

OPTIMIZING AFRICAN PRINT MOTIF PLACEMENT IN GARMENT CONSTRUCTION: A WORKSHOP INTERVENTION FOR GHANAIAN DRESSMAKERS

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ABSTRACT

This study aimed to develop a simple, practical, and replicable learning methodology that incorporates motifs in African prints, thereby enhancing existing garment construction techniques. The study focused on members of the Ghana Dressmakers and Tailors Association (GNDA) in Accra, examining the pre-intervention, intervention, and post-intervention phases. A descriptive case study approach was employed, using qualitative research methods. Purposive and convenience sampling techniques were used to select 63 dressmakers for the study. Data collection methods included semi-structured interviews, observation, and focus group discussions. The study's findings revealed that most dressmakers had limited competency in effectively using motifs in African print fabrics in garment construction. To address the identified challenges, the researchers developed innovative principles, which were subsequently tested and validated during a workshop to assess their effectiveness. The study asserts that competency can be improved if dressmakers adapt the suggested principles of this study. The study recommends that enlightened fashion designers conduct seminars and workshops to teach dressmakers how to effectively incorporate motifs in African print fabrics into garment construction, thereby promoting a deeper understanding of textile design and fashion creation for quality garments.

Keywords: motifs in African prints, garment construction, dressmakers, intervention

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INTRODUCTION

Generally, garment production is essentially a domestic industry for both men and women. It is categorised as a low or unskilled occupation (Amoakoh-Asare, 2015), thus providing little challenge to the learners' intelligence. The general impression, therefore, is that to be trained as a dressmaker connotes informal training where learners acquire little or no knowledge about the relationship between the motifs in the textile fabric and the garment to be constructed (Sarpong *et al.*, 2012). Such a phenomenon is evident in garments with motif designs turned upside down, lines not converging, improper balance in designs, and improper attention to other concepts in the design of the garment. This can be a stumbling block in the appreciation of the textile designer's effort to communicate through symbolic motifs in African prints (Amankwah & Howard, 2013). Designs in African Prints are characterised by symbols, African landscapes, and proverbs. These prints communicate knowledge, feelings, and values and therefore play an important role in the concept of reality. Moreover, the prints bear philosophical significance in explaining the beliefs and practices of the Ghanaian culture and must be depicted as such (Amisah & Letcher-Teye, 2018). The synergy of textiles and garments is an integral part of fashion design. Fashion designers need to have a profound understanding of how textile materials and structures affect the form and function of garments as well as sound knowledge obtained from hands-on experience with the fabrics.

One of the technical subjects in the textile and garment industry is cutting, whether for packaging the cloth for the market or cutting out fabric to produce a garment (Kiron, 2021). Most of the fabrics are in bales and with African prints, they are packaged in twelve (12) yards which are usually cut into six (6) yards or as desired by customers

in varying colours and motifs. The width of the fabric is either 36 inches (ca. 91 cm)/90 cm, 45 inches/115 cm, 60 inches (ca. 152 cm)/150 cm, 72 inches/180 cm, or 120 inches/300 cm. However, most African prints are 36 inches or 45 inches (ca. 114 cm) which leads to technical limitations in their usage (Amankwah & Howard, 2013). According to Hollen *et al.*, as cited in Amoakoh-Asare (2015), a garment design or style chosen and the fabric should complement each other. For example, African prints with bold prints would be ruined by a style with too many seams, while small patterned fabrics could be manipulated to conform to every style.

However, sewing a particular style requires four preparatory processes (Cooklin, 1997) and these are: (i) *the pattern* as a medium of communication and as a production tool; (ii) *Grain lines* establish the linear relationship between the garment pattern and the cloth; (iii) *Pile Direction* influences pattern component arrangements; (iv) and *the Fabric pattern*. The pattern is the primary link between design and production. This should, therefore, communicate accurately with all functions that have to use the pattern. Forster (2014) observed that most dressmakers in Ghana plot and cut directly on the fabric using the freehand technique, but only a few use patterns that have been generated through drafting, draping, flat patternmaking, or reverse engineering. The concept of freehand cutting is based on flat patternmaking. This is because in flat patternmaking the dressmaker makes use of tracing papers to manipulate and transfer design details which are later pinned on design fabric and cut out. On the other hand, in the freehand cutting technique, the dressmaker manipulates and plots design details with the client's measurements directly on the fabric (Biney-Aidoo, 2006). This technique appears to lead to technical errors in the appropriate merging of motifs after the garment construction.

Amankwah and Howard (2013) observed that some motifs, when cut through, become highly impossible to creatively join together without damaging the beauty of the fabric. Often, more fabric is required to align the prints during garment construction which is a crucial factor in determining profitability (Fianu & Zentey, 2000). The significance of the preparatory processes is vital. Therefore, this study sought to provide a simple, practical, repeatable learning methodology and strategies that would help with the judicious use of the motif in African prints in garment construction by improving on the existing methods by Ghanaian Dressmakers.

The research objectives that drove the study were:

1. Examine the methodologies dressmakers and tailors use in the execution of garment construction using African prints.
2. Develop and evaluate an innovative fabric utilisation methodology that addresses the difficulties identified among the dressmakers.

MATERIALS AND METHODS

The qualitative research method which involved a wide range of field investigations, was employed in this study specifically the descriptive case study. Yin (2003) explained that the descriptive case study is used to describe an intervention or phenomenon in a real-life context. This allowed dressmakers' inability to efficiently utilise the motifs in African print for garment construction to be explored and the essence of the phenomenon was well revealed. Yin (2003) based the philosophical underpinning of the case study on the Constructivist paradigm. As one of its advantages, it helped build a close collaboration between the researchers and the participants, while enabling participants to tell their stories on the 'how' and 'why'.

The population for the study was all dressmakers and tailors in Ghana, and the target population for the study was all dressmakers and tailors who were part of the Ghana National Dressmakers and Tailors Association (GNDTA). The accessible population was GNDTA, *Awoshie* Zone, who were 63 in number (54 dressmakers and 9 Tailors) because they had the same characteristics and experiences as all GNDTA members. Israel (2013) noted that in some cases, when the population is small or when the research question requires a high level of precision, it may be necessary to include the entire population as the sample size. Hence, the entire population of the GNDTA, *Awoshie* Zone was used for the study. Purposive and convenience sampling techniques were used to sample GNDTA, and *Awoshie* Zone members for the observation and focus group discussions. Ethical issues which touched on the credibility and truthfulness of this research were considered. The participants' express consent was sought before they were involved in the study.

The ADDIE model (Fig.1) is an instructional design governing experiential learning which is a layered concurrent approach to action research, specifically, during the pre-intervention or situational analysis stage. The ADDIE concept was used by first analysing (A) dressmakers' deficiency in the effective use of motifs in printed designed fabrics. Designed (D) garment styles that challenged the competency of dressmakers were constructed. Suggested principles were developed (D) and implemented. After construction (I), the garments were evaluated (E) by fitting, and suggested principles were formulated.

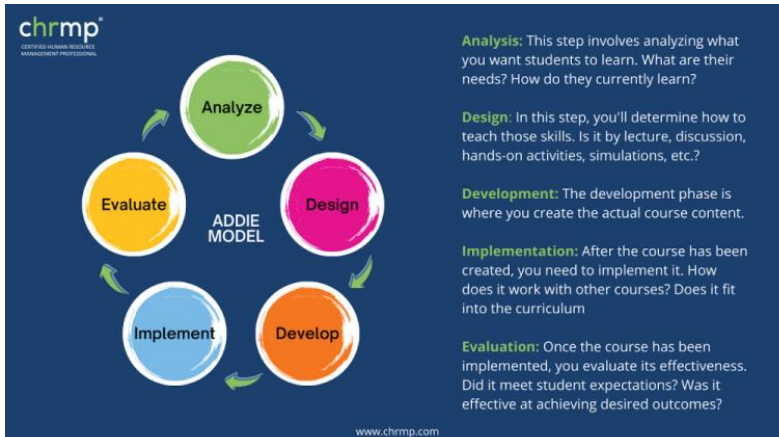


Figure. 1: ADDIE Model: A Comprehensive Guide to the 5-Step Instructional Design Model Source: (CHRMP, n.d.)

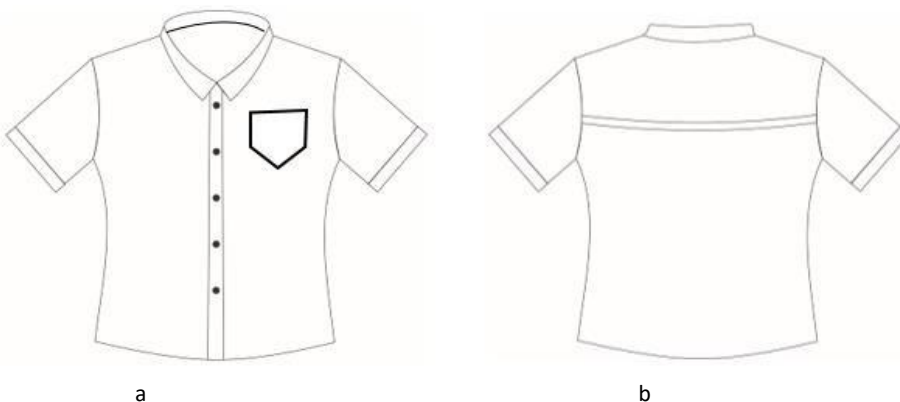
RESULTS AND DISCUSSION

To attain the research objectives, 63 participants, that is, 54 (dressmakers and 9 Tailors) were used for the study.

Situational analysis /pre-intervention

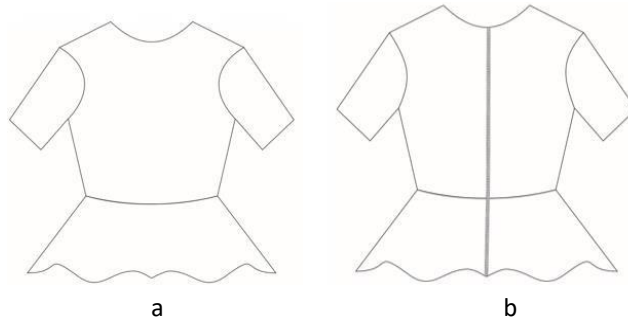
This stage of the research evaluated garments produced by the GNDTA *Awoshie* Zone members. They were asked to sew a peplum top (*kaba*) and a shirt with African prints. Their measurements were used so that they

could fit the garments for assessment. To analyse (A) the envisaged problem which led to this study, each member was supplied with 2 yards (ca. 183 cm) each of different traditional name-bearing African prints since these prints were those they were familiar with and committed the blunders. Figures 2a & 2b and 3a & 3b illustrate sketches of the front and back views of the short-sleeved shirt for the tailors and peplum top for the dressmakers.



Figures 2a & 2b: Front and back views of short- sleeved shirt

Source: Studio Practice, 2023



Figures 3a & 3b: front and back views of Peplum top

Source: Studio Practice, 2023

Intervention Procedures

Concerning the garments constructed by the participants as shown in Figures 4a, 4b, and 4c, upon fitting, it could be perceived that the front motifs in the peplum top are symmetrically balanced. However, the back of the garment with an opening has motifs improperly balanced. The shirt constructed had lines matching at the front opening with

buttons and buttonholes but the seam lines at the side were not converging. This could be the result of the pattern laying out method used which requires that both the front and back bodice are cut together as indicated in Figure 5. This result

indicates that dressmakers' competency in matching motifs when cut into two halves to form a whole motif or match lines is low.



Figure 4a: Front view of samples correctly constructed



Figure 4b: Back view of samples wrongly constructed

Source: Field Survey, 2023

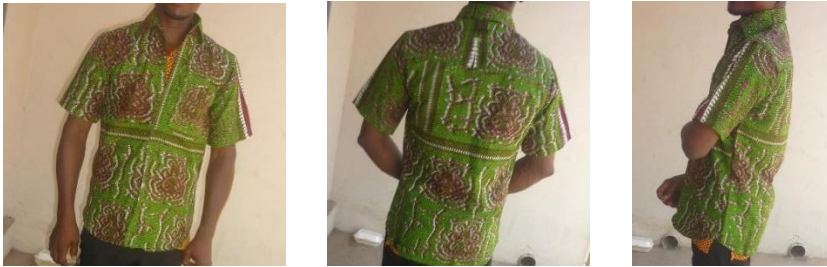


Figure 4c: Front, back and side views of shirt with motifs mismatching

Source: Field Survey, 2023



Figure 5: Freehand cutting of the fabric

Source: Field Survey, 2023

To reflect the type and meaning of the motif in African print, attention should be paid during the laying and cutting out of the fabric. In addition, the result demonstrates the need for an intervention by developing (D) some principles to be followed. With the suggestions from available experts in the apparel industry, innovative principles were formulated and through focus group discussion, participants were educated using the principles suggested as outlined below:

1. The identification of the wrong side and the right side of the fabric. Determining the right side of fancy prints is easier because the wrong side has no visible prints. However, with real wax prints and batik, both the right and wrong sides look similar and require careful attention. Identification of stickers, inscription at the selvedge, a little lustre at one side of the fabric more than the other, slight colour difference, and rough perforated holes in the selvedge are

some of the ways to distinguish the right side from the wrong side of the fabric. Once identified, mark with tailor's chalk randomly on the wrong side and cut pieces. Identification of the fabric is shown in Figure 6.



Figure 6: Identification of the inscription on the selvedge and stickers in the cloth

2. The directionality of the motifs in the fabric: The respondent was educated on the different sources of motifs, that is, from natural or abstract and this could be a recurring object, shape, colour, direction, etc. which are very noticeable. The direction of these motifs could be one-way prints (definite direction), two-way, or non-directional as stipulated by Cooklin (2015). Natural objects used as motifs are to be portrayed in the garment naturally. For instance, human beings, snails, and trees among others, should stand upright unless otherwise to convey their message. For example, fallen tree 'dua kor gye mframa, obu' a proverbial motif which means 'two trees standing together is better than one' (fig 7) is a one-way print that dictates that motifs arrangement are aligned in one direction, may require more fabric, and therefore has less cutting flexibility in garment construction. Abstract sources such as lines can be manipulated to give different forms, provided they meet at seams. Inscriptions in cloth should be assessed and they should be read accordingly. More emphasis should be placed on the central motif in the fabric to be used as the centre back or centre front of the garment.



Figure 7: One-way patterned cloth

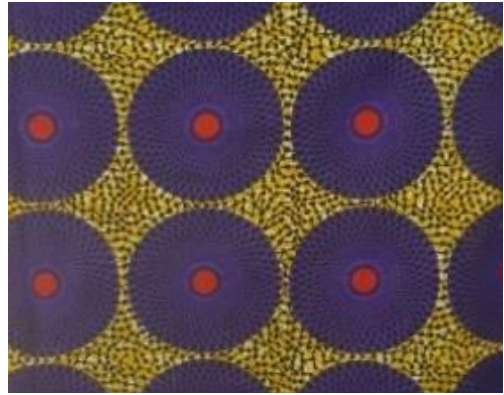


Figure 8: All-way patterned cloth

3. The third principle is to recognise pattern arrangement within each fabric including the rhythmic pattern of the motif arrangement and the sizes of the motifs (Figures 7 and 8). This includes full drop repeat, half drop repeat, brick repeat, stripe repeat, and combination repeat. Comparatively, a full drop repeat is easy to align in the garment.
4. Identification of the various colours used within the design composition of the fabric about the client's figure details (analysis), that is, body shape, facial shape, neck, shoulders, and height. Colours in the fabric convey non-verbal messages and as such, should be considered as well as the motif type and size. For figure types such as X-shape, it is considered an ideal figure and therefore any size of motif could fit the wearer. For most Ghanaian women after childbirth, their body shape tends to change to an H-shape and may require cool colours and moderate-size motifs to flatter the wearer taking into consideration the facial shape (square, oval, round, etc.); neck (short, long, thick, thin, etc.) and height (tall, short, plump, etc.).
5. The fifth principle is to look at symmetry (line or mirror) in pattern arrangement (Figure 6), such as the arrangement of forms and this should align with the

rhythmic motif arrangement defined within the patterned fabric, irrespective of the style of the garment. Dressmakers are to identify the central motifs within the fabric and with the aid of a pin, fold a central motif into two for centre fronts and centre backs, sleeves, collars, etc., ensuring there is balance when used for the garment. The form of the motif is equally important and if the fabric is cut before cutting out was in a particular repeat, for instance, half drop, it is required that cut pieces after joining do not deviate from this repeat unless, consciously, the garment has been designed as such.

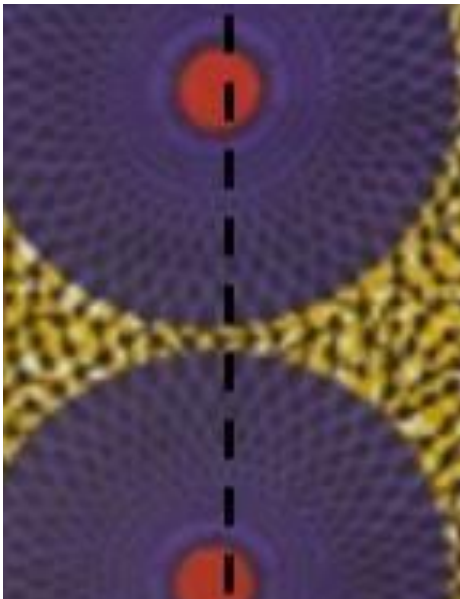


Figure 9: Identification of symmetry in a cloth

6. Development of ideas: In this competitive era in the fashion industry, creativity is important and although most clients bring their styles, the ability to sketch and add or deduct some details in agreement with the customer before construction is an additional advantage. Fabrics supplied for a particular style in a catalogue are usually different from the cloth in the catalogue. It is the dressmaker's responsibility to educate the client on the appropriateness or inappropriateness of the fabric for that particular style. Since dressmakers can draw on the fabric for freehand cutting, a little upgrade to transfer that idea into drawing garments will be beneficial.

7. Pattern making: Most dressmakers use the freehand pattern method for cutting out. In instances where the lining is to be used, it is suggested that the plotting of the body measurement be done on the lining for easy corrections and also for proper planning of the African prints before cutting out. Laying and cutting out of the fabric should be done in singles to ensure motifs match as shown in Figure 10.



Figure 10: Pattern activities (lining, matching of motifs and fixing zip in the opening)

Source: Studio Practice, 2023

The intervention principles were practically demonstrated to all the 63 respondents and this took four meeting days, that is, in four weeks, all on Mondays between the hours of 10:00 am to 1:00 pm.

Evaluation/Post Intervention

To assess whether respondents fully understood the suggested methodologies, a two day workshop was organised. Six yards (1/2 piece) of the same motif fabric was provided by the researcher to each participant for traditional *Kaba* (top) and *slit* and shirt. The same fabric was given as used in the pre-intervention to enable the researcher to ascertain whether there had been improvement in the skills and knowledge and also the effective application of the innovative principles formulated by the researcher.

The outcome of the workshop was to test the efficacy of the formulated methodology

Leading to the formulation of a method for the effective utilisation of motifs in printed designed fabrics, the outcomes of the workshop with the application of the formulated principles are categorised into two groups and they are as follows:

1. Kaba and slit
2. Short-sleeved shirts

Sample garments A and B

The *Kaba* and slits were sewn and two samples from predominantly block and half drop repeats were selected for analysis. These are shown in Figures 12, 13 and 14. As a guide to the repeats, a block repeat of African wax print was used for this sample. For the front of the *Kaba* and slit, central motifs were symmetrically aligned. Although the princess-style line was used for the *Kaba*, and the slit was in six panels, motifs followed the rhythmic pattern of the block repeat.



Figure 11: Front, back and side view of block repeat African wax print *Kaba* and *slit*

Source: Studio Practice (2023)-Sample Garment A from the workshop

The fact that motifs in the garment align shows that dressmakers have recognised the possibility of cutting and still maintaining

the motifs as a unit. Amankwah et al (2013) observed that in some African print motifs, when cut through, it becomes highly

A Workshop Intervention for Ghanaian Dressmakers

impossible for them to be creatively joined without marring the beauty of the fabric. To solve this problem, additional fabric is required to align the prints during garment construction than usual.

It was observed during the pre-intervention that the freehand method of laying out fabric was such that both the front and back bodice

blocks were folded together for cutting out. However, the suggested principle formulated by the researchers requires that garments with openings should be cut in singles and not through two layers of fabric for easy manipulation and arrangement of the motif in the African prints. The side seams motifs were also matching.



Figure 12: Front, back and side view of half drop repeat African wax print *Kaba* and *slit*

Source: Studio Practice (2023)-Sample Garment B from the workshop



Figure 13: Front, back and side view of a half-drop repeats African wax print shirt

Source: Studio Practice (2023)-Sample Garment B from the workshop

Observation from new garments constructed during the workshop indicated that all the dressmakers understood the suggested principles by the researcher and they

were able to apply them in their garment construction efficiently and effectively.

The following are excerpts from some participants:

I think this workshop has been very helpful and there should be such regular workshops to educate us. (Dressmaker 1, personal communication, 12th May, 2022)

'I never knew I could make such a perfect garment from African prints. (Dressmaker 2, personal communication, 12th May, 2022)

I suggest there should be regular workshops with collaboration between the bigger fashion designers and us the local ones. (Tailor 1, personal communication, 12th May, 2022)

CONCLUSION AND RECOMMENDATION

The African wax print is one of the most common motif fabrics which is worn in Ghana and dressmakers usually sew garments for their customers using these prints. Non-verbal communicative messages are usually conveyed by these wax prints, whether for the commemoration of special events, identification of status, protection, modesty, or adornment. The method of making patterns has been the key to efficiently using the motifs in African print for garment construction. The freehand method of cutting out fabric was observed to be the main method used. Corrections and adjustments are difficult to make with this method once the African print is cut out, since the measurements of the wearer are directly marked out and cut out on the print. Therefore, projecting measurements of the wearer on the lining to be used for the inner construction instead of the African print could reduce cutting mistakes and enhance the conscious placement of the motifs during garment construction. Creativity is what promotes a business and distinguishes it for growth and survival in this challenging era

(Amankwah and Howard, 2013). Therefore, adopting the suggested principles could lead to the efficient utilisation of motif fabrics in garment construction.

The study recommends that enlightened fashion designers should be encouraged to regularly conduct seminars and workshops to teach dressmakers how to effectively incorporate motifs in African prints into garment construction. This will promote a deeper understanding of textile design and fashion creation, ultimately enhancing the garments produced, promoting sustainable livelihoods, and preserving the rich cultural heritage with the usage of African prints.

A limitation of the study is that only GNDTA members were sampled for this study. If the garments from other experts were included, there may be differences from those found in this study.

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