

# Fashion Praxis Experiences of Persons with Visual Impairments: A Case of Selected Visually Impaired Students in Ghana

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**ABSTRACT:** *The fashion industry is gradually transforming to become more inclusive for individuals with disabilities. This exploratory research provides practical experiences in selected fashion skills for individuals with visual impairment through an intervention project. Through observation, this qualitative case study research uncovers the fashion skill potentials of visually impaired (VI) students. The study employed the purposive and convenience sampling techniques to select fifteen (15) visually impaired students. The participants went through hands-on training in selected fashion skills after a skill need assessment was conducted. The participants received the intervention aimed at empowering and transforming their experiences in fashion. At the end of the training, participants were able to produce fashionable items at different competent levels. The findings indicates that individuals with visual impairment have the potential of engaging in fashion when guided with the right assistance and technology. The advocate for stakeholders to support individuals with visual impairments with fashion skills can help foster inclusivity, enhancing the overall experience for visually impaired individuals whilst providing job opportunity for trainers and trainees.*

**KEYWORDS** – *fashion, hands-on practice, skill, training, visually impaired*

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## 1. INTRODUCTION

The world of fashion has long been criticized for its lack of inclusivity and accessibility, particularly for the persons living with visual impairments. Visual impairment, innate to human variability, has emerged as a significant disability category and a global societal concern (Stevens et al., 2013). The World Health Organisation (WHO) (2020) stated that vision impairment poses a significant global financial burden, with the annual international costs of productivity losses estimated between US\$ 294.4 billion and US\$ 635 billion. The report further indicated that 43% of the global records of persons living with visual impairments are residing in Africa. In Ghana the 2021 population census report indicates that about 1.2 million out of 30.8 million of the populace suffer some form of vision impairment (GSS, 2021). Evidence from previous records shows that in twelve (12) out of the sixteen (16) regions, over four (4) in every ten (10) individuals with disabilities are visually impaired. Of the 288,868 school-aged individuals with visual impairments, only 6.5% have attended second-cycle education, while 40.1% have never had formal education (GSS, 2014). It was further reported that almost 260,000 people with visual impairments in Ghana do not complete secondary school. As a result, most children with vision impairments are left behind in mainstream classrooms and become invisible. This situation extends into Ghana's fashion industry where the visually impaired seem to be marginalized in experiencing fashion in praxis.

Report from WHO (2019) indicates that globally, there are over 2.2 billion persons who have visual impairments. These individuals often face significant barriers in accessing fashionable and functional clothing. The fashion industry's failure to cater to this demographic not only perpetuates social exclusion but also overlooks a significant market opportunity. Hands-on training in fashion skills for individuals with visual impairments is a vital area of research that emphasizes inclusivity and skill development. Study by Dassoler et al. (2023) highlights the importance of sensory experiences, technology, and tailored training programmes to enhance the fashion industry for visually impaired individuals. This approach not only fosters independence but also enriches their engagement with fashion.

Silva et al. (2014) specifically directed the concerns to education and the world of work (workplace) to support this emerging issue. Visual impairment affects colour perception, visual field (the area that can be seen without rotating one's head), and visual acuity (the sharpness or clarity of vision) (Bornman et al., 2021). The challenges faced by visually impaired individuals, such as issues in formal education and a lack of exposure, contribute significantly to the emergence of a skill gap. These challenges act as antecedents, shaping the outcomes for visually impaired (VI) individuals and resulting in limited skills (Al-Refi & Al-Gashany, 2017).

The Organization for Economic Co-Operation and Development (OECD) considers education a powerful lever society can rely on to be more equitable (OECD, 2007). Thus, the highest-performing education systems "combine quality with equity" (OECD, 2012). Quality education contributes to the holistic development of critical thinking, creativity, and social skills, which are essential in navigating an increasingly complex world (Chand, 2024). This multifaceted concept (quality education) provides the foundation for personal and professional development, enabling individuals to acquire knowledge, skills, and values that are essential for success in life. Ijov, et al. (2022) also noted that quality education provides the necessary knowledge and skills to drive economic, social, and human resource development.

The concept of inclusion and the strives to reducing inequality is enshrined in the Sustainable Development Goal (SDG) 4 and 10. This aims at promoting social, economic and psychological independence among individuals with impairments. Education is highlighted as a fundamental element in human resource development, capital formation, and the production of responsible citizens, especially in the context of globalization and the knowledge economy (Shragina & Meerovich, 2023). In 2012, the National Disability Services (NDS) in Australia reported that the educational system prevents young people with disabilities from achieving their full potential and leading lives of extraordinary accomplishment and independence (NDS, 2012). Everyone including individuals with disabilities needs one form of education or the other.

Ocloo et al. (2002) traced the motive of inclusive education in Ghana and asserted that schools for individuals with disabilities were set up primarily to educate them live as normally as possible. The focus for educating individuals with disabilities was, therefore, meant to socialise and integrate them into the world of non-disabled persons to foster mutual understanding between the non-disabled and the disabled individuals. However, this form of education does not prioritize giving students with disability vocational and technical skills, including fashion skills, to equip them for their future in cases where employers are not willing to adhere to directives from the Commonwealth Human Rights Initiative (CHRI) (2007). Hence, due to the gap in vocational and technical training of these people, persons with disabilities were not considered potential members of the workforce.

The lack of a comprehensive policy on disabilities and inclusive education, the unwillingness to commit adequate resources, and the current lack of effective coordination between departments and agencies' efforts to address the issues cited collectively pose severe threats to any real advancement promoting successful inclusive opportunities or outcomes for individuals with visual impairment (Camacho-Zuñiga et al. 2023; Dube, 2022; Botts & Owusu, 2013). These deficiencies may be attributed to issues of the curriculum and lack of support systems to train and implement programmes that supports individuals with visual impairments.

If the person with a visual impairment suitably receives appropriate support at an appropriate time, it can be a barrier if the necessary support is not timely provided (Bornman & Louw, 2021). Through leveraging their remaining natural senses, people with visual impairments may be able to access information that would often be obtained by vision. The visually impaired can learn about colour variations in addition to learning that it is a

quality of things or scenes that differs from other sensory attributes they have observed (Niveathita & Vinita, 2021).

Empirical evidence from literature suggests that vocational training in fashion-related concepts appear missing for individuals with visual impairment training (Ito, et al. 2022) with visually impaired denied access to this type of training. Additionally, there is a gap between skilled facilitators (Ngalim, 2019) and assistive technology provision to facilitate the training of the visually impaired. The systems available seem not supportive enough for such individuals hence, leading the visually impaired enroll into general courses. These may be attributed to weak technical/vocational knowledge and skill training for the visually impaired in fashion. It appears existing training focus on traditional handicrafts. These records signal that not much seems to be achieved despite interventions made by the government of Ghana to support individuals with disabilities. Additionally, lack of adequate research on the need assessment of the visually impaired in fashion education and insufficient training programmes to help the visually impaired secure suitable employment (self-reliance) are also among the issues that hinder the visually impaired from enrolling into fashion related training programmes. Despite the inherent obstacles, there is a growing recognition of the potential of visually impaired individuals contributing to the fashion industry through the selection of unique skills, creativity, and innovative approaches.

It has therefore become necessary for stakeholders to holistically examine unique fashion skills that can be conveniently performed by individuals with visual impairments at all levels of education where applicable to assist the visually impaired balance their social and economic life. Educational initiatives are essential to equip visually impaired individuals with the skills needed to navigate fashion choices effectively, addressing the accessibility challenges they face (Choi, 2024). Hence, this study reports on a training of selected visually impaired students with fashion skills through an intervention project.

## **2. REVIEW OF RELATED LITERATURE**

### **2.1 Fashion Skills for Visually Impaired**

The realm of fashion, renowned for its fusion of artistic expression and artisanal craftsmanship, transcends traditional notions of ability and disability, offering a platform wherein individuals with visual impairments can uniquely shine (Lima Júnior & Zuanon, 2016). This confluence reflects the remarkable capacity of human creativity and tactile proficiency to rise above the constraints of physical limitations (Belova, 2022). For instance, with the focus on providing detailed audio descriptions of collections to visually impaired attendees, fashion shows seem to be gaining momentum. Designers collaborate with audio specialists to create narrations that describe colours, patterns, and textures in an engaging manner. Study by Luebs et al. (2024) indicates that visually impaired employ varied materials and techniques to plan their work and sometime engage the sighted persons to enhance their crafting experience. Additionally, accommodations such as noise-cancelling headphones are used to ensure a distraction-free experience, enhancing the overall enjoyment of fashion events for very important persons (VIP). Organizations like the National Rehabilitation Training Centre (NRTC) in Ghana have developed training programmes that equip visually impaired individuals with the skills necessary to succeed in the fashion industry. Fashion skills that individuals with visual impairments adeptly engage in include:

#### **2.1.1 Beadwork and the Visually Impaired**

Beading is a craft that involves stringing small beads onto threads or wires and using them to create intricate patterns or designs. Visually impaired individuals excel in beading by utilizing their heightened sense of touch and spatial awareness to manipulate and position the beads, relying on tactile feedback to refine their work (Hirayama & Kimura, 2011). Beadwork, involving the meticulous threading of diminutive beads onto strings and their adhesion to fabrics to form elaborate designs, becomes an art form where visual impairment becomes an asset. Those with visual impairments adroitly harness their heightened tactile acuity and spatial cognition to craft intricate beadwork. The tactile feedback from their creations serves as both a guide and a muse, culminating in refined and evocative pieces (Hirayama & Kimura, 2011). Srimitha and Divya (2024) submit that innovative technologies are being explored to create garments that offer both tactile richness and interactive functionalities.

#### 2.1.2 Hand Stitching and the Visually Impaired

Hand stitching refers to the process of sewing fabric pieces together by hand. It encompasses various stitch types, including the running stitch, backstitch, and embroidery stitches. Those with visual impairments master hand stitching by relying on precise tactile feedback, creating garments and accessories focusing on quality and individuality (Giles et al., 2018). Proficiency in hand stitching, a spectrum encompassing many stitch types such as the running stitch, backstitch, and intricate embroidery stitches, emerges as a cornerstone of fashion craftsmanship attainable by individuals with visual impairments. Through precision and tactile feedback, they meticulously fashion garments and accessories distinguished by quality, individuality, and a palpable sense of artistry (Giles et al., 2018).

#### 2.1.3 Sewing Machine Operation and the Visually Impaired

Operating a sewing machine involves using a machine to stitch fabric pieces together efficiently. Modern sewing machines equipped with tactile guides and auditory cues make it accessible to those with visual impairments, allowing them to produce high-quality textiles and clothing over time (Giles et al., 2018). Competence in the operation of sewing machines becomes well within reach for those with visual impairments, thanks to the advent of modern machines thoughtfully equipped with tactile guides and auditory cues. These features facilitate tasks such as threading and stitching, enabling visually impaired seamstresses to weave together fabrics into textiles and attire of commendable standards (Giles et al., 2018).

#### 2.1.4 Accessory Design and the Visually Impaired

Accessory design encompasses the creation of fashion accessories such as jewellery, handbags, hats, and scarves. Visually impaired artisans excel in this area by leveraging their tactile expertise to incorporate intricate details and artistic elements into their designs (Giles et al., 2018). Alsabhi (2025) believe this approach allows visually impaired persons to actively participate in the design process. Fashion, transcends mere attire, embracing accessories encompassing jewellery, handbags, hats, and scarves. Within this realm, visually impaired artisans flourish, capitalizing on their tactile expertise to infuse intricate details and artistic finesse into their creations, crafting pieces that resonate with a unique blend of functionality and style (Giles et al., 2018).

#### 2.1.5 Weaving and the Visually Impaired

Weaving involves interlacing threads or yarns to create fabric or complex patterns. Visually impaired artisans can excel in weaving by using tactile markers and guides to assist in the precise placement of threads, enabling the creation of fine textiles and accessories (Giles et al., 2018). The art of weaving, entailing the harmonious interlacement of threads or yarns to birth fabric or intricate patterns, emerges as a domain in which visually impaired artisans can truly excel. Through the astute incorporation of tactile markers and guides, this craft becomes accessible, with the resulting synergy of touch and creativity allowing for the production of exquisite textiles and accessories (Giles et al., 2018).

### 3. METHODS

This study adopted the qualitative research approach and the case study research design to describe and interpret findings. Qualitative research relies on diverse sources to generate data. The case study approach was chosen for this study because the design was required to sufficiently describe, interpret and analyse the data collected on the subject under study. This approach has been widely used by researchers interested in qualitative study (Yazan, 2015; Baskarada, 2014). The study employed the purposive and convenience sampling techniques to recruit fifteen (15) visually impaired students in a practical hands-on training programme in fashion. This group formed the core group to receive the training in fashion. Observation guide was the main instruments used for this study. Participants were observed during the training session and findings were recorded and reported based on the themes that supported the study.

Prior to field data collection, the researcher conducted a basic skill need assessment to ascertain the kind of skills in fashion that can be conveniently performed by the participants. This delimited the study since the

fashion industry has broad fields for individuals to learn from. Ethical clearance was sought from the Humanities and Social Sciences Research Ethics Committee (HuSSRECC) in Kwame Nkrumah University of Science and Technology, Ghana. Approval was also sought from the Department of Special Education in the University of Education, Winneba where participants have enrolled on different programmes. The study participants were briefed on the intervention and their consent were sought. Out this training. Experts in managing individuals with disabilities and fashion (Milliners, lecturers with Clothing and Textiles and entrepreneurship training backgrounds) were contacted and recruited as research assistants. Data collection was carried out mainly by the researcher with the support of eight (8) research assistants.

To ensure participants safety, a suitable environment (Clothing Laboratory in the University of Education, Winneba) was used for the training. The layout, ventilation, lighting, posture and other safety precautions to note by the participants were checked. Data was gathered through the use of photographs, videos and audio recordings. Data collection lasted for six (6) months. Observed data were checked, reviewed and organised into themes for further analysis. At the end of the training, participants products were exhibited and evaluated.

#### **4. PRESENTATION OF FINDINGS**

##### **4.1 Fashion Skill Needs of VI**

The intervention was justified by a need assessment approach carried out to find out the experiences of the VI in fashion. Participants generally indicated they lacked exposure and hands-on experience in fashion. Participants reported of lack exposure to sewing either by hand sewing or use of sewing machine; accessory making. However, one participant indicated he was exposed to weaving of basket at the rehabilitation centre he schooled. After a thorough interaction and review by the experts, skills deemed applicable were converted into units of competency for easy assessment and data analysis. Skills found applicable for the study participants included:

- Practicing sewing by the use of the hand needle
- Practicing sewing by the use of a sewing machine
- Fascinator making
- Beadwork/Beading
- Macramé
- Mandala Making
- Floral Arrangements

This finding necessitated the need to plan and implement an intervention programme dubbed “Fashion Skill Acquisition Training for Visually Impaired”. Hence, participants were engaged and trained with these skills.

##### **4.2 Experimental Workshop-based Training in Selected Fashion Skills for Visually Impaired**

This section presents the findings from hands-on fashion skill training received by fifteen (15) VI participants. The study established that VI participants lacked the exposure to fashion skill acquisition hence, a hands-on training session was conducted for the visually impaired. VI participants received training on areas including: Stitching using the Hand Needle; Stitching using the Hand Sewing Machine; Fascinator Making; Beadwork; Macramé; Crocheting/Mandala Making and Floral Arrangements. The summary from observations made during the training sessions are presented in Table 1.

**TABLE 1:** Observations from Fashion Skill Training for Visually Impaired

<b>Fashion Skill</b>	<b>Observation</b>
Stitching by the use of the Hand Needle	Participants were able to perform this task successfully.
Stitching by the use of Hand Sewing Machine	Participants were able to perform this task successfully.
Fascinator Making	Participants were able to perform this task successfully.
Beadwork	Participants were able to perform this task successfully.

Macramé Crocheting/Mandala ***	Participants were able to perform this task successfully. Participants <b>could not</b> perform this task as expected. Only one was able to form chains with the wool. Hence, Mandala making was introduced. Participants were able to perform this task successfully.
Floral Arrangements	Participants were able to perform this task successfully.

The results from Table 1 indicate that apart from crocheting, participants were able to perform all the fashion skills they were introduced to. It was observed that participants generally demonstrated interest in practicing how to stitch using hand needle and how to use the sewing machine. Participants demonstrated their creative abilities with the making of projects such as necklace, earrings, key holder from beads. These were evidence during the practical session (Refer to Fig. 1-6).

This study was carried out to identify some skills in a fashion that can be conveniently performed by individuals with visual impairment through a step-by-step demonstration of each project. It stemmed out from the result that participants were able to practice fashion skills they were taught. However, on crocheting, it stemmed out from the session that most participants had challenges forming chains with the crochet hook. Only one participant was able to form chains with the hook given. The challenges participants had with the skills in crocheting were anticipated since the formation of loops to create chains required strategic positioning of the crochet hook to, for the designer to pick. This implies that not all skills can be conveniently learnt by visually impaired. So, in order to make use of the excess woollen thread that participants could not use during the crocheting, the researcher introduced VI participants to Mandala making.

#### 4.2.1 Products from the Hands-on Training

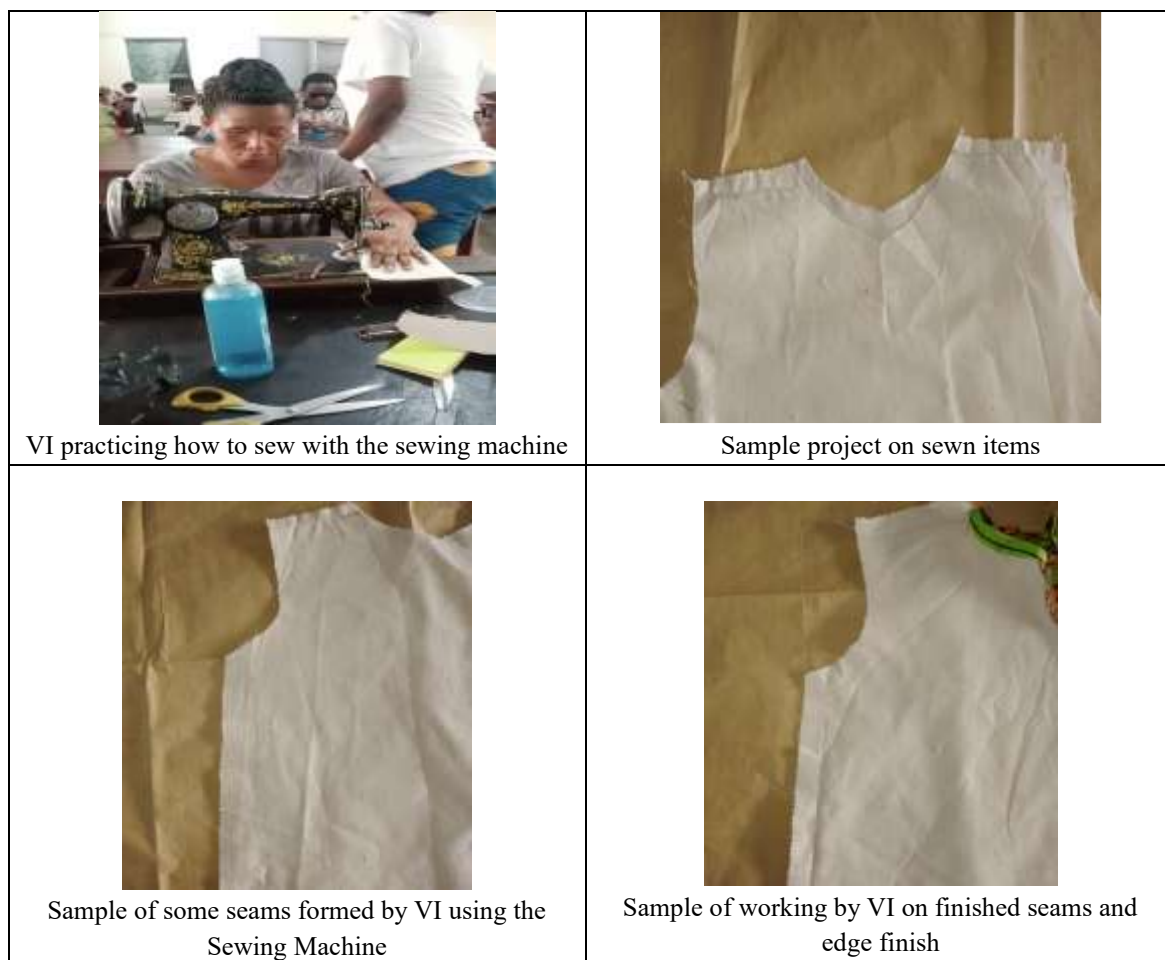
The hands-on training programme has proven to be a transformative experience for the VI, empowering them with the knowledge and expertise needed to create a diverse array of stunning fashion products. Through this comprehensive training, the VI participants have honed their craft and acquired invaluable skills that enable them to craft exquisite and fashionable items. Starting with the practicing of sewing by the use of hand needle and sewing machine, participants demonstrated their creative skills in sewing. These skills were necessary to support other creative creations. Visually impaired participants further showcased their skills in beadwork, fascinator making, mandala making, macramé and floral arrangements. The items encompass a variety of styles and techniques, showcasing the versatility and talent of the VI. These products were developed by participants, with the training given to them by the facilitators.

#### 4.2.2 Practicing how to sew by use of Hand Needle and Sewing Machine

The training required that VI participants learn how to thread and sew with hand needle and sewing machine. The participants demonstrated their interest in these and practiced these skills as expected. Evidence of practice is shared in Fig. 1 with links and pictures.

VI Practicing how to Sew by the Use of Hand Needle and Hand Sewing Machine	
<a href="https://drive.google.com/file/d/1LeAXVZz7kXtFo_DfCih51BL9q88gXRiU/view?usp=drive_link">https://drive.google.com/file/d/1LeAXVZz7kXtFo_DfCih51BL9q88gXRiU/view?usp=drive_link</a> <a href="https://drive.google.com/file/d/1ojohDXPn5_v9y6fxjXavGPe3XDWMlglr/view?usp=drive_link">https://drive.google.com/file/d/1ojohDXPn5_v9y6fxjXavGPe3XDWMlglr/view?usp=drive_link</a>	





**Figure 1: Sewing Skills by VI**

#### 4.2.2.1 Beadwork by VI Participants

The individuals with visual impairments who participated in the study demonstrated their skills in beadwork. The outcome of their products indicate they have embraced the art of beadwork, weaving intricate patterns and designs with colourful beads to produce eye-catching jewellery, accessories, and decorative pieces. The beadwork creations reflect both precision and creativity, adding a touch of elegance to any outfit. The outcome of this is presented in Fig. 2.

#### **Beadwork by VI**



VI practicing how to thread beads



VI practicing how to thread beads



Beaded Necklace by VI



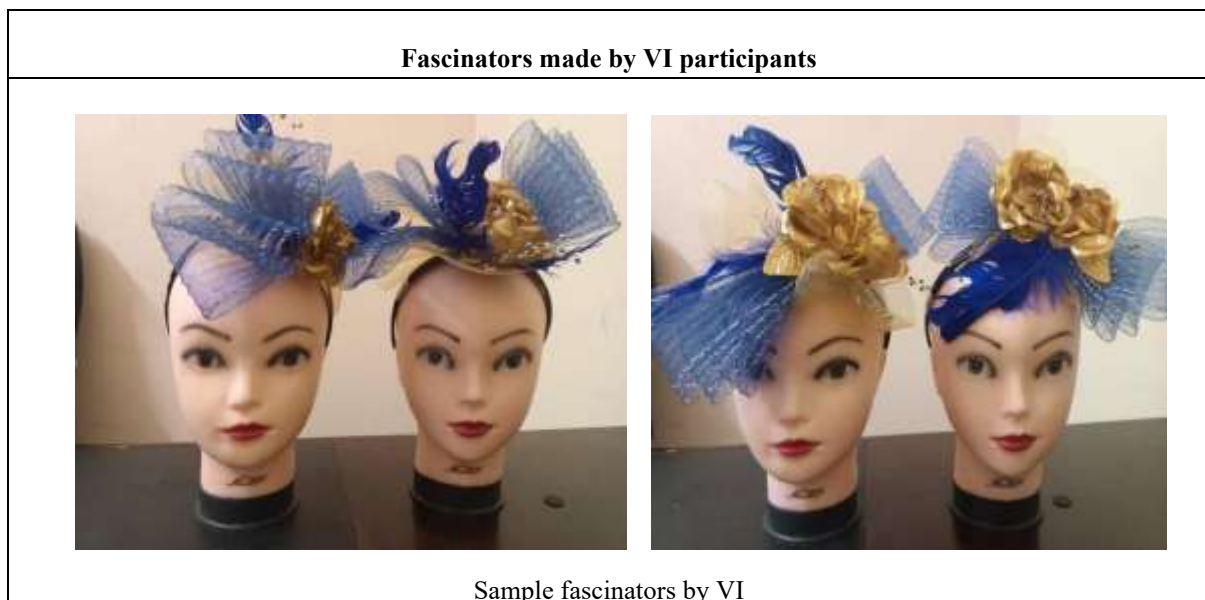
Beaded Bracelets by made by VI

Figure 2: Beadwork by VI

#### 4.2.2.2 Fascinators by the Visually Impaired



The VI participants have mastered the craft of creating fascinators, those elegant and often whimsical headpieces that grace special occasions and events. Their fascinators are not only stylish but also a testament to the VI's attention to detail and flair for combining materials and elements. Sample products from participants are presented in Fig. 3.



**Figure 3: Fascinators made by VI**

#### 4.2.2.3 *Floral Arrangements by the Visually Impaired*

The VI participants developed a deep understanding of floral artistry, crafting enchanting bouquets that are a feast for the eyes. These exquisite floral arrangements are perfect for weddings, celebrations, and special occasions, breathing life and colour into any event. Products made by the VI participants are presented in Fig. 4.

Floral Arrangement by VI	

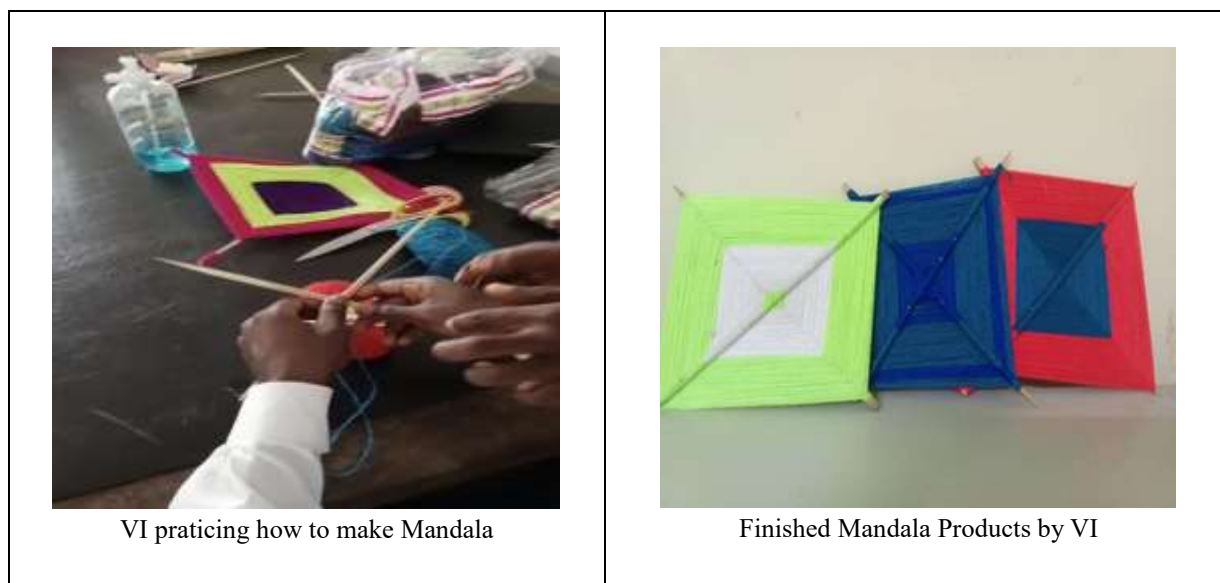


**Figure 4: Floral Arrangements by VI**

#### 4.2.2.4 Mandala Making by the Visually Impaired

The VI participants seem to have embraced the art of mandala, creating unique and alluring jewelry pieces. These creations incorporate various materials and designs, resulting in distinctive, handcrafted accessories that can elevate any ensemble. Some of the products made by the participants are presented in Fig. 5.

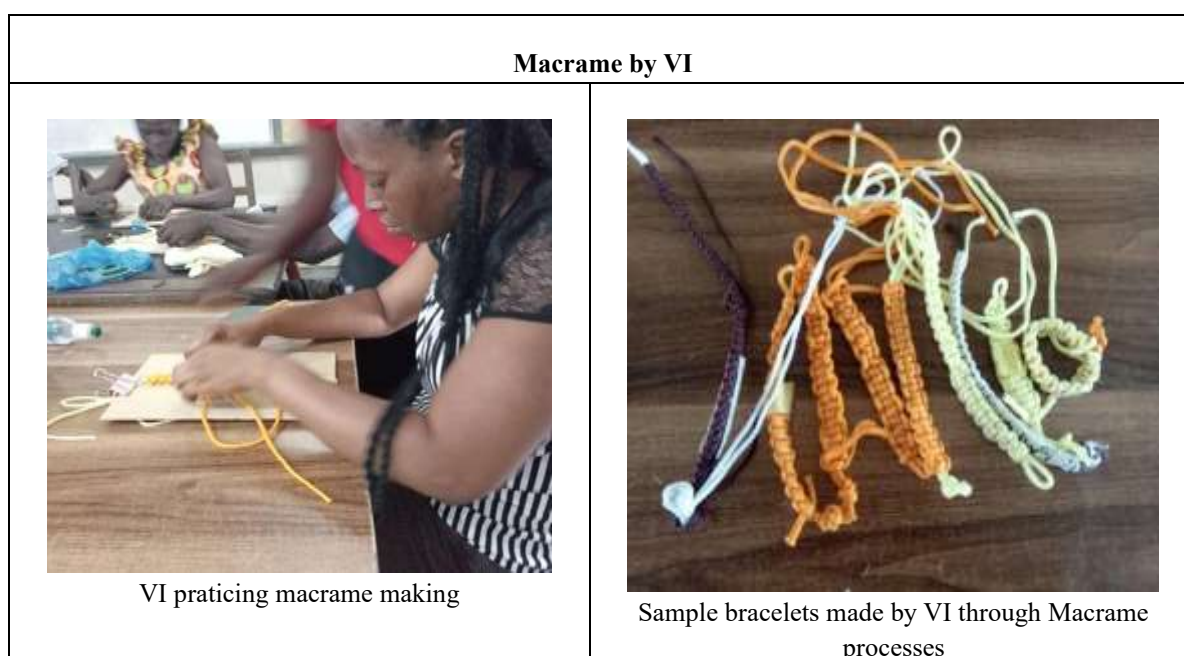
#### Mandala Making



**Figure 5: Mandala by VI**

#### 4.2.2.5 Macramé by the Visually Impaired

The VI participants harnessed the ancient technique of macramé by weaving intricate patterns with cords and threads. Their macramé pieces include stylish wall hangings, plant hangers, and jewelry, showcasing the versatility of this art form. Products from participants are presented in Fig. 6.



**Figure 6: Macramé made by VI**

The researcher generally realized that participants were prepared and ready to add on to what they have experienced in life. The beauty and craftsmanship of these fashion products are a testament to the dedication and talent of the VI, who have flourished under the guidance and support of their skilled facilitators. The training the

participants received has not only equipped them with technical skills but also nurtured their creative spirit, allowing them to produce an impressive array of fashion items that are not only visually captivating but also a source of pride for the VI and their community.

Consequently, the challenges in formal education act as a foundational obstacle, hindering the acquisition of essential skills and paving the way for the development of a noticeable skill gap. Limited exposure is another substantial challenge faced by visually impaired individuals. The barriers to participating in various social and professional activities due to visual impairment result in reduced opportunities for skill development through practical experiences. Exposure is crucial for acquiring hands-on skills, and the absence of such experiences due to limited accessibility creates a significant void in the skill set of visually impaired individuals. This lack of exposure exacerbates the challenges in acquiring and honing skills related to fashion, contributing to the observed skill gap.

Participants demonstrated their enthusiasm in starting every project assigned during the training sessions. One of the most significant outcomes of the hands-on training programme was the development of various fashion products by the VI. These products ranged from beadworks, fascinators, floral arrangements, and mandala to macramé, showcasing the versatility and talent of the VI. In a related study, Navei et al. (2022) found that students with hearing impairments designed beautiful artefacts through the training they were given at the school. The finding of this study collaborates with that of Gual et al. (2011) found that individuals with visual impairments excelled in the design of tactile objects like tactile maps. In the study, the visually impaired participants were involved in designing and reading the tactile maps. The fact that some individuals may be visually impaired does not preclude them from successful learning or other accomplishments. The training played a crucial role in honing their craft and enhancing their creative skills, enabling them to craft exquisite and fashionable items. This outcome of fashion products made by the visually impaired supports the motion that lack of vision does not hinder intellectual or cognitive capacities.

In a related study, Giles et al. (2018) investigated the experience of working with blind and visually impaired individuals to produce interactive artworks that are unique to them through a participatory process utilizing e-textiles and tactile crafting methods every participant in the series of workshops that were used to help participants acquire these skills. Every participant created incredible works of e-textile art that used texture, shape, and sound to convey stories of their design. Research by WHO (2002) notes that a lot of visually impaired people are unable to live independently due to a lack of training and labour-related skills. Additionally, most children living in developing nations lack access to education, which contributes to low self-esteem among those with visual impairment. This helps to explain why the visually impaired have such a high reliance rate. Vorapanya and Dunlap (2014) stated that providing every individual with education regarding quality instructions, intervention, and support is a hallmark of inclusive education.

Despite the efforts by successive governments, parents and stakeholders in education to help students with disability acquire practical skills for daily living, fashion skills were left out of these efforts, especially for persons with visual impairments. This is due to several challenges that VI persons face in their quest to acquire fashion skills. The findings from this study present numerous needs of individuals with visual impairments about their enrolment into fashion-related programmes.

Inclusive schools have a collaborative and respectful school culture where students with disabilities are presumed competent, develop positive social relationships with peers, and fully participate in the school community (Lamichhane, 2017). Thus, in order to meet the unique educational needs of disabled students in regular schools, modification in assessment procedures, creative placement practices, and specifically designed individualised educational programmes are essential ingredients to assist individuals with special needs in overcoming barriers to learning.

## **5. CONCLUSION AND RECOMMENDATION**

Through the training, participants (VI) designed products such as beadwork, fascinators, mandala making, macramé and floral arrangements. The hands-on training programme has proven to be a transformative experience for the VI, empowering them with the knowledge and expertise needed to create a diverse array of



stunning fashion products. The study provides insights into this limited explored area for more research to be carried out. Additionally, the study opens up further stakeholder discussions regarding designing a simplified curriculum that can support individuals with VI interested in taking up a vocation in a related field within fashion to realize their potential and dreams. This report has shown the diverse abilities of VI, which were left unexploited. Also, there seem to be a lot of educational opportunities in this field that can be useful for educational development agenda.

The findings question the implementation of inclusive education as not extensive enough to cater for VI to acquire fashion skills and therefore recommends a comprehensive training system and guide to be developed by curriculum experts and used to support the training of visually impaired in both formal and informal settings.

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