Producing work-ready commercial art graduates: stakeholders' perceptions

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Abstract

Purpose – Graduate unemployment is widely reported not only in Ghana but also across the globe. The purpose of this study is to examine the relevance of the HND Commercial Art Programme, Graphic Design (CAPGD) option, to the graphic art industry and to determine the work readiness of graduates of HND CAPGD at the world of work.

Design/methodology/approach – A qualitative, evaluative case study research design was adopted to examine the perspectives of stakeholders of CAPGD. It was a multiple case study, which involved faculty members, graduates and industry-based supervisors. The study was conducted using in-depth semi-structured interviews and focus group discussions to obtain in-depth interpretations and conclusions that reflected the perceptions of the stakeholders.

Findings – The qualitative results indicate that the existing curriculum, based on the old polytechnic educational system, does not provide adequate practical approach to teaching and learning processes. Hence the majority of graduates lack competencies to meet industry's expectations.

Research limitations/implications – The key limitation is lack of database on the HND Graphic Design graduates at Takoradi Technical University. This affected the data collection process as the HND Graphic Design graduate participants were not easily accessible, and, as such, much effort and risk were required to contact them. Considering the implication for education policy, the findings propose stakeholders' collaboration to ensure cross fertilization of ideas (Nwajiuba *et al.*, 2020). Hence, a compilation of database could engender further study in this area and thus form the bases of a mixed method approach resulting in in-depth analysis for fresh insights into the study.

Originality/value – The findings provide unique insights into work readiness of Commercial Art graduates, specifically in Ghana, as it seeks to bridge a gap in literature.

Keywords Commercial art programme, Employability, Graphic design industry, Higher national diploma, Work-readiness and relevance

Paper type Research paper

Introduction

In the new global economy, education has become a central issue for socio-economic transformation. There is a growing body of literature which recognises the importance of graduate employability and massification of higher education programmes. In view of this, tertiary institutions have been criticised over the relationship between the role of educational experiences and economic needs around the world (Smith *et al.*, 2018). According to Bridgstock and Jackson (2019), today's higher education graduates lack some required proficiency (work-readiness) for work placement. Available literature reveals that Africa's youthful population requires an enhanced education to build competencies to produce relevant and work-ready human resource capacity (Baah-Boateng, 2016). Additionally, most developing countries have not as yet provided effective policies to promote graduate

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employability (Nwajiuba *et al.*, 2020). Against the backdrop that empirical studies on graphic designers' employment are scanty, Dziobczenski *et al.* (2018) contend that there is much to be done by way of research to appreciate the graphic design vocation.

The purpose of this study is to examine the strengths and weaknesses of the HND CAPGD at Takoradi Technical University (TTU) in Ghana in order to make recommendations that would enhance its relevance to industry and the nation at large. Hence, the study sought to answer the following overarching research question:

RQ. What is the perception of stakeholders on the relevance of subject, skills, knowledge and understanding of the HND Graphics Design Programme to the world of work?

Currently, HND CAPGD, like other tertiary programmes across the sphere, has been grappling with the quickening pace of technological advancement and global modernity in Ghana. This situation requires the intervention of both institution and industry to guarantee the relevance of Programme to the world of work (Adu, 2015; Bridgstock, 2017; Mobarak, 2019). Therefore, there is the need to investigate HND CAPGD option to ensure that its graduates possess the required competencies to excel in the world of work. McAleese *et al.* (2013) recounting Allan Bloom's exposition concurred that: "education in modern times ought to endeavour to identify whatever that is deposited in learners that might crave for completion and thus reconstruct their knowledge to promote independence in society". Underscoring this claim is the learning style of the constructivist approach that emphasises the learner-centred-strategy to learning, which develops the learner's intellectual competencies, thereby making the learner independent, versatile and productive.

To achieve this goal, Henri *et al.* (2017) asserted that the mode of delivering sustainable education should be based on competency-based pedagogy that utilises competency-based learning (CBL) approach; thus, affording the learner the ability to link basic concepts of education and training at the TVET level. Being an outcome-based student-centred form of education, it would enable students to be forward-thinking and thus grasp the essential knowledge and skills. This is expected to afford learners the ability to link various concepts such as experiential education, project-based learning and problem-based learning which form the bases of all education and training at the TVET level (Henri *et al.*, 2017). This would also enable the learner to acquire and practise creative thinking skills that are relevant to the world of work (Kumar and Teotia, 2017). The TVET system enhances relevance to workplace needs requirements and improves applicability of competence (Terblanche, 2017). This, consequently, renders the HND CAPGD graduates well poised to meet workplace expectations.

The ultimate goal of education in any economy is to solve national development problems through the introduction of work-integrated learning (WIL) style (Rook and Sloan, 2021). This approach which combines both theory and practice in delivery ought to be the bedrock of every institution's curriculum (Terblanche, 2017; Pouratashi and Zamani, 2019). As relevant and applicable programmes become the benchmark of today's progressive economy, it is equally important to align them with higher education system to ensure that graduates are work-ready upon graduation (Bridgstock, 2017; Nwajiuba *et al.*, 2020). For instance, the field of professional graphic design has evolved from manual to digital technology, and this has had a tremendous influence on the graphic design vocation (Dziobczenski *et al.*, 2018). The provision of this all-important training is expected to act as a panacea for the lack of practical training and skills required to promote employability and work-readiness.

Study context

The Department of Graphic Design Technology, since its inception, has produced over 3,500 graduates for the limited artistic industry and mainly for freelancing (TTU, 2017). However, the curriculum, which belongs to the old polytechnic education system, is yet to be reviewed and has resulted in outputs which may be irrelevant to the world of work (Agyefi-Mensah and Edu-Buandoh, 2014; GoG, 2015).

Graduate employability

Issues of graduate employability and readiness to the labour market have been keys on the political agenda of higher education across the globe. Consequently, a number of employability and career guidance frameworks have been propounded to ensure that institutions of higher education live up to their expectation (Bridgstock, 2017; Tran, 2019 and Gedye, 2018). For instance, Gedye (2018) describes graduate employability to cover the ability of securing a job, performing effectively within the job and being able to move between jobs or roles as well as having the required experience and attribute to do a task. Therefore, the supply of work-ready HND CAPGD graduate is fundamental to promoting education enterprise in Ghana thereby reducing unemployment and poverty. Räty *et al.* (2018) are of the view that graduate unemployment has become the litmus test for academic programmes, which are irresponsive to labour market needs. In that respect, it behoves on all key stakeholders to ensure that graduates are equipped with workplace readiness to seize opportunities in the changing labour markets (Mobarak, 2019; Tran, 2019).

Though, little scholarly attention has been made towards the relationship between the higher education interpretations of graduates' abilities and their perceptions of their own employability, Räty *et al.* (2018) are of the view that employability involves students' self-confidence, applicability of abilities and relevance to workplace. Consequently, today's knowledge-based economy ought to be responsive to changes in labour markets requirement; which requires significant preparation to enable the tertiary education graduate to be relevant to their world. This calls for trainers to go the extra mile to produce outcomes, which are over and above what degree subject knowledge can provide them, whiles trainees dwell on lifelong learning skills to render them more competent and work ready.

A recent report indicates that higher institutions are not doing enough to develop the employability skills of graduates which would provide them work readiness (Suarta *et al.*, 2017). Hence, the global workplace is advocating for higher education institutions to design and implement programmes that Technical Universities were mandated to run whiles providing workforce that are relevant to the needs of stakeholders. Hence, it is the responsibility of all key stakeholders to provide graduates with knowledge in the professional field which entail the ability to apply intellectual skills and theory to practical situations (Suarta *et al.*, 2017).

The role of technical and vocational education and training (TVET)

Education strategic goal underscores the importance of delivering quality education service at all levels to equip learners with training opportunities. TVET programmes are also responsible for the competencies and attainment of demand-driven programmes needed for the development of skills and economies (MoE, 2018). It was in the light of this that the HND CAPGD began in 1995 under the former Takoradi Polytechnic to train students in the Visual Arts, which initially offered only Textiles and Graphic Design options.

While there is scarce published literature on Commercial Art Programme in Graphic design option, it is essential to have more research in this area so that more light could be thrown on this phenomenon. Apart from Adu (2015), who examined the link between design education and the graphic design industry, Enninful *et al.* (2016) whose study analysed barriers to start-ups businesses among Graphic Designers graduates and a recent study by Okyere (2017) which interrogated non-formal trained graphic designers (NFTGD) workforce in Asafo, not much has been published on the work-readiness of Commercial Art Programme, graphic option in Ghana. This could be attributed to failure of Ministry of Higher Education (MOHE) to promote research in such areas to enhance the programmes offered. These assertions are corroborated by concerns raised by Bridgestock and Cunningham (2016) that artistic graduates fail to secure satisfactory engagement leaving them underemployed and thus divert into unrelated fields. This paper bridges the gap in literature on Commercial Art Programme as it explores the relevance of the CAPGD to the world of work.

Industry's expectation of TVET graduates

Employability and competence are inseparable and cannot be discussed in isolation. Employability of any graduate is measured by the graduate's level of competency demanded by the world of work, which results from linkages between higher education and the industry. Accordingly, Khodeir and Nessim (2020) labelled new skills needed in the higher education and employability today as the "twenty-first century skills". A study conducted on skills for employability in Africa reveals that the major skill gaps in Africa are related to both cognitive and non-cognitive (Burnett and Jyaram, 2012). In the case of cognitive, the deficiencies are numeracy and critical thinking while non-cognitive skills are related to communication, leadership and decision-making. However, non-cognitive skills are becoming increasingly important as economies change. This is in support of the fact that the theoretical knowledge acquired in school is simply inadequate to make graduates competent and thus employable; this demands that employers conduct on-the-job-training that is specific to their needs.

Among these life skills are core subjects, career skills, learning skills, innovation skills and Information Technology (IT) skills which are essential for the regular operations of the industry. Hence, the employability of HND CAPGD graduate transcends skills and advocates for more conscious effort to modernize curriculum to correspond to the current requirements of employers. Industry ought to collaborate with academia in curriculum development to ensure that the curriculum for the HND CAPGD is in line with workplace expectation. The contemporary higher education industry thrives on the competency and non-competency skills of its workforces (Paterson, 2017; Bridgstock and Cunningham, 2016).

A very recent study by Mobarak (2019) indicates that most higher education (HE) graduates in Africa lack work-readiness and as such cannot be engaged by employers. This unemployment setback has deteriorated such that many graduates from higher institutions in Ghana are unable to secure jobs upon graduation (Zakaria and Alhassan, 2019). To make matters worse, the graphic design industry is looking for qualified work-ready graduates with soft and lifelong skills (Adu, 2015). It is contended that half of higher education graduates cannot secure jobs two years upon completing national service while 20% remain unemployed after three years of their national service programme (Zakaria and Alhassan, 2019). Against this background, the study adopts Dacre-Pool and Sewell (2007) model on employability and curriculum design as a lens.

The Dacre-Pool and Sewell model

While the framework places this study in its right perspective, it also links the various sections of the research. The model identifies five components such as: (1) Degree-subject knowledge, understanding and skills; (2) Generic skills; (3) Emotional intelligence; (4) Career development learning; and (5) Experience, Work and life. All these five components are mnemonically referred to as "CareerEDGE". Dacre-Pool and Sewell (2007) encourage all stakeholders in education to provide graduates with the opportunity to access and develop these modules (components). Strict adherence to these modules is expected to equip the graduates with the requisite knowledge, skills and life experiences required of them from the workplace. HND Graphics Design graduates would then be capable to reflect on and evaluate such experiences, which would ultimately result in the development of higher levels of self-efficacy, self-confidence and self-esteem, which have been shown to be critical in employability (Dacre-Pool and Sewell, 2007; Gedye, 2018; Sarfraz *et al.*, 2018).

Dacre-Pool and Sewell (2007) advanced that the key benefit derived from this model is that it is simple and comprehensible to all who adopt this framework. The model has also been useful in the planning of curricula and could be used to prove to employers the worth and responsibility of higher education institutions on one hand and on another how both employers and tertiary institutions can benefit from it to increase employability and thus be beneficial to all stakeholders. The choice of this framework is ideal because it is a holistic approach to curriculum design and employability (Dacre-Pool and Sewell, 2007; Pond and Harrington, 2013).

The researcher's construct

The researcher's construct for this study depicts a symbolic long-limbed key bearing five components to be acquired by the learner, and these are outlined as follows: (1) Degree: represents the subject knowledge, understanding and skills; (2) Experience, work and life; (3) Generic skills; (4) Emotional intelligence; (5) the Career development learning.

These five components are firmly held together and rotate on Motivation (Figure 1). The researchers explain that as these components rotate, they assimilate both intrinsic and extrinsic motivation into all the components. Consequently, promoting both teaching and learning process, which ensure that the components are well internalised by the learner. The position of motivation on the model is strategic in that it stimulates teaching and learning processes and ensures that there is co-ordination within the various components.

Methodology

Data collection

The data collection involved in-depth semi-structured interviews and focus group discussion. With the aid of a snowball sampling technique and data saturation sampling method, the

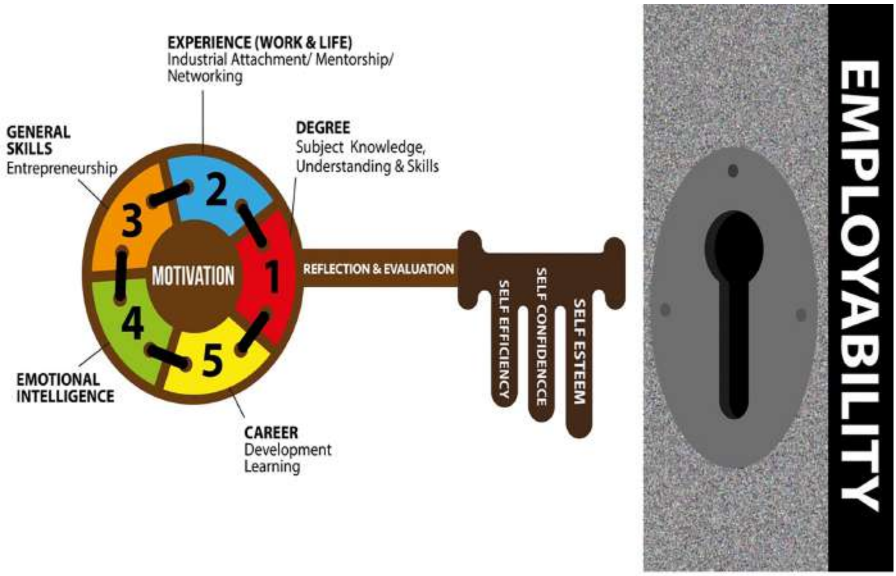


Figure 1.
Researcher's construct

Source(s): Adapted from Dacre-Pool and Sewell (2007) study selected 16 graduates of HND CAPGD drawn from HND Graphic Design graduates from 2010 to 2013 academic years. Five faculty members were purposively selected from the Department of Graphic Design Technology and nine Industry-based supervisors located in Takoradi, Accra, Tema and Kumasi, representing the hub of contemporary graphic design enterprises were selected for the study. The study also classified the participants into four categories to ensure in-depth interactions with the sampled respondents. Category "A" represents ten (10) of the HND Graphic Design graduates selected for face-to-face interviews (FFI), Category "B" denotes six of HND Graphic Design graduates chosen for focus group discussion (FGD). Category "C", representing five faculty members selected for face-to-face interview. Category "D" symbolises nine of industry-based supervisors sampled for face-to-face interview. Full details on the categories of population and sample sizes are seen in Table 1.

This study, which adopted a qualitative evaluation case study approach, employed both intensive face-to-face open-ended, semi-structured interviews and open-ended semi-structured focus group discussions that lasted sixty and ninety minutes respectively. The interviews and discussions sessions were guided by interview protocols, which included set questions and prompts. The following opinions sought from participants on the HND Graphics Design Curriculum would help prepare work ready graduates:

(1) Comprehension and application of knowledge topics in the subject matter.

(2) Applicability of the knowledge and experience of the HND CAPGD to the Graphic art industry.

(3) Gaps in the current curriculum of the HND CAPGD that inhibited transfer from institution to industry.

(4) Output/Work readiness of CAPGD graduate: i Attitude ii. Emotional Intelligence iii. Generic Skills.

Data analysis

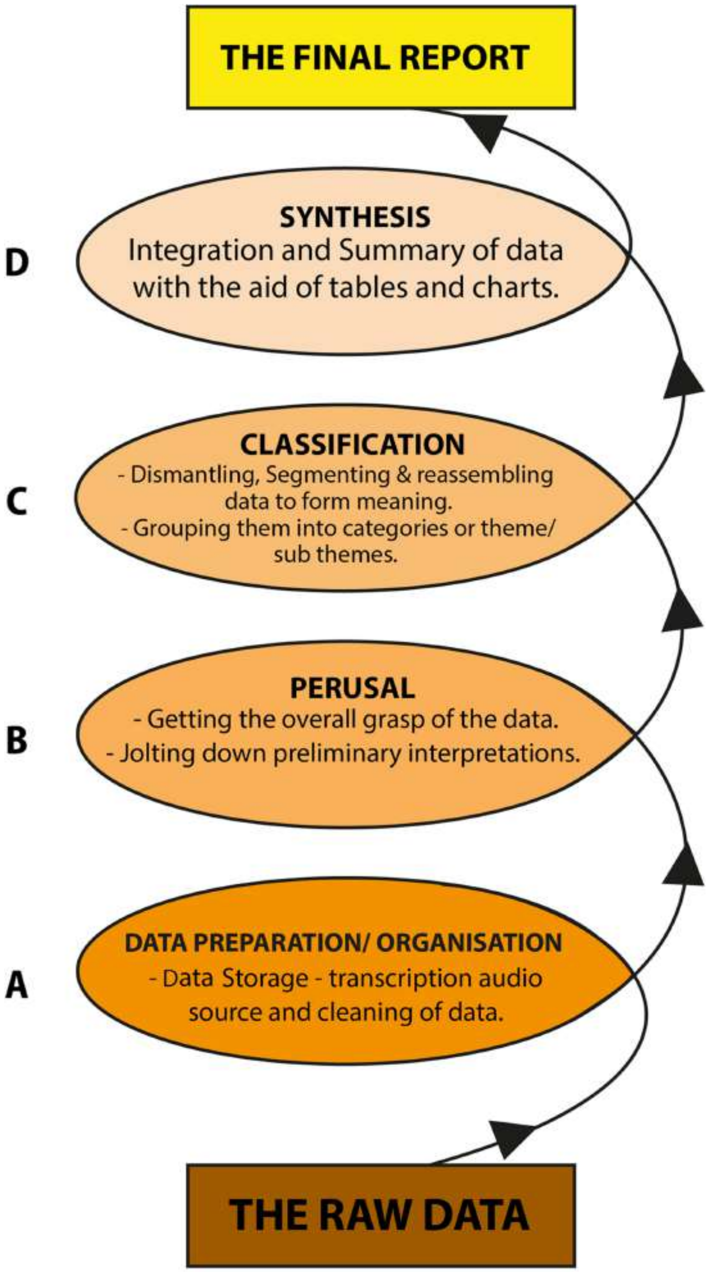
The qualitative data were analysed thematically using the data analysis spiral to generate a main-theme and four sub-themes. The theoretical analysis challenged thinking, exposing new understanding and ideas (Corbin and Strauss, 2008). The framework for analysis emerged as the themes were defined and refined. The researchers utilized Creswell and Poth (2018) analysis spiral plan. The final thematic map of the data under the global theme of graduate employability aimed to demonstrate how participants' perceptions were shaped by their own experiences of working, teaching and learning.

As illustrated in Figure 2, the spiral loop "A" represents organisation stage of the data. At this stage, the retrieved data was compiled and disintegrated into smaller units. Loop "B" which signifies the perusal stage enabled the researchers to construct meaningful concepts and ideas from the data and jotted down some preliminary interpretations of the data. This

Categories of respondents		Sample size	Percentages	Data collection instruments
A	HND graphic design graduates	10	33	Face-to-face interview
B	HND graphic design graduates	6	20	Focus group discussion
C	Faculty members	5	17	Face-to-face interview
D	Industry based supervisors	9	30	Face-to-face interview
	Total	30	100	

Source(s): Field Data, 2019

Table 1. Categories of population and sample size



Source(s): Adopted from Creswell and Poth (2018) Spiral Analysis

Figure 2.
Researchers' construct

section was further linked with the classification loop "C" where the data was further grouped into categories, themes and sub-themes all of which were based on interpretations derived from the codes. The fourth loop known as synthesis stage integrated and summarized data into tables and diagrams and these were discussed in findings.

Results

The mnemonic CareerEDGE model by Dacre-Pool and Sewell (2007) is a practical employability framework, which underscores the importance of strict adherence to all components of the curriculum to promote employability among learners. Hence, the level of comprehensible topics in the HND Graphic Design Curriculum is a vital element in producing work-ready graduates with relevant skills.

Comprehension and application of knowledge

Although the perceptions of the respondents were shaped largely by their own engagement with both pedagogic and work-related practices, the majority of the graduate respondents suggested that the level of understanding was on the average, and these are reflective in the following responses by graduates:

> We were not fortunate to get the appropriate apparatus that could stimulate hands-on training experiences in colour psychology and colour separation. And some of these things can be improved to promote understanding. (FTFRSP9, personal communication 2015, November 17, Tema)

> There was lack of understanding of topics in Computer Aided Design and software application programmes. I must say that when we were in school, we did not do much of the practical works that are expected of us. This has made it so difficult for us to perform at the workplace. It was only when I was about to finish that I had a laptop and could do some little things for myself (FTFRSP4, personal communication 2015, November 18 Accra).

It also emerged from the responses that teaching of some topics was difficult to grasp because they are overly theoretical. This is affirmed in the following responses from the graduate respondents:

> Computer aided designing was theory-laden and software application programmes were not readily available for students to practise. But those who were able to emerge and excelled were students who had added value to themselves by learning other programmes (FTFRSP2, personal communication 2015, November 26, Accra).

> Topics such as colour separation and printing processes under Printing Technology were pretty much unintelligible because the department lacked the required laboratory to enhance knowledge and understanding. (FTFRSP3, personal communication 2015, November 26, Accra).

Another graduate respondent FTFRSP 7 indicated that lack of practical sessions implied that learning had to be memorised because it was quite difficult for him to comprehend. Responses indicated that training was not student-centred and activity based; therefore, students could not take charge of their own learning experience. The following response confirms why memorisation of topics inhibits understanding and stifles creativity:

> Tuition should not aim at rote learning. Learners should be allowed to express themselves when answering questions. If you asked me after A and B what comes up? I should be able to say C based on my own understanding. Not necessary from the handout you have given me. (FTFRSP 7, personal communication 2015, November 16, Accra).

Interactions with respondents from faculty also revealed that there is lack of understanding in some practical subjects because the majority of fresh students were deficient in the hands-on techniques which resulted in lack of technical know-how in graphic designing, thereby affecting students' ability to ideate. This claim is suggested in the following graduate responses:

> Don't forget that the students are coming from SHS and are young, and I do not think they are mature enough to do imaginative learning, more so in SHS they do not do much practice-led work in this art discipline. So, their very first tertiary contact, which is the Polytechnic, I believe they should be introduced to practical experience of learning so the argument of setting up studio cannot be ruled out. Not even when the argument is "there is no money" (STF-FTFRSP 4, personal communication 2016, April 15).

A further probing of faculty responses indicated that students' knowledge in Printing and Photography would be further improved if they were provided with suitable studios and workshops for the practical subjects. This is illustrated by one perceptive lecturer's comment:

> We need materials and facilities such as Printing Press and Photographic laboratory to solve these problems and to help enhance skill so that students can perform well (STF-FTFRSP2, personal communication 2016, April 14).

Secondly, entrepreneurship studies were purely theoretical and not linked to Graphic designing. Hence, it did not enable students to grasp the concept of enterprising. Furthermore, the entrepreneurship course did not provide students with practical skills on how to start-up and sustain businesses. The following responses from faculty attest to these assertions:

> If you were graphic design graduate or a student and you were taught entrepreneurship, examples should come from within your academic discipline so that you can link up your knowledge. However, most of the teachers were coming from outside the department, and what they teach is general, so some of the students are unable to link-up what they have been taught to their academic discipline because most of the instructions are theoretical (STF-FTFRSP1, personal communication 2016, April 16).

> Students are not taught how to establish businesses, although they are taught entrepreneurship studies. There is the need to bring in practical professionals for seminars on how to stay in business, manage funds etc. (STF-FTFRSP2, personal communication 2016, April 14).

> Entrepreneurship should aim at how to create/lookout for new things and turn them into valuable things that will be well demanded. Entrepreneurship gives one the nitty-gritty on how to establish, look for opportunities in the community and turn them into making money (STF-FTFRSP3, personal communication 2016, April 15).

On the contrary, an industry-based respondent with a stronger concept of employability attributed the problem to inadequate tuition and lack of understanding in computer-aided designing and ideation. The respondent further indicated that lack of understanding in any topic does have a negative effect on competency of graduates, and the following response emboldens this assertion:

> The students are not ready for the job market, and I do not know the source of the problem. I rather believe we don't have men and women who are ready to work. I have one young graduate working with us, but I am not happy with his performance. I have asked him to come and observe while I design so that I can teach him concepts and stuff. It is the ability to learn that is not there (IND FTFRSP1, personal communication 2015, November 17, Tema).

In addition, participants from printing industries complained about Printing Processes, Machine Operations and the ability to operate the press machines. This was because the Department of Graphic Design Technology did not have an in-house well-resourced laboratory to train the learners on the use of printing machines. Hence, the delivery of these topics was basically theoretical in nature and the HND Graphic Design trainees were too young to do imaginative learning. Three of the industry-based respondents revealed that graduates have difficulties with practical courses such as Printing Processes and Printing Technology, and this assertion is evident in the following response:

> But most of the time we do consume polytechnic graduates for Graphic designing, but when it comes to the press machine, they do not have the patience to learn, but I hope with the installation of printing press on your campus, I think that problem would be solved with time. (IND FTFRSP 8, personal communication 2015, November 15, Takoradi).

In addition to this claim, two respondents from the industry were of the opinion that level 100 students (beginners) lack the basic knowledge required to understand and therefore could not appreciate practical content. They thus suggested that, level 100 students should be exempted from attachment training. The following responses confirm such claims:

> I wrote in the report that I do not need the 1st years because they get confused when they are taught, but when they get to 2nd year, they understand. So, first year students undertaking internship programme is a waste of time. (IND FTFRSP 2 personal communication 2015, November 19, Accra).

> Possibly first year attachment should be scrapped because the brain is not grounded. Otherwise change the description from internship to observation (IND FTFRSP 7 personal communication 2016, January 28, Kumasi).

At the multimedia section, the HND Graphic Design graduates felt quite insecure and redundant because what learners studied do not have bearing on what is done at the work place. This is purely an issue of mismatch. In an effort to engage them, graduates are given complementary cards to design which is not the core duty of multimedia section. This is confirmed by the following response from industry:

> What I notice about the HND interns is that their knowledge is limited to CorelDraw, little Photoshop and so on. To keep them busy, our bosses give them complementary stuffs to do which is not part of multimedia. They are to get used to illustrator in Photoshop, Adobe Premier and After Effects. This basis will help them a lot. (INDFTFRSP3, personal communication 2015, November 19 Accra).

Applicability of competencies

Competencies are seen as the required work conducts and qualities that the HND Graphic Design graduate ought to display in order to be relevant to the workplace (Antiaye *et al.*, 2013). In assessing the competency level of the graduates, it came to light that some graduates are competent and work ready.

About a third of total respondents indicated that the HND Graphic Design graduates produce superior performance, which means that they are skilful, qualified and capable of applying their competencies at the workplace. Affirming this assertion, a graduate respondent indicated that: "*I am also a freelance designer and that has enhanced my performance at the workplace*" (FTFRSP3, personal communication 2015, November 26, Accra).

Responses that emerged from the data suggest that only few HND CAPGD are incompetent, hence irrelevant to workplace. Minority of the graduate respondents indicated that they never obtained the required skills to guarantee those jobs they seek. This is because, they lack the ability to efficiently execute tasks at the workplace. Few respondents from industry also implied that these HND graduates were more interested in the theoretical subject matters and were not good at skill acquisition. These assertions are established by the following comments:

> In terms of competence, I must say while we were in school, we did not do much of the practical works that are expected of us. This has made it so difficult for us to fit into the workplace (F2FALI4, personal communication 2015, November 17, Accra).

> He wrote an application letter. I gave him an assignment to do. At least, he was able to place items on paper for me to know that he wanted to do something. I assigned him to label, and, almost one year, he has not been able to do that very simple thing, and he can't do it. (IND FTFRSP 1, personal communication 2015, November 17, Tema).

It also became known that very few of graduates' respondents indicated that they could not link knowledge from classroom to workplace expectations because delivery of subject matter was generic. This is buttressed by faculty respondent STF-FTFRSP 5 who said that: "They don't want to do a little application of knowledge." Quite apart from that, IND FTFRSP1 from industry also insinuated that some students are not teachable. IND FTFRSP 3 from industry suggested that the trainers do not have enough resources to train students in multimedia, hence their knowledge in areas such as animation, cinematography and video effects is way below what is required in multimedia productions.

Gaps in the HND Graphic Design Curriculum

The researchers hinged the study on the premise that there are deficiencies in the HND Graphic Design curriculum, and that is evident in the low level of creative ability and innovations demonstrated by HND Graphic Design graduates at the field of work. The three main textured patterns that emerged from this section are absence of state-of-the-art facilities, deficiencies in the curriculum and theory-laden delivery.

Absence of state-of-the-art facilities and resources. Largely, the participants indicated that the HND curriculum is deficient. About a half of the responses suggested that the gap is due to the absence of state-of-the-art facilities and other resources. However, few of the graduate responses implied that the gap is due to deficiency in lecturers' subject matter delivery. A graduate participant revealed that "Computer Aided Design was not practically based hence could not grasp it" (FTFRSP8, personal communication 2015, November 27, Accra). Meanwhile, some responses of the graduates also indicated that the gap in the current subject matter delivery was due to obsolete teaching and learning equipment. Another graduate respondent suggested that, "There is too much theory component in the curriculum" FTFRSP6, Face-face interview with graduate, Accra November 19, Accra). These prevented trainees from securing hands-on skills for the world of work.

Generic or soft skills. Employers expect graduates to work harder to possess generic skills and competences that will empower and develop their capacity for the 21st century business environment (Padli *et al.*, 2019; Räty *et al.*, 2018). Based on this, the study discovered that the HND Graphic Design curriculum does not cover all the essential attributes apart from communication skills, team work and elements and principle of design, which are meant to develop creative abilities of students. Using Dacre- Pool and Sewell (2007) Career EDGE model as a lens, it was also identified that essential skills such as emotional intelligence (EI) and career development learning (CDL) were not familiar to graduates. For instance, FTFRSP6 of the graduate responses indicated that graduates were not adequately prepared for the world of work, and this is suggested in the following response:

> Despite the intensive practical training, trainees were not exposed to CDL and therefore were not abreast of job avenues available to them. For instance, graduates were not aware of the various career pathways available to the graphic design graduates, let alone pursue them. (FTFRSP6, personal communication 2015, November 19, Accra).

Another key attribute that graduates lack is Emotional Intelligence (EI) which looks at an individual's ability to monitor his or her own feeling and being able to use it to the benefit of others. Whether in the school setting or workplace environment, emotional intelligence has become useful because it inspires the trainee to use his or her knowledge to guide and develop his or her thoughts, actions and those of others. It became evident that participants were not familiar with this relatively new concept and could not respond to it. Responses such as "What does it mean?" is evidence to this assertion (FTFRSP6, personal communication 2015, November 19, Accra), However, STF-FTFRSP1 linked emotional intelligence to attitudinal and affective aspects of education which is lacking in the curriculum.

Output of graduates. About one-third of the respondents suggested that HND CAPGD graduates were fairly productive. This indicated that outputs of some trainees are relevant to workplace practice. For instance, an industry-based participant said "very recently the Head of Creative Department was a graduate from your institution" (INDFTFRSP 4 personal communication, 2015, November 26 Accra). Data indicate that only a few of HND CAPGD graduates were accomplished, enterprising and fulfilled. Those in this category had a wealth of experience, which they brought to bear on their employees. At the time of the interview, a graduate was seen managing three graphic design outfits, including other freelance businesses.

A couple of industry-based respondents indicated that trainees are not well-prepared for the industry, and this adversely affected their output at the workplace. For instance, an industry-based supervisor gave an indication that: "some trainees have not been prepared well enough for internship training and attributed their poor performance to outdated curriculum" (INDFTFRSP 7 personal communication 2016, January 28, Kumasi). Another key thing that emerged from the responses is that graduates have attitudinal challenges and are deficient in some generic skills. Another industry player reiterated this in the following response:

> The young ones coming up do not have the patience to learn the job well. I think that the syllabus must include how to nurture them to start from the scratch. How can we change the perception they have that: "being a graduate from tertiary institution, they should be made the boss of the job" (INDFTFRSP8 personal communication 2015, December 7 Takoradi).

Discussion

Stakeholders' views on the work-readiness of graduates indicate that majority of graduates of CAPGD are not work-ready. This corroborates Prikshat *et al.*'s (2019) findings that graduates lack the required preparation for the world of work upon graduation.

Comprehension and application of knowledge

This is based on fact that majority of trainees fail to grasp topics that are overly theoretical because they lack the ability to link up knowledge in one topic to another. Moreover, data from graduates' responses indicate that there is absence of learning facilities, which has resulted in inadequate practical sessions resulting in irrelevant pedagogic delivery and less competent HND Graphic Design graduates. Hence training was not student centred, so students could not do independent learning. This approach to training is at variance with the constructivist's view of a learner, whose role is to create his or her own learning experience under the guidance of a facilitator (IBE-UNESCO, 2017; Ngozi, 2014).

Applicability of competencies

Issues of competencies are paramount to the Technical Universities whose core mandate is "to promote change and enable its diplomates and graduates to apply their knowledge to develop the world of work (Brosan, 1972, p. 45). Therefore, it makes no sense if graduates of Technical Universities compete with graduates from the traditional universities because they operate with different mandates. Hence the Technical University graduates are expected to be better equipped since they were trained to combine theory and practice to solve contemporary problems (Mercer and Ponticell, 2012).

Gaps in the HND Graphic Design Curriculum

The overall responses from the stakeholders presuppose that the graduates are deficient in some key areas that trainers have to reconsider. Graphic Design education is not only about knowledge and understanding of software application but the ability to creatively combine the principle and element of design in visual communication. This will require trainees to be equipped in critical thinking skills, creative thinking skills, principles, theory strategy, conceptual design, design development, techniques, visualisation composition, social responsibility and application (Landa, 2011). These are what makes a graphic designer a communicator and a problem solver.

This result provides a support for the CareerEDGE model by Dacre-Pool and Sewell (2007) which highlighted the inclusion of generic skills in the key employability model to ensure that graduates are all rounded in terms of skills to complement their core discipline. Against this backdrop, industrial training programme such as internship was introduced in the erstwhile polytechnic system to complement trainings on campus and to equip trainees with the needed practical experiences that would render them relevant to the economy (Effah *et al.*, 2014). However, evidence from respondents indicate that some HND Graphic Design graduates cannot exhibit the required proficiencies in the field of graphic designing due to lack of generic skills which prevents graduates from being fully baked for the task ahead of them (McCowan *et al.*, 2016).

Generic or soft skills. Despite its importance, the study identifies that emotional intelligence was conspicuously missing in the curriculum. This assertion buttresses Matsouka and Mihail's (2016) claim which affirms that there is a gap between university graduates' and Human Resource Managers (HRMs') assessments on graduate employability. Against this background, Jackson (2012) affirmed that most Sub-Saharan African countries have not as yet imbibed the importance of soft skills in preparing graduates for the world of work because policy makers feel they are not examinable, so they do not incorporate them during curriculum design.

It is in the light of this that the Career Development Units of TTU was established in 2017; as an academic counselling unit to educate students on career development, to educate students on how to study the job market for possible job opportunities and to prepare them for job interviews (Foster, 2006). Besides, the unit is expected to train students to be more self-aware and be able to identify things they are passionate about for further development. However, the unit is new and its activities are hardly felt. This is corroborated by Watts (2006) who avers that career development learning until recently has not been given the needed attention in training institutions. Considering the dynamic nature of the job market, the Career Development Unit of the Takoradi Technical University would have to strengthen its activities and extend its reach to cover all programmes to ensure that the graduates are well equipped for the world of work.

Output of graduates. Reduction is also linked with high performance of graduates in the world of work which is subject to outcome of trainees' learning experiences, both in the classroom and at the industry. In support of this, Hartl (2009) confirms that skill development stimulates productivity, quality, diversity and job-related safety and thus leads to improved health and well-being of citizens.

Despite the deficiencies in the key employability component, Bridgstock (2009) concurs that the dynamic nature of this information age, economy and employability demand some far reaching skills other than the possession of just generic skills. Beyond skills, most employers do not possess standardised criteria for assessing job descriptions, specifications and performance of graduates, hence graduates' output are evaluated by their own criteria (Chuma, 2012).

Conclusions

Comprehension and application of knowledge

It can be concluded that while practical topics such as Basic Lettering and Typography, Advertising Technology and Fundamentals of Packaging are very comprehensible, exposure to appropriate workplace environment and practices would develop experience in practical courses such as Printing Technology, Ideation and Press Operations and as such equip graduates for workplace practice. In the absence of required facilities, the study establishes that some trainees will have poor grasp on practical topics.

The study corroborates Amedorme *et al.* (2014) who opine that HND Graphic Design Curriculum, like all other TVET programmes, is techno-scientific and must offer 60% practical and 40% theoretical content in order to ensure students get the required hands-on training for enhanced competency. Consequently, it is concluded that some modes of delivery of HND Graphic Design Programme are out of step with the mandate of TVET because they fail to equip learners with the needed competencies (Ansah and Kissi, 2013).

Applicability of competencies

Application of competence looks at the trainees' ability to apply their knowledge, behaviours and attributes at workplaces in a bid to perform particular assignments. Consequently, the competency levels of the HND Graphic Design graduates vary and are determined by individual aptitude towards the profession and exposure to workplace practices.

Gaps in the HND graphic design curriculum

The absence of key teaching and learning modules and competencies results in graduates who are not ready for work. It was inferred from the findings that the gap in the current subject matter is triggered by the absence of state-of-the-art technologies and resources, as evident in most TVET programmes in Africa (Woyo, 2013).

It was also deduced from the findings that among the work attributes, emotional intelligence is the least known attribute among all stakeholders.

Output of HND graphic design graduate at the workplace

The study also concludes that some HND Graphic Design graduates enrolled on the programme to enhance their skills, remuneration and status in life. As affirmed by Hartl (2009), skill development stimulates productivity, quality, diversity and job-related safety, which lead to improved health and well-being of citizens. It has also been inferred from the findings that the performance of graduates is directly linked with the mantra, "garbage in garbage out". This presupposes that if new entrants should be given thorough scrutiny via interview sessions prior to being admitted, prospective applicants would sharpen-up before they enrol in level 100. In that regard, the candidates would come prepared with positive attitudes toward the HND Graphic Design Programme.

Recommendations

The study recommends appropriate teaching and learning environment and learner-centred pedagogy in which learners take active responsibilities of their learning activities and knowledge transfer. Similarly, the study calls for Public–Private Partnership to set up regional graphic design centres to address skills development deficiencies in order to enhance the skills acquisition and employability of the HND Graphic Design graduates.

The study suggests the adoption of Competency-Based Training which seeks to develop the competencies of the individual which complements Dacre-Pool and Sewells (2007) CareerEDGE Model that underscore knowledge and understanding of a giving discipline as the central theme in achieving graduate's employability.

Against this backdrop the study has recommended proper collaboration between Government, industry and academic institution to ensure that there is strict adherence the industrial internship training programme which equips trainees with the needed practical experience that would render them relevant to the economy (Effah *et al.*, 2014).

Despite the deficiencies in the HND Graphic Design Curriculum, the study recommends an introduction of work integrated learning approach, which present the trainees adequately for the world of work. Against this background, teachers should be given regular training to upgrade their competencies; develop well resource studios and revise the curriculum to address the needs of the modern graphic design industry.

References

Adu, A. (2015), *Graduate Employability: The Link between Design Education and the Graphic Design Industry*, (Issue September), [Kwame Nkrumah University of Science and Technology], doi: 10.1145/3132847.3132886 (accessed 12 May 2016).

Agyefi-Mensah, S. and Edu-Buandoh, K.B.M. (2014), "The implications of the new polytechnics act, 2007 (act 745), for curriculum development and review in Ghanaian polytechnics", *International Journal of African and Asian Studies*, Vol. 4, pp. 63-70, available at: https://files.eric.ed.gov/fulltext/EJ1112929.pdf (accessed 10 March 2019).

Amedorme, S.K., Agbezudor, K. and Sakyiama, F.K. (2014), "Converting polytechnics into technical universities in Ghana, issues to address", *International Journal of Education and Research*, Vol. 5, pp. 523-528.

Ansah, S.K. and Kissi, E. (2013), "Technical and vocational education and training in Ghana: a tool for skill acquisition and industrial development", *Journal of Education and Practice*, Vol. 4 No. 16, pp. 172-181, available at: https://www.researchgate.net/publication/305475999_Technical_and_Vocational_Education_and_Training_in_Ghana_A_Tool_for_Skill_Acquisition_and_Industrial_Development (accessed 12 May 2015).

Antiaye, E., Biney-Aidoo, V. and Oppong, J.A. (2013), "Assessment of the effectiveness of the fashion design programme of Accra Polytechnic from 1995 to 2010", *Journal of Education and Practice*, Vol. 4 No. 21, pp. 56-64, available at: http://www.academia.edu/download/32212985/Assessment_of_the_Effectiveness_of_the_Fashion_Design_Programme_of_Accra_Polytechnic_from_1995_to_2010.pdf (accessed 18 September 2017).

Baah-Boateng, William (2016), *Developing Youth Skills for Employment*, African Center for Economic Transformation (ACET), pp. 1-13, available at: http://unesdoc.unesco.org/images/0015/001572/157229E.pdf%0A7 (accessed 13 July 2020).

Bridgstock, R. (2009), "The Graduate attributes we've overlooked: enhancing graduate employability through career management skills", *Higher Education Research and Development*, Centre for Learning Innovation, Queensland University of Technology, Vol. 28 No. 1, pp. 31-44, doi: 10.1080/07294360802444347 (accessed 16 December 2014).

Bridgstock, R. (2017), "The university and the knowledge network: a new educational model for twenty-first century learning and employability", *Graduate Employability in Context*, pp. 339-358, doi: 10.1057/978-1-137-57168-7 (accessed 10 July 2020).

Bridgstock, R. and Cunningham, S. (2016), "Creative labour and graduate outcomes : implications for higher education and cultural policy", *International Journal of Cultural Policy*, Vol. 22 No. 1, pp. 10-26, doi: 10.1080/10286632.2015.1101086 (accessed 12 January 2020).

Bridgstock, R. and Jackson, D. (2019), "Strategic institutional approaches to graduate employability: navigating meanings, measurements and what really matters", *Journal of Higher Education Policy and Management*, Vol. 41 No. 5, pp. 468-484, doi: 10.1080/1360080X.2019.1646378 (accessed 11 June 2020).

Brosan, G.S. (1972), "The development of polytechnics in the United Kingdom", *Paedagogica Europaea*, pp. 41-53, available at: http://www.jstor.org/stable/1502485 (accessed 27 October 2014).

Burnett, N. and Jayaram, S. (2012), "Skills for employability in Africa and Asia", *Paper Prepared for the Innovative Secondary Education for Skills Enhancement (ISESE) Project*, Results for Development Institute, Washington, DC, October, available at: http://hdl.voced.edu.au/10707/288507.

Chuma, A.C. (2012), "Skills gap analysis for graduates of youth polytechnics, vocational training centres and out-of-school youth", *United Nations Development Programme*, available at: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&sourc=web&cd=&cad=rja&uact=8&ved=2ahUKEwjLjfDanfPsAhUyt3EKHdb3BPAQFjACegQIARAC&url=https%3A%2F%2Fdocplayer.net%2F58562868-Skills-gapanalysis-for-graduates-of-youth-polytechnics-vocational-training-centres-out-ofschool-youth.html&usg=AOvVaw2S2qHQwKGmH9D9OoyhY7Sx (accessed 22 June 2019).

Corbin, J. and Strauss, A. (2008), *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 3rd ed., Sage publications, Los Angeles.

Creswell, J.W. and Poth, C.N. (2018), *Qualitative Inquiry and Research Design*, 4th ed., Sage Publications, CA, available at: https://www.researchgate.net/figure/The-Data-Analysis-Spiral-and-Poth-2018-p186_fig3_329183990 (accessed 14 June 2020).

Dacre-Pool, L. and Sewell, P. (2007), "The Key to Employability Developing a practical model of graduate employability", *Education and Training*, Vol. 49 No. 4, pp. 277-289, doi: 10.1108/00400910710754435 (accessed 16 October 2015).

Dziobczenski, P.R.N., Person, O. and Meriläinen, S. (2018), "Designing career paths in graphic Design : a document analysis of job advertisements for graphic design positions in Finland", *The Design Journal*, Vol. 21 No. 3, pp. 349-370, doi: 10.1080/14606925.2018.1444874 (accessed 14 July 2020).

Effah, B., Boampong, E., Adu, G., Anokye, R., Asamoah, J.N. and Ashanti, G.W.A. (2014), "Issues of the industrial training programme of polytechnics in Ghana: the case of Kumasi Polytechnic", *Journal of Education and Practice*, Vol. 5 No. 5, pp. 39-46, available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.972.9362&rep=rep1type=pdf (accessed 21 October 2014).

Enninful, E., Amponsah, A.B. and Nduro, K. (2016), "Analysis of barriers to start-up business among graphic design graduates of Takoradi polytechnic, Ghana", *International Journal of Academic Research in Business and Social Sciences*, Vol. 6 No. 6, pp. 76-93, doi: 10.6007/ijarbss/v6-i6/2180 (accessed 9 September 2020).

Foster, D. (2006), "Reflection of a careers adviser", *The Journal of the Association of Graduate Careers Advisory Services*, No. 117, Summer, pp. 5-6.

Gedye, S. (2018), "The ability to get a job: student understandings and definitions of employability in a Marine Sport Science context", *Education + Training*, available at: http://hdl.handle.net/10026.1/11107 (accessed 10 May 2020).

GoG (2015), "Inclusive education policy", *Policy Document*, Ministry of Education, pp. 1-46, doi: 10.1136/adc.32.161.66 (accessed 11 June 2019).

Hartl, M. (2009), "Technical vocational education and training (TVET) and skills development for poverty reduction – do rural women benefit", available at: http://www.ddugky.info/dms/documents/1529234406_Hartl-formatted_01.pdf (accessed 4 October 2011).

Henri, M., Johnson, M.D. and Nepel, B. (2017), "A review of competency-based Learning : tools , assessments , and recommendations", *Journal of Engineering Education*, Vol. 106 No. 4, pp. 607-638, doi: 10.1002/jee.20180 (accessed 17 July 2019).

IBE-UNESCO (2017), *Training Tools for Curriculum Development - Developing and Implementing Curriculum Frameworks*, International Bureau of Education-United Nations Educational and Cultural Organization, p. 48, available at: https://www.google.com/search?q=ibe+unesco+curriculum&oq=IBEUNESCO&aqs=chrome.2.69i57j0i30l4j69i61l3.35603j0j4&sourceid=chrome&ie=UTF-8# (accessed 25 May 2019).

Jackson, D. (2012), "Testing a model of undergraduate competence in employability skills and its implications for stakeholders", *Journal of Education and Work*, p. 29, available at: http://ro.edu.au/ecuworks2012/10 (accessed 6 November 2011).

Khodeir, L.M. and Nessim, A.A. (2020), "Changing skills for architecture students employability: analysis of job market versus architecture education in Egypt", *Ain Shams Engineering Journal*, Vol. 11 No. 3, pp. 811-821, doi: 10.1016/j.asej.2019.11.006 (accessed 26 June 2020).

Kumar, A. and Teotia, A.K. (2017), "Constructivism: a learner centered approach that improves students' academic performance and achievement in social science at upper primary level", *International Journal of Management and Applied Science*, Vol. 3 No. 8, pp. 56-60, available at: http://www.iraj.in/journal/journal_file/journal_pdf/14-393-150849465456-60.pdf (accessed 28 February 2019).

Landa, R. (2011), *Graphic Design Solutions*, Clark Baxter, Boston.

Matsouka, K. and Mihail, D.M. (2016), "Graduates' employability: what do graduates and employers think?", *Industry and Higher Education*, Vol. 30 No. 5, pp. 321-326, doi: 10.1177/0950422216663719 (accessed 12 August 2017).

McAleese, M., Bladh, A., Berger, V., Bode, C., Muehlfeit, J., Petrin, T., Schiesaro, A. and Tsoukalis, L. (2013), "European commission. High level group on the modernisation of higher education", *Report to the European Commission on Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions*, Publications Office of the European Union, doi: 10.2766/42468 (accessed 16 February 2019).

McCowan, T., Walker, M., Fongwa, S., Oanda, I., Salifu, D., Adedeji, S., Oyebade, S., Ananga, E.D., Adzahlie-Mensah, V. and Tamanja, E. (2016), "Universities, employability and inclusive development: repositioning higher education in Ghana, Kenya, Nigeria and South Africa", *United Kingdom: British Council: Universities, Employability and Inclusion Development Project (2013-2016)*, available at: www.britishcouncil.org/education/ihe (accessed 10 August 2017).

Mercer, L.P. and Ponticell, J.A. (2012), "Polytechnic education – a proposed key to regional economic development", *Synesis: A Journal of Science Technology, Ethics and Policy*, Vol. 3 No. 1, pp. 45-51, available at: http://www.synesisjournal.com/vol3_t/Mercer_2012_T45-51.pdf (accessed 18 September 2017).

Mobarak, K. (2019), "Reflections of employed graduates on the suitability of their skills and knowledge for workplace-readiness", *South African Journal of Higher Education*, Vol. 33 No. 4, pp. 186-202, doi: 10.20853/33-4-3337 (accessed 16 July 2020).

MoE (2018), "Education strategic plan 2018–2030", available at: https://www.globalpartnership.org/content/education-strategic-plan-2018-2030-ghana (accessed 5 January 2018).

Ngozi, M.N. (2014), *Strategies for Improving Computer studies in Secondary Schools in Oshimili and Aniocha Local Government Area of Delta State*, Department of Vocational Teacher Education (Computer Education), available at: http://www.unn.edu.ng/publications/files/17546_STRATEGIES_FOR_IMPROVING_COMPUTER_STUDIES_IN_SECONDARY_SCHOOLS_IN_OSHIMILI_AND_ANIOCHA_LOCAL_GOVERNMENT_AREA_OF_DELTA_STATE_.pdf (accessed 18 September 2017).

Nwajiuba, C.A., Igwe, P.A., Akinsola-Obatolu, A.D., Icha-Ituma, A. and Binuomote, M.O. (2020), "What can be done to improve higher education quality and graduate employability in Nigeria? A stakeholder approach", *Industry and Higher Education*, Vol. 34 No. 5, pp. 358-367, available at: https://www.google.com/search?sxsrf=ALeKk02A7iAKnLe0TddXW4JbWvThEPnsQ:1627057596725&q=Nwajiuba,+Chinyere+Augusta,+et+al.+What+can+be+done+to+improve+higher+education+quality+and+graduate+employability+in+Nigeria?+A+stakeholder+approach.+Industry+and+Higher+Educaon+34.5+(2020):+358367.&sa=X&ved=2ahUKEwiqo9PwzfnxAhU2QhUIHdmQBHMQgwN6BAgBEAE (accessed 20 July 2020).

Okyere, M. (2017), "The graphic design workforce in Ghana: a case study of Asafo, Kumasi", *Communication Design*, Vol. 5 Nos 1-2, pp. 183-202, doi: 10.1080/20557132.2017.1398926 (accessed 13 July 2020).

Padli, J., Khan, A. and Jayus, R. (2019), "Generic skills of final year university students in preparation towards industrial revolution 4.0", *International Journal of Recent Technology and Engineering*, Vol. 8 No. 3S2, pp. 900-905, doi: 10.35940/ijrte.c1234.1083s219 (accessed 13 August 2020).

Paterson, R. (2017), "Because sometimes your failures can also teach you certain skills : lecturer and student perceptions of employability skills at a transnational university", Vol. 6 No. 3, pp. 241-275, doi: 10.17583/qre.2017.2583 (accessed 26 June 2020).

Pond, K. and Harrington, A. (2013), "Models of employability development in undergraduate Business Education – a critical review of current practice", School of Business and Economics Loughborough University, Žiūrėta, available at: https://www.researchgate.net/profile/KeithPond/publication/266222987_Models_of_employability_development_in_undergraduate_Business_Education_a_critical_review_of_current_practice/links/54353f3c0cf2dc341dafd8a2.pdf (accessed 8 November 2017).

Pouratashi, M. and Zamani, A. (2019), "University and graduates employability: academics' views regarding university activities (the case of Iran)", *Higher Education, Skills and Work-Based Learning*, Vol. 9 No. 3, pp. 290-304, doi: 10.1108/HESWBL-12-2017-0103 (accessed 20 May 2021).

Prikshat, V., Montague, A., Connell, J. and Burgess, J. (2019), "Australian graduates' work readiness – deficiencies, causes and potential solutions", *Higher Education, Skills and Work-Based Learning*, Vol. 10 No. 2, pp. 369-386, doi: 10.1108/HESWBL-02-2019-0025 (accessed 13 August 2020).

Räty, H., Komulainen, K., Harvorsén, C., Nieminen, A. and Korhonen, M. (2018), "University students' perceptions of their 'ability selves' and employability: a pilot study", *Nordic Journal of Studies in Educational Policy*, Vol. 4 No. 2, pp. 107-115, doi: 10.1080/20020317.2018.1453221 (accessed 6 August 2020).

Rook, L. and Sloan, T. (2021), "Competing stakeholder understandings of graduate attributes and employability in work-integrated learning", *International Journal of Work-Integrated Learning*, Vol. 22 No. 1, pp. 41-56, available at: https://www.ijwil.org/files/IJWIL_22_1_41_56.pdf (accessed 20 May 2021).

Sarfraz, I., Rajendran, D., Hewege, C. and Mohan, M.D. (2018), "An exploration of global employability skills: a systematic research review", *International Journal of Work Organisation and Emotion*, Vol. 9 No. 1, pp. 63-88, doi: 10.1504/IJWOE.2018.10012435 (accessed 7 August 2020).

Smith, M., Bell, K., Bennett, D. and McAlpine, A. (2018), *Employability in a Global Context: Evolving Policy and Practice in Employability, Work Integrated Learning, and Career Development Learning*, Graduate Careers Australia, available at: https://ro.uow.edu.au (accessed 7 August 2020).

Suarta, I.M., Suwintana, I.K., Sudhana, I.F.P. and Hariyanti, N.K.D. (2017), "Employability skills required by the 21st century workplace: a literature review of labor market demand", *International Conference on Technology and Vocational Teachers (ICTVT 2017)*, Atlantis Press, doi: 10.2991/ictvt-17.2017.58 (accessed 14 June 2020).

Terblanche, T.E. (2017), "Technical and vocational education and training (TVET) colleges in South Africa: a framework for leading curriculum change", Doctoral dissertation, Stellenbosch University, Stellenbosch, Vol. 91 No. December, available at: https://scholar.sun.ac.za/bitstream/handle/10019.1/102864/terblanche_technical_2017.pdf?sequence=1&isAllowed=y (accessed 7 August 2020).

Tran, T.T. (2019), "Graduate employability: critical perspectives", *Reforming Vietnamese Higher Education*, Springer, Singapore, pp. 93-111, available at: https://link.springer.com/chapter/10.1007/978-981-13-8918-4_6 (accessed 13 June 2020).

Woyo, E. (2013), "Challenges facing technical and vocational education and training institutions in producing competent graduates in Zimbabwe", *Open Journal of Education*, Harare, Vol. 1 No. 7, pp. 182-189, available at: https://www.researchgate.net/publication/ (accessed 6 August 2017).

Watts, A.G. (2006), *Career Development Learning and Employability*, Higher Education Academy, York, available at: https://www.researchgate.net/publication/241130724 (accessed 8 May 2015).

Zakaria, H. and Alhassan, Y.N. (2019), "Tertiary students' perceptions about their prospects of employability: the case of students in Ghana", *Africa Education Review*, Vol. 16 No. 5, pp. 134-157, doi: 10.1080/18146627.2016.1227686 (accessed 13 August 2020).

Further reading

Bai, B. (Ed.) (2019), *Vocational Education and Training in ASEAN Member States: Current Status and Future Development*, Springer, p. 256, doi: 10.1007/978-981-13-6617-8Library (accessed 9 June 2020).

Kyere, K. (2009), *Educating the Deaf in Vocational Skills: Selected Schools for the Deaf in Focus*, Kwame Nkrumah University of Science and Technology, available at: http://ir.knust.edu.gh/bitstream/123456789/365/1/KWAME KYERE, GENERAL ART STUDIES (PDF).pdf (accessed 14 October 2015).

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