UNIVERSITY OF EDUCATION, WINNEBA

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PROBLEMS ASSOCIATED WITH THE PRODUCTION OF WELL-FITTING GARMENTS FOR FEMALES: THE CASE OF SUNYANI MUNICIPALITY OF BRONG AHAFO REGION OF GHANA

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A Dissertation Submitted to the Department of FASHION DESIGN AND TEXTILES EDUCATION, Faculty of VOCATIONAL EDUCATION, School of research and Graduate Studies, University of Education, Winneba in Partial Fulfilment of the Requirements for the award of Master of Technology Education (Fashion and Textiles) Degree

NOVEMBER, 2017

DECLARATION

CANDIDATES' DECLARATION

I, Joyceline Dzordzi Esi Lawoe, declare that this Dissertation with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE …………………..…………..…...

DATE..

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Dissertation as laid down by the University of Education, Winneba.

SUPERVISOR: DR. DANIEL K. DANSO

SIGNATURE………………………………..

 DATE…………………………..……………

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DEDICATION

I dedicate this work to my mother Delight Agbelie, and my sisters Aseye, Mawuli and

Yayra.

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ABSTRACT

One of the basic qualities underlying all the attributes of clothing, and the most important consumer need regarding clothing or apparel is the fit of a garment. Ill-fitting garments have negative consequences on both the consumers and designers. This study sought to bring out the specific problems in the production of well-fitted garments and critically examine the causes of those problems in the fashion industry in order to alleviate customer's dissatisfaction and designer's frustration in garment production in the Sunyani Municipality. The study employed a descriptive research approach making use of interviews and a survey as data gathering tools. It was established that the most predominant fitting problems associated with the production of well-fitted garments for females in the Sunyani Municipality are: seam puckering, oversized fit of garment; untrimmed threads, skipped or missing stitches; and seam opening. Again, after critical examination, the causes of the problems were identified as: Lack of proper basic preparations before taking measurement, poor knowledge about the various methods of obtaining measurements; patterns wrongly produced, body measurements taken wrongly; poor knowledge about the various figure types. In light of this, the study recommended that garment producers must establish and enforce quality control measures in their organisations.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Clothing is an extension of one's self. It helps to define who a person is, what a person likes and how a person feels about himself/herself. Attributes of clothing that are often associated with positive feelings include an attractive appearance, comfort, freedom of movement and fashion. One of the basic qualities underlying all of these attributes and the most important consumer need regarding clothing or apparel is that of a well-fitting garment. Salusso- Deonier (1992) states that consumers often use garment fit as a means of evaluating the quality of the garment. Ill-fitting garments will probably also have negative consequences for the designers because the only true competitive advantage that the clothing industry has is keeping existing customers satisfied. However, when talking about the fit of a garment, one needs not only talk about the garment closely fitting the body, but also need to know about how good the neck style, the sleeve, the collar and colour of the fabric fit on each type of the human figures.

In the early 1990's a trend began in the United States of America where women would visit their seamstresses but instead of asking for a garment to be produced, would ask for a pattern that they would then take home and set them up. The basis for these requests was puzzling - why wouldn't these women purchase commercial patterns and alter them? The main reason became apparent; the fit was not right and women were tired of altering and re-altering the commercial patterns only to be disappointed with the fit. This revelation was the foundation of Unique Fit Pattern Company. With this company, each and every pattern is drafted specifically to the

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measurements of the purchaser. In 1998, the idea evolved to the next level where clients would not have to take their own measurements - instead they could use a body scanner. The Body scanner quickly captures an accurate set of measurements of a woman's body. The measurements were used by Unique to draft custom-fit patterns.

In Africa, it all started with the wrapper. The wrapper is probably the most frequent and popular indigenous garment in sub-Saharan Africa. Women may wrap cloth from their waist to their knees, calves, or feet. Sometimes they wrap the cloth under the armpits to cover their breasts and lower body. Men originally wrap a small length of cloth from their waist to their feet, with the chest either bare or covered. For both men and women in the twenty-first century, a bare chest is not frequently seen in public, but remains an option for dressing informally at home. Non-Muslim Africans were influenced by European ideas of modesty after many countries became independent in the 1960s, because they discovered that journalists and outsiders commented negatively on African "nudity," usually referring to bare-breasted women.
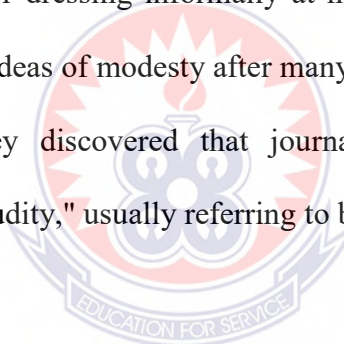
1.2 Statement of the Problem

Proper fit have become a major issue in the country's fashion industry and there have been efforts to curb this situation, but the unavailability of appropriate directions to solving this problem have caused great harm to the industry in terms of provision of customer satisfaction. From the consumers viewpoint, finding a garment that fits can be a time-consuming and frustrating task. Consumers often have to try on several garments before finding one that fits. This is greatly affecting the designer's productivity. How can designers and consumers find solutions to improper fit of garments?

1.3 Purpose of the Study

This study seeks to find out the various problems encountered by female customers after the production of their 'well-fitting garments' by their designers in the Sunyani Municipality in the Brong Ahafo region Ghana. This is to help find solutions to these problems as a means of increasing customer satisfaction when it comes to the type of garment to wear and to enhance production satisfaction on the part of the designer.

1.4 Objectives of the Study

In order to achieve the purpose of the study the following objectives were pursued:

1. To identify the specific problems associated with the production of well-fitted garments for females in the Sunyani Municipality.
2. To critically examine the causes of the problems in the production of the fitted garments for the females in the Sunyani Municipality.
3. To find out how these fashion designers can improve upon the production of garments to fit their customers well.

1.5 Research Questions

1. What are the specific problems associated with the production of fitted garments for females in the Sunyani Municipality?

2. What are the causes of the problems in the production of fitted garments for females in Sunyani Municipal area?

3. What should fashion designers in Sunyani do to enhance the production of well-fitted garments?

1.6 Scope of the Study

This study will solely concentrate on the fitting problems in the fashion industry in Sunyani Municipality in the Brong Ahafo region of Ghana.

1.7 Significance of the Study

This study is significant because it will provide an insight into the various female figures available in the fashion industry, the ways of obtaining good measurements and will also introduce new ideas that can be used to regulate the fitting problems in the fashion industry in Sunyani Municipality.

The study will also provide a better insight into the potential relationship between the parts of the female figure and their fitting problems. It will add more knowledge to the stock of knowledge on today's fit. It will also serve as a reference material for further studies to anyone who would want to carry out a similar research.

1.8 Organization of the Study

The research report has five chapters. The first chapter is the introduction and it comprises of the background of the study, statement of the problem, objectives of the study, research questions, scope of the study and significance of the study.

Chapter Two is about the literature review which will be made up of the theoretical framework, review of related study from other sources which relate to the research area chosen for the study.

Chapter Three is about the methodology and it discusses the procedures and methods used for the study and it addresses the research design, the population and sample, data collection instruments, as well as data handling and methods of data analysis.

Chapter Four is all about presentation of research results and discussion. Research outcome is presented and explained in this chapter with the help of tables, figures or charts. Chapter Five is about the summary of findings, conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

One of the challenges that the apparel production and retail industry has to meet is to provide garments that will fit a three-dimensional human body (Knight, 1994). According to Fisher & Voracek (2007), it is not possible to address the consumer's problems with fit without a set of accurate body measurements. Body measurements are the basis for pattern construction (Workman, 1991). Pattern construction has a very important influence on the fit of the garment. Two bodies with the same dimensions but with different attributes may each require a different pattern (Tamburrino, 1992), because the same garment will not fit individuals with similar body measurements but different proportions equally well. Body measurements must therefore be considered together with proportions to enable a decent fit for different people. The apparel industry is moving toward more diversity by providing more choices and therefore should evaluate the basis of its sizing systems and develop new systems that would provide more consumers with better fit (LaBat & DeLong, 1990).

The industry's effort to supply well-fitting garments is based on their sizing systems. In its simplest form a sizing system is a set of pre-determined body sizes designated in a standard manner (Winks 1990). A sizing system generates the size charts, which provide the measurements necessary for garment production (Kunick, 1984). According to Winks (1990), the correlations among relevant body measurements are critical in the manufacture of well-fitting garment.

2.2 Conceptual Framework

This study is approached from the viewpoint that if body measurements are not current and accurate, all the other aspects cannot contribute to the achievement of an acceptable or proper fit. This is illustrated in the conceptual framework as presented in Figure 2.1
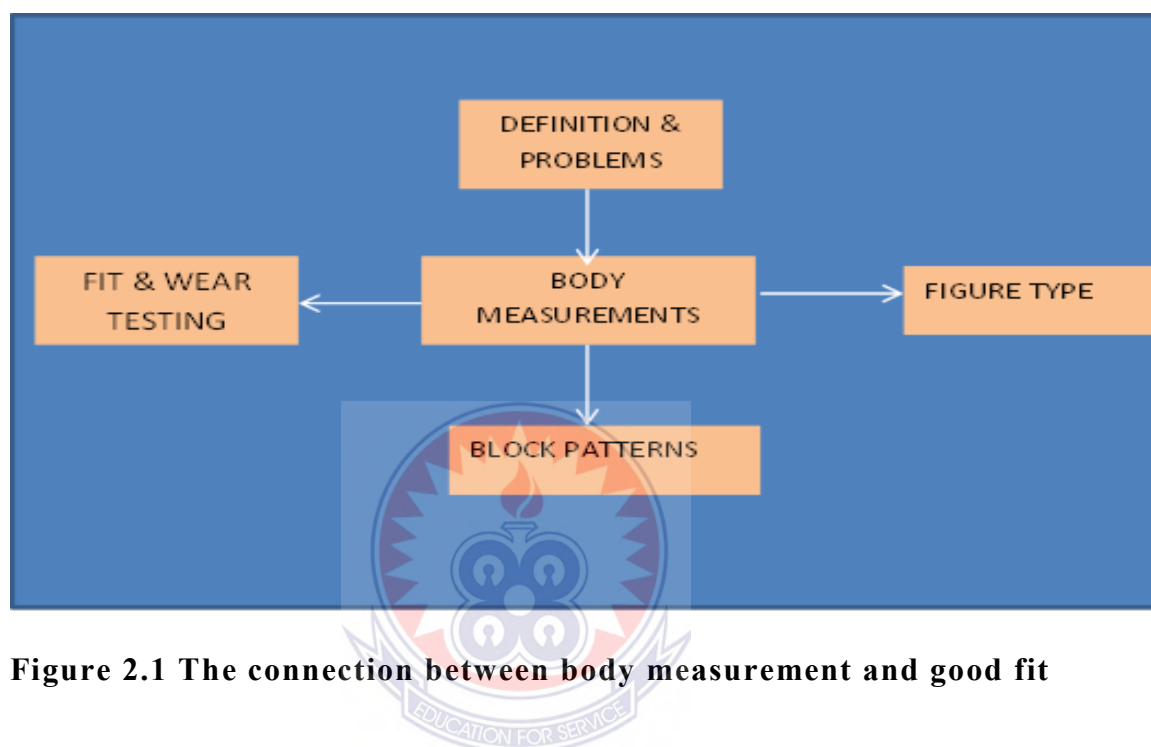
Figure 2.1 The connection between body measurement and good fit

Body measurements are the focus of the study because they will determine the figure type of the customer, the accuracy of the block patterns and the relevance of the fit and wear testing. Almost no information is available on how the Ghanaian clothing industry operates regarding the use of body measurements and ensuring well-fitting garments.

2.2.1 Methods of obtaining body measurement

According to Fishers & Voracek, (2007), it is not possible to address the consumer's problems with fit without a set of accurate body measurements. There are two main ways of obtaining measurement for the production of garments (Bye, LaBat, &

Delong, 2006). They are: direct body measurement or traditional tailor's measurement and standard body measurement.

2.2.1.1 Direct body measurement or traditional tailor's measurement

According to Ashdown (2002), traditional tailor's measurements refer to measurements taken by hand using a measuring tape around the human figure. This has been a very old method of obtaining body measurement. Measurements taken and landmarks are directly related to the garments that are to be made. Most measurements are taken along the contours of the body and not in a straight line between two points.

Moreover, with direct body measurement there are some advantages, these are:

1. Measurements are accurate and therefore the garment fit better.
2. Some people experience body changes within very short period of time as a result of mood changes, and hormonal changes. These, therefore, makes direct body measurement taking more convenient as it can capture any changes in the body for the production of a well-fitting garment.

Direct body measurement has some disadvantages too, these are:

1. This method must be learnt very well in order to take measurements accurately. Inexperienced people make many mistakes whiles taking measurement and affect the fit of the garment.
2. It is time consuming and many people consider it difficult.
3. Another limitation is that people believe it is impossible to establish points or levels on the figure from which, or between which one could measure with the accuracy expected in drafting. Due to the variability in identifying landmarks and

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the placement of the measuring tape on the body by different measurers, it is not always possible to repeat measurements. It is often advised that two persons should separately measure each subject to ensure the least amount of error. The accuracy of traditional tailor's measurements (within a specified allowable error per specific measurement) can be significantly reduced as a result of posture shifts by the person being measured. Although a skilled tailor or dressmaker can take very accurate measurements, methods and measurements can vary considerably among different professionals (Ashdown, 2002).

However this has become a major problem which has been given little attention over the years. Accuracy (within a specified allowable error) is therefore, amongst others, dependent on the person taking the measurements. Careful and accurate location and marking of landmarks on the body, as well as proper training of personnel can ensure consistency and accuracy of measurements. Ashdown (2002) argues that it is clear that the collection of anthropometric data is a time-consuming and expensive process that requires skilled personnel to be able to produce a well-fitting garment.

Preparation for direct body measurements taking

When taking direct body measurement the following preparations must be made:

- Ask the person to wear appropriate under garment or foundation garment before taking the body measurement.

- Advice the person to wear light weight or simple clothes.

- One must establish points on the body at which measurement will be taken.

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How to Take Body Measurement

Bust	A
Waist	B
Hips	C
Back Width	D
Front Chest	E
Shoulder	F
Neck Size	G
Sleeve	H
Under Bust	J
Wrist	N
Upper Arm	O
Calf	P
Ankle	R
Nape to Waist	G-B
Waist to Hip	B-C
Front Shoulder to Waist	F-B
Outside Leg	K-M
Inside Leg	L-M
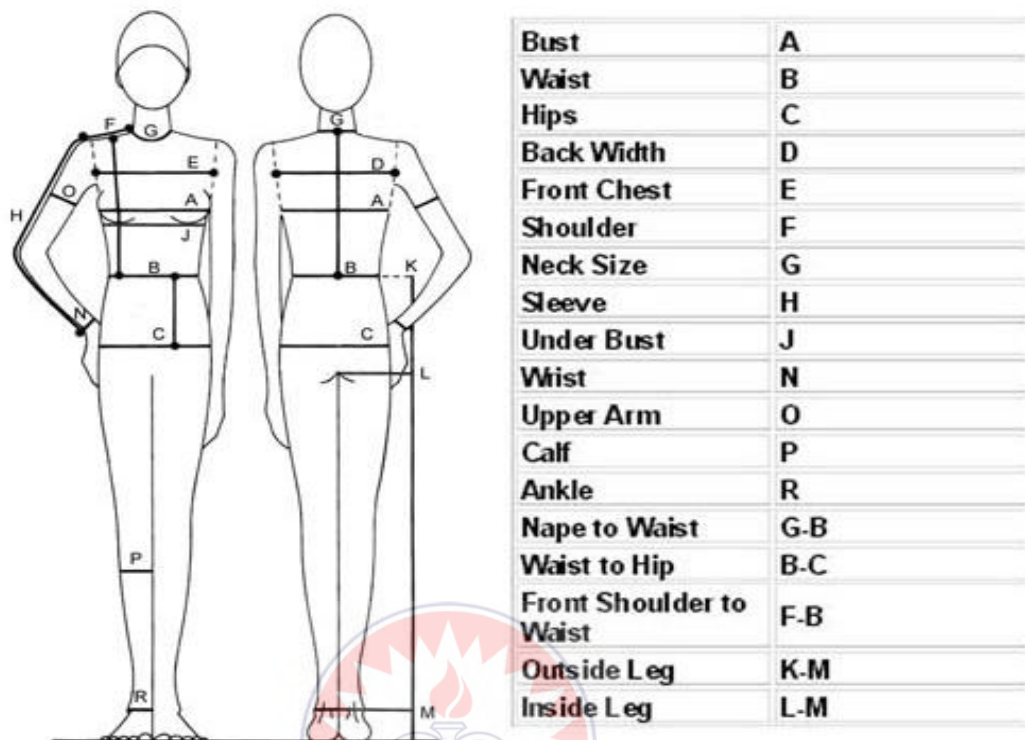
Figure 2.2 Female body measurement

source://images.search.yahoo.com/yhs/search

A. Bust – Pass the tape around the body over the fullest, part of the breast raising it slightly at the back.

B. Waist – Pass the tape around the natural waist line. Put two or three, four figures inside to give ease to the wearer.

C. Hip – Pass the tape around the hip, with about four fingers enclosed. The hipline is located at a distance of about 7 to 9 inches below the natural waist line

D. Back width – Measure from arm hole to armhole at the back

E. Front Chest – Measure from armhole to armhole across the chest but above the breast. Arm is the point where the arm joins the body.

F. Shoulder – Pass the tape from the base of the neck to the shoulder bone.

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G. Neck size – Pass the tape loosely around the neck with two fingers enclosed

H. Sleeve-Pass the tape from the shoulder bone to the wrist.

J. Under bust- Pass the tape loosely right below the bust

N. Wrist – Pass the tape loosely over the wrist bone.

O. Upper arm/arm/top arm – Pass tape around the top arm loosely around the thicker
part of arm.

P. Calf – Pass the tape loosely around the knee.

R. Ankle – Pass the tape loosely around the ankle..

G-B. Nape to Waist – Pass the tape from the nape to the natural waistline.

B-C. Waist to hip – Pass the tape from the waist line to the hipline.

F-B. Front shoulder to Waist – Pass the tape from the mid shoulder to the natural
waist line.

K-M. Outside leg-Pass the tape from the top of the waistband down the seam to the
desired length.

L-M. Inside leg- Stand with feet slightly apart and measure from crotch to required
length.

2.2.1.2 Standard body measurement

These are various measurements and proportions obtained by calculations from one or
two basic measurement and very distinct from direct system of taking measurements.
Some fashion designers consider it too rigid for dress making especially when certain
elaborate close fitting is required. Standard body measurements are considered useful
in tailoring whether making male or female garment. Some of its advantages are that
it is easy to obtain, and it is more suitable for standard figure or average figures.
Again it is fast to work with, however problems may arise when standard

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measurements are used for a person who has preferences for either loose or tight cloths.

Table 2.1. Female standard body measurement chart

Women of medium height 160cm – 172cm (5ft 3in – 5ft 7$^1\!/_2$in)								
Size Code	10	12	14	16	18	20	22	24
Bust	82	87	94	97	102	107	112	117
Waist	64	69	74	79	84	89	94	99
Hips	88	93	98	103	108	113	118	123
Back width	33	34.2	35.4	36.6	37.8	39	40.2	41.4
Chest	30.5	32	33.5	35	36.5	38	39.5	41
Shoulder	11.9	12.2	12.5	12.8	13.1	13.4	13.7	14
Neck size	35.6	36.8	38	39.2	40.4	41.6	42.8	44
Dart	6.4	7	7.6	8.2	8.8	9.4	10	10.6
Top arm	26.4	28	29.6	31.2	32.8	34.4	36	37.6
Wrist	15.5	16	16.5	17	17.5	18	18.5	19
Ankle	23.4	24	24.6	25.2	25.8	26.4	27	27.6
High Ankle	20.4	21	21.6	22.2	22.8	23.4	24	24.6
Nape to waist	40.5	41	41.5	42	42.5	43	43.5	44
Front shoulder to waist	40.5	41	41.8	42.6	43.4	44.2	45	45.8
Armhole depth	20.5	21	21.5	22	22.5	23	23.5	24
Waist to knee	58	58.5	59	59.5	60	60.5	61	61.5
Waist to hip	20.3	20.6	20.9	21.2	21.5	21.8	22.1	22.4
Waist to floor	103	104	105	106	107	108	109	110
Body rise	27.3	28	28.7	29.4	30.1	30.8	31.5	32.2
Sleeve length	57.5	58	58.5	59	59.5	60	60.5	61
Sleeve length(jersey)	51.5	52	52.5	53	53.5	54	54.5	55

Source: (https://images.search.yahoo.com/yhs/search ;)

2.3 Standards of a Good Fit

Boorady (2011), argues that the factors which determine whether a garment has a good fit or not are ease, line, grain, set, and balance. These factors are referred to as 'Standards for a good fit'. They are interrelated. For instance, if a garment has excess ease or too little ease, the grain lines go out of position, wrinkles appear and the garment may lack balance.

Ease: Ease is the difference between the actual body measurement and the garment measurement at any given point. It is the amount of space between the garment and the body. This amount varies with fashion, type of garment and personal taste. A garment constructed with the optimum amount of ease will be of the right size. Pulling or drawing across the bust, shoulder blades, hipline etc. are evidence of insufficient ease. Excess ease causes folds across the loose area giving a baggy appearance to the garment.
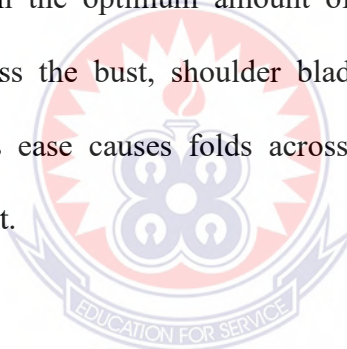
Line: Lines to look for in fitting are the basic silhouette seams, circumference seams, and design lines. The shoulder seam should be straight across the top of the shoulder. The side seam should be straight and must be halfway between back and front. The circumference lines include neckline, armhole, waistline, and hemline. They should form smooth curves following the natural body curves. The armhole should be oval shaped and should not curve too far into the bodice nor should it extend too far away from the natural joint. The neckline should fit well without pulling or gaping. Waistline and hemline should be parallel to the floor. Design lines such as pleats, darts, gores, and yokes within the garment should be graceful and smooth.

Grain: When a garment is worn, the fabric grain lines must fall correctly in the proper places on the figure. The lengthwise grain should be perpendicular to the floor at the centre front and centre back of the garment. In the sleeve, the lengthwise yarns should hang vertically from shoulder line to centre of sleeve hem. The crosswise yarns should be parallel to the floor across the bust, waist, and upper arm of the sleeve.

Set: A garment is said to have a good smooth set, if it has no undesirable wrinkles. Wrinkles are slanting triangles caused by the garment being strained over some curve or bulge of the body. If a garment is tight around its circumference, crosswise wrinkles occur above or below the tight area.

Balance: For a good fit, the garment should look balanced from left to right and front to back. A skirt should extend the same distance from the centre to the right and left sides. If the shoulder seam stands away from the shoulder at neck point and fits tightly at armhole point, the garment looks out of balance.

2.4 What constitute a well-fitting garment

According to Yu (2004), the definition of a well-fitting garment, and thus what good fit represents in this era, depends on several factors, which may include among others: the current fashion in fit that is found within clothing retailers, the existing industrial norm such as styles or function of the garment as well as the fit preferences of individuals. Apart from these aspects a well-fitting garment is achieved when the wearer feels comfortable and is able to move freely without any restraint from the clothing item (Laitala, Klepp & Hauge, 2011).

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A well-fitting garment contributes to the confidence and comfort (Alexander, Connell & Presley, 2005) as well as to the attractive and desired appearance of the wearer (Moody, Kinderman & Sinha, 2010). Equally, a good fit is supposed to be flattering and enhance the appearance of the wearer by making the body look well-proportioned and smart. Rasband and Liechty (2006) also suggest that by wearing poor fitting garments negative attention is drawn to the body shape that varies from a well-proportioned or "ideal", which is said to be similar in width in the shoulders and hips, with a medium bust, small waist, flat to slightly curved abdomen, moderately curved bottom and slim thighs that is well balanced with no exaggerated area present.

2.5 Study of the female body shapes

Hisey (2003) explains that, every person is born with a basic body structure, also called body type or figure. Diet and exercise can help alter it, but the basic structure does not change. No two body types/figures are exactly alike. The female body shape or female figure is the cumulative product of a woman's skeletal structure and the quantity and distribution of muscle and fat on the body. As with most physical traits, there is a wide range of normality of female body shapes.

Attention has been focused on the female body as a source of aesthetic pleasure, sexual attraction, fertility, and reproduction in most human societies. There are and have been wide differences in what should be considered an ideal or preferred body shape, both for attractiveness and for health reasons.

Fashion designers do not just come up with fashion ideas that can result in fashion trends. At times, the trend in fashion may depend on the way of life of the people at

that season in time (Darkwah 2007). There are so many things that designers consider when they are designing clothes. Considerations such as the kind of fabrics and their textures, the pattern of the design as well as the colour of the fabric, types of figure shapes which include the size of individuals, the line of the figure which also include the posture. The main purpose of designing clothes is for it to be comfortable to wear as well as to flatter the figure of the wearer.

2.5.1 Major categories of female body shapes

Fisher & Voracek (2007), argues that, independent of fat percentage and weight or width, female body shapes are categorised into one of four elementary geometric shapes, though there are very wide ranges of actual sizes within each shape:

Banana - Straight or I shape (rectangular). The body fat is distributed predominantly in the abdomen, buttocks, bust, and face. This overall fat distribution creates the typical (H) shape.

Apple - V shape (triangle downward). Apple shaped women have broader shoulders compared to their (narrower) hips. Apple shaped women tend to have slim legs/thighs while the abdomen and bust look larger compared to the rest of the body.

Pear - A shape (triangle upward). The hip measurement is greater than the bust measurement.

Hourglass - X shape. The hip and bust are almost of equal size with a narrow waist. Body fat distribution tends to be around both the upper body and lower body.

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| Banana | Apple | Pear | Hourglass |
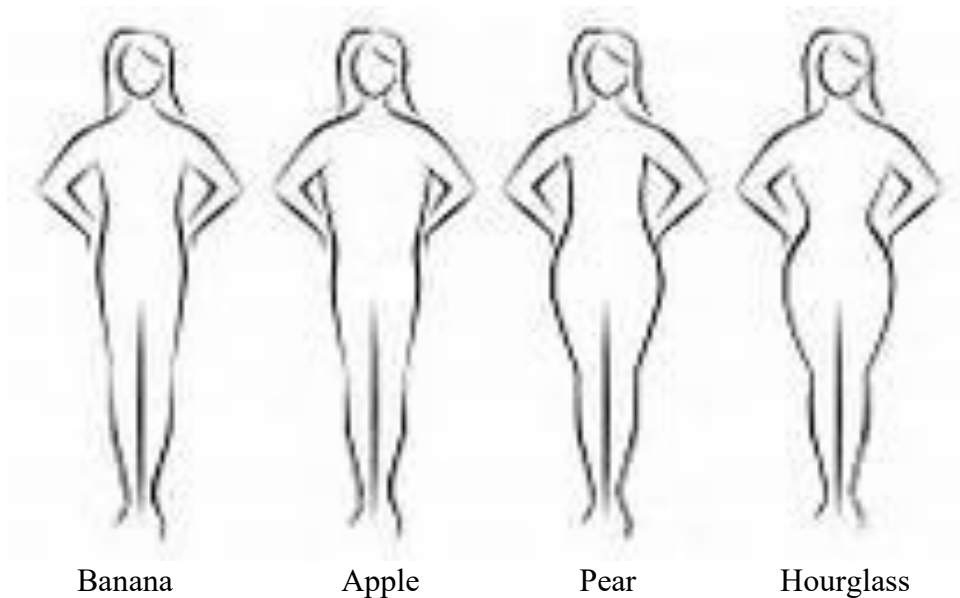
Figure 2.3 female body shapes-. Source

(https://images.search.yahoo.com/yhs/search)

2.5.2 Other categorisations of female body shapes

Other categories of the female body shape are:

- Straight Body Shape - The bust and hips are basically the same sizes. The waist is slightly smaller than the bust and hips.
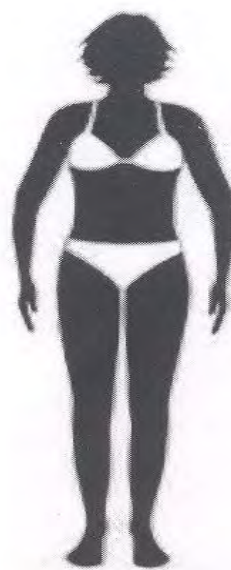
Figure 2.4 Straight body shape.

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- Pear Body Shape - The hips are larger than the bust, and the waist gradually slopes out to the hips.
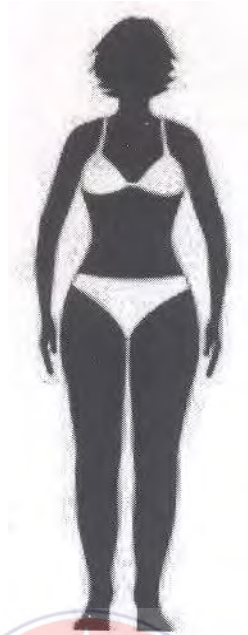
Figure 2.5 Pear body shape

- Spoon Body shape - The hips are larger than the bust, and the hips have a 'shelf' appearance. The waist is slightly smaller than the bust.

Figure 2.6 Spoon body shape

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- Hourglass Body shape - The bust and hips are basically the same size and the waist is well defined.

Figure 2.7 Hourglass body shape

- Inverted Triangle Body shape - The bust is large, the hips are narrow, and the waist is not very well defined.
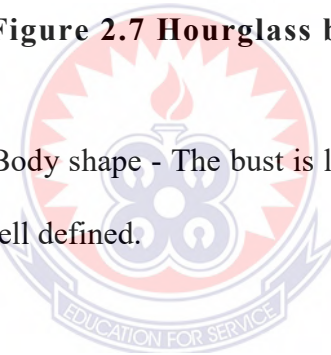
Figure 2.8 Inverted Triangle Body

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- Oval Body shape - The waist is larger than the bust and hips. The hips are narrow compared to the shoulders. Breasts are ample in size.

Figure 2.9 Oval body shape

- Diamond Body Shape - The waist is larger than the bust and hips. The shoulders are narrow compared to the hips. Breasts are small to medium in size.

Figure 2.10 Diamond body shape

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2.6 Parts of the body shapes

Gueguen (2007) explains the following parts of the body shapes.

Neck and Shoulders: the best way to check the slope of the shoulders is to stand at the back of the figure, and place a yardstick or tape measure across the shoulders, parallel to the ground. From this, you will be able to determine whether the shoulders are normal: too square thus showing a short neck; too sloping; or whether one shoulder drops much lower than the other does. If the latter happens, then look down at the opposite hip, as it is generally found that if one shoulder drops it necessitates in a more curved and longer skirt side-seam-line at that side. Whilst at the back of the figure, check for hump at the base of the neck, and also for round shoulders.

The Stance: the side is the best position for checking whether the figure has a normal stance, slouches, leans forward, or stands to erect. It is also the best position to note the width of the upper arm.

The Bust Prominence: this naturally is done from the front. There is no normal bust position to-day, with the help of good, well-fitting foundation garments; a woman wears her best where it shows off her figure to the best advantage, or where it is most comfortable. Check whether the bust is large on an otherwise normal figure; whether the bust is placed high, medium or low, and whether or not there is a hollow above the bust prominence.

The Height: Have in mind the proportionate figure measures and check entire height of figure. If the height is short in relation to width, then when constructing bodice draft, make the distance from zero to one, one –eight entire height of figure, rather

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than quarter scale plus 3½. This will ensure that the armhole will not be too deep on finished pattern.

Remember, however that much time is taken to observe the figure. This practice of observing the figure, is not only helpful, it is essential. If you are to obtain any degree of success in pattern cutting, the fit of the styled pattern and ultimately the finished garment, depends entirely on the fitting quality of the basic foundation skirt, bodice, and sleeve patterns.

Gueguen (2007) argues that, before starting to draft, it is important to check whether the figure is disproportionate, at one or more sides, comparing it to the measuring points we have on the human body in order to enhance a good fitting results. She asserts that disproportion of a figure means any slight abnormality of a figure.

In this view, the most important point with regards to fitting is figure observation and that it is important to train the eye to look over a figure carefully; making notes of every disproportion on the figure. Being completely honest with it will be the best, whether for someone or yourself. Gueguen (2007) explains that, once disproportion has been recognised and accepted, good measurement taking and pattern making becomes comparatively easy, which in effect will lead to a better fit. For one to understand what is proportionate or disproportionate of a figure is basically the realistic observation of the silhouette of the figure form. It is not necessary to have a complete knowledge of the anatomy, but to train the eye to look over the figure at the neck, shoulder, arms, and bust, as well as the stance of the figure and the height of the figure in relation to its width are important. This is because from this, one can recognise the variations from the normal when they arise.

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2.7 Impact of body shapes on garment fit

Hines and Bruce (2007) argued that since clothing is about self-expression, emotions and personal identity, female consumers are unlikely to purchase a garment solely as a means of ensuring warmth and to cover the body. Kim, Forsynthe, Gu and Moon (2002) are of the opinion that consumer behaviour in the clothing market is greatly influenced by their personal values and that garment fit is a key element of any garment that is able to support the consumer's personal values. Moreover, the differences in body shapes will often determine the way the garment will drape on the body, how comfortable the garment will feel, and how the female consumer will perceive the fit of the garments.

Fishers and Voracek (2007), concur that female consumers find it difficult to locate well-fitting garments. The authors attributed this to the varying female body shapes and proportions that may also change over the years as a result of age, changes in nutrition, lifestyle and an increase or loss in body weight or ethnicity and other influencing factors. This problem can also apply to the African female clothing consumer for which very little research evidence is able to validate this occurrence. Therefore this study is being conducted to explore the various body shapes available and the appropriate styles of the garments that will fit properly.

2.8 Studies on Types of Faces and Necklines

The front part of a person's head from the forehead to the chin is the face. Some examples are:
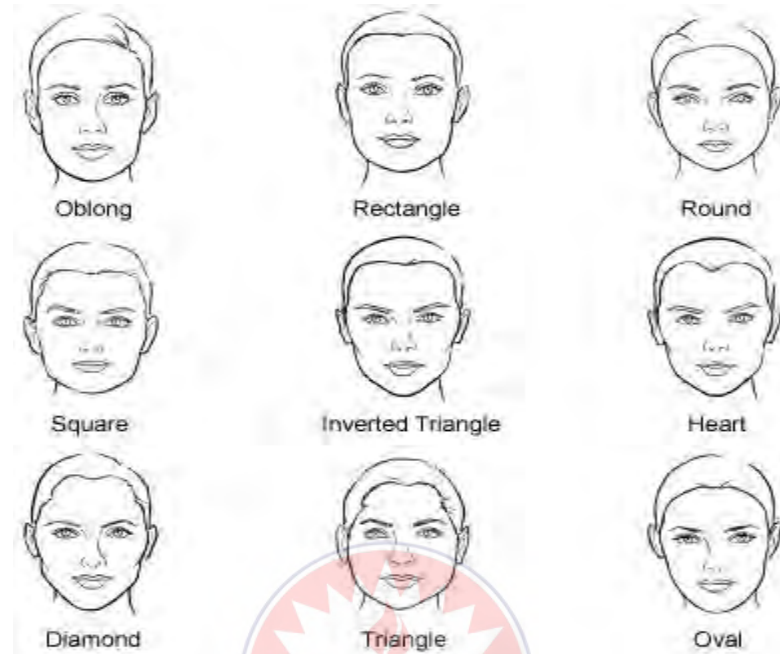
Figure 2.11 Types of faces. Source: Janice, (2011)

Neckline Styles

Figure 2.12 Types of necklines. Fan, Yu & Hunter (2004)

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Every woman has her own characteristic facial features and body shapes, and when it comes to choosing an outfit that fits properly, it is the neckline that is likely to make all the difference between a look that flatters your figure and face, and one that accentuates your less-than-perfect parts. Without a doubt, when choosing the right outfit to flatter the most – to make the look appears taller, slimmer and more stylish – women are required to look for necklines that complement their body frame, wardrobe and lifestyle.

Choi & Kim (2006) explains the following types of necklines.

V Neckline

V necklines gives vertical impression to the outfit, this type of neckline can create a leaner, longer, and taller silhouette. It is universally flattering and popular for all figures, as it can create a balanced look; it does not only draws the eye upward to the face but also enhances the neck and elongate the body. Especially for those who have broad shoulders, thick torsos, or short necks, this neckline is well suited.

Square Neckline

Perfect for those with round face to balance out the roundness. Women with firm necks and great skin (mostly younger women) also look great with these necklines, since they show off a lot of both. This type of necklines also helps to elongate short neck and narrow shoulders. And if you are a skinny girl, petite, or small chested, make sure to wear a fitted square to bring the illusion of curves to your bust line.

Turtle neck (High neck)

Perfect for those with a long face or thin neck. Among varieties of neckline, this shape can be considered as one type that needs greater attention. Make sure to give

room between the top of the turtleneck and your chin to avoid that "floating head" effect. These necklines, especially the turtlenecks, have an extended tight-fitting high collar that tends to create volume in the neck area. A true turtleneck that hits a couple of inches below the chin will whittle away your height, making it best for those who want to offset a long neck or face.

Scoop Neckline

Scoop neckline is suitable for short neck, long face, or narrow shoulders as it gives the illusions of longer and wider look. Hourglass shape as it creates a balanced look between upper and lower body part. Great to create an illusion of large bust. A wide or large scooped neckline on a shirt, for example, tends to flatter women with narrow shoulders since it makes the shoulders appear wider. It also fits better for smaller chests or women with athletic body types.
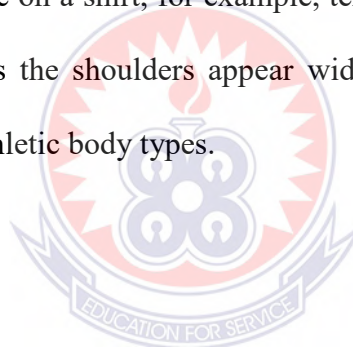
Sweetheart Neckline

Sweetheart neckline, just like its name, a sweetheart neckline forms two curves like a type of heart shape at the bust line that rise over the underarms and reach high over the breasts. Since this neckline has a shape to provide considerable to the breasts, this works well in accentuating cleavage and perfect for large busted ladies.

This is suitable for angular face shape as it balances the contours of the sweetheart. Good for short chin and neck. - Petite women with small breasts and narrow shoulders may wear them to show more curves.

2.9 Impact of ill-fitting garments on consumers

According to Kasambala, (2013), when we say a garment is ill-fitting it means the garment does not produce emotions, but the evaluation of what is at stake for the consumer gives an increase to a particular emotional response. Underlying this response are the personal values such as moral values an individual seeks to improve through the clothing they purchase from clothing retailers and wear, which in the case of an ill-fitting garment may be challenged because of the lack of proper fit or style of the garment.

Specifically one approach used in describing and differentiating between and among the evaluations are the dimensional processes, which refer to the process of answering evaluative questions (Demir, Desmet & Hekkert, 2009). One of the evaluative questions most likely to be asked of the consumer when faced with an ill-fitting garment is whether this negatively perceived situation affects the female consumer's personal values. Furthermore, garments and appearance are closely related to our social environment and whatever that happens within this environment can have a great influence on decision making according to Kaiser (1998).

The personal values that consumers attach to garments can be broken down into two types, namely instrumental and terminal values. According to Fisher & Voracek, (2006), instrumental values are core values that act like tools or methods in achieving the desirable end-state of a garment, while terminal values are desirable end-states that individuals work towards achieving through garments. These personal values have a large influence on the cognitive processes of consumers in their evaluation of garment fit.

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Moreover, emotions and personal values are closely related to each other. According to Frijda (2007) cited in Nurkka ('n.d'), every emotion hides a concern and in Frijda's vocabulary, concern is a synonym for motive, a need, a desire, a goal as well as the personal values, referring to all things that people care for and are important to them. In this regard, a personal value is the concern which is also the terminal personal value that gives the situation (for instance improper fitting garment) its emotional meaning and the emotions point to the presence of some concern in the mind of the consumer. Hence, the elicited emotion by the female consumers indicate the presence of a concern, which is also the terminal personal value for garment fit. Thus in this study, the emotional responses are regarded as the outcome of an appraisal or evaluation process in which the problems of garment fit are linked to the underlying concerns or terminal personal values.

Personal values and emotions related to garment fit can be regarded as the points of reference in the evaluation processes. If for instance body shape is contributing to the problems of garment fit, emotions may be elicited depending on the perceptions of whether the fitting of the garment matches or mismatches the personal values which the female consumer may seek through clothing. Hence an emotional state will not be elicited by the garment fit problem as such, but by the evaluation significance of this problem to an individual's personal values.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter deals with the methods used in gathering information for this project. It discusses the population and sample, the instruments and the procedures employed in finding relevant data and how the data was analysed.

3.2 Research Design

The research is predominantly a qualitative study that seeks to find out how fitting problem have caused a lot of damage to the ~~designers~~designers' career and that of the clients satisfaction in Sunyani Municipality of Brong Ahafo region. The qualitative research method was used to collect data to investigate the phenomenon. The study was to find out possible solutions which will help correct fitting problems in the municipality.
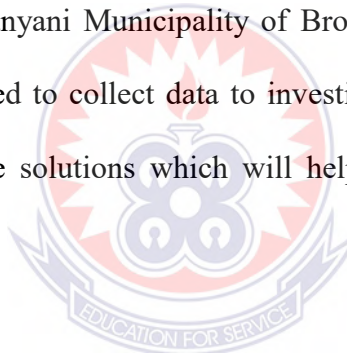
3.3 Population and Sample

The population involves fashion clients in Sunyani Municipality. The respondents were between the ages of 20-44 years. For the purposes of the research, the sample size that was used is two hundred (200) fashion client and ten (10) fashion designers from two reputable fashion homes. Clients were selected from the population of people who fell within the age bracket of the definition of youth. Their ages were collected and used as the sample frame. When the sampling frame was drawn, the simple random sampling method was used to select clients and designers who fall within the age bracket, after which the questionnaires were administered.

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3.3 Instruments

The instruments consist of open ended questions (Appendix 1) designed to find out how much damage fitting problem have caused fashion clients. The items on the questionnaire sought to examine the kinds of fitting problems mostly encountered by the clients. An interview guide (Appendix 2) was also design for the fashion designers to also solicit their views on the possible causes of those problems.

3.4 Data Collection Procedures

The data collection procedure involved observing members of the public to find out those who were having some fitting problems and subsequently giving them the questionnaires to answer. The researcher administered the 200 questionnaires to the fashion clients in the Sunyani municipality in Brong Ahafo Region.

The clients who answered the questions were between ages 20-44. The target group for the study consisted of youth from the Sunyani municipality who encounter these fitting problems. The questionnaires were administered to the fashion clients on set days by the researcher and taken within a period of one week.

Interviews were also conducted using a structured interview guide. The interviewees were established fashion designers within the municipality. The interview sought to find out their opinions on the various fitting problems and their causes.

3.5 Data Analysis

- The collected data were organised into frequency tables using statistical measures such as percentages to make meaning of the data.
- Some of the information was also presented in charts and tables.

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- These tools were employed from the (Software SPSS version 20) and (Microsoft excel version 20.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSIONS OF FINDINGS

4.1 Overview

This chapter deals with the presentation of the results obtained through the questionnaire and the interview guide using frequency/percentage distributions and pie charts. The order of arrangement of the questionnaire used has been followed to present the findings. Problems associated with the production of well-fitted garments and the critical examinations of the causes of the problems are outlined in this chapter. Respondents therefore selected answers based on their own experiences.

4.2 Results from Respondents (fashion clients)

4.2.1 Background information of respondents (customers)

The first part of the questionnaire is based on the background of the fashion clients considered as the respondents. This was to ascertain the authenticity of the responses that were received and to prove that the respondents were of high credentials to validate their responses on the issues raised by the questionnaires. These included checks on their age and sex.

The respondents' genders were sought and the female respondents were two hundred (200), representing 100%. This auger well for the research since it is about female fashion client, they are the people who are most suitable to give out the kind of information necessary for this research work to come to a proper conclusion.
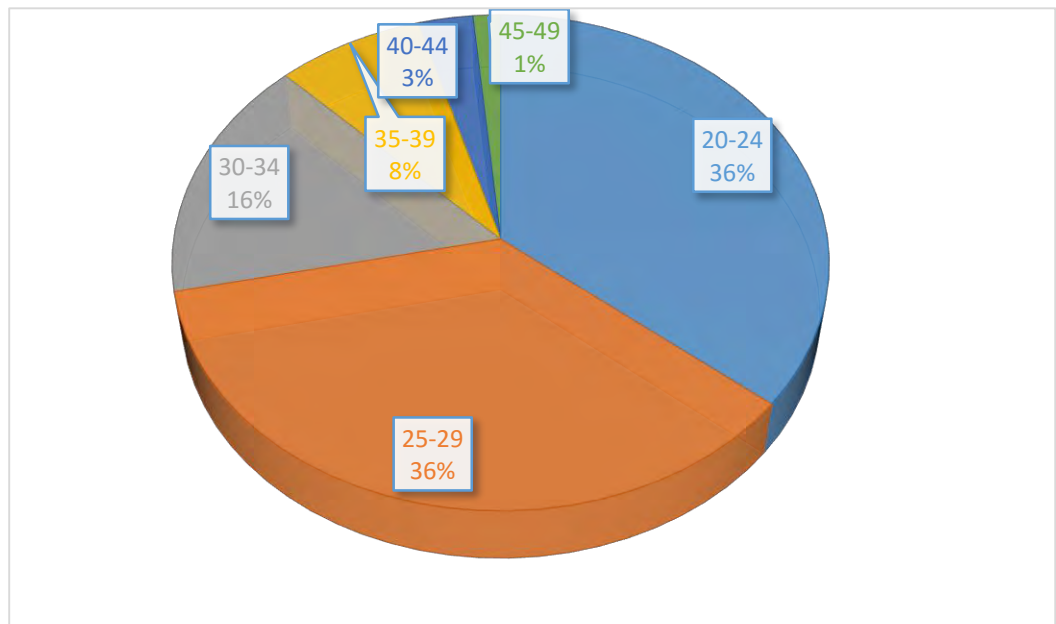
Figure 4.1: Age of Respondents

The findings revealed that seventy two (72) respondents representing 36% and seventy two (72) respondents representing 36% were within the ages of 20 years -24 years and 25 years -29 years respectively, representing 36% of the respondents. Thirty one (31) were also in the ages of 30 years-34 years, representing 16% of the respondents. The least respondents were within the ages of 45 years -49 years which represents 1%.

4.2.2 Frequency of occurrence of fitting problems in garment

Table 4.1 indicates that, ninety –five (95) of the respondents representing 47.3% sometimes experience fitting problems. This is true because there are few designers in

Sunyani municipality who are specialized in taking time to produce faultless garments irrespective of how much time is involved.

Table 4.1: Frequency of occurrence of fitting problems in garment

Item	Frequency of Occurrence	Frequency (N)	Percentage (%)
1	Always	72	35.8
2	Sometimes	95	47.3
3	Never	33	16.9
	Total	**200**	**100.0**

Such designers go all out just to satisfy a client perfectly and that is reflective in the prices charged. Therefore, customers who sometimes visit such few designers can only sometimes experience fitting problems when they decide to visit the masses due to financial constraints. Also seventy-two (72) of the respondents, representing 35.8%, always experience fitting problems and thirty-three (33) of the respondents representing 16.9% have never experienced fitting problems before.

4.2.3 Fitting problems predominant in the garment production industry in Sunyani Municipality.

Table 4.2 shows that, eighty five (85) of the respondents representing 42.5% strongly agreed that untrimmed threads are predominant fitting problems. Seventy five (75) of the respondents representing 37.5% complained about the high level of skipped or missing stitches in the garments produced. Fifty-five (55) of the respondents representing 27.5% strongly agree that oversized fit or garment was another major problem, whilst 28.5% were neutral about seam puckering, with 28.0% agreeing that,

seam opening caused a lot of embarrassment to customers' and needs to be addressed. Also, fifty seven (57) of the respondents representing 28.5% strongly agreed that, wrong choice of design for figure type is on the rise and must be looked carefully. Fifty nine (59) of the respondents, representing 29.5% were neutral about the improper placement of trims on garment, while fifty five (55) of the respondents, representing 27.5% agreed about the great defects of trimming in colour. Also fifty (50) of the respondents, representing 25.0% were neutral about the incorrect stitch per inches, with fifty nine (59) of the respondents, representing 29.5% complained about the wavy stitches, whilst fifty (50) of the respondents, representing 25% had a neutral view about the wrong fabric choice for design. More so, sixty three (63) of the respondents, representing 31.5% complained of the misaligned button and holes, with sixty two (62) of the respondents, representing 31% complaining about the broken stitches.
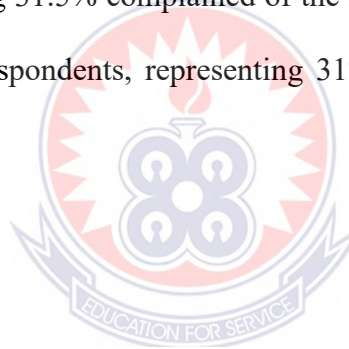
Table 4.2: Fitting problems predominant in the garment production industry

Item	Fitting Problems	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
		n(%)	n(%)	n(%)	n(%)	n(%)	n(%)
1	Untrimmed Threads	85(42.5)	52(26.0)	26(13.0)	23(11.5)	14(7.0)	200(100)
2	Skipped or Missing Stitches	37(18.5)	75(37.5)	45(22.5)	25(12.5)	18(9.0)	200(100)
3	Oversized Fit of Garment	55(27.5)	53(26.5)	51(25.5)	24(12.0)	17(8.5)	200(100)
4	Seams Puckering	45(22.5)	53(26.5)	57(28.5)	22(11.0)	23(11.5)	200(100)
5	Seams Opening	49(24.5)	56(28.0)	45(22.5)	28(14.0)	22(11.0)	200(100)
6	Wrong Choice of Design for Figure Type	57(28.5)	47(23.5)	50(25.0)	27(13.5)	19(9.5)	200(100)
7	Improper Placement of Trims on Garment	31(15.5)	54(27.0)	59(29.5)	30(15.0)	26(13.0)	200(100)
8	Great Defect of Trimmings in Colour	34(17.0)	55(27.5)	52(26.0)	33(16.5)	26(13.0)	200(100)

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9	Great Imperfection in the Choice of Trim Size	36(18.0)	53(26.5)	55(27.5)	30(15.0)	26(13.0)	200(100)
10	Incorrect Stitch per Inch	35(17.5)	62(31.0)	50(25.0)	26(13.0)	27(13.5)	200(100)
11	Wavy Stiches	31(15.5)	59(29.5)	56(28.0)	28(14.0)	26(13.0)	200(100)
12	Wrong Fabric Choice for Design	47(23.5)	47(23.5)	50(25.0)	25(12.5)	31(15.5)	200(100)
13	Misaligned Buttons and Holes	28(14.0)	63(31.5)	49(24.5)	29(14.5)	31(15.5)	200(100)
14	Broken Stitches	34(17.0)	62(31.0)	39(19.5)	36(18.0)	29(14.5)	200(100)
15	Garment too Small on the Client	34(17.0)	57(28.5)	46(23.0)	40(20.0)	23(11.5)	200(100)
16	Improper Fixing of Fasteners	22(11.0)	56(28.0)	57(28.5)	30(15.0)	35(17.5)	200(100)

Also fifty seven (57) of respondents, representing 28.5% agreed that garments are mostly too small on the client, whilst fifty six (56) of respondents, representing 28% complained of the improper fixing of fasteners. It is clear that, untrimmed threads came up as the fitting problem which is most predominant. It has a percentage of 42.5% meaning that the extent to which untrimmed threads is dominant in the garment industry in Sunyani municipality is very high. This is because; most fashion designers do not have the inspection department within their fashion homes, and therefore do not pay great attention to the inspection of products before delivery and this actually hinders the quality of product and hence brings about the dissatisfaction of customers.

An Inspection department in the garment production industry is one of the final departments in which products are taken through thorough check before packing is done in another department. In this department, loose or hanging sewing threads, raw edges of garments are checked thoroughly. Also, open seams, wrong stitching techniques, non- matching threads, and missing stitches, improper creasing of the garment, erroneous thread tension, broken or defective button, snaps, different shades

within the same garment, dropped stitches, exposed notches, fabric defects, holes, faulty zippers, misaligned buttons and holes, missing buttons, needle cuts or chews, pulled or loose yarn, stains, unfinished buttonhole, short zippers, inappropriate trimmings and many others are checked to promote the quality of products- all leading to endless -brand name.

Other high categories of fitting problems revealed are skipped or missed stitches and oversized garment, having percentages of 37.5% and 27.5% respectively. It also came out that the least ranked fitting problem is improper fixing of fasteners having a percentage of 28%.

Oversized garments can be a result of inaccuracy pattern in pattern construction. Pattern construction has a very important influence on the fit of the garment. Two bodies with the same dimensions but with different attributes may each require a different pattern because the same garment will not fit individuals with similar body measurements but different proportions equally well. Therefore body measurements must be considered together with proportions by fashion designers to enable a correct and decent fit for different people who patronize them.

4.5 Causes of fitting problems

The views of the fashion clients were gathered regarding the causes of fitting problems in the garment production industry in Sunyani municipality. In Table 4.3 although, all the causes listed are common in the industry, the respondents thought that lack of proper basic preparations before taking measurements is a major cause of

fitting problems.- It had respondents of fifty two (52), representing twenty six percent (26%).

This means that, the extent to which lack of proper basic preparations before taking measurements is rating higher and it is dominant in the industry. Poor knowledge about the various methods of obtaining measurements is the second cause of fitting problems with respect percentage (25%). Respondents also listed lack of fit and wear test (19%), inadequate understanding of the types of necklines appropriate for the various faces available (24%), and lack of adequate knowledge of the various human faces available as the least causes of fitting problems.

Table 4.5: Causes of fitting problems

Item	Causes of Fitting Problems	Very Serious	Serious	Neutral	Less Serious	Not Serious	Total
		n (%)	n (%)	n (%)	n(%)	n(%)	n(%)
1	Lack of proper basic preparations before taking measurements	52(26.0)	43(21.5)	44(22.0)	20(10.0)	41(20.5)	200(100)
2	Poor knowledge about the Various Methods of obtaining measurements	50(25.0)	42(21.0)	41(20.5)	23(11.5)	44(22.0)	200(100)
3	Wrong patterns production	49(24.5)	50(25.0)	41(20.5)	34(17.0)	27(13.5)	200(100)
4	Measurements are taken wrongly	48(24.0)	49(24.5)	35(17.5)	31(15.5)	37(18.5)	200(100)
5	Poor knowledge about the various figure types	44(22.0)	52(26.0)	28(14.0)	39(19.5)	37(18.5)	200(100)
6	Lack of adequate knowledge of the various human faces	28(14.0)	50(25.0)	46(23.0)	39(19.5)	37(18.5)	200(100)
7	Inadequate understanding of the types of necklines appropriate for the various faces available	24(12.0)	53(26.5)	48(24.0)	42(21.0)	33(16.5)	200(100)
8	Lack of fit and wear test	19(9.5)	46(23.0)	51(25.5)	46(23.0)	38(19.0)	200(100)

As explained earlier, the basis of garment production is dominantly reliant on good body measurement. From the very least scale such as domestic production, to the very

largest scale such as the industrial production, the dominant element that is used is body measurement. With body measurement being a key component of garment production, it stands out as the item that is most widely used in the garment production industry. Therefore, for a good measurement to be taken there must be some basic preparations before doing so. An example is designers checking whether the right undergarment like brassier is won before taking measurement. But because most of the designers in the Sunyani municipality do not observe these basic preparations before taking measurements this has led to the increase in fitting problems and hence the choice of –lack of proper basic preparations before taking measurements as the largest cause of fitting problems.

4.6 Frequency of changing designers due to fitting problems
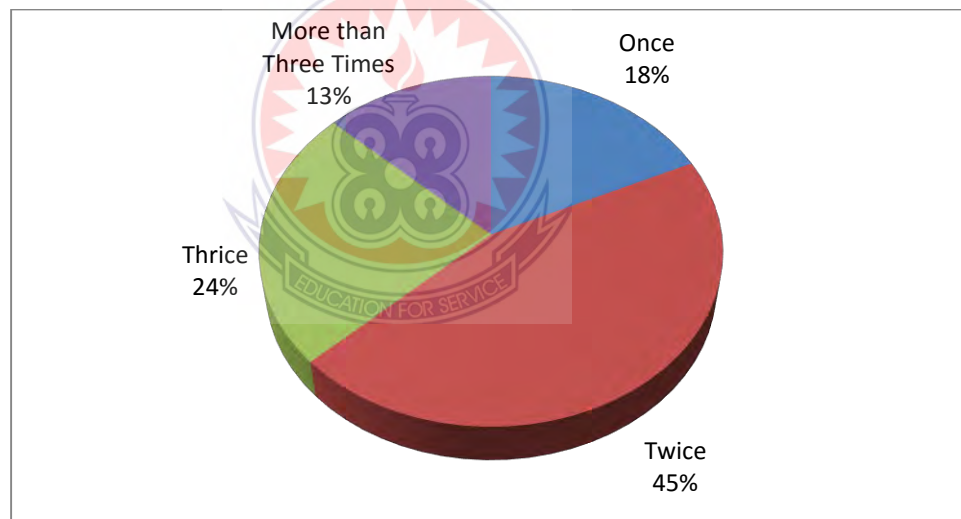
Figure 4.2 Frequency of changing designers due to fitting problems

When the frequency of changing designers due to fitting problems was sought, it was found that ninety (90) respondents, representing 45% changed their designers twice. This is possible, because improper fit of garments can actually hinders a person's performance at work and hence reduce productivity level of that person. Customers though love to admire the aesthetic part of a garment; they also check it to be functional before going in for it. The 21st century fashion lovers are critical when it

comes to paying attention to details. Therefore customers don't hesitate to change any designer who fails to deliver to their taste or expectation. Forty eight (48) respondents, representing 24% also changed their designers thrice because of fitting problems and twenty-six (26) respondents, representing 13% changed their designers more than three times.

4. 7 Interview Results

These are results gotten from a face to face interaction with both male and female fashion designers in the Sunyani municipality.

4.8 Body types that presents most fitting problem

The interviewees were guided to discuss the figure types on which they frequently encountered fitting problems. According to Amass, K. (personal communication, May 15, 2017) he said he frequently encountered fitting problems on three body types namely: **straight, inverted** and **oval** body shapes. Amass, K. (personal communication, May 15, 2017), adduced some reasons for encountering fitting problems on these body types frequently. One of the reasons he gave was that, designing for these body types required a lot of time and attention. To be able to produce a good fit for such body types, he explained that critical analysis had to be done on both the figure and design, because of the bulk created by these figures especially around the body contours, and this when not done presents many problems. He explained that he is however, unable to do such vigorous figure and design analysis well hence the many fitting problems encountered. Another reason was that customers were unwilling to take professional advice from their designers (Amass K., personal communication, May 15, 2017). In his view, most of them choose the designs by observing others wearing similar designs. They fail to observe that those

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wearing them have different figure types from them hence giving rise to many fitting problems in terms of choice of design in the municipality.

Essel, T. Y. (personal communication, May 16, 2017), was also of the view that the **straight** and **oval** body types presented most of the fitting problems to him as designer in the municipality. The first reason given for this phenomenon was that, when customers come for their measurements to be taken, they do not wear the right undergarments. They are usually not willing to go and change their undergarments since the distance to their house is far. The designer is therefore forced to take the measurements, after which he guess by adding or subtracting some inches so it can fit properly, unfortunately this mostly leads to fitting problems being experienced. Essel, T.Y (2017) was also of the view that refusal on the part of customers to take professional advice on the best designs suitable for their body types is causing a lot of havoc in the industry here and hence the rise of fitting problems.

4.9 Drafting of patterns before garment production

Amass, K. (personal communication, May 15, 2017), stated that he preferred to cut garments 'free-hand'. This means that patterns are not drafted before production. In his opinion, drafting consumes a lot of time and hence the urge to skip it. He said he is able to cut every difficult design with free hand. Amass K. (personal communication, May 15, 2017), argued that this is not the cause of the many fitting problems encountered by him.

However, Essel T. K., (personal communication, May 16, 2017) stated that, he drafts patterns sometimes before sewing. He explained his reason to be because of the fact

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that, some of the designs are difficult to produce without patterns. Essel T. K., (personal communication, May 16, 2017) explained that, he therefore uses good patterns to aid him in the cutting and sewing of fitting problems free garments for his cherished customers who constantly patronize his services.

4.10 Matching neckline styles with face types

Amass K. and Essel T. (personal communication, May 15 & 16, 2017) was asked to indicate the kind of necklines they would recommend for various face types.

On the issue of the one who is able to recognize fitting problems first, both Amass K. and Essel T. Y explained that, they were the ones who always identified fitting problems whenever they occurred but not their customers.

Table 4.6: Necklines fitting problems identified by designers and their recommended necklines

Item	Face Type	Designer A's Necklines	Designer B's Necklines	Recommended Necklines
1	Round-Shaped	Jewel V	Jewel	Sweetheart Empire V Queen Anne
2	Heart-Shaped	Square Turtlenecks	Square	Square Sabrina Boat Jewel
3	Long-Shaped	Cowl Square	Boat	Bateau /Boat Sabrina Portrait Cowl
4	Oval-Shaped	Square Boat	V	Boat Square Queen Anne Sabrina

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However they also explained that some customers preferred to fit their garments in their homes thus ignoring or refusing to participate in the fit and wear test. In that case, it is difficult as a designer to be the one to identify the fit problems, so here the client is the one who identifies the problems before drawing the attention of the designer.

4.11 Solution to fitting problems

Essel T.Y and Amass K. (personal communication, May 15 & 16, 2017) responded that they are able to satisfy customers by solving the fitting problems whenever they occur. Most of the problems that occur can be fixed within a short period. However, Amass K. (personal communication, May 15, 2017) explained that there were situations where the customer would need to buy an extra piece of fabric for the problem to be solved. This situation causes the solution to the problems to be delayed because it usually does not go down well with customers.
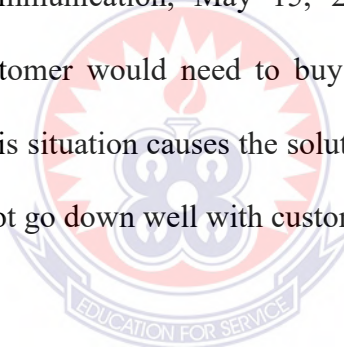
CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND

RECOMMENDATIONS

5.1 Introduction

This is the concluding chapter of the study. The chapter gives an overview of the findings made through the study. The first part is the summary of all the findings made. This is followed by the conclusions drawn from the study, in the second part. The third and final part is the recommendations made by the researcher, which is aimed at giving some solutions to problems associated with the production of well-fitting garments for females in the Sunyani municipality of Brong Ahafo region.

5.2 Summary of Findings

After carefully analysing and discussing the results of the study, the following major findings have been made among others:

1. The most predominant fitting problems associated with the production of well-fitted garments for females in the Sunyani Municipality are:

   - Untrimmed threads

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- Skipped or missing stitches

- Oversized fit of garment

- Seam puckering

- seam opening

2. After critical examination, the causes of the problems in the production of the fitted garment for the females are:

- Lack of proper basic preparations before taking measurement.

- Poor knowledge about the various methods of obtaining measurements.

- Patterns wrongly produced

- Body measurements taken wrongly

- Poor knowledge about the various figure types

3. Major findings on the frequency of changing designers due to fitting problems reveal that ninety (90) respondents, representing 45% changed their designers twice. Forty-eight (48) respondents, representing 24% changed their designers once because of fitting problems and twenty six (26) respondents, representing 13% changed their designers more than three times.

4. From the interview findings, the body types that presented most fitting challenges to designers are:

- Straight body type

- Inverted body type

- Oval body shapes

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5. From the findings, when designers were asked whether they were able to solve customers' fitting Problems by improving upon their production works to satisfy customers. This was their response:

Both interviewees responded that they are able to satisfy customers by solving the fitting problems whenever they occur. Most of the problems that occur can be fixed within a short period. The first interviewee however, said there were situations where the customer would need to buy an extra piece of fabric for the problem to be solved. This situation causes the solution to the problem to be delayed because it usually does not go down well with customers.

5.3 Conclusions

The following conclusions can therefore be drawn from the study:

1. The major fitting problems can be traced to three core departments in the garment production industry in Sunyani. Namely:

- Pattern production department, where when inaccurate measurement is used in the production of pattern pieces, oversized fit garment will be one of the major challenges with the finished products produced.

- Assembling /sewing department, where the following fitting problems can germinate from whenever stitching is improperly done -

✓ Skipped or missing stitches

✓ Seam puckering

- The last department so far as this research is concern is the Inspection department.

   Untrimmed threads as a fit problem can be traced to this department.

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2. (a) From the findings, four of the major causes of fit problems can be associated with body measurement.

(b) Another major cause can be associated with figure types.

5.4 Recommendations

In view of the findings made in this study the following recommendations are made which will help in making things better in the industry:

- Regulation: some sort of regulations of sewing or assembling of garments should be put in place. This will help check sewing defects, and corrections can easily be made before they leave that department to the next. One worker can be selected be in assembling department to do inspection of good seams, stitch quality and many others. Fashion home owners in Sunyani municipality should educate their machinist monthly or quarterly by organizing mini trainings to enlighten them on new and efficient ways of assembling garments in this era.

- Qualified pattern makers should be employed in the pattern department to produce accurate pattern pieces.

- Fashion homes should establish inspection department. If they are already in existence, there should be reinforcement of those departments. And incentives should once a while be part of conditions of service to ensure great dedication to work. Not only to the inspection department but to all. The inspection department supposed to be the watch dog of the company. If this department works effectively, fitting problems will be traced and corrected before delivery is made, and there will be nothing called fitting problems as far as their products are concern.

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- Measurement taking seminars should be organised within the fashion homes. This should be taught again, and management should ensure participation is massive, because this is the bedrock of garment production industry. If the foundation be destroyed, absolutely the building (garment) cannot stand. This training will enable them get it right.

- The various figure types should be learnt and mastered by designers, and should be printed out boldly and pasted in the fashion homes, especially where design analysis are done. This print out can also be shown to customers to educate them, especially the difficult ones who insist on their chosen designs only, as to why a particular design would not be suitable for Figure A, but will be perfect for Figure B.

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APPENDICES

APPENDIX ONE:

QUESTIONNAIRE FOR FASHION CUSTOMERS

UNIVERSITY OF EDUCATION WINNEBA

COLLEDGE OF TECHNOLOGY EDUCATION, KUMASI

TOPIC: PROBLEMS ASSOCIATED WITH THE PRODUCTION OF WELL-FITTED GARMENTS FOR FEMALES: THE CASE OF SUNYANI MUNICIPALITY OF BRONG AHAFO

QUESTIONNAIRE FOR CUSTOMERS

This questionnaire is designed to solicit information regarding the above topic. You are kindly requested to provide answers to the questions as candidly as possible. All the information given will be used solely for academic purposes and will be treated as strictly confidential.

Please tick [√] the correct option of your choice or write in the space where necessary.

1. Sex

   a. [ ] Male   b. [ ] Female

2. Age

   a. [ ] 20-24 years   b. [ ] 25-29 years   c. [ ] 30-34 years   d. [ ] 35-39 years

   e. [ ] 40-44 years   f. [ ] 45-49 years

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3. How often do you encounter problems with the fitting of garments produced by
fashion designers in Sunyani Municipality.

a.   Always

b.   Sometimes

c.   Never

d.   Others (please specify)…………………………..

4. Do you mostly encounter the following fitting problems on your garments?

   Please tick the right answers.

Strongly Agree (SA)   Agree (A)   Neutral (N)   Disagree (D)   Strongly Disagree (SD)

	Fitting problems	Examples	SA	A	N	D	SD
a	Stitching problems	Skipped stitches or missing stitches					
		Broken stitching					
		Incorrect stitches per inch					
		Wavy stitches					
b.	Seam problems	Seams opening					
		Seam puckering					
c.	Finishing problems	Untrimmed threads					
d.	Garment dimensional problem	Oversized fit of garment					
		Garment too small on the client					
e.	Fastening and opening problems	Misaligned buttons and holes					
		Improper fixing of fasteners					
f.	Trim and accessories problem	Great defect of trimmings in colour					
		Great imperfection in the choice of trim size					
		Improper placement of trims on garment.					

g.	Figure type problems	Wrong choice of design for figure type					
h.	Fabric problems	Wrong fabric choice for design					

Others please specify

………………………………………………………………….……………….

…………………………………………………………….…………………

5.To what extent do you consider the following as causes of fitting problems for

female garments?

1. Not serious   2. Less serious   3. Neutral   4. Serious   5. Very serious

	Causes	1	2	3	4	5
a.	Poor knowledge about the various methods of obtaining measurements.					
b.	Lack of proper basic preparations before taking measurement.					
c.	Measurements are taken wrongly.					
d.	Poor knowledge about the various figure types.					
e.	Lack of adequate knowledge of the various human faces					
f.	Inadequate understanding of the types of necklines appropriate for the various faces available.					
g.	Patterns wrongly produced.					
h.	Lack of fit and wear test.					

6. How many times have you changed your designers because of fitting problems?

a. Once

b. Twice

c. Thrice
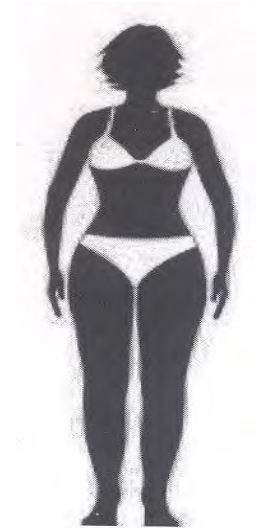
d. Others (please specify)………………………………………………….

APPENDIX TWO: INTERVIEW GUIDE FOR DESIGNERS

1. On which of these figure types do you mostly encounter the fitting problems

    after production?

a. Straight body shape   b. Pear body shape

c . Spoon body type   d. Hourglass body s

e. Inverted body shape

f. Oval body shape.

2. How often do you draft your patterns before producing your garments?

a.   always

b.   sometimes

c.   others…………………………………………………………

3. Are you aware of the acceptable neckline styles appropriate for the various female figure types Faces. Which of the following necklines would you recommend for the various face shapes?

	Face	Necklines	Answer
a.	Round –shaped face	Cowl neckline,	
		Square neckline	
		V neckline	
		Boat neckline,	
		Jewel neckline	
		Turtlenecks,	
		Others ……………………………………..	
b.	Heart-shaped face	Cowl neckline,	
		Square neckline	
		V neckline	
		Boat neckline,	
		Jewel neckline	
		Turtlenecks,	
		Others ……………………………………..	
c.	Long shaped faces	Cowl neckline,	
		Square neckline	
		V neckline	
		Boat neckline,	
		Jewel neckline	
		Turtlenecks,	
		Others ……………………………………..	
D	Oval –shaped face	Cowl neckline,	
		Square neckline	
		V neckline	
		Boat neckline,	
		Jewel neckline	
		Turtlenecks,	

		Others ……………………………………..	

4.   Who usually draw your attention to the fitting problems when they occur?

a. The client

b. The designer

c. Others……………………………………

5. Are you able to satisfy the client by solving the fitting problems? What are the

steps employed to bring about this correction.