

Indigenous Fabric Weaving Tradition in Northern Ghana: A Case Study of Fugu Weaving Processes, Fugu Fabric and its End Uses

Ann Asibi Abaah^{1*} Nana Afia Amponsaa Opoku-Asare² Isaac Butias Yakubu¹

1. Technical/ Vocational Department, St. John Bosco College of Education,
P.O Box 11, Navrongo, Ghana

2. Department of Educational Innovation in Science and Technology,
Kwame Nkrumah University of Science and Technology,
P. O. Box UP 79, Kumasi, Ghana

* E-mail of the corresponding author: amoahann@yahoo.com

Abstract

The northern regions of Ghana have a tradition of cloth weaving that is based on peculiar tools, equipment and procedures that generate different types of fabrics with similar uses across the communities. This paper describes the various ways in which the different indigenous fabrics that are woven in Daboya, Sambolgo and Tindamba. The study discusses the indigenous fabric weaving traditions of Northern Ghana concerning the processes or procedures involved in the production of *fugu* fabrics and the importance of the *fugu* fabrics. Interview and observation were used in collecting the data at selected weaving centres in Daboya (Savannah Region), Sambolgo (Upper East Region) and Tindamba (Upper West Region) in Northern part of Ghana.

The study employed both descriptive and case study research methods based on the qualitative research approach. The study revealed that Daboya, Sambolgo and Tindamba *fugu* fabrics are significant indigenous woven fabrics produced in Northern Ghana and they occupy very important cultural positions in the Ghanaian community. Compared to other African fabrics, Northern Ghana *fugu* fabrics are the pride of the nation and they are also considered as national symbols.

Keywords: *Fugu, fabric, loom, indigenous, weaving, kente*

DOI: 10.7176/ADS/109-06

Publication date: March 31st 2024

1. Introduction

Northern Ghana is noted as one of the places that has a very rich traditional custom of weaving fabrics. The Northern Ghana woven fabrics (*fugu* fabrics) have striking lineal design that give the *Smock*, *Fugu* or *Batakari* garments an exceptional form and appearance (Frimpong and Asinyo, 2013). This *fugu* fabric is different from *Kente* and *Kete*, the indigenous fabrics that exhibit the creative skills of weavers in Ashanti and Volta Regions respectively. The northern Ghana fabrics are woven to show warp-face designs in strips of different colours before they are sewn into fashionable traditional garments that are popularly known as *Smock*, *Fugu* or *Batakari*. The fabric is woven from local cotton fibres that are spun into yarns by women. The yarns are then stretched out, dyed in different colours, dried for some time and then woven into strips and stoles on narrow hand looms. These strips, which are usually four inches wide, are sewn together by hand or machine to form a larger piece.

Historical accounts revealed that the art of indigenous fabric weaving traditions in Northern Ghana can be traced to Daboya, Yendi, Sambolgo and Tindamba, where the art of weaving was learnt from the Moshie people of Burkina Faso. It is believed that trade between Northern Ghana and Upper Volta (now Burkina Faso) as they exchanged woven fabrics for kola nuts, millets, yam, rice, guinea fowl and other foodstuffs produced by the

people of Northern Ghana led to the introduction of cloth weaving to Northern Ghana. This was believed to have been the zenith of the barter trade in the North and also at the peak of tribal wars. Effects of tribal wars were believed to have been the cause of migration of the Moshie into exile in Ghana where they started weaving (Tettethfio, 2009). The Moshies taught the Northern children the art of weaving the *fugu* fabric with very simple wooden looms. This is believed to be the beginning of the art in Northern Ghana before spreading later to other parts of the country (Tettethfio, 2009).

The women in Northern Ghana used the local cotton to make threads, which they used to weave *fugu* fabrics for both men and women. Tamale, Daboya, Bolgatanga and Wa have a particularly strong tradition of weaving the *fugu* fabrics. Generations of artisans have been engaged in this profession. This has become hereditary with fathers transferring their knowledge and skills to their sons. The boys in the family, at a very young age, start learning to weave (Arku, 2013).

While the indigenous *fugu* fabric weaving provide livelihood a significant proportion of people in northern Ghana, there is paucity of studies on the diversity of weaving styles across different locations. Meanwhile knowledge of this will help consumers to decide on the best *fugu* that will maximize their utility. Lessons from which is also vital for technology designs that can benefit these weavers. Hence, the study sought to first identify the types of indigenous weaving fabrics in northern Ghana as well as the tools, equipment, materials and weaving processes in these areas.

2. Methodology

The research design adopted for the study was descriptive research design, a type of qualitative approach. The descriptive method was used to provide accurate description of the tools, materials, and processes involved in the production of *fugu* fabrics. Qualitative descriptive research was used to discover the weaving looms and its accessories, weaving methods and woven fabrics of Daboya, Sambolgo and Tindamba weaving groups. Interview was restricted to experts endowed in *fugu* fabrics.

2.1 Study population and sampling technique

The population for the study was selected purposively from the following townships: Daboya (Savannah Region), Sambolgo(Upper East Region) and Tindamba in the Upper West Region of Ghana. The target groups were the chiefs, elders and indigenous master weavers from the three weaving communities. The purposive sampling method was used to select the appropriate respondents from the main population for the study. This method of data collection was appropriate because there was a predestined group in mind. Purposive sampling was chosen for this research because the researcher chose chiefs, elders and master weavers from the three weaving communities.

A convenience sample is a group of individuals who (conveniently) are available for study (Dawson, 2002). This sampling helped the researcher to investigate purposely to select certain groups because of their relevance to the study under consideration. The convenience sample technique was used to collect data from the weavers concerning the weaving procedures. This sample helped the researcher to compare the teaching of indigenous

weaving in schools to what is done in the communities. Using this type of sampling, participants were chosen based on their accessibility and convenience to the researcher.

2.2 Data Collection Instrument

The study made use of observation and interview as the main data collection instruments. In qualitative studies there is the need to acquire data from varied sources for the purpose of triangulation (Leedy and Ormod, 2005). The structured face-to-face interview was used to find out how indigenous weaving of *fugu* fabric is done in Daboya, Sambolgo and Tindamba. In this study, the researcher used on-the-spot observation at the weaving centers to look for more information and also to observe things critically for better understanding.

2.2.1 Interview

Structured interviews are verbal questionnaire which consist of series of questions as postulated by McNamara (1999); and so the structured interview was used to find out how indigenous weaving of *fugu* fabric is done in Daboya, Sambolgo and Tindamba. The researcher visited the weaving centres and conducted direct interviews with the respondents throughout the centres of production mentioned in Daboya, Sambolgo and Tindamba.

2.2.2 Observation

The researcher witnessed series of activities done by the weavers at the traditional weaving centres in Daboya, Sambolgo and Tindamba where weavers were engaged in the production of *fugu* cloths. On-the-spot observation was used at the weaving centres to look for more information and also to observe things critically for better understanding. Apart from the interviews and observations, taking of pictures, videos and recording of data were employed to get first-hand information from the respondents.

2.3 Data Analysis Plan

The data collected by the researcher during the interview and observation were analyzed based on the purpose of the study.

3. Results and Discussion

The discussion of the results has been presented sequentially in addressing the research objectives and grouped to reflect the topical issues identified in the study.

The following are some of the tools and materials that are used by the weavers in the three regions (Savannah, Upper East and Upper West) in the north. Assorted yarns, skein winders, heddles, bobbin winders, shuttles, looms, reeds, stretching poles and bobbins.

3.1 Materials used in weaving *fugu* fabrics in Daboya, Sambolgo and Tindamba

According to the weavers, materials relevant to the description of *fugu* fabric production in Northern Ghana are mainly locally grown and hand spun cotton yarns. Yarn is known as *Jesse* in Daboya, *Kugono* in Sambolgo, and *Meehe* in Tindamba. The Daboya, Sambolgo and Tindamba *fugu* weavers use high quality and variety of yarns, which determines the quality and durability of the *fugu* fabrics. Yarn quality, however, depends on the fibres that are used to spin the yarns. The yarns for weaving the *fugu* fabric in Daboya, Sambolgo and Tindamba come in

different types and colours. The commonest yarns used by Daboya, Sambolgo and Tindamba weavers are cotton, silk and rayon yarns that are coloured red, orange, white, yellow, blue, indigo, black and green. Tindamba weavers use more rayon yarns for the warp as compared to Daboya and Sambolgo weavers. Daboya and Sambolgo weavers prefer using locally cotton spun yarns to factory yarns. Figures 1, 2, 3 and 4 show yarns used by the weavers in Daboya, Sambolgo and Tindamba.



Figure 1 and 2: Daboya cotton yarns



Figure 3: Sambolgo cotton yarns

Figure 4: Tindamba cotton yarns

In Daboya, the yarns used are dyed and dried to give the yarns colour and also strengthen them. These treatments give the yarns weight and reduce their breakages during weaving. Figure 5, 6 and 7 show the Daboya dyeing processes.

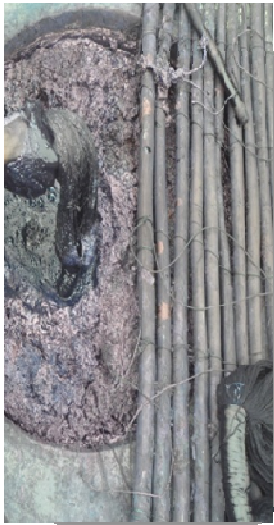


Figure 5: Dyeing in the pit



Figure 6 and 7: Drying the dyed yarns

3.2 The Fugu Fabric

The *fugu* fabric features stripes of various sizes and colours that are different from the patterned Asante Kente, Ewe Kete, and other indigenous woven fabrics of Ghana. The *fugu* fabrics have warp-faced plain weave in one length of the strip. The strips, which are usually four to six inches wide, are sewn together to form a whole piece of cloth. The fabric is made of cotton yarns. The yarns are stretched out, dyed in different colours, dried for some time before they are woven into strips and stoles of fabric. The techniques and skills employed by the weavers, is easily identified from the smocks, and other end user products. Indigenous *fugu* fabric weaving is one of the main occupations of the people in Daboya, Sambolgo and Tindamba. Figures 8, 9 and 10 show examples of the indigenous *fugu* fabrics identified by the study.



Figure 8: Daboya *fugu* fabric

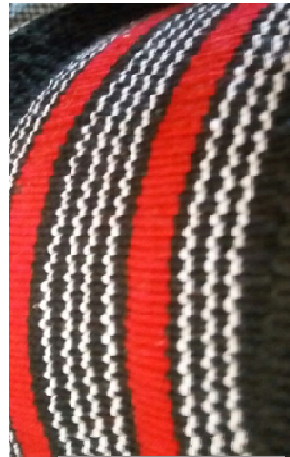


Figure 9: Sambolgo *fugu* fabric



Figure 10: Tindamba *fugu* fabric

The three samples show the characteristic linear stripes pointed out by Frimpong and Asinyo (2013). The structure of the weave of the *fugu* fabric in Daboya and Sambolgo are compact due to the number of yarns that pass through the headles and reeds used by the weavers. The uniqueness of the weaving of the *fugu* fabrics produced at Daboya is seen in the skills exhibited in the dyeing of the yarns before the weavers turn them into fabrics. Most of the *fugu* fabrics woven at Daboya have blue yarns in them since the indigo plant is mainly used to colour the yarns. Fugu fabrics are woven in simple wooden structured hand looms. The weavers use both hand spun and factory manufactured yarns to produce the fabrics. The quality of a yarn is affected by the fibre that is spun into the yarn.

3.3 Production of Fugu Fabrics

There are eight main processes or procedures involved in the production of *fugu* fabrics. The following are the stages the researcher observed during an execution of *fugu* fabrics: Warp Preparation, Securing Crosses, Folding and Rolling of Warp, Heddling, Reeding, Fixing Warp onto the Loom, Bobbin Winding and Actual Weaving (Asamoah, 1994).

3.3.1 Warp preparation / Warping

Warping involves the use of long yarns which are put together in the preparation for weaving operation. In the indigenous setting, warping takes place on the ground and wound between wooden pegs (Adu Offei, 2005). The warp yarns are those that run parallel to the selvedge of a fabric. The yarns to be used for the warp are wound onto larger bobbins and put on tins of the bobbin carrier. Then, two or more rows of pegs are set on the ground. The number of pegs in a set and the distance between them are determined by the length of the warp to be laid. At the end of this sequence there are two pegs closer to each other, and two sets of pegs facing each other in groups like the process described for Kente weaving (Badoe & Opoku-Asare, 2014). The warper unwinds thread from each bobbin on the bobbin carrier. The warper then winds the yarns round the pegs to keep them straight and tight as shown in figures 11, 12 and 13. At the final two pegs the yarns must be securely crossed and tied, in the sequence of colours which has been decided upon by the weaver, so as to keep the correct sequence. This process calls for careful observation. A loop is formed known as the “nose” of the warp. The loops of the yarns which form the “nose” are cut so that each yarn is divided into threads, which will be threaded through the heddle and the reed.

The warp yarns ready that are made for weaving consists of 240 threads or more. The combination of the threads thus, either in single or several colours, determines the character and the pattern of the finished cloth. Daboya, Sambolgo and Tindamba Fugu fabrics derive their names from the type of warp patterns used.



(a)



(b)

Figure 11: Daboya warp preparation



Figure 12: Sambolgo warp preparation



(a)



(b)

Figure 13: Tindamba warp preparation

3.3.2 Securing crosses

Northern Ghana *fugu* weavers secure crosses after warping with a strong and relatively thick thread. The threads ending the warp-laying are cut off at the first peg leaving enough yarns and tying them tightly at the cradle of the warp and then are taken off carefully as illustrated in figures 14,15 and 16.



Figure 14: Daboya weaver securing crosses



Figure 15: Sambolgo weaver securing crosses



Figure 16: Tindamba weaver securing crosses

3.3.3 Folding and Rolling of Warp

The warp is removed from the peg after the crosses have been secured. It is folded over repeatedly and rolled as the warp layer traces the warping path and pulls taut the warp yarns as the weaver rolls and folds again in a vertically or in an oval formation.

3.3.4 Heddling

After the warp-preparation is completed, the heddles are hung with the aid of a heddle frame. Heddling is the process whereby the weavers pass individual warp yarns through the loops of the headles. During this process, the warp yarns are passed through the loops in the heddle separately according to the design of the fabric to be

woven. In the main heddles, one thread is passed through each loop. In Daboya, Sambolgo and Tindamba fugu fabric weaving, only two heddles are used for plain weave.

3.3.5 Reeding

After heddling the next preparatory process is reeding. Reeding is the process whereby the individual warp yarns are passed through the dents of the reed with the help of reed hook or the hand. During this process the weaver strung the beater, with the warp threads passing through the dents of the reed. Prior to reeding, the heddles have to be turned upside down for easy reeding. The size of the dents in the reed depends on the weave structure of the woven fabrics.

3.3.6 Fixing Warp Yarns onto to the Loom

After the reeding process is done, the heddles and the beater, strung with the warp, are suspended from the beams placed across the top of the loom. The heddles are suspended from the carved wooden pulleys. The treadles are connected to the lower strings coming from the heddles. The warp yarns are connected to the sled, which is weighed down with a stone. The other ends of the yarns are tied together and connected to the breast beam to keep the warp taut during weaving. Figures 17, 18 and 19 show the process of fixing warp yarns in Daboya, Sambolgo and Tindamba.



(a)



(b)

Figures 17: Daboya- fixing the warp onto the loom and unfolding to the drag stone



(a)



(b)

Figures 18 : Sambolgo -fixing the warp onto the loom and unfolding to the drag stone



(a)



(b)

Figures 19: Tindamba -fixing the warp onto the loom and unfolding to the drag stone

3.3.7 Bobbin winding

Weavers in Daboya, Sambolgo and Tindamba use the bobbin winding process to get yarns onto bobbins to be used as weft yarns during the process of weaving. During bobbin winding the bobbin winding machine and the skein winder are used. A number of bobbins are inserted in the warping creel or spool rack. Weavers control the winding process by holding the yarn with the left hand while the right hand is used to rotate the handle of the machine. This makes the yarn more compact on the bobbin. The winding process is done when the weaver sits on stool while the bobbin winder machine is placed on the floor.

3.4 Actual *fugu* fabric weaving processes in Daboya, Sambolgo and Tindamba

Weavers in Daboya, Sambolgo and Tindamba produce the *fugu* cloths or fabrics by adopting the principle of interlacing the warp and the weft threads over and under each other at right angles on looms. Bobbins are wound with different colours of threads and types for the weft, depending on the design of cloth to be woven. The bobbins are placed in the shuttles for weaving to take place. The weaver sits on a stool or old mortar with the cross beam across his laps. The treadles are pressed alternately, which lower the heddles to create a shed by

stepping alternate single or multiple treadles, depending on the pattern of cloth to be woven. Then the weaver throws the shuttle from left to right through the shed and presses the treadles again, and throws the shuttle from right to left to create the weaves.

In the ensuing process, the weft yarn remains in the shed as the beater or reed is brought forward to beat the weft yarn to the fell of the cloth. The other pedal is also depressed, allowing the one pressed before to go up. The beater is pressed back and the process is repeated. The shuttle goes through and the beater is heavily brought onto the weft therefore beating it tightly in order to make the fabric compact. The *fugu* fabric is rolled onto the breast beam when the required length has been achieved or when it is completed and the shed on moves gradually towards the loom as the warps are used up.

Woven Fugu Fabric

The weaving processes used by the weavers in Daboya, Sambolgo and Tindamba are almost the same. All the three communities use the three primary motions thus shedding, picking and beat- up. When the required length of the fabric is woven, the warp yarns are cut leaving a small portion in the healds for easy hedding and reeding. The finished strip of fabric is rolled into a circular form (as illustrated in figures 20 to 22) to be sewn together into a larger cloth or for smock. This process is done by all the weavers in the three weaving communities.



Figure 20: Daboya woven fabric rolled



Figure 21: Sambolgo woven fabric rolled



Figure 22: Tindamba rolled woven fabric



Samples of fugu fabrics from Daboya

Figure 23: *Singbinwura* (named after subchief of Wasipewura)

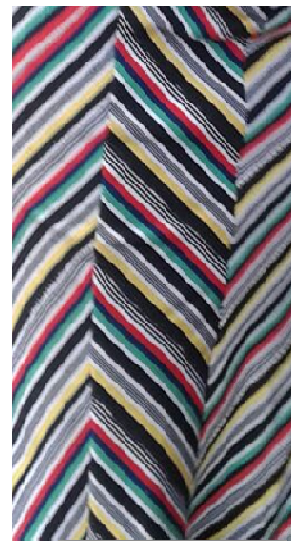


Figure 24: Angelina (named after GTP cloth)



Figure 25: *Ketalampe* literally means Cowpea



Figure 26: *Bu Wulonso* literally means 'cover my shame'



Figure 27: Ewuntoma



Figure 28: *Kanyiti wale* literally means 'Patience is good'

Samples of fugu fabrics from Sambolgo



Figure 29: Ayenaba



Figure 30: Bogyiagre

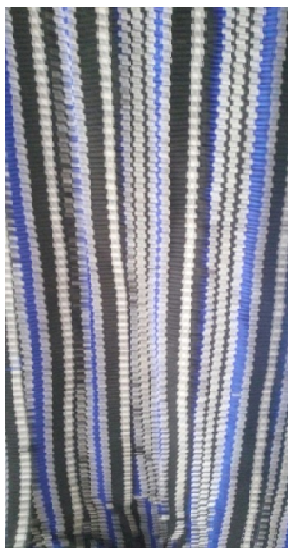


Figure 31: Ganka

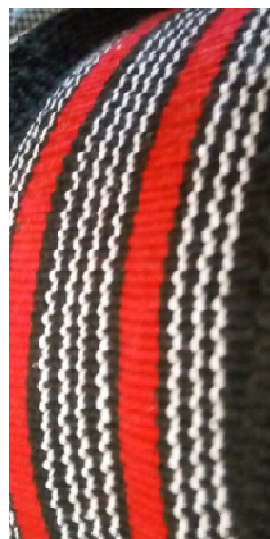


Figure 32: Molisien literally means
'Red cloth'



Figure 33: Ayenaba nibemse

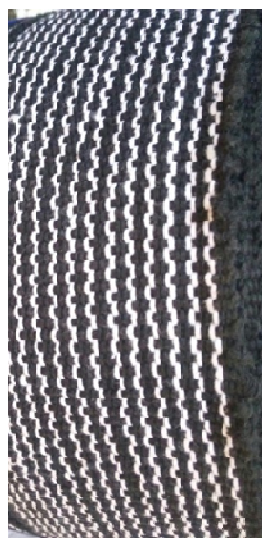


Figure 34: Sangomka

Samples of fugu fabrics from Tindamba



Figure 35: Gbepekleya



Figure 36: Boolonso literally means
'Don't put me to shame'

The Importance of fugu Fabrics

The study found that *fugu* fabrics have great historical and linguistic significance. People from Northern Ghana usually use *fugu* fabrics during festivals. For decades now, *fugu* fabrics have been used tremendously in rituals such as the installation of chiefs and as regalia during the time of war to bolster the royal power of the warriors.

The fabrics are sewn as war dresses, so it is understood that the defensive amulets that adorn them create a solemn and magical effects during war. In Northern Ghana, when someone dies, such *fugu* fabric is used to wrap the corpse before burial. In Wa and its surrounding communities, the fabrics are sewn into smocks to put on the dead. This is done to show the last respect for the dead. Colourful smocks are worn during funerals to portray the culture of Northern Ghana. The fabrics are sewn into smocks and worn during marriage and burial ceremonies. During marriage ceremonies, colourful smocks are worn. Smocks are also given as part of the dowry paid during marriage ceremonies in some parts of Northern Ghana. During naming ceremonies, *fugu* fabrics are generally used by the mother and baby. Figures 37- 40 show different uses of *fugu* fabrics in Northern Ghana.

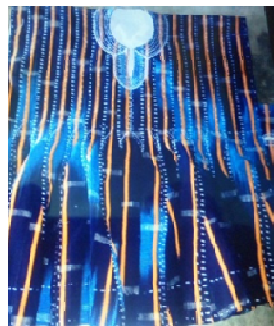
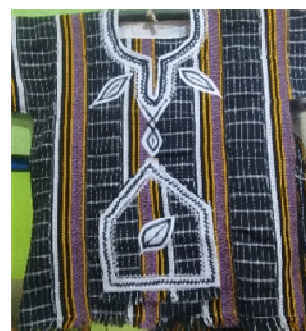


Figure 37 and 38: Colourful *fugu* (smocks)



(a)

(b)

Figure 39: Ladies smock



Figure 40: Loin dress

Conclusion

The study is intended to make known *fugu* fabrics and the indigenous weaving traditions practiced by the indigenes of Daboya, Sambolgo and Tindamba, where the art of weaving were learned from the Moshie people of Burkina Faso.

Also, the indigenous *fugu* fabric, is normally used to make the *Batakari*, *Fugu* or smock garments. Fugu fabric is made of variety of yarns such as cotton and rayon which determines the durability of the fabric. The research conducted on indigenous fabric weaving of Northern Ghana concluded that each region has its own cultural beliefs and therefore its unique weaving tradition.

Recommendations

The MoE, GES and NaCCA should include information on indigenous *fugu* fabrics and weaving traditions of Northern Ghana into the textiles curriculum for effective teaching and learning of the subject. This will help educate textiles teachers and students to identify and describe the indigenous weaving traditions of Northern Ghana. Tools, materials, weaving procedures and *fugu* fabrics of Northern Ghana should be included into the syllabus and textiles text books. There should be collaboration between the weaving communities in Northern Ghana to maintain cultural unity, in other to project the image of the *fugu* fabrics on the international market.

REFERENCES

- Adu - Offei, K. (2005). *Introduction to Textiles*. Accra.
- Arku, J. (2013, August 22). *Fugu-The tradition goes on*. Retrieved August 13, 2016, from Graphic Online: <http://www.graphic.com.gh>
- Asamoah, Y. E. (1994). *Kente- Cloth Introduction to History*. Kumasi: University Press.
- Awedoba, A. (2006). The people of Northern Ghana. *National Commission on Culture*, 1.
- Badoe, W. & Opoku-Asare, N. A. (2014). Structural Patterns in Asante Kente: An Indigenous Instructional Resource for Design Education in Textiles. *Journal of Education and Practice*, 5(25), 52-53. Volume 5.
- Dawson, C. (2002). *Practical Research Methods*. United Kingdom: How to Books Ltd.
- Fraenkel, J., & Wallen, N. A. (2012). *How to design and evaluate Research in Education*. New York: McGraw-Hill.

- Frimpong, C. A. & Asinyo B.K (2013). A Comparative Study of History, Equipment, Materials, Techniques and Marketing Approach of Traditional Weaving in Ghana. *Journal of Arts and Design*. Volume 7.
- Leedy, P. D. and Ormrod, J. E (2005). *Practical Research: Planning and Design*. Upper Saddle River, New Jersey: Pearson Education Inc.
- McNamara, C. (1999, August 29). *Basics of Conducting Focus Groups*. Retrieved from <http://www.mapnp.org/library/evalutn/focusgrp.htm>.
- Tettehfiio, L. (2009). *The Role of the Indigenous Ghanaian Textile Industry in Relation to the President's Special Initiative on Textiles and Garment*. (Master's thesis). Department of General Art Studies, Kwame Nkrumah University of Science and Technology. Ghana.