British Journal of Multidisciplinary and Advanced Studies:
Education, Learning, Training & Development, 4(3),137-150, 2023
Print ISSN: 2517-276X
Online ISSN: 2517-2778
https://bjmas.org/index.php/bjmas/index
Published by the European Centre for Research Training and Development UK

Higher Fashion Education in Perspective: The Effects of Work-Based Learning On Industry Requirements

Ninette Afi Appiah (PhD)*
Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development (AAMUSTED) P.O Box 1227 Kumasi, Ghana
Faculty of Vocational Education
Department of Fashion Design and Textiles Education
doi: https://doi.org/10.37745/bjmas.2022.00209 Published June 8, 2023

Citation: Appiah N.A. (2023) Higher Fashion Education in Perspective: The Effects of Work-Based Learning On Industry Requirements, *British Journal of Multidisciplinary and Advanced Studies*: Education, Learning, Training & Development, 4(3),137-150

ABSTRACT: *Change occurs rapidly in the world of work these days. Keeping pace with this rapid change is a continuing challenge for Ghana's Higher Education (HE) institutions. The study, thus, explored the effects of work-based learning (WBL) on industry requirements through higher fashion education in Ghana. The research adopted the quantitative data collection and analysis method. The population for the study comprised postgraduate and undergraduate students of the HE institution in Ghana, offering the fashion design and textiles option as well as fashion houses (industry). The data was analysed using the hierarchical multiple regression statistical technique. Regarding policy, the findings may be used to inform decisions related to the curriculum of fashion design and textile programmes in Ghana. In terms of research, it provides evidence of the positive impact of WBL experiences on students' preparedness for the fashion industry.*

KEYWORDS: Industry requirements, WBL, higher fashion education, skills, Ghana

INTRODUCTION

According to Anamuah-Mensah (2007), graduate unemployment is rising in Ghana because most graduates do not have the necessary skills to make them employable. Most industry employers seek workers with unique skill sets to meet the particular positions offered (Butrica and Mudrazija, 2022; Li, 2022; Islam, 2022). Changing employment patterns in various industries, according to Saniuk et al. (2021) and Grodek-Szostak et al. (2020), have impacted the demand for high-level skills.

Herbert et al. (2020) and Succi and Canovi (2020) infer that graduate-level skills are perceived as increasingly vital in the changing industrial landscape. If Higher Education (HE) must continue to contribute to the evolving industry landscape significantly, collaborative activities in and around

the workplace must be considered (Carayannis and Morawska-Jancelewicz, 2022). The question, however, remains of how to develop the right human competencies to meet the current demands and future requirements of industries.

Durazzi (2019) infer that a country's economic competitiveness depends on its workforce skills. Besides, education is viewed by many as crucial for rapid economic growth. Hence vital to increase the population's productivity by providing them with the skills needed to participate fully in the nation's economic development. Whereas most nations are witnessing unprecedented growth in their education and skill base over the past decades, there is a tenacious widening gap between the knowledge and expertise most required in the workplace and those that training and education systems continue to offer (ILO, 2011). This gap between school-based training and work is widening for various reasons. Littke and Thång (2015) infer, for instance, that industries are now demanding a competent, flexible and committed workforce.

Today's workforce is expected to take responsibility for their decisions and actions (Schroth 2019). The findings of Littke and Thång (2015) indicate that some HE institutions do not provide adequate work content that gives breadth and depth of knowledge. According to them, knowledge gained from school-based training is not challenged and hence does not achieve curriculum goals. Brodie and Irving (2008) explain that work-based learning (WBL) is 'undertaken in a broad range of HE contexts and is frequently seen as a valuable and essential part of both the undergraduate and postgraduate student learning experience. Nevertheless, the development of rigorous pedagogies to underpin WBL and its assessment is still embryonic' (p. 11). Again, global interest in work-based and authentic learning at work, especially in HE, is rising (Brown, 2017; Major et al., 2011; Lester and Costley, 2010).

In the research community, there is a debate concerning a 'third space' to integrate formal school-based and non-formal learning at work. WBL must, therefore, be thoroughly researched and developed since it can promote expert knowledge and skills. HE institutions emphasize students' conceptualized knowledge and judgment rather than the relevant skills and competencies (Luo and Chan, 2022).

Although there has been an apparent increase in policy efforts to embed employability priorities into HE practice, it would be expected that HE institutions would introduce more systematic teaching and learning strategies, course content, and other measures to address employability Lowden et al. (2011) suggest that, though progress has been made regarding HE institutions' responses to employers' desires, there is still much to be done to enable a shared understanding across employers, HE institutions and, other stakeholders to promote graduate employability. Graduate employment issues are at the heart of contemporary HE. Despite the best intentions of academics to improve graduates' employment, the shortcomings inherent in the agenda will consistently give mixed outcomes.

Nations cannot underrate the fact that the changing industrial landscape is playing a significant role in modernizing societies and advancing standards of living (Manda and Ben Dhaou, 2019).

Nonetheless, the consequences of this advancement are the requirements of a unique skill set. The workforce size employed in industries requiring quality skills shall inevitably increase.

The changing landscape of industry developments is having severe consequences for skill training, inferring, among other things, the necessity to provide enduring, quality, continuing and recurrent vocational skills. Detailed analysis of industry employment trends confirms an actual 'up-skilling' process. These studies suggest that employment shifts within industries, as opposed to between industries, represent a fundamental change towards higher skills. According to the Post-2015 UN Development Agenda (2012), the design of adequate education and skills policies is confronted by the difficulty of anticipating change. There would be a need, therefore, to develop more open education and skills policies. This development will allow for the adaptation of skill supply to the fast-changing needs of industries and ensure that individuals are well-equipped to be employed.

The reason for undertaking this research is multifaceted. First, education and skills expansion underpin any stratagem for human advancement and productivity (MOE, 2014). It is through education that essential skills, knowledge and attitudes are developed. Nevertheless, the standards, values and image of fashion education remain elusive. The above-mentioned results from the quality outcome issues it faces, thus, the necessity for it to be more amenable to industry needs. The fast-changing landscape of the sector has intensified these glitches. An instance is the poor quality of indigenous textiles and production methods within the sector; garment products did not meet the international trade criteria for Africa Growth and Opportunity Act (AGOA)'s international garment requirements and, therefore, were rejected (Pongo et al., 2019).

Second, in Ghana, the mismatch between graduates' skills and those needed by firms has been widely acknowledged and reported. However, comprehensive and empirical assessments exploring its nature and extent and the underpinning factors of the mismatch are uncommon. Bawakyillenuo et al. (2013) mentioned that in Ghana, there had been practically no empirical studies exploring how efficiently the skills acquired by graduates are being translated into the labour market. The study will enhance the relevance of HE in providing relevant expertise and its alignment with the labour market requirements. Third, it cannot be overemphasized that mere skills acquisition does not automatically lead to employment. Often, fashion education strategies fail to recognize this fact. Providing vocational training merely as a means of keeping the youth off the streets without linking training to employment sectors of the economy is a reduced workforce development strategy. It also undermines the credibility of vocational skills acquisition as an effective response to youth unemployment.

Fifth, with the move towards a competent and knowledge-based society, far-reaching changes have taken place in skill requirements in comparison with the earlier practice of the industry. There is a need to examine international trends and look more specifically at the changes in the skills requirement of industries. These would clarify the direction in which changes in vocational skill requirements in general in the Ghanaian context are heading in accordance with industry practice.

WBL, which will be primarily explored in this study, is a subset of experience-based learning. It refers to learning that occurs through undertaking real work. This work can be paid or unpaid (Sweet 2013). There are differences between professional and vocational programs. Higher fashion education stakeholders will have to dilate deeply on the opportunities and issues presented by changing market trends and the driving forces behind them.

The impact of WBL on industry requirements

Bohlinger et al. (2015) acknowledge that globalization brings new skill requirements to both students and workers. Garmise (2014) describes a well-educated and skilled population as a core competitive advantage in an increasingly globalized world economy. Menéndez González et al. (2023) infer that higher skill levels across the populace give a country the capacity to produce efficiently higher value products and services and consequently can compete with other nations on factors other than the price of labour.

In Ghana, though successive governments have often discoursed the importance of skills, policies regarding skills acquisition have, in practice, been created in isolation from industrial policy, with too few connections between education and the labour market. Ghana is currently witnessing an education system which does not adequately prepare graduates for work. Despite improvements, too many graduates still leave HE institutions without sufficient levels of relevant skills, and there is too little value placed on the importance of the workplace as a learning place. According to Pongo et al. (2019), there are weak mechanisms to ensure that vocational programs are adequately linked to the acquisition of relevant skills, progression into good jobs or further studies. The outcome is a system that continually fails to meet the needs of either employers or graduates.

For most industries – particularly the fashion industry – the primary concern is with their specific production needs; hence, it is imperative that policy help employers develop their workforce as an essential part of business planning. The call to urgently embed a coherent fashion framework that students and employers understand, which allows learners to aspire and progress to exceptional levels and meets the Ghanaian economy's and society's long-term needs, cannot be overemphasized. Currently, too many graduates are forced down an education route that is not right for them simply because clear, quality vocational options are not on offer. The study, thus, explored the effects of WBL on higher fashion education skills on industry requirements in Ghana. The study emphasized the need for skilled human resources in the new era of the knowledge-based economy, as this would be crucial for Ghana to become a developed nation.

With the move towards a skill and knowledge-based society, far-reaching changes have taken place in skill requirements compared with the earlier industry practice. The intention of this study is also to raise the status and quality of higher fashion education. The historical and very damaging divide between vocational and general academic learning needs to be broken down to achieve this. This has been discussed for decades, but it has proved more challenging to achieve in Ghana than in many other developed and developing economies. In Ghana, we continue to build our

educational infrastructure around the general standard route, as these can be seen in the Free Senior High Schools (FSHS) the current government is putting so much effect into.

The attention has focused on changing the Polytechnics' status into Technical Universities. However, the questions still remain; do we as a country need Technical Universities? Will the name change contribute anything significant to providing the much-needed middle-level workforce needs of industries? The consequent lack of policy direction and political focus on vocational education, especially higher fashion education, has allowed for the low-status and low-quality qualifications. It only recently has the current regime given the thought of promoting TVE in the country through the establishment of the Commission for Technical and Vocational Education and Training (CTVET) established by the Education Regulatory Bodies Act 2020 (Act 1023), whose key responsibility is to regulate, promote and administer TVET for transformation and innovation for sustainable development.

For the fashion industry to remain competitive in Ghana, there is a need for a higher and broader skill set. HE institutions have a crucial role to play in satisfying those needs. It is critical, consequently, for HE institutions to recognize and address the essential requirements of the fashion industry and churn out graduates with the desired competencies to work in them. The literature affirms that the most effective and relevant learning experience for students is, most often than not, learning that occurs through work (Sweet 2014; Bawakyillenuo et al. 2013). Much learning takes place as part of doing the job. Hence, workplace learning cannot be ignored in any HE discussion.

METHODS

This quantitative study examines the relationship between WBL experiences and the preparedness of fashion design and textile students for the industry requirements in Ghana. The study population comprised postgraduate and undergraduate students enrolled in the fashion design and textiles programme at Ghana Universities with WBL experiences. Data were obtained from 761 students selected from ten (10) of these Universities (technical and traditional), and the data were analyzed using the hierarchical multiple regression statistical technique. This research design allowed the researcher to examine the relationship between WBL experiences and industry preparedness in a systematic and controlled manner, also allowing for the examination of the potential moderating effect of other variables of work-based experience on the relationship between WBL experiences and industry preparedness.

Regarding ethics, the researcher had a moral obligation to strictly respect the rights of participants expected to provide the relevant information needed for the study. Thus, the study was based on the principle of protection of its participants. It was also vital to establish trust between participants and the researcher and to respect their rights, thus enabling them to provide the appropriate data

British Journal of Multidisciplinary and Advanced Studies:
Education, Learning, Training & Development, 4(3),137-150, 2023
Print ISSN: 2517-276X
Online ISSN: 2517-2778
https://bjmas.org/index.php/bjmas/index
Published by the European Centre for Research Training and Development UK

required. Ethical consideration is an essential aspect of this study due to its nature. Essentially, access to information or knowledge regarding a specific fashion house or institution may result in losing a particular advantage or level of insecurity if revealed to others. The study was approved by the Ethics Review Board (ERB) of UNEM Ghana. The study adhered to the ethical principles outlined in the Declaration of Helsinki and received written informed consent from all participants. Ethical issues employed in the study included but were not limited to informed consent, confidentiality, anonymity, and privacy.

FINDINGS

Moderation

Analyzing the effects of WBL on industry requirements demands that the impact of WBL is tested to determine its effects on the relationship between HE and industry requirements. From this assertion, WBL was considered as moderating HE and industry demands. A moderator is a variable that specifies conditions under which a given predictor (HE) is related to an outcome (Industry Needs). The moderator elucidates **'when'** a Dependent Variable (DV) (Industry Needs) and Independent Variable (IV) (HE) are related.

Hierarchical Multiple Regression of Variables

Step 1: Establishing the possibility of moderating effects among variables

Table 1 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94.824	1	94.824	313.503	**.000[b]**
	Residual	229.571	759	.302		
	Total	324.395	760			
2	Regression	216.070	2	108.035	755.972	**.000[c]**
	Residual	108.325	758	.143		
	Total	324.395	760			

a. Dependent Variable: Industry, b. Predictors: (Constant), HE; c. Predictors: (Constant), HE, WBLxHE

Table 1 shows the results of the hierarchical multiple regression analysis. Model 1 is the initial model that includes the main effect of WBL experiences on industry preparedness. The F-value (313.50) and the p-value (<.001) indicate that the model is statistically significant, meaning that there is a significant relationship between WBL experiences and industry preparedness.

Model 2 includes the interaction term between WBL experiences and other variables such as gender, study level, and work-based experience duration. The F-value (108.04) and the p-value (<.001) indicate that this model is also statistically significant, suggesting that the addition of the interaction term improves the model and provides additional insight into the relationship between WBL experiences and industry preparedness. The results suggest a positive relationship between

British Journal of Multidisciplinary and Advanced Studies:
Education, Learning, Training & Development, 4(3),137-150, 2023
Print ISSN: 2517-276X
Online ISSN: 2517-2778
https://bjmas.org/index.php/bjmas/index
Published by the European Centre for Research Training and Development UK

WBL experiences and industry preparedness, and the addition of the interaction term allows to examine the potential moderating effect of other variables on the relationship between WBL experiences and industry preparedness.

Table 2 Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	.568[a]	.323	.321	.53839	.323	180.569	2	758	.000
2	.994[b]	.989	.989	.06991	.666	44199.133	1	757	.000

a. Predictors: (Constant), WBL, HE; b. Predictors: (Constant), WBL, HE, WBLxHE; c. Dependent Variable: Industry

Table 2 shows the results of the analysis of the interaction between industry and higher education (HE) on the relationship between WBL and industry preparedness. Model 2, which includes the interaction term, illustrates the relationship between industry and HE. The R-squared change value of .666 and the p-value of <.001 indicate that adding the interaction term increases the amount of variance explained in the model and is statistically significant. This suggests a potentially significant moderation effect between HE and WBL on graduates meeting industry requirements.This can imply that the type of HE institution and the nature of the WBL experience are important factors contributing to graduates meeting the industry's requirements. This highlights the need for closer collaboration between HE institutions and the industry in designing and delivering WBL experiences that align with industry requirements.

Step 2: Examining the extent of the effects

Once it was established, there was a potentially significant moderation effect; regression was run to examine the extent of the effect. An add-on 'Regression Process' by Hayes (2013) in SPSS was used to run this section of the regression analysis.

Table 3 Regressing of variables

Outcome: Industry Requirements						
Model Summary						
R	**R-sq**	**MSE**	**f**	**df1**	**df2**	**p**
.5818	.3384	.2835	103.2306	3.0000	757.0000	.0000
Model						
	Coeff	**se**	**t**	**p**	**LLCI**	**ULCI**
Constant	4.1103	.0199	206.9418	.0000	4.0713	4.1493
WBL	-.6801	.1217	-5.5902	.0000	-.9189	-.4412
HE	.7399	.0492	15.0400	.0000	.6433	.8364
Int_1	.9985	.2950	3.3845	.0007	.4194	1.577

British Journal of Multidisciplinary and Advanced Studies:
Education, Learning, Training & Development, 4(3),137-150, 2023
Print ISSN: 2517-276X
Online ISSN: 2517-2778
https://bjmas.org/index.php/bjmas/index
Published by the European Centre for Research Training and Development UK

Product terms Key: Int_1 HE x WBL

R-square increase due to interaction (s)

	R2-chng	f	df1	Df2	P
int_1	.0157	11.4546	1.0000	757.0000	.0007

Conditional effect of X on Y at values of the moderator (s)

WBL	Effect	se	t	p	LLCI	ULCI
-.1701	.5700	.0679	8.3945	.0000	.4367	.7033
.0000	.7399	.0492	15.0400	.0000	.6433	.8364
.1701	.9097	.0726	12.5352	.0000	.7673	1.0522

95% Confidence level; HE, WBL were mean centred; Y = Industry, X = HE, M = WBL, n= 761

They utilized a hierarchical multiple regression analysis, which allowed them to test the assumption that meeting industry requirements is a function of HE and, specifically, the moderating effect of WBL on the relationship between HE and industry requirements.

In the first step of the analysis, the researchers included two predictor variables, HE and WBL, in the regression model. The results, as presented in Table 3, showed that these variables accounted for a significant proportion of the variance in graduates meeting industry requirements ($R^2 = .323$, $F(1, 759) = 313.50$, $p < .001$).

To avoid the problem of high multicollinearity with the interaction term, the researchers centred the variables and created an interaction term between HE and WBL. This interaction term was then included in the second step of the regression analysis. The results, also presented in Table 3, indicate that the interaction term accounted for a significant additional proportion of the variance in graduates meeting industry requirements ($\Delta R^2 = .666$, $\Delta F(1, 758) = 44199.13$, $p = .001$, $b = 758$, $t(757) = 3.38$, $p < .05$).

The examination of the interaction revealed an enhancing effect of WBL on HE with respect to graduates' ability to meet industry requirements. This supports the idea that a good moderator should have an enhancing effect, where the moderator increases the effect of the predictor on the outcome variable. These findings suggest that students who experience WBL while in school are more likely to perform better in the industry after graduation than those who do not. This confirms Hayes's (2013) assertion that a good moderator should have an enhancing effect where the moderator would increase the effect of the predictor on the Outcome DV. Results from the moderation analysis suggest that students who experience WBL practices are likely to perform better on the job after graduation than those who do not.

CONCLUSION, IMPLICATIONS AND LIMITATIONS

The cooperation between the fashion house (industry) trainer, the lecturer, and the student is imperative for the quality of the learning and the WBL programs. The contacts between the lecturers and the trainers require resources such as time and competencies to ensure that every

student gets the same degree of support. Again, the construction of precisely defined structures for how the HE institutions and the fashion houses discuss and communicate in relation to the learning content and the timing of the learning must be made. These can be achieved by utilizing a review schedule with fixed dates and agendas for the meetings.

Furthermore, there needs to be a significant and rapid increase in the number of WBL frameworks available. The knowledge of the benefits and challenges related to WBL programs varies among fashion houses. This lack of transparency of facts can prevent fashion houses from supplying places for workplace learning. This study found that the quality criteria concerning cooperation in workplaces were rated low by the students. Students believe their WBL activities and education at institutions are not adequately linked. Thus, collaboration must be supported in which workplace trainers and HE institution's lecturers work together to design student projects and tasks. Focus on learner-centred solutions that consider the student's needs and specify the volume, content, and timing of the learner's training is necessary.

Additionally, there seems to be a need for a system where WBL frameworks tailored to the needs of individual fashion houses and the market, in general, can be brought into play. The current structure with social partners is a challenge regarding the flexibility of the systems for creating new WBL programs. This area should be a key topic in the future to ensure that the educational system can deliver the skills and competencies demanded by the industry.

For fashion houses (industry), it is suggested they focus on quality since they are the main actors in the quality assurance of fashion education. In principle, quality must be an area where they cooperate and have the same work targets and objectives as the institutions. Also, there is a need to focus on the learner. It seems problematic to coordinate the learning content and concentrate on the individual student, even if the learners and the fashion houses have regular contact. There is a need to pay more attention to the individual student and their learning and less on standardized activities of the fashion house. Many fashion houses studied focused on their feedback to the institutions on the student as a person and not so much on the learning development of the learning. This has to change so the learner and the learning become the focus of both the institutions and the fashion houses.

For work-based learners – students –need to be more active since they are key participants in the quality assurance of their education. Students can learn and react immediately if there are many issues with their learning. They have to learn to give feedback to their institutions so that their training processes might be changed if necessary. The current study revealed differences in students' levels of maturity and activity. Students should compare the working and learning conditions internally with those of their friends in other fashion houses.

A proposed WBL model

WBL forms an essential component of the educational process in HE in some disciplines, such as fashion, as mentioned earlier. Hence, students, HE institutions and employers alike view WBL

British Journal of Multidisciplinary and Advanced Studies:
Education, Learning, Training & Development, 4(3),137-150, 2023
Print ISSN: 2517-276X
Online ISSN: 2517-2778
https://bjmas.org/index.php/bjmas/index
Published by the European Centre for Research Training and Development UK

opportunities as ultimately producing more competent graduates ready to be self-employed or be employed. WBL programs bring together theory and practice, thereby enhancing education by enabling students to experience the application of theory in a 'real-life' situation. However, these programs are not adequately planned, designed or monitored in most Ghanaian HE institutions. The model below is expected to address some of these issues if executed to the letter.

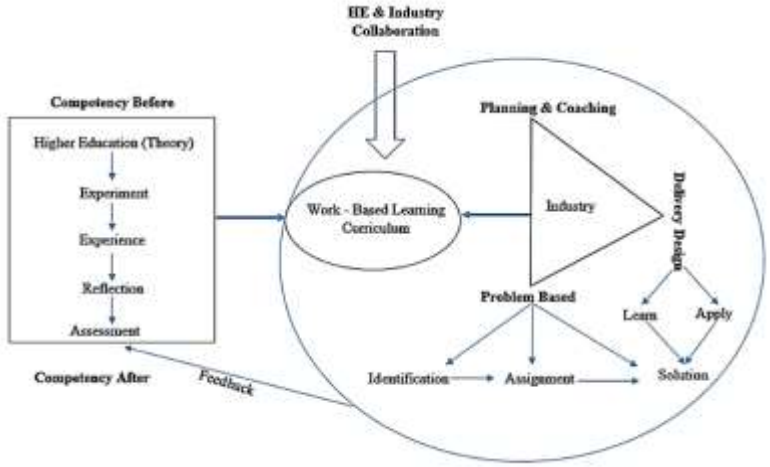

Figure 1: Proposed WBL model

The model above is the author's construct to help understand better the construction of a WBL curriculum. Ordinarily, all models have an information input, processor, and output of expected results. The model shows the interaction between HE and the industry (fashion houses). The model assumes that students undertake courses in HE institutions and acquire some competencies. Prior knowledge and experiences are activated as a foundation for new knowledge. With these prior competencies, the HE institutions allow students to undergo some theoretical work interlaced with experiments, experiences, and reflections and then finally assessed as a measure of their competencies after going through the process. Beyond that, students undertake practical ventures in the industry (work-based learning). This is to expose learners to the demands and expectations of the industry before they complete their education.

The proposed model stipulates that WBL should be guided by a WBL curriculum developed by the collaboration between HE and key industry players to facilitate student learning. It is proposed that the curriculum should have three main elements/features. Planning and Coaching, Problem-Based and Delivery Design. Regarding, Planning and Coaching, the proposition is that HE can offer designated fashion houses where students have industrial experiences and the opportunity to undertake short courses to enhance their theoretical knowledge further. This will also allow the owners and HE lecturers to share ideas for improving student-applied learning. Additionally, the curriculum is proposed to be problem-based, where learners are stimulated to share knowledge

and learn from others to solve real-world problems. Learners will go through a problem identification and assignment process to arrive at a solution.

The delivery design aspect of the curriculum should focus on individual learning needs and preferences where they can apply their individualized learning experiences to solve real-life problems. The feedback loop of the model suggests that there should be some form of monitoring and evaluation of the implementation effect of the WBL curriculum. This will ensure that bottlenecks, as well as gaps that emerge, are sent back to the drawing table to be addressed.

If properly implemented, the curriculum will expose learners to the professional culture and workplace practices, guarantee a smooth transition from HE to employment and also improve the knowledge, skills, and attributes that are difficult to promote with academic studies alone. The model is in no way suggesting that educators' responsibilities are being abrogated; rather, it acknowledges that professional education alone, by its very nature, cannot afford the specified variety of educational experiences. Nor is HE education singularly able to develop a concept for professionalism in the same manner that can be realized from working alongside seasoned practitioners.

There is a need to reduce skills mismatch and its lasting effects and help the Ghanaian economy make the most of the skills of HE fashion graduates. This requires a collaborative effort from all stakeholders. First, action must be taken to reduce the gap between skills generated in the HE educational systems and the expertise required by employers. Second, continuing intervention is necessary for developing the fashion curriculum, targeting continuous skill development and use. It is also necessary to advance HE fashion education systems' receptiveness to labour market requirements and guarantee that learners complete their education with the skills desired to be employed by the industry or be self-employed.

Fashion courses in these institutions must be revised to be more practically focused or competency-based to prepare graduates with more practical competencies to fit expediently into the industry after graduation. The assumption that students, new to the workplace, will have all the job skills required is unrealistic. Fashion houses need a stronger involvement in and ownership of skills, given the importance of helping students develop and maintain their skills by fully utilizing them. For HE to successfully take on a reinvigorated role in the Ghanaian economy, they need to ensure standards are high across the board in the HE sector. Serious concerns about teaching standards in some vocational institutions in Ghana have been raised. A distinct issue is the knowledge and experience gap between HE institutions' lecturers and industry, exacerbated by problems of an ageing workforce within HE institutions.

HE lecturers must understand the industry and draw on up-to-date workplace experience and developments in their sector. Recruitment of lecturers and other teaching staff should be based not only on higher academic qualifications but also on appropriate industry experience. They must also appreciate vocational pedagogy to provide high-quality learning experiences for students. The Fashion programme in HE institutions is a professional degree. Hence, the curriculum must be

designed to equip learners with a firm appreciation and mastery of the expertise required to enter professional practice in the competitive fashion industry. The Ghanaian fashion education curriculum must be compared with international fashion centres of excellence. Some of the current industry advancements in technology and innovation in the fashion industry, such as 3D printing, confirm the value-added benefits these can bring to the Ghanaian fashion student and industry.

The curriculum must provide students with a comprehensive understanding of the design process through critical and creative thinking, theoretical and historical study, along with conceptual and experimental exploration. The curriculum must be improved to meet students' career goals, provide employment skills, and afford continuing educational opportunities. It is hence suggested that the fashion department, in consultation with the industry, must review some specific aspects of the curriculum. The future of higher fashion education will require an evolution in pedagogy, mentorship, and student development. Fashion students must thus be prepared with a sequenced curriculum that will develop the expertise they need to enter multiple areas of the professional fashion design world.

This study analyzed the effects of WBL on industry requirements. Notwithstanding the potency, the study's discoveries must be approached with caution since it is explicitly empirical. Besides, this study explored a limited subset – Fashion education – from a large group of disciplines and specializations in TVET. Consequently, problems may arise regarding what should or should not be covered. With these concerns in mind, the ensuing issues attempting to generalize the findings would require some measure of discretion. First, because data were collected from a single country, Ghana, the findings may not reflect what is happening in other jurisdictions regarding higher fashion education. For instance, countries such as Australia and Germany depict a different picture of vocational training. Also, the non-random and cross-sectional nature of the current research implies that the interpretation of results must be limited to the samples studied at the time of this investigation.

Whiles acknowledging such limitations, this study exhibits a sufficient comprehension of the topic. Accordingly, the research authenticates the developed model and its relevance to equipping HE graduates with the qualifications and work-related skills needed to be employable. For further studies, however, reforming institutions that offer vocational education remains a major challenge in rapidly impacting the quality and relevance of training in Ghana. Researching the reform process may be useful in appreciating the slowness and the inertia students meet on their way up the vocational educational ladder.

References

Anamuah-Mensah J (2007) Secondary technical education an effective Link in the middle level manpower development of a Nation. Speech delivered on the at the 25th anniversary celebration of St. Francis secondary technical school Akim-Oda.

Bawakyillenuo S Akoto IO Ahiadeke C Aryeetey EB. and Agbe EK (2013) Tertiary education and industrial development in Ghana. *London: International Growth Centre (IGC).*

Bohlinger S Haake U Jørgensen CH Toiviainen H and Wallo A (Eds.). (2015) *Working and learning in times of uncertainty: Challenges to adult professional and vocational education*. Springer.

Brown J (2017) Work-based assessment: developing new forms of knowledge. In *Placements and Work-based Learning in Education Studies* (pp. 53-64). Routledge.

Butrica BA and Mudrazija S (2022) Skills-Based Hiring and Older Workers. *Washington DC: Urban Institute*.

Carayannis EG and Morawska-Jancelewicz J (2022) The futures of Europe: Society 5.0 and Industry 5.0 as driving forces of future universities. Journal of the Knowledge Economy 1-27.

Center for Curriculum Redesign and OECD. (2012) 21st century education: What should students learn in the 21st century? Summary and Outcomes of Plenary I. Paris: OECD.

Durazzi N (2019) The political economy of high skills: higher education in knowledge-based labour markets. *Journal of European public policy 26*(12) 1799-1817.

Endedijk MD and Bronkhorst LH (2014) Students' learning activities within and between the contexts of education and work. *Vocations and learning 7* 289-311.

Garmise S (2014) *People and the competitive advantage of place: Building a workforce for the 21st century*. Routledge.

Grodek-Szostak Z Siguencia LO Szelag-Sikora A and Marzano G (2020) The impact of industry 4.0 on the labor market. In *2020 61st International Scientific Conference on Information Technology and Management Science of Riga Technical University* (pp. 1-5). IEEE.

Hayes AF (2013) Introduction to Mediation Moderation and Conditional Process Analysis: A Regression-Based Approach. New York: The Guilford Press.

Herbert IP Rothwell AT Glover JL and Lambert SA (2020) Graduate employability employment prospects and work-readiness in the changing field of professional work. *The International Journal of Management Education 18*(2) 100378.

International Labor Organization (ILO) (2011) A skilled workforce for strong sustainable and balanced growth: A G20 training strategy. Geneva: ILO.

Irving K (2008) Work-based learning as interdisciplinary study: A discussion of pedagogy and practice. In *Interdisciplinary Learning and Teaching in Higher Education* (pp. 84-90). Routledge.

Islam MA (2022) Industry 4.0: Skill set for employability. *Social Sciences and Humanities Open 6*(1) 100280.

Lester S and Costley C (2010) Work-based learning at higher education level: Value practice and critique. *Studies in Higher Education 35*(5) 561-575.

Li L (2022).Reskilling and upskilling the future-ready workforce for industry 4.0 and beyond. *Information Systems Frontiers* 1-16.

Littke K and Thång PO (2015) Learning at work in higher vocational education. *Nordic Journal of Vocational Education and Training 5*(1) 1-17.

Lowden K Hall S Elliot D and Lewin J (2011). Employers' perceptions of the employability skills of new graduates. *London: Edge Foundation 201126*.

Luo J and Chan C K (2022) Conceptualizing evaluative judgement in the context of holistic competency development: results of a Delphi study. *Assessment and Evaluation in Higher Education* 1-16.

Major D Meakin D and Perrin D (2011) Building the capacity of higher education to deliver programmes of work-based learning. Higher Education Skills and Work-Based Learning 1(2) 118-127.

Manda MI and Ben Dhaou S (2019) Responding to the challenges and opportunities in the 4th Industrial revolution in developing countries. In *Proceedings of the 12th international conference on theory and practice of electronic governance* (pp. 244-253).

Menéndez González I Owen E and Walter S (2023) Low-Skill Products by High-Skill Workers: The Distributive Effects of Trade in Emerging and Developing Countries. *Comparative Political Studies* 00104140231152800.

Ministry of Education (2014) Bridging the Gap between Education/Training and Industry. Accra: A Concept Paper.

Pongo NA Obinnim E and Zanu JA (2019) An Evaluation of Creative and Vocational Education and the Changing Demands of Industry Competencies. *Fashion and Textiles Review* 1(1) 01-11.

Saniuk S Caganova D and Saniuk A (2021) Knowledge and skills of industrial employees and managerial staff for the industry 4.0 implementation. *Mobile Networks and Applications* 1-11.

Schaap H Baartman L and De Bruijn E (2012) Students' learning processes during school-based learning and workplace learning in vocational education: A review. *Vocations and learning 5* 99-117.

Schroth H (2019) Are you ready for Gen Z in the workplace?. *California Management Review 61*(3) 5-18.

Succi C and Canovi M (2020) Soft skills to enhance graduate employability: comparing students and employers' perceptions. *Studies in higher education 45*(9) 1834-1847.

Sweet R (2013) Work-based learning: why? How? In revisiting global trends in TVET: Reflections on Theory and Practice. Germany: UNESCO-UNEVOC. International Centre for Technical and Vocational Education and Training.

Sweet R (2014) Work-based learning: A handbook for policy makers and social partners in ETF Partner Countries. European Training Foundation.

Vandemoortele . (2012) Advancing the global development agenda post-2015: some thoughts ideas and practical suggestions. *New York: UN System Task Team on the Post-2015 UN Development Agenda*.

Conflict of Interest

The author declares that there exists no competing financial interest or personal relationships that could have appeared to influence the work reported in this paper.