	424
Edited	Modules are well edited	3.77	1.20	424
Delivery	Modules are delivered on time	4.09	1.22	424

Source: Field Survey, 2010

The data also show that students are indifferent about the following issues; activities presented in the modules (M=2.58 SD=0.98) and whether an instructor encourages class participation (M=2.79 SD=1.69) and responds promptly to questions and concerns of students (M=2.89 SD=1.07).

Students also showed indifference regarding the ease with which they contact their instructors (M=3.49 SD=3.03); whether the classes meets their expectation (M=2.61 SD=0.92) or spend more time in learning (M=2.95 SD=1.20). They could also not be bothered about the time allowed for examinations adequate (M=3.03 SD=1.73) and whether examinations are well conducted (M=2.78 SD=1.62).

On the contrary, the findings reveal that student strongly disagree with the assertion that examination timetable are always favourable (M=3.56 SD=1.73) and the fact that modules are well edited (M=3.77 SD=1.99) and delivered on time (M=4.09 SD=1.22).

Factor Snalysis

The Likert-scale variables used in the study were varied and defied easy interpretation to help ascertain the underlying factors influencing the students' perception. Accordingly, the factor analysis with principal component analysis was employed in grouping the variables that measure the same construct.

The Kaiser eigen value criterion and the scree test were used to decide on how many factors to retain before proceeding with further analysis. According to the eigen value criterion, factors with values greater than one are retained and those less than one are considered insignificant and therefore excluded.

The results of the factor extraction with their eigen values and their percentage of variances are presented in Table 4. Using the eigen value criterion method, six factors were retained for further analysis.

Table: 4
Description of eigen values

Factor	Eigen value	Difference	Proportion	Cumulative
1	6.71385	4.25610	0.3847	0.3847
2	2.45775	0.84111	0.1408	0.5255
3	1.61665	0.23849	0.0926	0.6181
4	1.37816	0.17702	0.0790	0.6971
5	1.20113	0.17149	0.0688	0.7659
6	1.02965	0.15302	0.0590	0.8249

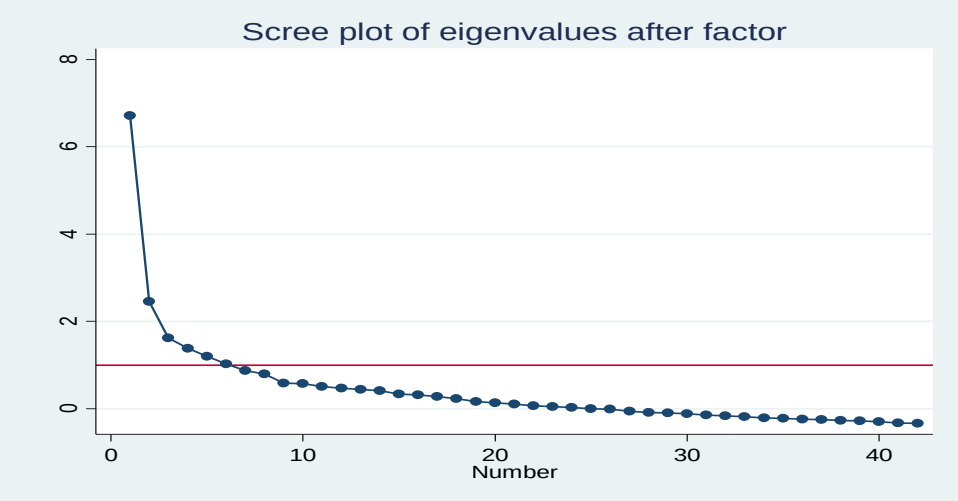
LR test: independent vs. saturated: chi 2 (861) = 3230.78 Prob>chi2 = 0.0000
Only eigenvalues greater than 1 where retained (indicated by the shaded portion)
Source: Field Survey, 2010

A graphical representation of the number of appropriate factors retain is represented by a scree test (see Figure 5). It involves plotting the Eigen value magnitudes on the vertical axis against the component numbers on the horizontal axis and noting the point at which the plot becomes fairly horizontal.

The number of factors corresponding to the fairly horizontal point indicates the appropriate number to retain.

From the results, the point where the line becomes fairly horizontal starts at about factor 6, confirming that, six factors, similar to the result of the eigen value criterion method should be retained.

Figure: 5
A graphical representation of the number of appropriate factors retain is represented by a scree test



Source: Field Survey, 2010

The study also employed the Kaiser–Mayer–Olkin's (KMO) measure of sampling adequacy and Bartlett's test of sphericity to assess the suitability of the data set for further analysis (Hair et al., 1998). The sampling adequacy test predicts if data are likely to factor well, based on correlation and partial correlation (see Table 5). The KMO statistic varies between zero and one. A value of zero indicates that the sum of partial correlations is large relative to the sum of correlations, indicating diffusion in the pattern of correlations and therefore factor analysis is likely to be inappropriate. A value close to one indicates that patterns of correlations are relatively compact and therefore factor analysis will yield distinct and reliable factors. Kaiser (1974) recommends accepting values greater than 0.5 and since the data reports 0.743, factor analysis is seen as appropriate tool for this data. Bartlett's test of sphericity was employed to test the null hypothesis that the original correlation matrix is an identity matrix. At 5% level of significance, the results show that the data is highly significant ($p<0.001$), and therefore factor analysis is appropriate.

Table: 5
KMO and Bartlett's Test statistics results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**0.743**
Bartlett's Test of Sphericity	**Approx. Chi-quare**	**7289**
	Degrees of freedom	**946**
	Significance	**0.000**

The Varimax rotation method was used to rotate the six retained factors (Kaiser, 1958) and the resultant factor matrix with its factor loadings is presented in Table: 6. In this study, factor loadings greater than 0.4 was considered high and important to interpret a particular factor. Thus, only variables with loadings >0.4 were extracted although a total of 42 variables were used in the study (see appendix 1).

Table: 6
Rotated component matrix

Variables	Component					
	1	2	3	4	5	6
Expectation						0.4019
Contact					0.4126	
Questions					0.6163	
Participate					0.4242	
Delivery				0.5232		
Edited				0.5107		
Exams				0.6174		
Examstime				0.7234		
Timetable				0.6660		
Currentwork			0.6122			
Futurework			0.5435			
Lifeproblems			0.6325			
Ownbusiness			0.5402			
Lifeissues			0.5669			
Income			0.4212			
Noguide		0.4096				
Knowledge		0.4039				
Easy		0.4670				
Learning		0.6667				
Layout		0.5140				
Enjoyreading		0.6046				
Degree	0.6299					
Learnexp	0.6644					
Inequality	0.5509					
Evaluation	0.6537					
Content	0.4627					
Time	0.4478					
Homecomfort	0.5217					
Learncapacity	0.4787					
Confidence	0.4807					
% of ariance explained	0.39	0.14	0.09	0.08	0.07	0.06

Source: Field Survey, 2010

Each factor is assigned a descriptive name based on the variables that fall in that category. From the results, the variables that load highly on factor 1 are *Degree, Learnexp, Inequality, Evaluation, Content, Time, Homecomfort, Learncapacity, and Confidence.* This factor is labeled as PERCEIVED USEFULNESS. This factor describes the general perceived usefulness of the DE programme. A low score for this factor indicates that the respondents have positive perception about the usefulness of the DE programme.

The variables that load highly on factor 2 are *No guide, Knowledge, Easy, Learning and Layout.* This factor is labeled as FLEXIBILITY because it relates to the apparent ease of the modules and the flexible characteristics of the programme. A low score implies that respondents perceive the modules as quite flexible. Variables that load highly on factor 3 are *Currentwork, Futurework, Lifeproblems, Ownbusiness, Lifeissues and income.*

This factor is labeled as WEALTH OPTIMISM, since the variables that fall into factor 3 depicts the expected influence of DE on respondents' wealth generating opportunities. A low score implies that respondents perceive DE to improve their income earning opportunities and solving real life issues. The variables that load highly on factor 4 are *Delivery, Edited, Exams, Examstime and Timetable*.

This factor is labelled as EXAMINATION. This factor describes the conditions under which distance education modules are prepared and examinations conducted.

A high score indicates that examination conditions are not favourable. Variables that load highly on factor 5 are *Questions, Participate and Contact.*

This factor is labelled as INSTRUCTOR, since the variables that fall within this category depicts the behaviour of instructors towards students' as in for example responding to students' concerns timely class and making themselves assessable to students. A low score implies that instructors' attitude is deemed satisfactory.

Finally, only one variable *(Expectation)* makes up factor 6. This factor is labeled as SATISFACTION. This factor brings to bear the link between what students expects in class and what they are currently experiencing now. A low score implies that respondents are satisfied with the class because their expectations are met.

Table: 7
Components, Item variables and cronbach's alpha coefficients

Components	Item variables	*Cronbach's α*
Perceived usefulness	Degree, Learnexp, Inequality, Evaluation, Content, Time, Homecomfort, Learncapacity, Confidence	0.81
Modules flexibility	No guide, Knowledge, Easy, Learning and Layout	0.72
Wealth optimism	Currentwork, Futurework, Lifeproblems, Ownbusiness, Lifeissues and income	0.74
Examination conditions	Delivery, Edited, Exams, Examstime and Timetable	0.75
Instructor conduct	Questions, Participate and Contact	0.36
Students satisfaction	Expectation	-

Source: Field Survey, 2010

DISCUSSION

The findings from the current study show the importance of DE in meeting the tertiary educational needs of many civil and public servants and the general positive perception students hold on the programme concerning its usefulness, flexibility and satisfactory optimism. The literature supports this finding that DE is uniquely a tool for widening access to higher education (Sam-Tagoe, 2007) and help bridge the gap between those enrolled in the traditional university and the other who have ambition for scholarship but are challenged in one way the other (Mitchell et al., 2005). However, the success of the DE concept is consequent upon maintaining and understanding students' satisfaction and perceived usefulness (Ardito et al., 2006; Holsapple & Lee-post, 2006; Xie et al., 2006; Zhang et al., 2005).

In fact, "inadequate or incomplete knowledge and awareness of students' inevitably compromises the quality and appropriateness of the DE programme and learning experiences" (White, 2005, p. 170). The present study has demonstrated that though students generally have very good perception about the DE programme, they nonetheless abhor the current examination procedure in general. Among the factors accounting for this negative perception include untimely delivery and poor editing of the modules. There is also the general feeling that examinations are poorly organized and managed, whilst time allowed for the examinations are inadequate. It is also perceived that examination timetable schedules have always disadvantage students and therefore very unfavourable.

These observations contradict the assertion by an Acting Director of the DE programme that "the DE modules had been carefully edited and validated by the departments concerned and certified as up-to-date" (Oduro-Mensah, 2007). It is also not very clear if his assertion that "students on the programme will be provided with study centers, tutoring and counseling, face-to-face session, library services, information sharing computer mediated services" has been put to fruition. These concerns and setbacks have created doubts as to the validity of the Vice Chancellors' statement "….. the quality of the DE programme and admission requirements are the same as those offered on campus" (Tageo, 2007).

It is imperative on the part of the policy implementers to device appropriate measures so that genuine issues relating to examination and modules do not become a barrier to students' who desire to pursue tertiary education nor compromise the quality of the programme.

Thus, to fulfill the dual purpose of DE; i.e. providing access for qualified candidates who for lack of space on the main campus and financial reasons could not pursue tertiary education and also meet students' expectations, the programme should be supported both technically and technologically, by actualizing the authority's dream of implementing electronic (computer) mediated services (Oduro-Mensah, 2007). The University in particular should create opportunities and devote resources to assist students in developing their computer skills and expertise needed for online learning. Indeed, computer literacy should be a prerequisite for enrolling into the DE programme and that conscious efforts should be made to equip students with low level of computer proficiency with the necessary computer skills required for the DE course.

The results of this study highlight the critical role of perceived usefulness; flexibility and satisfaction of students affect DE learning environments and the program as a whole. The fact is if students believe that the DE course is useful, they will be more enthusiastic about the programme.

The literature suggests that perceived usefulness and satisfaction may increase students' engagement in class activities, and eventually in higher levels of use of distance learning environments (Lee et al., 2005; Mitchell et al., 2005). This study clearly shows that a DE course should provide students with great flexibility and that flexible course structure is a key strategy to overcome the intrinsic and extrinsic barriers to DE concept (Jones et al., 2004). As long as students perceive that DE is a useful and flexible way of learning, communicating, and sharing, their enjoyment in the concept will be promoted. Ultimately, this satisfaction might lead to higher levels of engagement, learning, and success in the setting. However care must be taken to avoid situations where the system is only seen as a conduit of acquiring a specific objective either than genuinely acquiring applicable academic knowledge.

Conclusions

Despite the relative growing popularity of DE among civil and public servants in particular, very little research has empirically examined their perception towards the programme. This study helps to understand the underlying factors that influence students' negative perception of the DE programme.

Understanding these perceptions is the first step for developing and implementing a successful DE learning environment. The primary contribution of this research is in furthering our understanding of the variables that influence students' perception of the programme. According to the study, five fundamental factors (flexibility of DE, usefulness of DE, student satisfaction; student perception, and instructor conduct) positively affect students' perception while matters relating to examination and its conditions negatively impact on their perception.

The findings and implications from the study suggest that students' perceived usefulness, satisfaction and flexibility of distance education are important indicators of a positive perception of the programme and ultimately for their enrollment into the programme.

Although the findings further suggest that students' perceived the programme as very useful, satisfactory and flexible, they ironically disagree with all matters relating to examination and its procedure.

This development could be as result of one of two main reasons: probably, the authorities have not instituted the appropriate structures that will ensure the smooth conduct of the programme and the subsequent examination; or the fact that the students themselves abhor the examination in general. Indeed, the latter seems more plausible in view of the fact that most of the participants are civil and public servants with other competing needs for their "limited time" and whose participation in the programme is mainly informed by the need for promotions in their respective places of work.

Thus, there is a need for well-designed and carefully implemented DE learning environments that meet the needs and expectations of students without compromising on quality nor allowing the system to be "exploited" for solely a particular purpose either than promoting the purpose of tertiary education in general.

DE learning and examination environments can be facilitated through activities that increase and emphasize its flexibility and usefulness characteristics. This study recommends the implementation of electronic (computer) mediated services as one of the main policy to help DE courses more intuitive, engaging, and ultimately more didactic.

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