



Informal Training in Perspective: An Example from Koforidua Technical University, Ghana

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Authors' contributions

This work was carried out in collaboration between all authors. Authors BA and SOA designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors BA and SAD managed the analyses of the study. Authors BA, SOA and SAD managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Feedback in modeling is very crucial and educational institutions are not exempted. With the dynamic nature of businesses today, the development of technical and vocational education and training can greatly improve when periodic feedback is given to help shape the development and implementation of curriculum. After five (5) years of offering training and technical support to graduates in the informal sector in deprived communities, in Ghana, by Koforidua Technical University through the Institute of Open and Distance Learning, (IODL) with support from Commonwealth of Learning (COL), this paper traced graduates of the Artisan Programmes from 2010 to 2015. This was to help in generating relevant information that could be fed into curricula review to ensure that programmes offered meet expectations. Five hundred (500) graduates were randomly sampled from eight (8) deprived communities in the Eastern Region of Ghana of which 422 responded representing 84.4% response rate. Comfort of living, extent of material acquisition, available necessities of life, and increased self-confidence were some livelihood indicators used in the study. Results from the study revealed that 83% of graduates find the programmes highly

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beneficial because their skills have improved and seek to continue to the advance certificate. Again, the study showed that more than 70% of auto-mechanics, electricians, seamstresses, hairdressers and mobile phone repairers indicated that they urgently need further and modern training. Furthermore, over 80% of women and girls involved in the study indicated that their livelihood has improved tremendously after graduation and they were supporting their children education. The gaps identified by the study included the small component information communication technology in the curriculum of the Artisan programme. The study recommends, among others, that information communication technology component should be increased in the curriculum and the period of refresher training be reduced from six months to three months.

Keywords: Artisans; curriculum; communities; informal sector and tracer.

1. INTRODUCTION

A key challenge for national policy formulators, employers and indeed stakeholders in education in Africa has been how to close the existing gap between job requirements and skills acquired by graduates. To effectively address this challenge, the review and development of curriculum in schools, more especially in higher education and Technical, Vocational Education and Training (TVET) institutions, must be based on accurate data reflecting current trend in industry. Unfortunately, the reviews and development of curriculum in most TVET institutions are not informed by current trends in industry [1].

According to [2], tracer studies or graduates surveys are popular for "analysis of the relationship between higher education and work". [2] posited that the time has come for higher education institutions to have a working relationship with industry, having the demands of industry at the center of their curriculum development.

In the view of [3], even in some cases, curriculum has been maintained for as long as thirty (30) years in the life of some higher education and TVET institutions in Africa without review. They maintained that this has led to some institutions "teaching-out-of- touch" with reality and demands from industries and national economies.

Furthermore, [4] posited that it is important for Ghanaian higher education institutions to have regular (every other year) tracer studies of their graduates since tracer studies have not been institutionalized in developing their curriculum. Their conclusions and recommendations pointed to the fact that institutions with no records from tracer studies often find themselves hugely deficient in delivering their mandate. This paper therefore seeks to:

- (i) Find out the relevance of the artisans programme from the graduates' point of view;
- (ii) Find out how the courses the artisans have been taught have helped them to improve their livelihood;
- (iii) Identify the gaps in the Artisan Programme in Koforidua Technical University.

It is hoped that findings of the study would help Koforidua Technical University effectively run the Artisans programme and provide bases for other institutions.

2. METHODOLOGY

This study was conducted on graduates who have gone through the Artisan programme through the Institute of Open and Distance Learning of Koforidua Technical University from 2010 – 2015. Review of relevant literature, reports and documents; consultation with key informants and stakeholders and field survey of selected graduates were conducted.

The population for the study was 978 of which 500 were targeted for the study. The study employed stratified random, purposive sampling using list of graduates whose records were available from the University database. Graduates identified from the data base were used to identify other graduates whose records were not readily available from the database. Questionnaires were administered to five hundred (500) sampled graduates who were selected for the study. Also records of respondents were retrieved from their admission records to compare their responses at the time of training and during the tracer studies. Purposive sampling was also used to select five (5) artisans for a documentary. Data gathered was analyzed with Microsoft Excel and Statistics Package for Social Sciences (SPSS) version 16. The results

were presented by figures, charts and tables as well as video footage of the experiences shared by some respondents.

3. FINDINGS

Out of the 500 graduates selected for the study, 422 responded representing a response rate of 84.4%. Table 1 shows age, number of years spent in trade and the employment status of respondents. In all, 151 respondents were males and 271 were females. 50% (212 respondents) of respondents were aged between 40 – 49 years, while 24% (102 respondents) were in the 50 – 59 years whilst another 37 respondents, representing 9% were 60 years or more. That is, adult learners were more than their younger colleagues, addressing the intent of granting access to learners irrespective of age as intended by the IODL, KTU.

Again, from Table 1 it can be seen that majority, 134 respondents representing about 32% of respondents have spent between 10 – 14 years in employment. Cumulatively, about 68% of respondents have spent more than 10 years in their trade and it was just necessary that they desire to upgrade their skills and re-tool their skills. About 95% of respondents were already in

employment at the time they enrolled in the programme.

3.1 Find out the Relevance of the Artisans Programme from the Graduates' Point of View

To find out the relevance of the programmes from the respondents perspective, we established the dominant programmes of study, the reasons for undertaking part in the training and finally how relevant they rate the various courses they studied.

3.1.1 The programme of study

The researchers first sought to establish the various programmes the artisans mostly engaged in by gender. This stemmed from the fact that [5] posited that there is significant difference in preference for trade in the informal sector by gender.

The various programmes undertaken by the graduates are detailed in Table 2. Majority of respondents representing 39% were Tailors and Dressmakers, while about 21% were mobile phone repairers followed by hairdressers (16%), 13% were as automechanics and 11 were electrical & Electronics technicians.

Table 1. Demographic characteristics of respondents

Characteristics	Gender		Total	Percentage frequency (%)
	Male	Female		
Age				
< 20	5	16	21	4.98
20 – 29	3	25	28	6.64
30 – 39	10	12	22	5.21
40 – 49	94	127	212	50.24
50 – 59	33	60	102	24.17
60 or more	6	31	37	8.77
Total	151	271	422	100
Number of years spent in trade				
<1	2	5	1	1.66
1 – 5	15	35	50	11.85
6 – 9	22	56	78	18.48
10 – 14	58	76	134	31.75
15 – 20	23	59	82	19.43
20 or more	31	40	71	16.83
Total	151	271	422	100
Employment status				
Employed	142	259	401	95.02
Unemployed	9	12	21	4.98
Total	151	271	422	100

Source: Field data, 2016

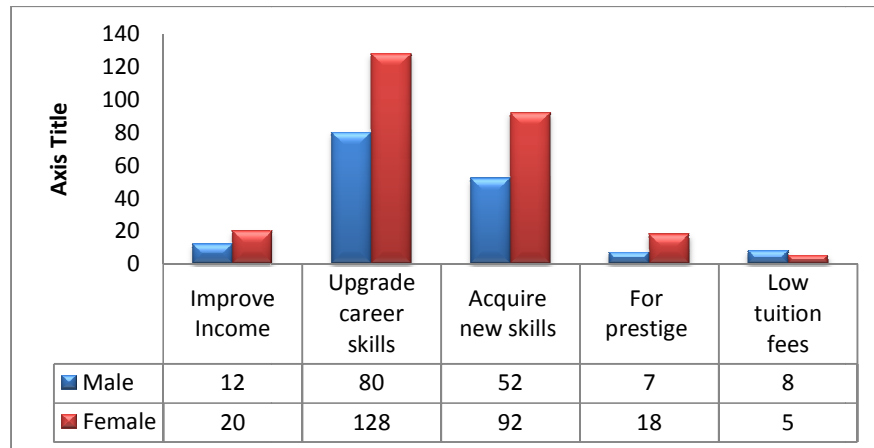


Fig. 1. Respondents' reason for choice of programmes

Source: Field data, 2016

According to [6] four prominent trade groups dominant the Ghanaian informal sector. These include hair dressing, electrical and electronics technicians, tailors and dress makers and automechanics. They posited that another fast penetrating trade is mobile phone repairs which is fast gaining grounds on the Ghanaian informal sector with even graduates from tertiary institutions taking part in that lucrative trade. These careers among the informal sector in Ghana as were also affirmed by concluded by [7] with significantly contribution to the community and national economy in a skill gap analysis study.

3.1.2 Reasons for undertaken part in the training

The researchers were interested to find out what motivated the artisans to enroll for the training since according to [8], adult learners in Africa mainly undergo training to improve their income. We were interested to establish the truth or otherwise of this.

With regard to the motivation for enrolling in the training programme, majority of respondents (80 males and 128 females) indicated that they wanted to upgrade their existing skills, followed by acquisition of new skills (52 males and 92 females) while 12 males and 20 females indicated that they enrolled into the improve to their income. Prestige and low tuition fees were also identified as motivation for engaging in the programme.

It can be seen that skills acquisition and upgrade were the main reasons why respondents joined the training and not financial position as posited by [9].

3.1.3 Relevance of programme on the job

Respondents were asked to indicate the level of relevance of the various courses of study to their trade. The mean scoring on a scale of 1 to 5 and respective rank is as presented in Table 3.

Table 2. Distribution of programme of study

Trade	Gender		Total	Percentage frequency (%)
	Male	Female		
Hair Dressers	5	64	69	16.35
Tailors/Dressmakers	64	102	166	39.34
Mobile phones repairers	63	24	87	20.62
Auto Mechanics	49	05	54	12.80
Electrical & Electronic Technicians	38	08	46	10.80
Total	219	203	422	100

Source: Field data, 2016

Table 3 shows how useful/relevant they find the training they received. Customer care is highest ranked course with 4.52, followed by Book keeping with 4.35 out of the grade of 5 in the common courses. However, it can also be noted that basic numeracy and computer literacy were rated lowest with 1.02 and 1.24 respectively. Respondents indicated that even though they have interest for computer application they needed more time to appreciate and incorporate the skills learnt into their trade. Further interrogation of respondents revealed that they were not ready to pursue basic numeracy at all and wanted it out of their curriculum.

3.2 How the Courses the Artisans have been Taught have Helped them to Improve Their Livelihood

A core objective of the establishing the artisan programme is to help improve livelihood of participants and this is modelled as objective two of this paper. We first want to find out the various interventions out in place by the graduates at their places of work and then how these interventions has helped improve their livelihood.

3.2.1 Specific intervention at workplace since graduation

Respondents were asked to indicate specific interventions they have instituted that had led

to change in their livelihood after the programme. The responses given are as shown in Table 4.

Respondents attributed the improved livelihood status after the training at KTU, IODL to a number of reasons as detailed in Table 4. Principally among these are opening of bank accounts (25%), placing advertisement of products and services (24%), changing of personal spending pattern of respondents representing 22%. Other attribution include as indicated by respondents include installation of safety equipment (7%), implementation of acquired skills (7%), and employment of professional staff among others.

The implication of this revelation is that learners applied more of the knowledge acquired during the core module than those acquired in the trade specific modules. It could also be stated that the core module is yielding more results, as indicated by respondents, than the trade specific areas. It is therefore imperative for curriculum developers to pay more attention to the training of area specific trades.

3.2.2 Sustainable livelihood indicators

Respondents were asked to indicate on a scale of 1 to 5, with 1 being the lowest and 5 being the highest, whether they earn enough to sustain their livelihood and livelihood of their

Table 3. Relevance of course to your career now

Course	Mean	Rank	Course	Mean	Rank
Core courses			Tailors/Dressmakers		
Customer Care	4.52	1	Styling	4.78	1
Book keeping	4.35	2	Garment Architecture	3.35	2
Marketing & Branding	3.65	3	Yarn Maintenance	2.25	3
Health & Safety	3.25	4			
Insurance	2.17	5	Hair dressers		
Business & Succession Plan	2.14	6	Cream Technology	4.58	1
Computer Literacy	1.24	7	Hair texture and application	4.57	2
Basic Numeracy	1.02	8	Weaving	2.35	3
Mobile phone repairs			Electrical & electronic technicians		
Basic electronics	3.85	1	Flat Screen Maintenance	4.57	1
Charging/battery maintenance	3.71	2	Household Equipment & Maintenance	3.35	2
Screen maintenance	3.24	3	Computer Hardware Repairs	2.31	3
Auto mechanics					
Electronics Diagnosis	4.68	1			
Engine Servicing	4.35	2			
Fluids and Lubrication	3.25	3			

Source: Field data, 2016

Table 4. Special interventions contributing to improved livelihood

Intervention	Gender		Total	Percentage frequency (%)
	Male	Female		
Acquired new machinery and tools	8	12	20	4.74
Changed personal spending pattern	30	61	91	21.56
Employed professionals	14	10	24	5.69
Installed safety gadgets	5	25	30	7.11
Open bank accounts	43	64	107	25.36
Place advert of operations	27	74	101	23.93
Registered my company	10	5	15	3.55
Secured insurance of operations	4	2	6	1.42
Implementing new skills	10	18	28	6.64
Total	151	271	422	100

Source: Field data, 2016

dependents. The results are as presented in Table 5. The study revealed that material acquisition by male respondents was the highest rating of 4.07, then increased self-confidence and self-esteem of female respondents with 3.98, followed by male respondents operating from own workshop/factory with a score of 3.87. Again, level of wealth by female respondents, operating from owned shop (3.32), and vehicle ownership by male respondents (3.41) were highly rated.

In all the ratings, males were rated higher than their female counterparts; giving an indication that male - female livelihood gap exists even after the programme using the stated sustainable livelihood indicators. This is notwithstanding the improved measures of female respondents after the programme.

3.3 Gaps in the Artisan Programme in Koforidua Technical University

The last objective of this paper is to find out gaps or challenges (if any) as identified by the

artisans so as to improve the curriculum of the programme.

3.3.1 Identification of gaps in the Artisan Programme

Gaps identified in the Artisan programme are as detailed in Table 6. Principally, 32% of respondents identified long duration of the programme; 26% identified heavy course load; 13% identified insufficient study materials as challenge. Apparently, respondents had in mind they were going to be provided with fully audio-visuals aids for their study which could not be provided due to lack of funds from the Polytechnic. The intensive nature of the programme was also cited as a gap by 11% of respondents.

Again, insufficient of ICT component in the training was also cited as challenges by 10% of respondents whereas 7% attributed the challenge in the programme to the high number of assignments demanded by teachers or facilitators.

Table 5. How the training has affected your livelihood?

Area of satisfaction	Mean score after training		*Mean score before training	
	Male	Female	Male	Female
Operate from own workshop/factory	3.87	3.32	3.11	3.04
Own a vehicle	3.41	2.43	2.98	2.17
Material acquisition	4.07	3.12	3.54	2.14
Live in own apartment	3.08	3.23	2.13	2.04
Increased self-confidence & esteem	3.28	3.98	3.19	2.57
Total	3.54	3.22	2.99	2.39

Source: Field data, 2016

Table 6. Gaps identified by respondents

Gap	Gender		Total	Percentage frequency (%)
	Male	Female		
Intensive nature of the course	16	32	48	11.37
Heavy course load	31	80	111	26.30
Insufficient study materials	36	20	56	13.27
Insufficient component of ICT	14	29	43	10.19
High number of tasks/assignments	7	23	30	7.11
Long duration of programme	47	87	134	31.75
Total	151	271	422	100

Source: Field data, 2016

According to [10] many artisans know the relevance of ICT in boosting their trade in African but continue to down grade whenever they are given the opportunity to prioritize their trade needs. Irrespective of the love and enthusiasm they show towards ICT incorporation into their operations, one would expect that majority rate it as a major challenge but this is not the case as shown in Table 6.

4. CONCLUSION AND RECOMMENDATION

The study revealed both expected and some unexpected results. A review of existing literature on tracer studies revealed that with enormous benefits of tracer studies, a lot more institutions are getting more interested in tracer studies. The developers of the curriculum had in mind that the artisans were interested in principally increasing their financial position but that was not what was stated by respondents. Respondents were more interested in upgrading their skills and acquiring new skills for their trade as posited also by [11]. The results from this study covered most of the popular trades in Ghana and Eastern region and graduates were very satisfied with the training. Majority of respondents who did not have bank accounts have opened and operating bank account for their businesses; many more are vigorously advertising their goods and services which is yielding positive results. Just as identified by [12], males continue to record higher measures of identified sustainable livelihood indicators such as ownership of workshop/factory and vehicle as well as material acquisition for respondents and their dependents and ownership of apartment. However, comparing the results before and after the study, females rating of identified livelihood measures had improved significantly. Gaps identified in the programme included heavy course load for learners, insufficient component of ICT in the curriculum, insufficient study materials, long duration of the

programme and the intensive nature of the programme. This is consistent with the findings of [13] on their work on the trend of poverty and informal trade among urban and peri-urban in Ghana. It is recommended that curriculum developers review the curriculum to reflect the aspirations of learners – flexible time schedule, spread course load to help them grasp the concepts, increase the ICT component of the curriculum, develop more audio visual learning aids for learners.

We attached a short YouTube video on some experiences shared by respondents during interview sessions on <https://youtu.be/OTZYCHrwrYM>

DISCLAIMER

“Some part of this manuscript was previously presented and published in the following conference.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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