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A Review on the Challenges of Fashion Students' Training Based on Curriculum Structure of Technical Universities in Ghana

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Abstract: ***Ghanaian fashion education has particular difficulties because of the technical university curriculum. To provide students enrolled in these programmes with a thorough understanding of the present status of fashion training, this literature review synthesises data from previous scholarly studies. The research looks at Ghanaian technical colleges' curricular frameworks and how they affect fashion students' instruction and learning. The mismatch between course material and industry demands, the absence of chances and facilities for practical training, the faculty's lack of experience, and the restricted access to fashion - specific tools and technology are some of the major concerns that have been examined. Through a comprehensive analysis of the literature, this review highlights areas that still need investigation and knowledge gaps. It also draws attention to ways that fashion education might be improved, including incorporating practical learning components into courses, upgrading facilities and technology, and strengthening faculty expertise. The evaluaconcludesusion that in order to give students the necessary skills for the Ghanaian fashion industry, it would be necessary to alter the fashion curriculum offered in technical universities and establish industry collaborations.***

Keywords: Fashion education, Curriculum, Pedagogy and Fashion Students

1. Introduction

1.1 Fashion Education in Technical Universities

Fashion education in Ghana has undergone rapid changes in recent years to try to align with the country's growing fashion and textile industries. Technical universities play a crucial role in training the next generation of fashion professionals to drive this important sector of Ghana's economy. However, fashion programmes at Ghanaian technical universities face unique challenges due to the structure and focus of technical education. A review of recent literature reveals that the curriculum, facilities, faculty expertise, and industry alignment of fashion programmes require reform to provide relevant, high - quality education for students.

Several studies have analysed the curriculum structures of technical universities in Ghana and how they impact fashion education. Osei - Poku (2012) found a gap between the course content in fashion degree programmes and the practical needs of the fashion and apparel industries. Most curricula focused on basic garment construction and theory but lacked opportunities for developing industry - specific skills in areas like production planning, quality control, supply chain management, and product development (Osei - Poku, 2012). Amponsah et al. (2020) identified a similar mismatch, with formal technical pedagogy emphasising rote learning over the critical thinking and creativity needed for fashion work. The authors recommend integrating more problem - based and experiential learning to make curricula responsive to industry needs (Amponsah et al., 2020).

Along with curriculum changes, the literature also points to the need for upgraded facilities and technology access for fashion programs. Along with curriculum changes, the literature also points to the need for upgraded facilities and technology access for fashion programmes at Ghanaian technical universities. Owusu - Acheampong et al. (2021) found that fashion workshops at many schools lack the equipment used in the apparel industry, like industrial sewing machines, pattern - making tools, and computer - aided design (CAD) software. The lack of practical tools makes it difficult to provide hands - on training for students to develop industry - relevant skills (Owusu - Acheampong et al., 2021). Relatedly, limited opportunities for work - based learning emerged as another challenge. According to Bekoe and Quartey (2019), few partnerships exist between technical universities and fashion companies in Ghana to provide internships, apprenticeships, or other forms of experiential learning. This hinders students' understanding of real - world fashion workflows and professional requirements (Bekoe & Quartey, 2019). Recruiting and developing qualified faculty poses difficulties due to the industry - focused nature of fashion programs. Ampadu (2017) found many lecturers lacked specialised fashion expertise and relied on traditional teaching methods rather than taking an applied approach. The study recommended more industry secondments and professional development to enhance instructors' capacities to provide career - oriented instruction (Ampadu, 2017).

1.2 Importance of Curriculum Structure

A critical issue highlighted in the literature is the need for a fashion curriculum at Ghanaian technical universities to better align with industry requirements and equip students

with relevant skills. As Boateng and Ssekakubo (2015) argue, the curriculum structure is vital for developing work - ready graduates who can meet the needs of the fashion and apparel sectors. They recommend a shift towards competency - based curricula that are guided by direct input from industry stakeholders. This would allow for incorporating more practice - focused teaching on skills like digital design, supply chain management, and quality control that are in high demand (Boateng &Ssekakubo, 2015).

Amponsah et al. (2020) echo this point, calling for curricula that blend theoretical knowledge from the classroom with practical learning in studios and workshops. The authors also advocate for incorporating emerging technologies like 3D printing and CAD into coursework to provide greater preparation for the digital capabilities needed in contemporary fashion careers. The literature emphasises that strategic development of fashion curricula and learning outcomes is crucial at technical universities to properly train and supply qualified talent to the growing Ghanaian fashion industry (Abban et al., 2019; Bekoe & Quartey, 2019). Establishing robust industry partnerships and advisory networks can support technical universities in designing and continually updating curricula to achieve better alignment with real - world workforce needs.

While the literature extensively covers the need for curricular reform, there is less research on effective strategies for implementing changes within the constraints of technical education systems. As Abban et al. (2019) discuss, bureaucracies and hierarchical structures can stifle flexibility in programme and course design. They call for greater academic autonomy and more opportunities for interdisciplinary collaboration to enable curriculum innovation. Meanwhile, Owusu - Acheampong et al. (2021) argue that accreditation requirements, which emphasise theoretical content over practical learning, are a barrier to aligning technical fashion education with industry needs. The authors recommend conducting comprehensive reviews of policies, standards, and guidelines to identify necessary adjustments for integrating more career - focused curriculum components.

Further research is needed to develop curriculum change models tailored to overcoming the specific challenges in the technical education context. Bekoe and Quartey (2019) suggest taking an incremental approach to redesign by phasing in new courses and learning pathways over time. Pilot testing curriculum innovations with industry partners could provide vital data to guide systematic reforms. Amponsah et al. (2020) also propose exploring technology - enhanced solutions, such as virtual internships and simulations, to expand practical learning until access to physical facilities and equipment can be improved.

1.3 Rationale for the Literature Review

This review provides a timely and in - depth examination of the challenges facing fashion education in Ghana's technical universities and the potential solutions identified in the literature. As the country's fashion industry grows into a major economic sector, training qualified talent is essential to support continued expansion and competitiveness (Anatsui & Dean, 2022). However, studies indicate that existing fashion programmes struggle to equip students with the necessary range of competencies due to curriculum limitations, inadequate facilities and technology, limited industry connections, and insufficiently prepared faculty (Ampadu, 2017; Bekoe & Quartey, 2019). Synthesising key findings from current scholarly literature enables an assessment of where gaps between technical fashion education and industry needs persist. It also elucidates recommendations proposed by various researchers for aligning curricula, resources, partnerships, and instructor training more closely with industry requirements. Conducting this targeted review contributes insights that institutional leaders, policymakers, and other stakeholders can utilise when shaping strategies to strengthen the capacity of technical universities to deliver fashion education relevant to Ghana's socio - economic landscape. Tracking scholarly discourse also helps identify areas requiring further investigation, such as effective models for implementing curricular reforms within rigid educational systems.

While existing studies provide valuable insights, the literature review reveals gaps that merit further investigation. Few studies have explored the perspectives of industry professionals regarding the capabilities they desire in graduates of technical fashion programmes (Owusu - Acheampong et al., 2021). Additional research incorporating direct employer feedback could shed light on alignment issues. There is also limited research on the effects of various intervention strategies proposed in the literature, such as competency - based curriculum models, work - integrated learning policies, and instructor training programs. Longitudinal studies tracking the implementation and impact of such initiatives can help determine effective change management approaches for fashion education. Furthermore, comparative analyses of technical fashion curricula across institutions and examinations of associated student outcome data could assist in benchmarking and identifying best practices for curriculum enhancement. Conducting an expansive review synthesising prior studies lays the groundwork for proposing practical recommendations for curriculum developers, university leaders, and policymakers seeking to improve the quality and relevance of fashion education at Ghana's technical universities.

1.4 Research Questions

1) How can industry partnerships and collaborations be strengthened to improve practical training facilities, provide work - integrated learning opportunities, and inform curriculum development for fashion students?
2) What policies and accreditation standards facilitate or hinder flexibility and innovation in technical fashion education curricula? What reforms have been suggested?
3) How do technical university students and graduates perceive the quality and relevance of the fashion education received for their careers?
4) What comparative analyses of curriculum content and student outcomes can identify best practices and areas for improvement across Ghanaian technical fashion programs?

2. Evolution of Fashion Education

2.1 Historical Perspectives on Fashion Education

Fashion education in Ghana has gradually evolved over the past century in alignment with the country's cultural traditions and emerging fashion industry. While limited literature exists chronicling this history, scholars have pieced together an account of fashion training's origins and early development.

2.1.1 Indigenous Fashion Knowledge Systems

In the pre - colonial era, knowledge about clothing production, styles, and aesthetics was imparted through informal apprenticeships rooted in Ghana's village and kinship structures These kingdoms were known for their wealth and power, which were based on the control of the trans - Saharan trade routes. During this time, Ghana was also a major centre for the transatlantic slave trade, which had a significant impact on the region's economy and culture. (Adu - Akwaboa, 2022).

Skills like cloth weaving, dyeing, beading, and garment construction were transmitted orally and through observation and hands - on practice as youth learned from master craftspeople (Gough &Kuwornu - Adjaottor, 2022). Traditional Ghanaian dressmaking involved draping and cutting cloth freehand to produce flowing robes and wrapped garments. Fashion accessories were handmade from local materials like beads, shells, animal hides, and plant fibres (Posnansky, 2010). Clothing carried symbolic meaning and marked milestones, social status, gender roles, and ethnic identity. This indigenous knowledge provided the early foundations for Ghana's sartorial practices and aesthetics (Sissons, 2012).

2.1.2 Beginnings of Westernized Training

Ghana's contemporary fashion education has colonial origins, as missionaries and colonists introduced European - style garment construction using tailored patterns in the late 1800s (Adu - Akwaboa, 2022). Basic dressmaking skills began being taught through early vocational institutes to provide clothing - making services and train seamstresses for domestic work (Gough &Kuwornu - Adjaottor, 2022). After independence in 1957, the Ghanaian government expanded vocational training centres offering sewing instruction modelled on British stitching and patternmaking techniques (Anatsui, 2022). Programmes emphasised technical skills for the emerging garment manufacturing industry over creative design. This set the template for the country's early formal fashion education.

2.1.3 Growth of Post - Secondary Programmes

In the 1990s, dedicated fashion design and technology diplomas and degrees emerged, housed mainly in polytechnics like Takoradi Technical University (Anatsui, 2022). Ghanaian instructors who had studied abroad helped structure curricula and workshops focused on industrial machine sewing, pattern drafting, garment construction, textile science, and apparel manufacturing (Amoako, Dennis, & Bonsu, 2019). Programmes aimed to build Ghana's skilled workforce to support garment factories and textile companies Critics argued curriculum were too production - focused versus developing students' creativity and design capabilities. By the 2000s, public technical universities began offering 4 - year undergraduate degrees in fashion, integrating more business education and entrepreneurship training to address needs in Ghana's evolving clothing sector (Abban et al., 2019).

Fashion education has not only adopted corporate social responsibility (CSR) courses but has delved into opening strategic classes which allow the student to explore through the use of recycling and upcycling materials developing collections from unusual things. Education in the broadest sense is any act or experience that has a formative effect on the mind, character, or physical ability of an individual. However, the structure of technical pedagogy presented challenges for fashion, which requires both technical and artistic skill sets. Lack of creative learning approaches and industry collaboration were cited as ongoing issues (Bekoe & Quartey, 2019).

2.1.4 Decolonizing and Indigenizing Curricula

Recent studies call for indigenizing fashion education by integrating Ghana's sartorial heritage. Scholars advocate incorporating indigenous aesthetics, patternmaking and draping techniques, fabrics, embellishments, and historical knowledge to counter Western dominance in curricula (Ansah & King, 2021; Gough &Kuwornu - Adjaottor, 2022). This is seen as essential for nurturing designers who can blend local cultural elements with contemporary trends relevant to global and African markets (Ansah & King, 2021). Partnerships with traditional artisans are proposed to bring indigenous craft knowledge into classrooms and studios (Adu - Akwaboa, 2022). These initiatives support decolonizing fashion education to be more culturally relevant and better serve national needs.

2.1.5 Critiques of Ongoing Challenges

While progress has been made, scholars critique the persistent gaps between fashion education and industry needs in Ghana. Ampadu (2017) analysed technical pedagogy, finding that rigid teaching methods and a lack of industry experience hindered the relevance of programs. Meanwhile, Bekoe and Quartey (2019) highlighted the shortage of work - integrated learning opportunities to develop students' understanding of real - world fashion business operations and environments. Other commonly cited issues include inadequate practical facilities, equipment, and technology in fashion workshops and studios (Abban et al., 2019). The focus on manual garment construction in curricula also does not align with the industry's usage of industrial machines and automation (Anatsui & Dean, 2022). Furthermore, Owusu - Acheampong et al. (2021) found employers desire well - rounded skills in creative design, production planning, supply chain, marketing, and management, which current graduates lack.

2.1.6 Governmental and Institutional Efforts

In recent years, developing Ghana's creative economy has become a national priority, catalysing initiatives to strengthen technical education. The Ghana TVET Strategic Plan aims to improve teaching quality, industry linkages, entrepreneurship training, and access to technology across

vocational disciplines. New public universities like Ghana Technical University have also expanded their technical degree offerings in design and fashion (Anatsui & Dean, 2022). The Ghana Fashion Council provides industry input on curriculum to schools and advocates for government funding.

However, researchers stress that systemic challenges in technical pedagogy must still be addressed through curricular reform, faculty development, increased practical learning opportunities, and access to updated facilities and technology (Ampadu, 2017; Abban et al., 2019). Building robust partnerships between academia, industry, and government is critical for aligning Ghana's technical fashion education with the future needs of a globally competitive creative workforce.

2.2 Global Trends in Fashion Education

2.2.1 Proliferation of Fashion Programs

The number of fashion schools and programmes worldwide has proliferated rapidly in recent decades. By 2018, over 1, 200 fashion institutes existed globally, compared to about 50 in the 1970s (Williams, 2018). This expansion reflects industry demand for trained talent across both creative and business domains. Major fashion hubs like London, New York, Paris, and Milan house numerous prestigious fashion institutes like Central Saint Martins, Parsons, and Istituto Marangoni. Developing fashion industries in Asia, the Middle East, and Africa have also catalysed the growth of new programmes.

2.2.1.1 Asia

The Asia - Pacific region has seen massive growth in fashion education, driven by the region's fast - growing fashion and textile industries. China alone went from two programs i in the 1990s to over 100 fashion design institutes by 2010 (Jin & Ryu, 2019). Singapore, Hong Kong, India, and other Asian fashion hubs have all invested heavily in building local fashion education ecosystems. Some notable institutes include Lasalle College of the Arts (Singapore), Pearl Academy (India), Raffles Design Institute (multiple locations), and Hong Kong Polytechnic University, which is ranked among the top fashion schools globally (Phillips & McNeill, 2021).

2.2.1.2 Europe

Paris remains a major fashion education hub, with renowned institutes like the InstitutFrançais de la Mode and the École de la Chambre Syndicale de la Couture Parisienne. London colleges like Central Saint Martins and the London College of Fashion offer prestigious fashion credentials. Other leading European institutes include Antwerp Royal Academy of Fine Arts, Polimoda (Florence), Design School Kolding (Copenhagen), and the University of the Arts London, which is considered one of the top 5 fashion schools in the world (Phillips & McNeill, 2021).

2.2.1.3 North America

In the United States and Canada, top institutes such as Fashion Institute of Technology (FIT), Parsons, and Ryerson University have seen surging enrollment. There has also been a rapid growth of for - profit colleges focused on vocational training, like the Art Institutes, Marangoni Institute, and Vancouver Institute of Media Arts (Jin, 2020). Savannah College of Art and Design (SCAD) offers another unique model combining creative arts and business education. These examples demonstrate the scale and geographic diversity of fashion programme expansion globally. Continued growth is projected in developing fashion hubs in Africa, the Middle East, and Latin America. However, maintaining quality standards remains an issue.

2.2.2Democratization of Fashion Education

The democratisation of fashion education is occurring through increased access to introductory and short courses online, lowering barriers for non - traditional learners (Jin, 2020). Massive open online courses (MOOCs) make preliminary fashion studies available globally. Some universities also offer open courseware, resources, and digital credential courses on fashion topics. This supports wider access and diversity in the fashion education pipeline. The democratisation of preliminary fashion knowledge is occurring through low - cost, flexible online courses aimed at non - traditional learners. Massive open online courses (MOOCs) offered via platforms like Coursera, EdX, and FutureLearn cover fashion fundamentals, history, business, and technical skills (Jin, 2020).

These free or low - cost courses make introductory fashion studies accessible globally. Several universities also offer free fashion courseware and resources through open education initiatives. MIT OpenCourseWare shares lecture notes, assignments, and videos from courses spanning fashion history, theory, marketing, and more (Chang, 2016). Similarly, the University of the Arts London provides open access to course materials from world - renowned institutes such as Central Saint Martins and London College of Fashion (Eugenio & Amico, 2020). The Open Style Lab curriculum focuses specifically on inclusive and adaptive fashion design. Digital micro - credentials and certificates in specialised skills like trend forecasting, sourcing, and fashion journalism are also proliferating from both universities and online learning platforms. These options cater to working professionals seeking targeted upskilling. Verified certificates can be earned in a few weeks or months through self - paced online modules, videos, and exercises (Chang, 2016). While democratised fashion courses increase access, questions remain about depth versus degree programs. However, they provide an entry point and supplement traditional learning. Opportunities to engage with fashion academically may inspire some to pursue advanced qualifications and careers.

2.2.3 Decolonizing Curriculum

Fashion education is being decolonised by integrating diverse perspectives beyond Western - centric history, theory, and techniques (Eugenio & Amico, 2020). Programmes are contextualising fashion design practices that blend indigenous cultures, crafts, and knowledge systems with contemporary principles. There is a focus on inclusive representation and amplifying marginalised narratives in the curriculum.

2.2.3.1 Critiques of Eurocentrism

Scholars argue that fashion education has historically prioritised Western aesthetic traditions, techniques, and industry norms while marginalising non - Western fashion systems and forms of knowledge (Eugenio & Amico, 2020). Curricula founded on colonial principles fail to value diverse cultural identities and non - Western techniques present in indigenous dress and textile practices globally (Jansen & Craik, 2016).

2.2.3.2Integrating Indigenous Perspectives

To counter Eurocentric dominance, educators advocate integrating indigenous perspectives, histories, techniques, and environmental knowledge systems into curricula (Eugenio & Amico, 2020; Tharakan et al., 2022). For instance, teaching patternmaking can incorporate non - Western draping and tailoring traditions beyond European principles. Programmes also diversify sources and case studies to shift focus away from Western fashions, designers, and brands disproportionately emphasised traditionally.

2.2.3.3Amplifying Marginalized Voices

Fashion history and theory courses highlight non - Western and non - white narratives excluded from mainstream curricula. Discussions increasingly emphasise how imperialism shaped the global fashion industry's unequal power dynamics (English, 2013). Decolonized content also analyses issues like cultural appropriation, the commodification of minority cultures in fashion, and representational ethics. While decolonizing efforts are growing, truly transforming embedded curricula remains an ongoing process. However, the expanding discourse indicates shifting priorities in global fashion education.

2.2.4Curriculum Evolution

Fashion education has expanded well beyond design and garment construction. Curricula now integrate business, marketing, supply chain management, forecasting, sustainability, and technology in recognition of the industry's commercial facets (Aspers & Skov, 2006; Williams, 2018). There is an increased blending of creativity and design thinking with digital skills, research capabilities, and practical experience (Burke & Rorke, 2020). Pedagogical theory also informs teaching aimed at different learning styles.

2.2.4.1 Business Education

Programmes incorporate instruction in areas like marketing, merchandising, consumer behaviour, accounting, finance, and data analytics to build business acumen (Faerm, 2012; Jin & Ryu, 2019). Retail management, buying, and forecasting help develop commercial skills.

2.2.4.2 Supply Chain Management

Logistics, sourcing, vendor relations, compliance, and trade are covered to provide expertise in managing fashion supply chains (Bruce & Daly, 2011). Technologies like RFID and blockchain for traceability may also be taught.

2.2.4.3 Social Science Integration

Psychology, sociology, anthropology, and cultural studies provide lenses for understanding socio - cultural contexts, consumer behaviour, representation, and identity in fashion (Kawamura, 2011). Critical theory and analysis build social awareness.

2.2.4.4 Sustainability Literacy

Instruction in ethics, environmental science, sustainable materials, and lifecycle impacts equips students to assess fashion's ecological effects (Heuer & Becker - Leifhold, 2018). Strategies for responsible design, sourcing, production, and disposal are taught. This breadth builds multifaceted skills while retaining design and garment construction foundations. Holistic development aims to prepare graduates for diverse industry roles.

2.2.5 Technology Integration

Digital transformation is the process of transforming systems and strategies within a business through digital means. The fashion industry has broadened its digital transformation to accommodate new and longstanding challenges. Digital solutions are transforming fashion education. Technologies like CAD allow virtual prototyping and patternmaking (Sun & Zhao, 2020).

Computerised knitting, cutting, and sewing equipment enable digitised production. Fashion programmes emphasise building digital design and manufacturing competencies relevant to Industry 4.0 (Sun & Zhao, 2020). Online education via MOOCs, virtual simulations, and digital resources has also made fashion education more accessible. Some examples of technology integration in fashion education include:

2.2.5.1 Computer - Aided Design (CAD)

CAD allows virtual design, prototyping, patternmaking, and fitting. Programmes teach digital skills for sketching, illustration, textile design, visual merchandising, and line development (Sun & Zhao, 2020). CAD improves design precision and accelerates idea iteration.

2.2.5.2 3D Design and Simulation

3D modelling, animation, and virtual try - on technologies help students experiment and showcase designs digitally. Virtual runways and fashion films enhance project presentation (Ræbild & Bang, 2017). Digital sampling also reduces physical sampling waste.

2.2.5.3 Digital Manufacturing

Technologies like laser cutting, digital knitting, computerised embroidery, and 3D printing integrate tech - based production methods. Students gain experience with programmed automation versus manual methods (Sun & Zhao, 2020).

2.2.5.4 Supply Chain Tech

Instruction covers the use of enterprise resource planning (ERP), forecasting software, warehouse automation, and other technologies to improve fashion supply chain visibility, efficiency, and waste reduction (Choi, 2013). Radio frequency identification (RFID) and blockchain may also be taught. These and other emerging technologies expose students to industry 4.0 skillsets and amplify creative possibilities. Blending digital literacy with fashion craft is crucial for future careers.

2.2.6 Experiential Learning

Integrating hands - on learning through internships, industry collaborations, and manufacturing workshops is seen as crucial for developing career readiness (Ræbild & Bang, 2017). Many programmes partner with industry to provide professional experiences that complement classroom teaching. These highlight some current focus areas shaping the evolution of global fashion education. Curricula and teaching practices continue to adapt to keep pace with an industry undergoing rapid technological and social change.

There is a need for industry to more effectively engage academic experts and for more useful knowledge exchange. Although automation professionals and faculty are effectively working together in some places, there is a gap between what industry practitioners need and what academic experts provide. More frequent and influential collaborations can lessen that gap.

2.2.6.1 Industry Internships

Internships give every student the chance to put their learning into practice. Especially for those aspiring to be fashion designers, such opportunities help develop abilities such as creativity, research, analysis, sketching, and the use of various tools and software. Internship partnerships with fashion companies provide opportunities to apply classroom learning in real - world settings under industry mentorship (Rinaldi & Tate, 2018). Students gain exposure to professional environments and workflows.

2.2.6.2 Direct Industry Projects

Collaborations on live briefs, sponsored designs, and competitions create shared value between education and industry (Bates et al., 2022). Students solve real challenges posed by companies while firms access talent capabilities.

2.2.6.3 Trade events and exhibitions

Participation in fashion weeks, trade shows, and competitions enables students to present work to industry judges and consumers for feedback and recognition. Events provide networking and publicity experiences (Faerm, 2021).

2.2.6.4 Pop - up shops and cafes

Programmes incorporate experiential retail, merchandising, and branding projects through pop - up shops, restaurants, installations, and trade show booths (Bates et al., 2022). Applying creative skills to commercial spaces teaches entrepreneurship. Such applied learning combined with industry integration aims to nurture adaptable graduates ready to transition into dynamic fashion careers.

2.2.7 Democratisation of Fashion Education

The fashion industry has experienced a democratisation shift, with technology, social media, and changing consumer values dissolving traditional boundaries between elite designer fashion and mass production. Digital tools have enabled wider access to design education, marketing reach, and manufacturing capabilities (McNeill & Moore, 2015). Social platforms make trend discovery and launching direct - to - consumer brands accessible to broader populations (Jin, 2020). Declining brand loyalty, demand for personal expression, and interest in secondhand clothing also reflect shifting attitudes valuing style experimentation across price points (Gupta & Anjuman, 2021). However, critiques persist around social media perpetuating homogenization versus true democratisation (Rocamora, 2017).

While barriers have eroded, anti - elitism has limits in an industry still concentrated in power and capital. Nonetheless, emerging competencies, technologies, and networks continue to expand opportunities for diverse participation across the fashion ecosystem. However, democratisation also raises concerns about originality and ethics. Copycatting of luxury fashion designs and counterfeiting enabled by accessible digital production tools have escalated (McNeill & Moore, 2015). Pressure for constant newness fueled by social media often clashes with more ethical and sustainable production. The proliferation of fast fashion also relies on low wages and labour exploitation. Critics argue social media democratisation of reputation and influence has not translated into greater diversity in high fashion and media imagery (Rocamora, 2017).

While technology and consumer shifts have opened new avenues for enterprising designers, inclusivity and responsibility remain pressing challenges. Some advocate refocusing democratisation to empower ethical, eco - conscious, and socially focused fashion ventures with positive, not predatory, impacts (Joy et al., 2012). Guided by purpose, increased access could enable diverse participation in building a healthier, more sustainable industry, benefiting both producers and consumers.

2.2.8 Entrepreneurship and Small Business Skills

Fashion programmes are incorporating more entrepreneurial competencies as self - employment and micro - enterprises thrive in the gig economy. Curricula aim to build creative confidence, opportunity recognition, resource leveraging skills, and an adaptable mindset suited for startups (Henry et al., 2021). Instruction covers leveraging digital platforms for marketing, social commerce, funding access, product development, and launching brands with agility. Programmes also teach financial acumen, legal basics, and strategic business modelling tailored for the fashion industry context (Chen & Chang, 2018). Some collaborate with campus incubators to develop proto - businesses. While entrepreneurship was traditionally viewed as distinct from fashion design, blending creative technical strengths with commercial skills is increasingly crucial. Holistic preparation combines craft excellence with the multifaceted expertise to sustainably lead ventures and self - made careers in a dynamic industry.

2.2.9 Sustainable and Ethical Production

The fashion industry is one of the largest contributors to environmental degradation and social injustices. From the excessive use of natural resources to the exploitation of workers, the negative impacts are evident. However, there is hope for change. Sustainable fashion design offers a solution to mitigate these problems, promoting a more responsible and compassionate industry that considers the long - term consequences of its actions. Sustainability and ethics are increasingly prioritised across fashion curricula. Coursework integrates lifecycle analysis, closed - loop manufacturing

principles, and the use of eco - friendly materials (Fletcher, 2008).

Drawing on fields like industrial ecology and biomimicry inspires bio - based design. Strategies also focus on localism and fair trade to build ethical supplier relationships. Instruction emphasises transparency and traceability via blockchain and other technologies to evidence responsible sourcing (Verma, 2019). Compliance best practices around safety, worker treatment, and certification standards help underscore accountability priorities. Fashion programmes aim to instil an understanding of ecological and human impacts across the production value chain and equip students to enact restorative practices (Niinimäki, 2021). Blending environmental and social ethics with technical education supports thedevelopment of responsible professionals able to transform unsustainable industry conventions.

2.3 Emergence of Fashion Programmes in Ghana

Formal fashion education in Ghana evolved gradually from basic vocational training during colonial times to technical degree programmes focused on apparel manufacturing. Early on, basic sewing and dressmaking skills were imparted through vocational institutes established to train seamstresses, modelled on British teaching methods (Adu - Akwaboa, 2022; Gough &Kuwornu - Adjaottor, 2022). After independence in 1957, the government expanded vocational centres offering technical instruction in garment production to supply the emerging textile industry. In the 1990s, dedicated fashion diplomas emerged, offered primarily at polytechnics like Takoradi Technical University.

Ghanaian instructors who had studied abroad structured curricula concentrating on industrial garment construction, pattern drafting, textile science, and manufacturing principles to build skills for the country's garment sector (Anatsui, 2022). By the 2000s, public universities began offering 4 - year undergraduate fashion degrees, incorporating more business and entrepreneurship education as the clothing industry evolved (Abban et al., 2019). However, the technical education model presented pedagogical limitations for nurturing the creative design capabilities that Ghana's fashion sector also required. In summary, early fashion training emphasised technical apparel production skills rather than holistic creative, business, and technology - focused education. Reform efforts continue to better align programmes with industry needs.

While early formal fashion education in Ghana focused on technical apparel manufacturing skills, scholars argue this failed to adequately nurture the creative design capabilities equally important for the industry's growth (Anatsui, 2022; Bekoe & Quartey, 2019). The pedagogical structure and lack of creative learning approaches within technical universities present ongoing challenges for developing well - rounded graduates. Studies found gaps between curriculum content and skills demanded by employers, such as production planning, supply chain management, and creative problem - solving (Osei - Poku, 2012; Owusu - Acheampong et al., 2021). Limited industry collaboration, outdated facilities and technology, and faculty with inadequate practical expertise constrained programme quality and relevance (Ampadu, 2017; Abban et al., 2019). To strengthen Ghana's fashion education ecosystem, researchers recommend reforms to improve experiential learning, modernise resources, foster industry partnerships, and enhance instructor professional development (Bekoe & Quartey, 2019; Anatsui & Dean, 2022). Updating curricula and teaching methods to blend technical strengths with creative, business, and technology skills can better equip graduates to drive success across Ghana's fashion sector.

3. Curriculum Structures in Technical Universities

3.1 Design and Implementation of Fashion Curricula

The development of effective fashion curricula requires careful planning and execution to bridge gaps between education and industry needs. Scholars emphasise beginning with a needs assessment incorporating employer feedback to identify in - demand skills and align learning outcomes (Owusu - Acheampong et al., 2021). Educators can then design competency - based curricula that blend theoretical knowledge and practical application across areas like design, business, technology, and sustainability (Faerm, 2021). Industry advisory boards help ensure market relevance (Bates et al., 2022).

Implementation should phase in changes incrementally and collect student performance data to refine programmes based on evidence (Anatsui & Dean, 2022). Resources must also be allocated for teacher training, facility upgrades, and work - integrated learning to support curriculum integration (Ampadu, 2017). Fashion curricula require flexibility and continual evolution as the industry environment shifts (Jansen & Craik, 2016). Maintaining currency through robust industry partnerships and graduate outcome monitoring is essential for developing graduates ready to excel in diverse fashion careers. A key challenge in fashion curriculum development is balancing the breadth of knowledge required with the depth of skills. Programmes must determine the right scope and sequence to avoid superficial coverage or overspecialization (Faerm, 2021).
Course integration and project - based learning can connect concepts across disciplines. Work - integrated activities like competitions, pop - up shops, and virtual internships also bridge theory with experience (Bates et al., 2022). Furthermore, the rapid pace of change in the fashion industry environment necessitates frequent curriculum reviews and adjustments. Agile course design processes that iteratively test and refine content can enable adaptation (Anatsui & Dean, 2022). Ongoing industry input through alumni surveys and faculty externships provides insight into the emerging roles and capabilities needed. Curriculum renewal should also incorporate assessment data to evaluate graduate outcomes and drive evidence - based reforms. In summary, fashion programmes must take an iterative, partnership - based approach to curricula to ensure long - term alignment with this dynamic professional field.

3.2 Comparison of Curriculum Models

Researchers have analysed the benefits and limitations of various curriculum models in fashion programs. The traditional model founded on garment construction and European design history faces critiques of datedness (Faerm, 2021). Integrated curricula aim to blend business, technology, the humanities, and design but can sacrifice depth (Jin & Ryu, 2019). Competency - based models directly align learning outcomes with industry needs but require robust employer engagement (Anatsui & Dean, 2022). Project - based curricula centred on solving real - world problems provide contextual learning yet pose implementation challenges (Ampadu, 2017).

Modular structures allow combining focused courses but may interrupt sequencing (Bates et al., 2022). While no single curriculum model is universally optimal, programmes must carefully select approaches suited to their niche, resources, and industry landscape. Adaptability is critical, as constant evaluation and renewal are necessary for the dynamic fashion education context (Faerm, 2021). Ultimately, the curriculum must empower graduates with a balance of creative, technical, and soft skills readily transferable to evolving fashion careers. When assessing curriculum models, attention must also be paid to sequencing and progression. Some programmes take a scaffolding approach, building from fundamentals to specialisations (Jin & Ryu, 2019), while others use modular course combinations, allowing more flexibility (Bates et al., 2022).

With either model, mapping out learning pathways and prerequisites is essential to providing structure. Curriculum mapping tools can visualise the sequencing of courses and competencies across years of a program. This helps identify gaps or redundancies in the learning journey (Udegbe, 2022). Mapping curriculum to prospective career pathways for graduates also aids alignment. Additionally, instructional design methodologies recommend beginning with outcomes and assessments before designing curriculum and pedagogy (Faerm, 2021). This reversal helps set clear capabilities that courses and teaching activities are then designed to achieve. In summary, fashion educators have a range of curriculum models and design tools to create customised programmes tailored to their context and student needs. However, adaptability and real - world relevance must remain at their core.

3.3 Focus on Technical Skills and Theory

Fashion education has traditionally emphasised technical skills in garment construction and patternmaking along with theoretical knowledge in design, textiles, and history (Faerm, 2021). However, researchers argue that reliance on Eurocentric technical instruction and rote theory is becoming outdated and misaligned with the capabilities needed for fashion careers (Anatsui & Dean, 2022). While fundamentals remain important, critics contend purely technical curricula do not adequately nurture creativity, cultural understanding, digital literacy, entrepreneurship, and other integral contemporary skills (Bates et al., 2022). Outcomes become overly focused on precise patternmaking and samples versus problem - solving, innovation, and collaboration valued by employers. Educators advocate balancing technical teaching with more real - world, project - based learning, fostering a wider range of abilities applicable in dynamic fashion industry environments (Ampadu, 2017). Programmes must regularly re - assess the mix of hands - on expertise and conceptual knowledge to equip graduates for evolving roles that require a fusion of technical excellence, business acumen, and creative leadership.

To move beyond narrow technical training, educators highlight the value of problem - based and interdisciplinary learning. Challenging students with real - world fashion scenarios and projects encompassing business, ethics, technology, and other domains apply technical skills in contextualised settings and builds cross - functional aptitudes (Faerm, 2021). Some programmes also blend vocational technical education with STEAM (science, technology, engineering, arts, and math) to develop multifaceted creative - technical competencies suited for industry convergence (Chittithaworn et al., 2011). Additionally, integrating complementary fields like marketing, management, and data analytics expands student perspectives while teaching technical skills relevant to those domains, such as visual design and digital tools for marketing campaigns. In summary, fashion curricula must leverage technical foundations through collaborative, experiential, and interdisciplinary learning to allow students to experience diverse professional contexts and build holistic skillsets. The goal is to develop graduates ready to creatively apply both practical expertise and critical thinking.

3.4 Integration of Practical Experience

Hands - on practical learning is critical for transforming theoretical knowledge into applied skills in fashion programs. Researchers emphasise moving towards competency - based curricula centred on industry - relevant outcomes achieved through work - related projects (Anatsui & Dean, 2022). Strategies include assigning real client briefs, site visits, industry competitions, trade show exhibitions, pop - up shops, and collaborative designs with partner brands or stores (Bates et al., 2022). Such experiential activities provide authentic contexts for honing creative, technical, and business acumen. Structured internships and placements supervised by faculty and industry mentors are also vital for developing professional socialisation, networking, and employment readiness (Raelin et al., 2014). Resources must be allocated to cultivate institutional ties with fashion firms that provide rotational opportunities spanning roles in design, merchandising, manufacturing, and marketing. Thoughtfully embedding hands - on learning in the curriculum, supported by strong industry relationships, gives students insight into fashion workflows and skill demands to smooth their transition into diverse careers.

While work - integrated learning is ideal, implementing an effective experiential curriculum faces challenges in scale, logistics, and resources. Thoughtful scaffolding must progressively build the technical and behavioural skills needed for more complex activities (Faerm, 2021).

Reflection and formative assessments should be incorporated to translate experiences into tangible learning outcomes. Finding suitable industry partners and monitoring internship quality also pose difficulties (Raelin et al., 2014). Some programmes address constraints through virtual simulations, retail labs on campus, and in - class consulting projects. Additionally, competitions, trade shows, and pop - up shops should incorporate professional mentoring and structured feedback to maximise learning value. With careful planning, even limited practical learning embedded within courses can provide critical contextualization and motivation. But ideally, programmes take a longitudinal approach with sequenced experiential learning integrated across all years, along with dedicated work terms. Authentic practice opportunities are indispensable for nurturing adaptable graduates ready to excel in dynamic real - world fashion careers.

4. Challenges in Fashion Education

4.1 Lack of Practical Training Opportunities

Insufficient hands - on practical learning is a prevalent challenge limiting the career readiness of graduates from many fashion programs. Researchers find a persistent gap between theoretical coursework and opportunities to apply skills in professional contexts (Bates et al., 2022). Contributing factors include a lack of institutional partnerships to facilitate internships, inadequate on - campus facilities to simulate real - world work, and overloaded theoretical curricula that marginalise project - based learning (Anatsui & Dean, 2022). This results in graduates lacking an understanding of professional standards, business operations, and cross - functional workflows in fashion firms. Students also miss developing key soft skills in communication, collaboration, and critical thinking. Experiential learning activities embedded systematically throughout curricula, along with dedicated work - integrated terms, provide vital opportunities for students to integrate knowledge, build technical abilities, and expand employability skills (Raelin et al., 2014). However, fashion programmes often face resourcing and timetable constraints in providing such applied learning at scale. Creative solutions like virtual internships, consulting projects, and on - campus retail labs can partially compensate, but direct industry exposure remains ideal. In summary, expanding practical training is critical for fashion graduates to transition successfully into dynamic professional contexts.

Bridging the practical training gap requires strategic partnerships and programme design. Internship coordinators who cultivate relationships with fashion firms provide the crucial link for securing quality work - integrated learning placements across various functions (Raelin et al., 2014). These partnerships can also lead to industry - sponsored projects, competitions, and guest lectures that bring real - world learning back to the classroom. Additionally, programmes should scaffold experiential learning, beginning with basic activities like case analyses and projects and leading up to advanced work terms (Faerm, 2021). Reflection and self - assessments help students articulate skills and experiences gained to maximise career impact. With sound coordination, creative strategies, and incremental skill - building, programmes can expand applied learning and develop graduates' confidence and adaptability. However, resource constraints are an ongoing barrier. Securing consistent funding, technology, and staffing for robust experiential curricula requires institutional commitment and strong industry engagement. The long - term benefits for graduate employment outcomes provide a compelling incentive for this investment in quality applied fashion education. While individual programmes can make improvements, addressing this challenge ultimately requires collective effort across institutions, industry, and policymakers. Governments must allocate resources towards fashion education as part of workforce development for the creative economy (Anatsui & Dean, 2022).

Industry associations can coordinate with schools to create centralised internship programmes that distribute opportunities widely. Accreditors should support more flexible, project - based curricula versus rigid schedules focused on theory. With cross - sector collaboration, practical learning can be integrated strategically from the early stages rather than condensed into a capstone. This enables better scaffolding to gradually build technical and employability skills in applied contexts. Educators also note that promoting hands - on cultivation of creative confidence and resilience from the start shapes adaptive lifelong learners, not just competent technicians (Bates et al., 2022). Building these capabilities via participatory learning is key to sustaining fashion graduates' motivation and ability to navigate the field's complex, shifting career paths.

4.2 Outdated Curriculum and Teaching Methods

Fashion educators face the ongoing challenge of keeping curricula and pedagogies updated to maintain relevance in a dynamically evolving industry. However, research shows many programmes still rely on conventional curricula focused on historical Western design principles and rote technical instruction rather than developing a broad range of creative, digital, and problem - solving skills demanded by fashion firms (Faerm, 2021; Anatsui & Dean, 2022). Instructors also tend to apply traditional passive teaching methods like lectures versus experiential and blended learning. These outdated approaches risk producing graduates with competency gaps and a limited ability to adapt as fashion industry practices and technologies continuously change. Scholars advocate modernising curricula and pedagogies through the collaborative development of competency frameworks with industry input, integration of emerging technologies for digital design and manufacturing, fostering creative confidence and resilience, and emphasis on meta - skills like design thinking (Bates et al., 2022). Ongoing renewal based on employer feedback and graduate outcome data is essential to ensuring currency. Providing faculty with industry secondments, new pedagogy training, and peer mentoring can build their capacity to utilise updated teaching strategies tailored for diverse learners entering the fashion workforce.

While updating curriculum and pedagogy is critical, implementing changes in higher education presents obstacles. Entrenched structures and traditions in educational systems can inhibit quick pivots to new content

and teaching modes (Faerm, 2021). Academic calendars and course credits also constrain the modular integration of emerging topics. Additionally, overburdened instructors often lack the time and support to redesign courses based on dynamic industry developments. Some researchers recommend more radical collaborative rebuilding of fashion curricula by educators and industry leaders as opposed to superficial tweaks (Bates et al., 2022). This requires allocating resources for faculty to undertake renewal in partnership with industry advisory committees. Academic leaders must champion dismantling outdated systems and investments in faculty development as crucial for equipping graduates for the modern fashion workforce. Ongoing revitalization of curricula and teaching practices is essential for fashion programmes to deliver dynamic, relevant learning that evolves at pace with this rapidly changing global industry.

4.3 Limited Industry Engagement

Insufficient collaboration and input from fashion industry partners constrain the ability of many educational programmes to align teaching with real - world practices. Researchers cite limited connections for work - integrated learning, outdated perceptions of industry needs, and siloed programme development without employer co - creation (Anatsui & Dean, 2022; Bates et al., 2022). This results in graduates lacking exposure to professional contexts and emerging occupational requirements. Proactive relationship building is needed at institutional and faculty levels to cultivate industry advisory councils, internship networks, sponsored class projects, and faculty externships (Raelin et al., 2014). Joint curriculum planning, student competitions, and exhibits also strengthen programme relevance. However, outreach requires dedicated resources, which are often deficient. Accreditation and institutional policies that inhibit flexible partnerships present additional barriers. Fostering authentic reciprocal engagement is critical but challenging with the industry's fast pace and academia's traditions. Ongoing formal and informal interactions through diverse touchpoints are essential to maximising the industry's vital role in enhancing fashion education.

Strategic partnerships must be cultivated for meaningful industry collaboration. Dedicated liaison roles in schools facilitate relationship - building and coordinating work - integrated activities at scale (Raelin et al., 2014). Providing incentives helps secure consistent employer participation; contributions could include student awards, facility naming rights, and hiring pipelines. Scaffolding opportunities in a coordinated sequence maximises learning, from in - class projects to capstone internships. Seeking diverse company engagement spanning departments and specialisations provides well - rounded exposure. Partnerships within local creative clusters enable place - based, community - embedded learning as well (Faerm, 2021). Programmes should also leverage industry input in formal course design and review processes, not just special events. Overall, fashion leaders emphasise that shared learning vision and sustained, multifaceted collaboration are essential to overcoming transactional partnerships that fail to transform curricula. Close cooperation will enable mutually beneficial outcomes, such as developing work - ready graduates and fresh talent for businesses.

4.4 Skills Gaps and Employability Concerns

Persisting skills gaps indicate issues in developing graduates' career readiness, a key goal of fashion education. Researchers find employers continue to report deficiencies in both technical abilities like patternmaking and digital software use, as well as soft skills such as communication, analysis, and problem - solving (Anatsui & Dean, 2022; Werhan, 2021). This employability gap results from a misalignment between learning outcomes and workplace needs. Proactive competency mapping with industry is required to identify demand for both hard technical and emergent soft skills. Curricula must then be updated to purposefully embed the development of these competencies through applied learning. For educators, instilling creative confidence, adaptability, and life - long learning capabilities enables graduates to upskill as workplace needs evolve (Bates et al., 2022). Assessing learning through authentic industry projects and providing targeted career support are also recommended to strengthen the transition into fashion employment. Ultimately, closing skills and employability gaps require learners, educators, and employers to share accountability for better integrating education and work.

5. Faculty Perspectives and Pedagogical Approaches

5.1 Role of Faculty in Addressing Challenges

Faculty play a critical role in tackling challenges and enhancing the quality of fashion education through their curriculum design, teaching, industry engagement, and leadership. Educators must proactively update their courses and pedagogies to blend technical strengths and creative design thinking with digital literacy, business concepts, communication skills, and global consciousness (Faerm, 2021). Professional development enables instructors to implement active teaching strategies tailored for diverse learners entering the fashion workforce. Faculty connections with industry facilitate securing authentic experiential learning and aligning curricula to employer needs (Raelin et al., 2014). As ambassadors between academia and industry, instructors provide a crucial conduit for reciprocal exchange and partnership. Within institutions, faculty lead efforts in instructional and curriculum innovation, adoption of new technologies, and accreditation enhancement. Their collective voice also informs policy, advocating for greater resources and flexibility in fashion education. Empowering educators with the agency, capabilities, and resources to take active responsibility as change drivers is critical for addressing systemic challenges.

However, faculty face constraints in driving renewal. Heavy teaching loads and a lack of incentives limit time for professional development or redesigning curricula (Jin, 2020). Tenure policies also often undervalue pedagogical or industry engagement contributions. Top - down academic hierarchies can restrict instructor autonomy and leadership in updating programs. Supporting educators with dedicated time allocated for upskilling, course enhancement projects,

and participation in committees facilitates change management. Sabbaticals or job shadowing in industry also help faculty stay current with real - world practices. Building communities of practice enables instructors to collaboratively pilot new teaching approaches and technologies (Faerm, 2021). Institutional policies should elevate the scholarship of teaching and practice - integrated research. Most importantly, recognising faculty as linchpins in the mission to develop work - ready graduates compels investment in their continuous growth and empowerment as change leaders advancing fashion education.

5.2 Effective Teaching Methods in Fashion Education

Research shows active, student - centred pedagogies enhance learning and career readiness in fashion education versus traditional passive approaches. Experiential methods like project - and scenario - based learning grounded in real industry practices provide contextual development of both hard and soft skills (Bates et al., 2022). Blending online and face - to - face learning supports the self - paced acquisition of preliminary knowledge combined with in - person practice and peer collaboration. Design thinking and problem - based frameworks foster creativity, critical analysis, and teamwork valued by employers. Reflective exercises and formative assessments help students articulate abilities gained through experiential activities. Customising instruction and adaptive technologies personalise learning for diverse needs. Ultimately, holistic strategies integrating industry - focused, collaborative, applied, and technology - enhanced experiences equip graduates with multi - dimensional skills and the meta - cognitive abilities to continually adapt and learn throughout their fashion careers (Faerm, 2021). Educators should be supported with pedagogical training and communities of practice to exchange ideas on instruction tailored for emerging industry realities.

5.3 Faculty - Industry Collaboration

Research has consistently shown that there is a strong correlation between student engagement and their learning outcomes. When students are actively engaged in the learning process, they are more likely to retain information, apply knowledge in real - life situations, and develop deeper understanding of concepts. Moreover, engagement encourages independent thinking, creativity, and problem - solving skills, which are essential in today's knowledge - based economy. By improving engagement rates in the education industry, we can enhance the overall quality of education and prepare students for success in their future endeavors.

Faculty engagement with industry partners is vital for enhancing programme relevance, experiential learning, and graduate career outcomes in fashion education. Collaboration ranges from formal curriculum co - development and review to providing guest lectures, facility tours, critiques, and networking opportunities (Bates et al., 2022). Educators often directly coordinate and supervise industry projects, competitions, and student work placements. Faculty professional development through industry secondments, externships, and sabbaticals enables the updating of knowledge on occupational requirements. Such exposure strengthens instructional cases by incorporating real - life company examples across courses. In turn, the industry gains exposure to emerging talent with fresh creativity and technology skills. This reciprocity provides mutual benefits but relies on relationship - building by faculty through their networks and institutional partnerships.

Dedicated liaison roles facilitating sustained faculty - industry collaboration are recommended, along with policies supporting instructors' professional engagement. Close cooperation is crucial for fashion education to be responsive to this rapidly evolving industry's workforce needs. While crucial, faculty - industry engagement faces ingrained barriers on both sides. Educators struggle to balance teaching demands with pressure to focus on research in traditional academic reward systems (Jin, 2020). Companies may be hesitant to invest time in uncertain outcomes from collaborating. Bridging differing paces and priorities is challenging. Improving engagement requires addressing deterrents and culture gaps. Developing centralised coordinating roles in schools focused on partnerships could more evenly distribute relationship management across faculty (Raelin et al., 2014).

Recognition and incentives for collaborative work in tenure and promotion would motivate engagement. Streamlining legal arrangements for activities like internships facilitates participation. For industry, presenting collaboration as a talent pipeline and recruitment strategy provides concrete benefits. Incremental, flexible interactions through guest talks and facility tours offer lower - commitment starting points to build rapport. Sustained, multi - channel, and mutually rewarding faculty - industry collaboration is essential for a responsive curriculum and maximising fashion graduates' career potential.

6. Industry - Academia Partnership

6.1 Importance of Industry Collaboration

The industry provides employment opportunities to millions of people worldwide, from designers and artisans to retail workers and logistic experts, the fashion industry has a strong influence on the global supply chain, as it relies heavily on international trade and the sourcing of raw materials. Authentic engagement with fashion industry partners is critically important for ensuring curriculum relevance, expanding experiential learning, and strengthening graduate career outcomes. Joint development of competency frameworks aligns programmes with occupational needs (Anatsui & Dean, 2022). Companies provide guest lectures, facility tours, and project mentoring, offering students real - world perspectives. Direct industry feedback through focus groups and surveys helps adapt curricula to emerging skill demands. Work - integrated learning opportunities like internships facilitate the application of knowledge and exposure to professional environments. Hiring partnerships gives companies access to fresh talent and new technological abilities. Ultimately, sustained collaboration enables fashion education to be agile and responsive to the rapid evolution of this global industry.

However, meaningful engagement requires relationship - building, alignment of priorities between academia and industry, and institutional policies that incentivize partnerships. Close cooperation is essential but challenging due to differing paces and pressures. Creative solutions can realise the vital synergies between education and industry for developing work - ready graduates.

While crucial, substantive industry partnerships face barriers in academic culture and schedules. Faculty often lack time or incentives to engage externally amidst heavy course loads and tenure requirements, valuing research over practice (Jin, 2020). Companies may be deterred by legalities surrounding activities like internships. Bridging the gap between classroom and real - world practice takes dedication. Strategic solutions involve developing institutional partnership coordinators to cultivate relationships and coordinate work - integrated programmes at scale (Raelin et al., 2014). Recognition and funding to support faculty engagement in curriculum co - design, student exhibits, and other joint initiatives assist collaboration. Staging informal events like industry speakers and networking builds bonds. Ensuring student preparation for applied learning opportunities maximises benefits for company partners. Ultimately, win - win engagement relies on shared vision, flexibility, and the integration of diverse interaction models spanning guest talks, capstone projects, consortia, and more. Sustained, mutually beneficial industry collaboration enables fashion programmes to fulfil their crucial mandate of developing creative talent equipped to drive success and innovation across a dynamic global sector.

6.2 Internship Programmes and Industry Exposure

Internships and work placements provide invaluable industry exposure and enable students to integrate academic learning into professional contexts. Structured programmes applying course concepts in real - world practice facilitate the development of occupational skills and understanding of workplace norms (Raelin et al., 2014). Mentorship from company supervisors augments faculty guidance. Internships also strengthen networks and employability. However, quality oversight by educators is crucial, ensuring meaningful projects versus basic assistance roles. Resources are needed to coordinate placements, coach students, and track outcomes. Partnerships with diverse fashion firms give breadth across functions from design to production to merchandising. Virtual formats expand access, although they lack immersion. Embedment within curriculum maps that scaffold industry engagement from projects to capstones maximises benefits. When thoughtfully implemented, work - integrated learning enables fashion graduates to transition into the workforce with confidence and provides industry access to emerging talent. However, institutional commitment and support systems are essential for managing this complex process.

While high - impact, quality internship programmes require substantial coordination and partnerships, Educators need dedicated time for relationship - building with firms, structuring meaningful projects, preparing students, and providing mentorship (Raelin et al., 2014). Developing centralised administrative systems for internship management across faculties streamlines processes and distributes the workload. Clear learning agreements, training for company supervisors, and ongoing student reflection enhance educational rigour. Virtual simulated work experiences can scaffold skills where in - person placements are limited. Student support with transportation and costs helps reduce barriers to participation. Companies also need guidance on providing impactful experiences for interns versus solely beneficial project outputs. With strong design, support, and sharing of responsibilities, internships offer irreplaceable applied learning and industry connectivity. However, institutional resources and policies must enable faculty and staff to focus efforts towards internship programme development, management, and continuous improvement.

6.3 Benefits of Aligning Curriculum with Industry Needs

When considering roles within an organization, companies often rely on job descriptions based on skills, tasks and responsibilities. Competency mapping brings full context to the role and allows organizations to define their talent needs while providing a transparent process for employees wanting to improve their performance or move up in the company. Closely aligning the fashion curriculum with current and emerging industry needs is vital for developing graduates prepared for real - world practice. Collaborative competency mapping ensures learning outcomes match workplace requirements (Anatsui & Dean, 2022).

Direct industry input helps integrate instruction in software, technologies, compliance practices, and soft skills demanded by fashion roles. Market - relevant programmes are more likely to gain enrollment and employer endorsement while promoting graduate hireability. Students gain motivation by understanding how learning applies to careers. For industry, aligned programmes supply work - ready talent with technical abilities and professional acculturation. They also provide a talent pipeline for recruitment. Partnerships on curriculum planning and review establish channels for ongoing reciprocal exchange between educators and fashion professionals to maintain currency. However, co - creation relies on sustained engagement, the allocation of faculty time, and agile course design processes. Mutual dedication is essential for cooperatively developing education that equips graduates for success while meeting firms' needs for skilled creative workers.

While crucial, aligning learning with fast - moving industry trends is an ongoing challenge. The fashion workplace needs to evolve rapidly, while academic structures and approval processes hinder quick adaptation. Bridging differing paces and priorities requires innovative solutions. A modular, future - oriented curriculum model focused on developing adaptable abilities could provide some agility (Faerm, 2021). Content pooling through online repositories also allows mixing current topics into courses. Dual advisory boards one for long - term direction and another for emerging skills could identify strategies for integrating near - term demands within larger frameworks. Ultimately, work - relevant education relies on a holistic partnership and exchange. Industry input should inform assessments, experiential learning design, and extracurricular offerings alongside

formal curriculum. Sustaining engagement through varied touchpoints and channels allows curriculum alignment to be an ongoing process rather than a one - off audit. Reciprocal dedication between educators and fashion professionals is essential to equipping graduates with dynamic capabilities that meet emerging industry needs.

7. Regional and Global Perspectives

7.1 Comparison with Fashion Education in Other Countries

Fashion education has evolved distinct models and focuses reflecting the local cultural and industry contexts in different countries. Western fashion capitals like France, Italy, and the UK remain renowned for prestigious design institutes built on a heritage of couture, tailoring, and luxury production (Faerm, 2021). The United States provides diverse offerings, from art - focused to technology - driven curricula, enabled by substantial private funding. Developing fashion economies like China, India, and Nigeria emphasise building technical capabilities and scaling vocational training aligned with manufacturing and retail sectors (Anatsui & Dean, 2022).

Government initiatives as well as private academies shape the landscape. Insights can be gained through comparative analysis of curricula, teaching methods, industry linkages, and graduate outcomes. However, transferring practices between countries requires adaptation for cultural fit and education systems. While local relevance is essential, global awareness and borderless collaboration enabled by technology are increasingly crucial as fashion transcends geographic boundaries.

Regional distinctions in fashion education reflect local cultures, strengths, and industry ecosystems. Programmes in fashion hubs like Paris and London emphasise conceptual design and pure creativity rooted in their avant - garde history. Technical skill building prevails in China's mass manufacturing context. India's focus trends towards bridging artisanal craft with technology and entrepreneurship (Chithra, 2022). In size and format, micro - credentials and technical degrees lead in price - sensitive markets, while prestigious master's degrees maintain repute in established fashion centres. However, globalisation and digitalization increasingly transcend geography. Collaborative projects allow students to experience fashion's multidomestic and cross - border dimensions. Virtual internships offer access beyond the physical location. Shared online resources democratise preliminary knowledge. Ultimately, developing creative professionals adept at navigating global complexity while retaining local relevance is a priority across fashion education worldwide.

7.2 Best Practices from International Institutions

Historically, universities have adopted a “sink or swim” approach with their hiring of fashion design faculty. After years of professional experience, these new faculty enter classrooms without pedagogical training and are expected to succeed as educators. However, designing apparel and educating students require significantly different skill - sets. The faculty’s challenges are increased due to the seismic shifts occurring in American fashion design education, the rapidly evolving student generation, and the increasingly volatile professional world for which students must be trained. The lack of faculty’s pedagogical preparation negatively impacts the program, graduates’ academic preparation, and ultimately the fashion design professional practice and industry. The need for faculty to acquire advanced fashion design pedagogy skills is particularly dire due to shifting global economies. Increasingly, traditional fashion centres such as New York City’s Garment Center, are uprooting their production facilities to less expensive facilities in China, India, and other nations.

When the design process no longer shares close adjacencies to the garment making, questions around the future designer’s role in local and global economies surface. To successfully prepare and evolve their roles, fashion design must adopt larger, broader “lenses” through which the larger systems is viewed. Furthermore, fashion designers must remain cognizant of the “hows” and the “whys” for these micro - and macro - economic changes.

Leading fashion schools worldwide offer exemplars of curriculum, teaching methods, technology integration, and industry partnerships. Institutions like London College of Fashion and Parsons emphasise project - based learning replicating real workplace scenarios (Faerm, 2021). Their industry collaborations enable access to technology like digital knitting machines and wearable tech, which are unavailable in most schools. FIT and Savannah College of Art & Design have integrated adaptive learning technologies and note - sharing mobile apps to personalise instruction. Acclaimed programmes at Central Saint Martins and Antwerp Royal Academy offer progressive learning pathways across diploma, bachelor's, and master’s levels. Many top institutes partner with nearby fashion firms to coordinate robust internship and job placement pipelines. However, replicating international best practices requires adaptation to local contexts and education systems. However creative borrowing from pioneers helps advance fashion pedagogy, resources, and experiences to equip graduates with dynamic skillsets for the globalised fashion industry.

While leading institutes offer inspiration, adopting their practices requires customization. Interactive online forums like Parsons’ OpenLab, which enable student knowledge exchange, rely on advanced technology ecosystems. The intensive industry internships integral to London fashion programmes depend on a concentrated geographic cluster of major fashion firms. Small group mentorship models piloted at Accademia Costume & Moda in Italy may not translate easily to mass education contexts. However, adapting components can advance local fashion education. For instance, Parsons’ transdisciplinary curriculum framework could be integrated in part. Elements of project - based learning approaches common in progressive Western institutions could be blended with available resources. Partnerships with regional industry associations might open doors to sharing limited technologies. Ultimately, international benchmarking should identify adaptable principles versus specific practices to implement. Local relevance and needs must drive fashion education, while

global perspectives and selective best practices adoption guide institutions towards innovative, future - forward learning.

7.3 Lessons Learned and Applicability to Ghana

As a developing fashion hub, Ghana can adapt insights from global fashion education experiences to strengthen its ecosystem while retaining local relevance. Practices that align curricula with dynamic industry needs through regular review and modular course structures could address gaps reported between Ghanaian fashion programmes and employers (Anatsui & Dean, 2022). Integrating project - based and work - linked learning models leveraged effectively abroad might expand practical opportunities constrained locally by resources. Faculty training programmes implemented in leading schools worldwide could build instructional capabilities. However, global practices require localization for implementation in Ghana's educational and socio - economic environment. Strategies should be piloted and outcomes assessed to determine fit and impact. Partnerships with industry and international institutes can support the adaptation of globally emerging technologies and teaching practices. Ultimately, lessons from abroad should be selectively applied to address local challenges, guided by data and stakeholder input, to develop Ghanaian fashion education for long - term relevance and quality.

When applying global learning, cultural context and local resources must guide adaptation. For example, virtual internships adopted abroad to expand work - integrated learning may not suit areas with limited internet access. Ghana's indigenous fabrics and production methods could be integrated more deeply rather than adopting pan - African or Western - led decolonization models. Partnering with diaspora designers and fashion professionals globally could enable knowledge transfer to Ghanaian institutes. Policy innovations like accrediting faculty and industry experience from other countries could incentivize engagement. Ultimately, nuanced indigenization is essential for successfully adopting global best practices. Local fashion education leaders must assess lessons learned from benchmarking initiatives through the lenses of Ghanaian culture, creative vision, youth demographics, and policy climate. Blending international inspiration with homegrown solutions can power fashion education in Ghana to develop relevant talent and enable sustainable national industry growth.

8. Conclusion

8.1 Summary of Key Challenges in Fashion Education

This review synthesises the major challenges identified across the literature on fashion education. Persisting skills gaps indicate a misalignment between learning outcomes and occupational requirements, with both technical and soft skills deficiencies reported by industry (Anatsui & Dean, 2022; Werhan, 2021). Outdated curricula and pedagogies also lag behind emerging career contexts, technologies, and practices. Insufficient opportunities for experiential learning fail to provide critical real - world application of concepts (Bates et al., 2022). Limited industry connections further constrain currency, work - integrated learning, and employment pathways. Resource constraints impede facilities, technology access, and practical experiences in many programs. Ultimately, these issues risk graduates lacking the full range of creative, digital, interpersonal, and cognitive - behavioural capabilities demanded within diverse, dynamic fashion industry roles and environments locally and globally. Substantive solutions will require multi - stakeholder efforts to bridge gaps between education and employment.

While concerns persist, promising solutions are emerging. Curriculum innovations integrate project - based learning, industry - sponsored competitions, and virtual simulations to expand applied learning and skill - building (Bates et al., 2022). Modular course structures and micro - credentials increase flexibility and focus. Efforts to globalise perspectives while retaining local grounding aim to develop versatile talent. Technologies are being harnessed to enhance access, collaboration, design, and production. Faculty development and communities of practice support the adoption of progressive pedagogies. Policies advocating for greater funding, industry integration, and accreditation changes also seek to enable institutional improvements. However, achieving systemic impact requires ongoing cross - sector dialogue and coordinated efforts. Fashion education must be reconceptualized as an adaptable ecosystem engaging stakeholders across academia, industry, government, and the community. Continued research, global benchmarking, and partnership are crucial for envisioning and enabling a future - oriented paradigm that produces graduates ready to succeed in and shape fashion's dynamic global opportunities.

8.2 Gaps in the Existing Literature

While extensive scholarship analyses fashion education, certain gaps in focus and perspective emerge from this literature review. Few studies have incorporated comprehensive employer feedback to identify skill demands and alignment with curriculum (Anatsui & Dean, 2022). Student voices are also lacking in fashion programme experiences and outcomes. Quantitatively assessing the hiring, wage, and career trajectory data of graduates could strengthen the understanding of education - to - employment linkages. Comparative analyses of pedagogies and learning pathways across institutions nationally and globally are needed to benchmark best practices. Research on effective models and policies for faculty development, industry partnerships, and work - integrated learning remains limited, especially in developing country contexts. Studying the transferability and impact of the innovative practices proposed requires further investigation. Longitudinal studies tracking curriculum interventions over time are also scarce. Addressing these underexplored areas through multi - perspective research is critical for making enhancements across the interconnected fashion education ecosystem.

8.3 Implications for Future Research

This review reveals several implications for future research needed to advance understanding of how to strengthen fashion education and address persistent gaps. Studies

incorporating surveys and focus groups with diverse industry stakeholders could provide richer perspectives on desired graduate competencies and programme improvements (Anatsui & Dean, 2022). Investigating successful policies and models for faculty development and industry partnerships in developing countries' contexts merits focused research. Quantitatively assessing student career outcomes longitudinally post - graduation could better determine curriculum effectiveness. Comparative analyses of pedagogies and experiential learning designs across institutions may identify best practices for customization. Research measuring the impact of proposed solutions could inform evidence - based enhancements. Further applied studies on adaptations required for new technologies and teaching modes to work in resource - constrained environments are needed. Scholarly discourse would also benefit from more student voices evaluating fashion programme experiences. Filling these research gaps with multi - perspective, longitudinal, and outcomes - focused studies is critical to guiding strategic improvements in fashion education.

8.4 Recommendations for Addressing Challenges

To address persisting issues, stakeholders across the fashion education ecosystem must pursue collaborative solutions. Developing industry partnerships for competency mapping, experiential learning, and curriculum input is vital for alignment (Anatsui & Dean, 2022). Programmes need resources to globalise perspectives, integrate new technologies, and update facilities. Pedagogical training and communities of practice will support faculty in implementing progressive methods. Modular curricula with stackable credentials boost flexibility, while scaffolded project - based learning builds job skills. Accreditors should support reform and innovation. Government and institutional policies must provide incentives and funding to seed changes. Solutions should be piloted and outcomes assessed to determine effectiveness and scalability. While individually each group faces constraints, collectively stakeholders can transform fashion education through cooperation. Shared dedication to developing creative graduates ready to succeed in and evolve this dynamic global industry is imperative.

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