

Assessment of the Effectiveness of Open and Distance Learning as a Tool for the Training of Small Scale Artisans and Technical and Vocational Students in Ghana

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ABSTRACT

Technical and vocational education plays an important role in the socio-economic development of every nation. Ghana's Growth and Poverty Reduction Strategy document and report of the government's educational reform committee published in 2004 have identified technical and vocational education as necessary for accelerated economic growth. Open distance learning has been used effectively in India and Pakistan to train several artisans including the marginalized in the society. This paper looks at the role of open and distance learning as a tool for the training of small scale artisans and technical and vocational education students in Ghana. Results from a survey conducted indicate that all the artisans interviewed were willing to upgrade their professional competencies through open distance learning. On the other hand, most of the technical and vocational education students preferred full time study because of their desire to enjoy campus life. The studies conducted indicate that artisans and students in Ghana are willing to upgrade their professional competencies through open distance learning. In this paper, strategies for the implementation of open distance learning in Ghana are presented.

1. INTRODUCTION

Ghana as a developing country should be conscious of the need for developing human capital for national development. The development of human resources should however, be structured in a manner that will enable the acquisition of skills and competencies necessary for socio-economic development.

In the world of work, emerging trends in employment relations and organizational restructuring have accentuated the need for skillful persons than ever. McShane and Glinow (2000) have intimated that emergent employment relations like the concepts of "employability" and "contingent work" and telecommuting require that people seeking employment in the globalize world should necessarily acquire new skills and competencies to remain competitive in the world of work. For workers who constitute the labour force to remain employable, they should necessarily be able to perform a variety of work activities rather than hold specific jobs. Contingent work includes the types of job for which individual worker have no well defined long-term employment or times of work. These emerging employment issues point to the fact that for majority of Ghanaians to stay competitive and be employable, technical and vocational education should be relevant to the needs of the employment market or for self-employment.

1.1 The importance of technical and vocational education in Ghana

The socio-economic development of Ghana is dependent on the development of technical and vocational education that will enable the youth to acquire relevant competencies. Benefits that may accrue from a relevant system of technical and vocational education include:

Economic importance

- a) The training of skilled workers for the woodwork, construction, mechanical automobile, electrical/electronics, catering and fashion industries.
- b) Expansion of the private sector as artisans who have acquired skills and competencies set up their small-scale or medium-scale enterprises.
- c) The creation of jobs resulting from the expansion of the private sector will reduce unemployment and poverty
- d) Increase in food production as innovative skills are imparted to farmers to enhance their productive capacities.
- e) Provision of a reservoir of human resources for the private and public sectors in Ghana and other African countries, the mining, timber, energy, manufacturing and hospitality industries.

Social importance

As more and more people acquire employable skills in technical and vocational education, the tendency to migrate to the already choked urban communities will be reduced. Alternatively, people who have acquired skills in the rural areas could play meaningful roles in national development when they migrate to join the workforce in the urban areas.

Cultural importance

- a) Ghana abounds in artifacts that are manufactured for local use and for export. In the Northern part of the country artifacts made from leather, cotton and grass are manufactured. Often these products are not well packaged for the domestic and external markets. Skills derived from technical and vocational education will be applied to process such artifacts to earn more money. Revenue derived from these craftsmen will inevitably lead to poverty alleviation in the communities.
- b) The acquisition of technical and vocational education by the majority of the people will impact positively on environmental conservation. For example, optimal value will be derived from the processing of logs into lumber. In the area of mining, the recovery rate from the ores mined will increase and this will mean extra income for workers in that industry.

1.2 The new educational reforms in Ghana and its implications for technical and vocational education

As a result of deficiencies realized in the educational system, an educational review committee was constituted by the President of the Republic of Ghana in 2002, to review the entire educational system. The committee realized that previous reforms had failed to address the needs of Ghanaians. It intimated that the educational system had failed to reflect the socio-cultural, industrial, economic and political challenges facing Ghanaians. It contended that one of the challenges facing the educational system was the neglect of the technical and vocational education sub-sector. The committee at its deliberation observed that:

- a) There was concentration on the development and opening of access to senior high schools as against technical and vocational institutes. For example as at 2002, there were 474 Senior High Schools as against only 23 state Technical Institutes and 29 Vocational Institutes.
- b) Of the technical institutes, only about six (6) were adequately equipped to function relatively satisfactorily.
- c) The Ministry of Education allocated only about one percent (1%) of its budget to technical and vocational education.
- d) Only 1.6% of the total educated labour force in Ghana had some qualification in vocational and technical education.
- e) Thirty percent (30%) of the labour force engaged in production had never been to school.

1.3 Open distance learning as a tool for the training of artisans and technical/vocational education students in Ghana

Most countries in the world, especially India and Pakistan have successfully used open and distance learning as a tool to train master craftsmen and small scale artisans to upgrade their professional competencies. The new educational reform by the government of the republic of Ghana has recommended the use of open and distance learning in Ghana to upgrade the professional competencies of artisans and students in order to meet the increasing demand of skilled labour. One way of verifying the readiness of the Ghanaian artisans and students to embrace the concept of open distance learning is to assess the effectiveness of open and distance learning in Ghana and to make recommendations to the ministry of education for the appropriate mechanisms to be put in place towards the establishment of open distance learning in Ghana.

In this paper, the response of two hundred and forty five (245) artisans and five hundred (500) technical/vocational education students in Ghana on their views or perceptions of open distance learning is presented. The paper also looks at the Pakistan and India models of open distance learning for Technical Education and Training (TVET) and makes appropriate recommendations for the establishment of open distance learning for small scale artisans, and the expansion of the distance learning programme in technical and vocational education at the University of Education, Winneba.

2. METHODOLOGY

The study was restricted to Kumasi and its immediate environment because it constitutes the largest concentration of artisans and mechanics in Ghana. The Suame “magazine” a well known center for the training of artisans in Kumasi draws a large number of Ghanaian from all regions and quite an appreciable number from surrounding countries like Burkina Faso, Mali, Niger, and Togo.

The research subjects were technical and vocational education students from the University of Education Winneba and artisans working in various fields of endeavour in the selected area of study. The sample size consists of 245 artisans and 500 technical and vocational education students. The snowball sampling technique was used to identify all the artisans who were asked to decide on issues that included their preference or otherwise for Open Distance Learning as a tool for further education in skills development, their interest in pursuing further education and their willingness to put their workshop and other facilities at the disposal of trainee apprentices on an open distance learning educational programme. Technical and Vocational Education Students from the University of Education, Winneba were asked to indicate their preference or otherwise for open distance learning.

3. RESULTS OF THE STUDY

The study revealed that all the 245 artisans interviewed were prepared to upgrade their knowledge in practical and entrepreneurial skills at the University of Education, Winneba through open distance learning when offered the opportunity to do so. The overwhelming response indicates that when the right environment is created, majority of artisans whose educational background is basic will be prepared to go to school. Table 1 shows the responses of the categories of artisans interviewed.

Table 1. Artisan’s responses on their interest to pursue training programme by open distance learning

S/N	Trade	Number of respondents	Responses	
			Yes	No
1	Electrical installation	12	12	0
2	Draughtmanship	10	10	0
3	Auto mechanics	10	10	0
4	Car body works	10	10	0
5	Painting & Decoration	09	09	0
6	Motor Rewinding	14	14	0
7	Welding and fabrication	14	14	0
8	Computer hardware	11	11	0
9	Block laying and concreting	14	14	0
10	Refrigeration and air-condition	12	12	0
11	Carpentry and joinery	40	40	0
12	Radio and Television	10	10	0
13	Catering service	07	07	0
14	Auto electrical	10	10	0
15	Plumbing	10	10	0
16	Metal machining	10	10	0
17	Wood work	27	27	0
18	Blacksmithing	10	10	0
Total		245	245	0

3.1 Availability of workshops for practical training and qualification of artisans

When respondents were asked if they would be willing to put their workshops at the disposal of other persons for training purposes under the open distance learning scheme, 207 out of the 245 artisans constituting 85% responded positively as shown in Table 2. Thirty eight artisans (38) constituting fifteen percent (15%) of the respondents however, indicated their unwillingness to do so. The result indicates that should open distance learning be extended to mechanics and artisans in the Kumasi metropolis majority of them will avail themselves of the opportunity.

Table 2. Artisan’s responses on their willingness to release their workshops for practical activities

S/N	Trade	Respondents	Responses	
			Yes	No
1	Electrical installation	12	12	0
2	Draughtmanship	10	10	0
3	Auto mechanics	10	10	0
4	Car body works	10	8	2
5	Painting & Decoration	09	4	5
6	Motor Rewinding	14	15	0
7	Welding and fabrication	14	14	0
8	Computer hardware	11	14	0
9	Block laying and concreting	14	9	2
10	Refrigeration and air-condition	12	8	6
11	Carpentry and joinery	40	7	5
12	Radio and Television	10	32	8
13	Catering service	07	8	2
14	Auto electrical	10	7	0
15	Plumbing	10	8	2
16	Metal machining	10	4	6
17	Wood work	27	27	0
18	Blacksmithing	10	10	0
Total		245	207	38
		100%	85%	15%

3.2 Curriculum for small scale artisans

The study further sought to find out areas of study that the artisans were willing to be included in any system of open distance learning. It was realized that 94% representing 230 artisans agreed that scientific theories, basic accounting, management and entrepreneurship relating to their specialist areas of work be included in the curriculum. The inclusion of these subjects they contended will enable them to manage their resources properly.

3.6 Undergraduate students’ views on open distance learning in technical and vocational education

The University of Education, Winneba offers a 2-year post diploma degree in technical and vocational education on full time basis. It equally offers Accounting and Secretarial progmmames which are classified under vocational education. Three hundred and seventy six students offering technical and vocational education were asked to indicate their preference for full time or open distance learning. The result is shown in Table 4. Majority of the students preferred full time studies to open distance learning because their desire to enjoy campus life. It is interesting to know that majority of the students who opted for full time studies are below 30 years and have no family responsibilities. On the hand, all the students who opted for open distance learning are above 30 years and had indicated family commitment, job security and inability access study leave with pay as reasons for opting for the open distance mode of learning.

Table 3. Technical and vocational education students’ preference for full time or open distance learning.

System of learning	Male	Female	Total
Full time	174	40	214
Open distance learning	68	94	162
Total	242	134	376

Similarly, Accounting and Secretarial students were asked to choose between those choices. The result is shown in Table 4. Similar reasons assigned by the vocational and technical education students were given by the secretarial and management students.

Table 4. Accounting and management students' preference for full time or open distance Learning.

System of learning	Male	Female	Total
Full time	34	46	80
Open Distance Learning	12	5	17
Total	46	51	97

3.7 Recommendations for the establishment of open distance learning in Ghana

It has been established in the Ghana Growth and Poverty Reduction Strategy document and the educational reforms Committee report that to achieve accelerated development in technical and vocational education there is the need to devise strategies that will enable as many people as possible to come on board.

The normal full time educational system has failed to provide access to numerous persons who desire to further their education (Anamoah Report, 2002). From the survey conducted it was also realized that majority of the artisans interviewed indicated that they could not leave their businesses to go to school. Instead they preferred open distance learning. It follows therefore, that open distance learning is the single most viable alternative to enhancing the pace of delivering technical and vocational education on a wider scale in Ghana.

3.7.1 Lessons from the Pakistan and India models of open distance learning

Saif (2005) contended that the Allama Iqbal open university in Pakistan has "emerged as a role model for open distance education in the developing world. He intimated that Allama Iqbal Open University with a population of 350,000 offers graduate, post graduate and non-academic programmes that benefit rural communities including women". It is significant to note that the total population of the five public universities in Ghana is not near the population of Allama Iqbal. Saif further indicated that over 75% of Iqbal's population is in gainful employment and therefore, they (students) embarked on programmes relevant to their work place experiences. In the same vein, Shah (2005) has intimated that as a result of a backlog of 300 million non-literates in India between 1981 and 2001, the federal government recognized open distance learning as powerful instruments for democratizing education and promoting it as a lifelong learning process. Shah indicated further that of the 262 universities in India, 103 have Departments of Adult Education. The India and Pakistan models provide good lessons for the development of open distance learning in Ghana.

3.7.2 Methods of delivery of open distance Learning

A successful open Distance Learning in Ghana will depend on the medium used for its delivery. It is important to distinguish between traditional classroom systems and open distance learning systems in order not to replicate the methods used to deliver the former. Saif (2005) contends that the Pakistani model of open distance learning makes use of multimedia packages. These include:

- a) Supply of self learning correspondence materials
- b) Effective use of Radio and television for educational broadcasts.
- c) Use of satellite transmission to broadcast beyond the shores of Pakistan.
- d) Use of slides, audiocassettes, charts, leaflets and videocassettes.
- e) Fact-to-face delivery of lessons at study centres.
- f) Tutorial instructions and academic advice sessions at study centres.
- g) Examinations held for courses taught at the end of each session.

It is possible to roll out the Pakistan model in Ghana because:

- a) There are numerous FM stations in Ghana that can be used for open distance learning.
- b) There exists in Ghana major Information technology based companies that can collaborate with the University of Education, Winneba to deliver open distance learning via satellite communication.
- c) The Government owned and private television stations can support the broadcasting of educational programmes because some of them cover the entire country and beyond. What is left is for the implementing agencies to build the necessary networks and interfaces to get the programme going.

Instructional Materials

The design and construction of instructional materials should be based on the minimum educational qualification and or physical characteristics of those who will benefit from the programme. This should be done in order not to frustrate the efforts of the physically challenged who may come on board. Specifically the following instructional aids must be prepared:

- a) Books
- b) Flyers

- c) Instructional Audio cassettes
- d) Instructional Video cassettes
- e) Appropriate instruments for laboratory or science classes
- f) Chemicals for experiments
- g) Machine drawings for demonstration purposes
- h) Technical drawings etc.

The constructions of these should be done with the beneficiaries in mind. This means reducing the language to the level that will be understood by all without difficulty. It means making all instructional aids user-friendly.

3.7.4 Study Centres for open distance learning

From the survey conducted in Kumasi, Ghana, it was realized that majority of the master craftsmen were eager to release their facilities for the training of apprentices on the open distance programme. A follow up survey covering the entire nation should be done to prepare a register of garages and other training facilities like the Polytechnics and Technical institutes that will be willing to come on board. The necessary contractual arrangement should then be made to facilitate the use of the facilities.

There is also the need to train link coordinators who will serve as bridges between the training centres and the University of Education, Winneba.

3.7.5 Role of the District Assemblies in open distance learning

The District, Municipal and Metropolitan Assemblies constitute the bedrock of Ghanaian local government administration under the Local Government Act 462. The Assemblies play crucial role in managing educational issues at the community level. Any successful Open Distance Learning programme should involve the District Assemblies.

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