

**PERCEPTION OF FASHION DESIGNERS ON THE USE OF PATTERN
DRAFTING FOR GARMENT CONSTRUCTION IN IBADAN
METROPOLIS**

**A project submitted to the Department of Home Science and Management,
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ABSTRACT

The development of a garment comprises of different processes and fit is highly dependent on each of these processes. Pattern making is the foundation in garment manufacturing and plays an important role in deciding how the final appearance of a garment will look like. This study investigated the perceptions of fashion designers on the use of pattern drafting for garment construction. Random sampling and snowball techniques was used to select 370 fashion designers in Ibadan South-West Local Government. Data was collected from the respondents with the use of questionnaire and a 4-point scale was majorly used to measure the objectives. The data was analysed using descriptive and inferential statistics. The result showed that tailor's awareness on the use pattern drafting is moderately high, however, their frequency of use is low; although the respondents have positive perception on the use of pattern drafting for garment construction. The hypotheses testing revealed that there is significant relationship between the socio-demographic characteristics of the respondents (age and scale of production) and level of awareness of pattern drafting. Also, it was showed that there is significant relationship between level of awareness of pattern drafting and frequency of use of pattern drafting for garment construction. In conclusion, despite much awareness about pattern drafting, a larger percentage still claimed not to be proficient in the use and this is because the respondents believe that the techniques is difficult and time consuming, therefore, patter drafting should be taught as a basic requirement for garment construction.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of Study

Pattern making is an art. It is the art of manipulating and shaping a flat piece of fabric to conform to one or more curves of the human figure. A pattern is the actual copy of different parts of a garment that is made by cutting board or hard paper by using measurements which has taken from models or dress form after sketching on it (Kamrun, 2017). It is a bridge function between design and production. Cooklin (2010) explains that a sketch can be turned into a garment via a pattern which interprets the design in the form of the garment components. Fischer (2011) noted that patterns enable the designer to render something flat into something three-dimensional. Drafting patterns may seem very intimidating, but it is an amazing skill that can take the dressmaker to a completely new level of possibilities. The basic pattern according to Shoben and Ward (2013) is the very foundation on which pattern making, fit and design are based. It is a simple pattern that fits the body with just enough ease for movement and comfort. Knowledge in pattern making and the ability to draft patterns for styles chosen are skills that can improve the quality of garments produced for clients (Obinnim, 2015). Pattern cutting by adapting shapes from block patterns can be traced back to the middle of the nineteenth century after the “body” was discovered. Aldrich (2010) noted that pattern plays a central role in the fashion designer’s activities. McDonald (2015) noted that the main tools needed for flat pattern include; paper made of varying grades, straight pins, paper scissors, straight and curved rules, pencils, tape measure and design from the stylist or the illustrator and so on. As fashion changes, the ideal body size and shape also changes, as a result, pattern making has become a major aspect of the fashion world.

NinetteAfiPong (2015) described flat-pattern as, a design process where a basic pattern is developed to fit a standard dress form. The designer uses a foundation pattern (block) as a basis for making the pattern for a design. They may introduce style lines, tucks, gathers, pleats or drapes but still the basic fit of the pattern will conform to the block used“. The rapid output of flat pattern designs, facilitated by Sloppers, is a useful skill for any fashion designer as it can be used as a means of developing original ideas effectively and efficiently. A five-piece pattern set, consisting of front and back bodice and skirt and a long sleeve, which represents the dimensions of a specific figure or form constitute the basic pattern set. As a rule, a dressmaker is professionally trained to sew to fit an individual figure. Many of them learn their trade as apprentices, usually under the tutelage of an established dressmaker. These apprentices are most often not taught how to make patterns let alone use them. Some also learn the trade in formal school settings.

Flat pattern methods involve measurements; a trial garment called “toile” is done to check the proportions and shape. Several fittings are then done to perfect the garment. In the developed countries, most garments are made using commercial patterns by using made to fit all body size patterns except in few cases where individuals order customized garments. The foundation blocks can be drafted to fit individual figures by using personal measurements instead of standard ones found in size charts. Pattern drafting is particularly useful for beginners as it is better method of learning than cutting material directly. It can also be preserved and used whenever required and are therefore time and labor saving. Adjustment in paper patterns can be done to ensure perfect fitting and the use of pattern making will enable one to cut a garment with a minimum amount of fabric because it is possible for the dress designer to try out the placement of pattern pieces in an economical way. Pattern drafting among Nigerians is used to be able to control the fit of garments and make basic design and

fitting decisions (Ginani, 2001). It is majorly used among literate fashion designers who have attended one institution or the other.

1.2 Statement of the Problem

In today's world, pattern making has become necessary for fashion designers to make garments of different sizes because it is the foundation in garment manufacturing and plays an important role in deciding how the final appearance of a garment will look like. Pattern making is quite interesting and important for garment construction and it helps people of any age groups to interpret designs and understand the design with technical ability (IIFD, 2017). For a successful dress designing, pattern making forms one of the fundamental steps. However, due to personal experience of high customer complaints about garment fitness, it was observed that many designers have difficulty in the use and interpretation of patterns, thereby resulting in customer dissatisfaction. Majority of these designers improvise with the use of freehand cutting; these methods could be a hindrance when the need for commercial purposes arises.

Similarly, Obinnim (2015) also posited that most fashion designers or dressmakers do customized sewing by marking their cloth directly before sewing, which is referred to as “free hand” cutting. Therefore, the problem of this study is the wastage of fabric and garment unfitness caused by freehand cutting.

1.3 Objective of the Study

1.3.1 Broad Objective

This study will give result on the perception of fashion designers on the use of pattern drafting for garment construction in Ibadan South West local government

1.3.2 Specific Objective

1. To determine the socio-demographic and socio-economic characteristic of the respondents.
2. To identify the respondents' level of awareness on pattern drafting.
3. To assess the respondents' frequency of use of pattern drafting for garment construction.
4. To identify the challenges hindering the use of pattern drafting.
5. To determine the perception of fashion designers on the use of pattern drafting in garment construction.

1.4 Research Question

1. What is the socio-demographic and socio-economic characteristic of the respondents?
2. What is the respondent level of awareness of pattern drafting?
3. What is the frequency use of pattern drafting for garment construction?
4. What are the challenges hindering the use of pattern drafting?
5. What is the perception of fashion designers on the use of pattern drafting in garment construction?

1.5 HYPOTHESES

H₀₁: There is no significant relationship between socio-demographic characteristics of the respondents (age of fashion designer and scale of production) and level of awareness of pattern drafting.

H₀₂: There is no significant relationship between level of awareness of pattern drafting and frequency of use of pattern drafting for garment construction.

1.6 Significance of the Study

Clothing patterns according to Aldrich (2010) are used to sew stylish garments that fit well. Effective and efficient use of pattern in dressmaking workshop can help save time, energy, and wasting of fabric that comes with freehand cutting and thereby increases productivity, it is also economical, it doesn't waste fabric compare to free hand cutting. Aldrich (2010) indicates that beginners all over the world, be it students who are starting practical pattern drafting and cutting as part of Fashion Degree or Diploma courses, or City and Guilds Examinations start with the use of the basic pattern draft and cutting for individual figures. She indicated that some garment patterns, particularly in couture design, are constructed by draping on the dress stand.

This study aims at creating awareness on the importance of pattern in dress making. It specifically explores reasons why dressmakers do not use pattern for cutting out and also to identify challenges dress makers face while using pattern for cutting. The study also sought to develop strategies to overcome the challenges they face when making patterns which majorly would be to advise fashion designers in the area how to improve their skills, make more research online, to always try to practice new methods gotten and develop the courage and boldness when using pattern drafting or telling customers about it.

1.7 Scope of Study

For the purpose of this study, the geographical scope is limited to the Ibadan Southwest local government.

1.8 Definition of Terms

- **Pattern Drafting:** Pattern drafting is an art of manipulating and shaping a flat piece of fabric to conform to one or more curves of the human figure.
- **Fashion Design:** This is the art of applying design, aesthetics and natural beauty to clothing and its accessories. It is influenced by cultural and social attitudes, and has varied over time and place.
- **Fashion Designers:** are those who work as sketch their ideas on paper, while others drape fabric on a dress form.
- **Clothing:** This is the term collectively use for garments, items won on the body. Clothing can be made of textiles, animal skin, or other thin sheets of materials put together. Clothing is use to improve the comfort of the wearer, by protecting the wearer from the elements as sunburn or wind damage, cold climate, and hot climate and so on.
- **Garment:** Any article of clothing, dresses, suit etc.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

This Chapter is aimed at identifying, reviewing, analyzing and appraising previous studies, works, theories, opinions and comments that have some significant to the study.

The study was reviewed under the following sub headings;

- Informal Learning in the Fashion Industry
- Method of pattern Making
- Process of pattern making
- Designing with Pattern
- Design sketch and spatial ability

2.2 INFORMAL LEARNING IN THE FASHION INDUSTRY

Informal learning is the unofficial, unscheduled, impromptu way of most learning to jobs. It does not follow a specified curriculum and is not often professionally organized, but rather originates accidentally, sporadically, in association with certain occasions, from changing practical requirements. Informal education is a general term for education

outside of a standard institution. It can refer to various forms of alternative education, such as home-schooling or self-teaching (Biney-Aidoo, Antiaye, and Oppong, 2013).

Foster and Ampong (2012) observed that, in Ghana, apparel construction is a widespread in small-scale occupation for both men and women and there has been a long and sustained condition of apprenticeship in apparel making. Larbi and Atta (2009) note that apprenticeship in sewing has been the practice by master-craftsmen who have the knowledge and skills in making clothes, and hand down what they have mastered from generation to generation to ensure continuity. These studies however did not indicate the minimum requirements or the factors influencing apprenticeships in apparel industry. These factors such as the level of education or knowledge are perceived by many as the determinants of apprenticeship training and the area of training.

With the foregoing reason these apprentices are not ready or prepared to learn any other method apart from what they already know. Larbi and Atta (2009) further argue that, it is imperative that in the absence of academic certificates and other paper qualifications, the youth be equipped with strong vocational or technical skills as a means of livelihood.

2.2.1 Free-hand Cutting Skill

Free-hand cutting is a method of cutting a style of apparel directly on the fabric without the use of a pattern (Efajemue & Lily, 2011). Many types of apparel worn these days apart from ready-to-wear apparel are usually made from free-hand cutting. Foster and Ampong (2012) noted that, little has been done on documentation on free-hand cutting. Shailong and Igbo (2009) described free-hand cutting as a method of cutting the fabric marked with chalk based on a measurement and cut directly without the use of a paper pattern. The measurement of the individual is utilized directly on the fabric in free-hand cutting. If a dressmaker or a tailor makes a mistake while using the free-hand cutting, the fabric is usually wasted.

According to Shailong and Igbo (2009), free-hand method of apparel construction may spoil the apparel entirely, thereby wasting the fabric. In addition, free-hand cutting is time consuming and slow, therefore cannot be conveniently used for mass construction. From the researcher's experience, free-hand cutting has in some instances resulted to poorly fitted apparel and quarrels among dressmakers and their clients.

Boakye (2010) has stated that, people may prefer ready-to-wear clothes due to the unsatisfactory jobs from some dressmakers and tailors that use free-hand cutting for apparel making. This has made the budget for clothing in some cases increase for individuals as a result of fabric wastage or increase in cost when patterns are used (Foster &Ampong, 2012). Thus, affecting the output of the dressmaking and tailoring institutes negatively. For the purpose of this study, an analysis was carried out on some of clothes made with drafted patterns and free-hand cutting, as a way to confirm these research findings.

2.3 METHOD OF PATTERN MAKING

2.3.1 Pattern Drafting Skills

Pattern drafting is the art of designing the outline of the plan or arrangement for sewing apparel (Aldrich, 2014). Thomas (2009) posits that the first step in pattern drafting is taking of body measurements. She recommends that when taking measurements for pattern drafting, the person should just wear normal underclothes. Aldrich (2014) noted that pattern drafting by adopting shapes from pattern can play a central role in apparel making.

Anikweze (2013) stated that flat-pattern drafting, involves using a sheet of paper, pencil and all the pattern drafting tools, and coming out with a pattern based on a set of measurements. Flat pattern drafting is based on commercialized basic patterns with standard measurements but when employed in designing, one makes use of fitting darts to increase apparel fitting (Aldrich, 2014).

Anikweze (2013) added that flat-pattern has several advantages which include the ability to design patterns to fit into economical fabric layouts, the possibility of restyling old patterns and out-of-date clothing into new ones. It also ensures ease in determining causes of mistakes during the making of the pattern and how to correct them. By pattern drafting, one can plan properly and organize himself or herself efficiently during construction of apparel (Rosen, 2014).

According to Joseph-Armstrong (2010), patterns used in apparel making bring out the good style of the apparel and makes it fit better. The main categories of fashion designs are haute couture, ready-to-wear and mass construction. Haute couture collection is mainly custom-made to size and fit. This called for the need to find out the type of style modifications commonly made by informal dressmakers and tailors in the New Juaben Municipality.

The concentration here is on the type of communication from the fashion designer that takes initiates the patternmaking method. Basically, pattern making consists of three methods which are;

- Paper Pattern Making
- Draping
- Digital Pattern Making

2.3.2 Paper Pattern Making

This is a system of pattern making that depends on measurements taken from a dress form or model to create basic, foundation, or design patterns. It is a two-dimensional basic method of preparing a paper pattern. The garment prepared by this method fits exactly to the satisfaction of the wearer or consumers. It is economical to draft one's own pattern. Also changes in style can be made adopting the basic pattern set. Measurements for total length, Neck, chest, Shoulder, waist, hip and so on, and ease and sewing allowances are marked on paper and construction lines are drawn to complete the pattern.

2.3.3 Draping

Draping can be treated as one involving a detailed survey and study of the figure to build up a reliable fitting experience. Draping originally was called modeling. This was the original method of constructing garment patterns. Draping is a free approach and is always to a

certain extent experimental and cannot be described as a precise technique. It involves the draping of a two-dimensional piece of fabric around a form, conforming to its shape, creating a three-dimensional fabric pattern. Ease allowances for movement of body are added to make the garment comfortable to wear. Advantage of draping is that the designer can see the overall design effect, style and silhouette of the finished garment on the body form before the garment piece is cut and sewn. However, it is more expensive and time consuming than paper pattern making. Draping can be made on a dress form.

2.3.4 Digital Pattern Making

A system of pattern making which is depends on measurements taken from a dress form or model or measurement chart which is given by buyer. In this system mainly created one specific size pattern which called basic size or base size. After that adding grading on basic size according to measurement differences between basic to other sizes to different sizes pattern. Then completion of grading all seizes pattern sent to marker making for industrial bulk production. Different types of pattern making software are used in industry to make the pattern like *Lectra*, *Gerber Technology*, *Tuka Tec*, *Optitex* and so on. It is one of the easiest ways, time consuming and requires minimum number of staffs rather than paper pattern making and draping.

2.4 PROCESS OF PATTERN MAKING

Above mentioned method there are different pattern making terms which are related to the workroom have pointed out in the following:

- Pattern Drafting

- First Pattern
- Working Pattern
- Revised Pattern
- Grading Pattern
- Master or Block Pattern
- Production Pattern

2.4.1 Pattern Drafting

Pattern drafting is most often associated with apparel. It is a form of drafting used to produce, through a series of stages, a graded paper pattern for sewing. Using body measurements, a pattern maker converts individual specifics into a series of straight lines and curves on template paper. During subsequent stages, those lines and curves determine how the garment is broken down into sections, cut and tested for fit, and ultimately converted to a reusable pattern. Specific methods and stages of pattern drafting vary from pattern maker to pattern maker, depending on each professional's chosen approach, any software used, and if the pattern is intended for eventual mass production.

2.4.2 First Pattern:

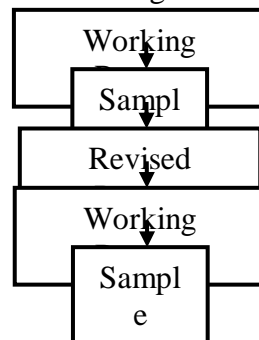
The first pattern is a pattern set that has been created from drafting pattern. Where trace the main line or necessary lines from drafting pattern no seam allowance include on it. It usually prepares to check the shape of the pattern. The original pattern or first pattern developed for each design. Half a pattern for front, back & sleeve is developed unless the design is asymmetrical.

2.4.3 Working Pattern

After the testing or checking shapes from first pattern then added sewing allowance on it which known as working pattern. Working pattern is that which is used as a base for manipulation to generate design patterns. This pattern is generally made from mark on paper and usually requires fitting and adjustments. Then it transfers to fabric to stitch for checking fit of a particular body measurement according to requirements.

2.4.4 Revised Pattern

This pattern process not work anymore unless if any problems are on working pattern then need to solve the problem and modify on it which called revised pattern. After checking sample, understands which measurements have to modify. Again, trace modify pattern and add seam allowance after modify pattern then it will turn in to working pattern. On revised pattern then it transfers to fabric for stitching and checking fit.



2.4.5 Graded Pattern

Pattern grading is the process of turning base size or sample size patterns into rest of sizes using a size specification sheet according to measurements. Grading system can be done manually or digitally using computerized pattern cutting software. This system is referred to as garment grading rules. Grading is a necessary step that must be taken before approaching sample manufacturers or factories, because they require sets of your specific patterns and an order of garments to be produced. Grading determines how your garments will fit in all sizes. Having a variety of sizes for each of your garments fills out your minimum garment order

cost effectively. Grading will not create shape or changing shape, but only system to increase or decrease size of original shape.

2.4.6 Master or Block Pattern

A master or block pattern is a basic garments shape from which a pattern drafted from as starting point. Also known as a basic template, from this clothing patterns are created with different design variations. Pattern cutters use basic pattern shapes and adapt draft pattern each season to create clothing connection with different wearing ease for fitted, semi fitted and loose fitted shapes. Block pattern is any pattern without seam allowance from which other pattern are designed, also called block pattern or foundation pattern. Ease is the amount of space in a garment beyond the body measurement, the specific amount of ease will from style to style.

2.4.7 Production Pattern

The production pattern is a pattern set that has been correct and perfect and contains every pattern piece required to complete the garment. In the production pattern have seam allowance & all information. Production pattern has to be full pattern as we always make half pattern of full garments. There are some basic info should be included like Grain line, Style name, Size, and sometimes number of cut.

2.5 DESIGNING WITH PATTERNS

Over the past few years, recent development of the traditional methods of block manipulations has been publicized in various forms. Roberts (2008) explains his practice as designing with patterns instead of creating a pattern for a design, which is a point of view

well describing the methodological approach of a number of contemporary cutters. Two categories can be defined within this movement: one emulates draping through block manipulations (Nakamichi 2005, 2007; Sato, 2011) and the other experiments with pattern pieces or other shapes in order to come up with new, unexpected shapes (Roberts, 2008; Gwilt&Rissanen, 2011; McQuillan, 2011). The first category, creating shapes and expressions that would normally be associated with draping, includes the Pattern Magic series by Nakamichi (2005, 2007) and Transformational Reconstruction by Sato (2011). Both Nakamichi and Sato compare their cutting practice with solving a puzzle, which clarifies their view on cutting as a practice where the core is the pattern itself: through manipulation of the puzzle pieces, one can achieve another kind of image. Nakamichi states that she is often inspired by fashion of the past and as she tries to recreate them, she often ends up creating new designs (2005:61). This is done by manipulation of basic blocks. By doing so, both Nakamichi and Sato explain a way of achieving a draped expression through block manipulations which formulates a method easily accessible to anyone familiar with the principles of block manipulation. It may, however, lead to methodological discrepancies, the consequence of which is that instead of creating draped expressions following the shape and movement of the body, one instead ends up in unworkable creations made for a static body. The second category includes Julian Roberts's (2008) Subtraction Cutting method and the contemporary zero-waste cutting movement promoted by among others Timo Rissanen (Gwilt&Rissanen, 2011) and Holly McQuillan (2011). Roberts's work can be compared with action painting or gestural abstraction, where the artist is painting spontaneously, smashing the paint towards the canvas instead of applying it carefully. In action painting, the physical work itself is, as the pattern is to Roberts, often pointed out as an essential aspect of the finished work. The zero-waste cutters,

on the other hand, use the limitation that they are not allowed to waste any fabric to force them to change the shape of their block patterns (or other shapes) into new, unknown paths. The name Subtraction Cutting derives from a principle where pieces are cut away from a tube of fabric and where the holes are then stitched together in various ways, shaping the fabric. Here, the pattern pieces will represent what is cut away instead of what is left to be stitched together, making up the garment. Roberts, however, presents Subtraction Cutting more as a general approach to cutting and design, stating that: "Subtraction cutting is designing with patterns, rather than creating patterns for designs." He uses his body for measurements when dealing with his patterns and takes a sound step away from numbers, rules and measurements, claiming that space and balance is what cutting really is about. He opens up for mistakes as possible starting points for future successes, in a sound way contrasting himself to many dry, rule addicted authors on cutting techniques. Several of these techniques or techniques similar have been used by practicing fashion designers prior to being published by Roberts, but they have seldom been explained. Roberts is the first to mention that to him, the pattern has been the main interest and that his designs often have been dominated by his interest in the pattern itself. While explaining his method, the body is depicted simply as arrows illustrating the way it passes through a garment or construction. Methodologically, it is clear that the cutting activity starts in the pattern. Roberts points out that in the fashion industry, the activity of pattern cutting is often seen as hierarchically beneath the activity of design. However one of the reasons why the cutters are often seen as being below the designers in this hierarchy may be that the pattern and its possibilities are from the cutters point of view given priority to the body itself and its relationship to the garments. If the cutter is also a trained body watcher, i.e. someone who works with the body and its expressions when creating garments, he or she may receive higher status in the fashion hierarchy. TimoRissanen (Gwilt&Rissanen, 2011) is

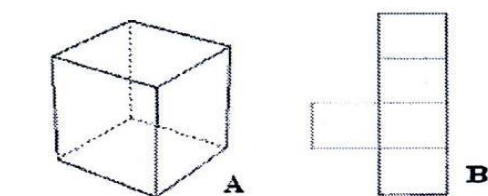
equally focused on the pattern and its possibilities, and argues, during an attempt to find ways of making fashion more sustainable, for a shift towards a zero-waste cutting practice in which what is normally cut away in production should instead be used for extra seam allowances, larger hems and reinforcement pieces, allowing the garments to go through alterations in the future and providing them with a longer lifespan. Both ancient wrapping techniques and rectangular cutting can be viewed as zero waste cutting methods, where the fabric is used to dress the body without the use of a premade pattern. The contemporary zero-waste movement, however, uses block patterns as tools for achieving zero-waste and this combination of traditions outlines a new design method where pattern blocks are transformed into new shapes in order to fit onto the chosen fabric. Consequently, the garments become shaped in a manner one otherwise would not have thought of (McQuillan, 2010). McQuillan (Gwilt&Rissanen, 2011) describes this as, “zero-waste design is design practice that embraces uncertainty,” because while moving lines around on the layout plan, the outcome in three-dimensional space may be difficult to predict. A common denominator between these cutters is that they emphasize the pattern itself as a tool for creation. By experimentation and transformation of patterns, either through blocks or other shapes, they find new shapes and ways of designing for the body. The problem that sometimes occurs, as is pointed out by Roberts (2008), is that the garments may end up as walking patterns, which has little to do with the body wearing it. There is a risk that when using the pattern as design tool that the work will end up being about funny patterns and that one may forget what I would argue should be the core of dressmaking, the expression of the body.

2.6 DESIGN SKETCH AND SPATIAL ABILITY

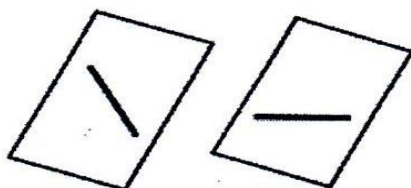
A designer uses spatial ability in sketching a style. The garment's three-dimensional construction is taken into account by articulating the drawing in proportion to the spatial divisions of the human body and by adding spatial details like darts and seam lines. The sketch may be supplemented with construction notes like information on proportions and forms. Overall, spatial ability is considered essential in garment design. (Workman, Caldwell & Kallal, 1999, p. 129)

2.6.1 Spatial ability in pattern design

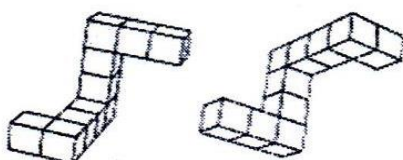
The factor structure of spatial ability has been studied since the 1940's (Yilmaz, 2009, p. 84). According to Workman, Caldwell and Kallal (1999, p.130), the pattern design process requires abilities in spatial relations, orientation, and visualization. (Figure 2)



Spatial Visualization
Is Figure B part of Figure A?



Spatial Orientation^b
Align a rod within these frames so that the rod is vertical.



Spatial Relations¹
Is this pair of figures same or not?

Figure 2: Factors of spatial ability illustrated by tests (Yilmaz, 2009)

Spatial relations-ability is the ability to imagine the result of a mental rotation. For example, a designer has to perceive how the rotation of a dart would affect the shape of the pattern. *Spatial orientation* ability is the ability to grasp distances, directions, and depth relations. For example, when a designer views a trial garment on herself or on another person in the mirror at different angles, she has to be able to adjust herself to the changes in the orientation of her own body. Spatial visualization ability is the ability to manipulate mentally the elements of a spatial configuration. A designer needs this ability, for example, to perceive how a sketched design would look from behind or from the side by looking at the front view. She should also be able to imagine how addition, subtraction or movement of various elements like yoke, seam lines, pleats, gathers, or pockets would affect the outcome. (Workman, Caldwell & Kallal, 1999, p. 130).

2.6.2 Measurement of spatial ability

Spatial ability can be measured with different paper-and-pencil tests. For example, Differential Aptitude Test – Spatial Relations (DATSR) measures the ability to visualize a three-dimensional object from a two-dimensional pattern. The test comprises 35 patterns that can be folded into one of four figures shown next to each pattern. Different tests give different results.

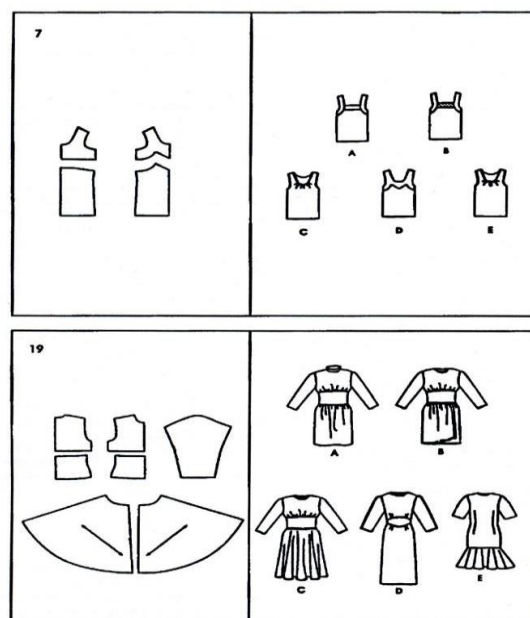


Fig. 3: Example of items in Apparel Spatial Visualization Test, ASVT, (Workman, Caldwell & Kallal, 1999)

2.6.3 Development of spatial ability

The problem of how to improve spatial ability of students has been specifically addressed in the field of engineering. Sorby (2007) reported on the development of spatial skills at Michigan Technological University. The project started with a pilot study in 1989. The study showed that the rotation test that was part of a Purdue test set for spatial visualization (Figure 4) best anticipated a student's progress in the course of technical drawing. Weak spatial skills and difficulties in that course were seen as increasing the drop-out risk, especially for female students. In 1993, a special course was introduced for the development spatial skills. All first-year students took the rotation test and those who failed the test (scored lower than 60%) were advised to take the course, which included lectures and computer aided exercises. After the course, they were tested again. From 1993 to 1998, the drop-out rate was significantly reduced in comparison with the control group, especially in the case of female students. (pp. 4–7) Dong and El-Sayed (2011) reported similar results from Kettering University. Cantero, Company, Saorin and Naya (2006) developed software for engineering students to improve their spatial skills by producing three-dimensional forms. Testing showed that the exercises that proceeded from freehand drawing to 3D modeling significantly improved spatial skills. The improvement was most pronounced for female students. Although the literature seems to indicate that improved spatial skills lead to improved results in engineering and science

studies, the measurement of such improvement in specific cases may produce unexpected results. Tseng and Young (2011) studied the relationship between spatial skills and coursework in engineering design at Massachusetts Institute of Technology. In the particular course, the purpose was to design and build remote-controlled robots that were tested in a competition at the end of the course. The hypothesis was that students with higher spatial abilities would produce designs that are more complex. However, the outcome was that spatial skills were negatively correlated with design complexity, possibly because simplicity rather than complexity appeared to be desirable for competition performance (KirstiSalo-Mattila, 2013).

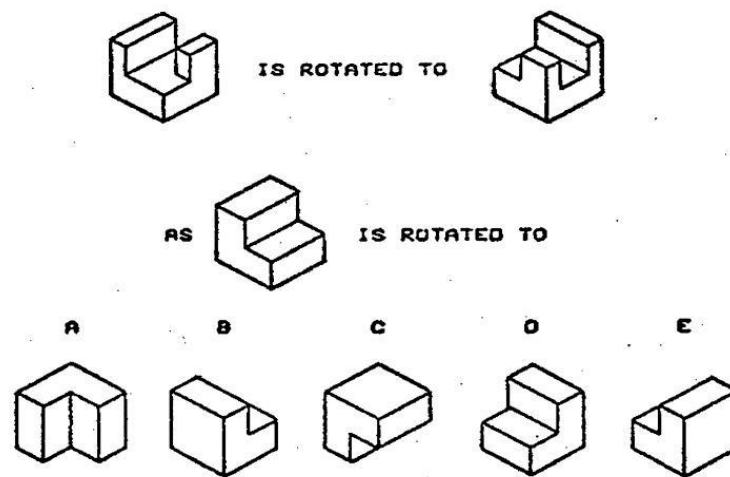


Fig. 4: Sample problem from the Purdue rotation test (Sorby, 2007).

2.7 RELATED EMPERICAL STUDY

According to, Modesta&Danquah(2018) research work on “Assessment of the teaching of pattern making and free hand cutting skills in Ghanian Senior Secondary School”, the study indicate that although what freehand cutting means together with its advantages and disadvantages are being taught in Ghanaian SHSs, very few students are exposed to the practical skill of freehand cutting. The results also show that although attention is paid to drafting of basic blocks very little attention is given to adaptations for various designs.

Also, according to Mclendon, Debra, and Lee (2011) *An Investigation of the Sizing, Grading, and Fit of Commercial Sewing Patterns*; fit is the most critical component that ensures consumer satisfaction with garments constructed from commercial sewing patterns. Their results showed that the majority of brands studied failed to contain the ideal amount of ease and that some of the printed measures on all brands were different from physical measures. It indicated a significant difference in the fit of different brands. Their findings also indicated the majority of brands were graded in accordance with pattern company measurements. The research provides useful information to the commercial sewing pattern industry on ways to improve patterns for the target consumer. Amateur and professional sewers could also benefit from the insight on pattern sizing and fit provided in this study

According to Anikwe(2012), who made a research on the challenges of pattern drafting and large-scale garment in Nigeria; the research discusses three methods of pattern drafting, Flat-Pattern, Draping and Drafting each of which could be employed in large scale garment production. The relevance of accurate measurements as key to pattern size that ensures fitting clothing designs is emphasized. The challenges of pattern making and large-scale garment production in Nigeria are highlighted particularly figure types, shape and proportions of targeted wearers, color separation in designs, texture of fabrics, figure and styles with regard to appearance and wearing comfort, availability and affordability of commercial patterns and issues of advertisement and control of market. The result was concluded that the challenges of pattern making for large scale garment production in Nigeria are enormous but could be surmounted with strong will and determination.

Ozeren(2012) gives his own conclusion about pattern drafting; he said competitive conditions of today's market feature the companies which make difference. This situation

led manufacturers to consider the personal production methods, which is increasing in importance. The fact that human body differs from person to person causes to problems based on harmony between garment and body shapes. This situation reveals the importance of production according to individual body measurements and body shapes in garment production. In this study, a basic dart-less pattern drafting method was made for woman by using individual body measurements and Assist CAD pattern making system in order to solve problems related to the harmony between clothing and body shape. While designing the pattern, 12 body measurements were used. The pattern, which was made on rectangular basis, was separately designed for 20 women who have 'triangle' and 'hourglass' shapes. So as to check the pattern, a prototype was made by using batiste fabric. The usability of this pattern for women having different body shapes, and evaluations of fit of prototype were done by users and professionals within the framework of prepared criteria. Definitive statistics of values were calculated for 20 consumers and 3 professionals. At the end of the study it was determined that designed pattern drafting is useable for both body shapes. It is thought that providing designed pattern drafting only by using body measurements will constitute the infrastructure of made to measure production process by using data through body scanning systems.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Research Design

This study was a descriptive survey research where the researcher made use of primary data. Primary data was collected through the use of well-constructed questionnaire which was administered to selected respondents.

3.2 Study Area

The study area is Ibadan South West Local Government. The local government was carved out of the defunct Ibadan Municipal Government (IMG) on August 27, 1991 during the regime of the military President, General Ibrahim Badamosi Babangida. It had a land mass of about 244,55km square. The population of this study area comprised of 282,585 people according to the 2006 census. However, the Local Government itself recorded an increase in the population in 2010 by 3.2% from the last census, resulting to 320,536 people. The Local Government consists of 12wards. These features made it one of the largest Local Government in Oyo State.

3.3 Population Study

The Population of the study comprises of all the registered tailors in Ibadan South West Local Government. Ibadan South West has about 50 zones under the umbrella of Nigeria Society of Professional Tailors (NSPT). Eachzonehas an average of 100 members which makes a total population of 5,000 tailors.(Mrs. Alaika NSPT chairlady kuolaApata zone,08135142833)

3.4 Sample Size and Sampling Techniques

The Sample size was be calculated using the Yarmane (1967) sample size formula, the formula is stated below;

n
 $=$

$$\frac{N}{1+N(e)^2}$$

24

Where, n = sample Size

N = Population Size

e = Error Margin (0.05)

$$= \frac{5000}{1+5000(0.05)^2}$$
$$= 370 \text{ respondents}$$

However, the researcher administered more than the sample required in case some of the questionnaire was not retrieved; the researcher was able to retrieve 372 questionnaires from which our sample of 370 was used for the study.

3.4.1 Sampling Techniques

Twenty-five (25) zones was randomly selected among the 50 zones in the study area while snowball techniques was used to select 15 respondents from each selected zone according to the calculated sample size of the study.

3.5 Research Instrument

A well-structured questionnaire which has gone through reliability and validity test was administered to the respondent. The questionnaire was a self-structured questionnaire and adopted mostly the use of Likert's Scale question format. The questionnaire contained five sections: The first section contained questions accessing the socio-economic characteristics of the respondents. The section contained questions about respondents' personal information, environment, financial abilities and social status. Other sections includes: level of awareness of pattern drafting; the frequent use of pattern drafting; challenges in the use of pattern drafting and the opinion of respondents on pattern drafting.

3.6 Validity of Research Instrument

Research supervisor and expert from Home Science Management Department, Federal University of Agriculture, Abeokuta, Ogun State validated the research instrument in order to ensure that the instrument measure the objectives of the study.

3.7 Reliability of Research Instrument

To ascertain the reliability of the instrument, Cronbach's Alpha formula was used. Computer analysis of the response obtained from the group used for trial testing showed the reliability coefficient (α) as 0.725. This figure is reliable as it is close to the standard of (α) = 1

3.8 Method of Data Collection

The researcher visited the fashion designers in the study area to observe and interact with the designers after obtaining the approval of the organization. The researcher administered the questionnaire to the respondents and guides them where necessary; and 15 questionnaires was administered to fashion designers in each zone.

3.9 Method of Data Analysis

The data collected for all the objectives was analyzed using descriptive and inferential statistics. For the descriptive analysis, frequency count and percentages were used and for the inferential statistics, Chi-Square was be used. SPSS version 23.0 was used to analyse the data.

CHAPTER FOUR

4.0 RESEARCH FINDINGS, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents the results and the detailed empirical analysis of the study on which the Conclusion and recommendations were based. The topic for this study is “**PERCEPTION OF FASHIONDESIGNERS ON THE USE OF PATTERN DRAFTING FOR GARMENT CONSTRUCTION IN IBADAN SOUTH WEST LOCAL GOVERNMENT**” WHERE 370 SAMPLES WAS TAKEN FOR THE STUDY.

❖ SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Table 4.1

S/N		RANGE/OPTION	FREQUENCY	PERCENTAGE	MEAN
1	AGE	16-20years	18	4.9	2.56
		21-30years	192	1.9	
		31-40years	99	26.8	
		41-50years	55	14.9	
		50years+	6	1.6	
	Total		370	100.0	
2	Marital Status	Married	175	47.3	1.68
		Single	158	42.7	
		Divorce	18	4.9	
		Widow	19	5.1	
	Total		370	100.0	
3	Ethnicity	Yoruba	288	77.8	1.41
		Hausa	14	3.8	
		Igbo	68	18.4	
	Total		370	100.0	
4	Level of Education	No former Education	2	0.5	3.55
		Primary School	8	2.2	
		Secondary School	146	39.5	
		Tertiary Education	214	57.8	
	Total		370	100.0	
5	Gender	Male	105	28.4	1.72

	Total	Female	265 370	71.6 100.0	
6	Religion	Christianity Islam Traditional	239 127 4	64.6 34.3 1.1	1.36
	Total		370	100.0	
7	Scale of Production	Small Scale Medium Scale Large Scale	158 195 17	42.7 52.7 4.6	1.62
	Total		370	100.0	
8	Acquiring of Tailoring Skill	Tertiary Institution Fashion Institution Apprenticeship Online Training From a family member	37 128 150 22 33	10.0 34.6 40.5 5.9 8.9	2.69
	Total		370	100.0	
9	Amount make from Tailoring business per month	< = #10,000 #11,000 - #20,000 #21,000 - #30,000 #31,000 - #40,000 #41,000 - #50,000 Greater than #50,000	27 60 85 110 66 22	7.3 16.2 23.0 29.7 17.8 5.9	3.52
	Total		370	100.0	

The above table 1 shows larger percentage of the respondent that participated in the study falls within the age range of 21-30years with 51.9% respondents, followed by age range of 31-40years with 26.8% and 14.9% falls within the age range of 41-50years while 4.9% claimed to fall within the age range of 16-20years. This shows that the highest percentage of the respondents that attended to the survey falls within the age range of 21-30years as at the time of this study. Also, it shows the marital status of the respondents that attended the survey where 47.3% of the respondents claimed to be married, 42.7% which is 158 of the respondents claimed to be single and 5.1% claimed to be widow. This shows that larger

percentage of the respondents that attended the study claimed to be married and also still with their respective husbands.

The table also shows that 77.8% of people that participated in the study claimed to be from Yoruba ethnic group while 18.4% claimed to be from Igbo tribe and 3.8% said they are from the northern side of the country. This shows that larger percentage of fashion designers in the local government are from Yoruba tribe; this is not a coincidence, since the enumeration area is also in Yoruba land. The Study result table above shows that 57.8% of the respondent claimed to have education up to tertiary education while 39.5% said they have their education up to secondary school. This is a proof that most tailor in the enumeration area which is Ibadan South West Local Government have up to tertiary education certificate which serve as an advantage towards making the research a success since many of the respondents are literate.

The above table reveals that 71.6% of the fashion designers that attended the questionnaire are females while only 28.4% of them claimed to be males. This is as expected since majority of people in the fashion industries are females; the table established that majority of people practicing tailoring at the local government are female; it was shown that majority of the respondents that attended the survey are Christians with 64.6% while 34.3% of them claimed to be practicing Islam and just 1.1% said they practice Traditional religion. This is a proof that most people in the fashion designing business at the local government are said to be practicing Christianity; 52.7% of the respondents that participated in the study fall under medium scale of production in the tailoring industry, 42.7% falls under small scale of production while only 4.6% claimed to fall under large scale. Many of the respondents claimed to fall under medium scale of tailoring production. The table also shows how the respondents that attended the study acquired their tailoring skills where 40.5% of them claimed they learnt it from a tailor as an apprentice, 34.6% claimed they were trained in fashion institution; 10.0% of them claimed they acquired tailoring skill in the tertiary institution while only 8.9% of them said it was learnt from family members and 5.9% claimed the skill for tailoring was acquired through online training. Since majority learnt it through apprenticeship, it shows that many fashion designers at the enumeration area have interest in the business since without interest; no one can mandate someone to learn. Table 1 above also reveals that 29.7% of the sampled respondents from the LGA claimed to be making between #31,000 - #40,000, 23.0% claimed to be making #21,000 - #30,000; 17.8% claimed they do make between #41,000 - #50,000, 16.2% claimed they do make between

#11,000 - #20,000; 7.3% claimed to be making less than #10,000 and 5.9% said they make greater than #50,000. This shows that the enumeration area is very good for fashion designing business.

TABLE 4.2: FASHION DESIGNERS' LEVEL OF AWARENESS ON PATTERN DRAFTING

S/N	VARIATION	SA	A	D	SD	MEAN
1	I am familiar with pattern drafting.	62(16.8%)	270(73.0%)	28(7.6%)	10(2.7%)	3.84
2	I am perfect in using pattern drafting.	63(17.0%)	127(31.1%)	115(34.3%)	65(17.6%)	2.50
3	Pattern drafting have more advantages over free hand cutting or other method of cutting you know.	91(24.6%)	182(49.2%)	51(13.8%)	46(12.4%)	2.86
4	Pattern making helps in the fitness of garment.	138(37.3%)	180(48.6%)	24(6.5%)	28(7.6%)	3.16
5	A good pattern of the right size which has been adjusted to suit individual requirement will enable you to obtain a good fit.	107(28.9%)	198(53.5%)	22(5.9%)	43(11.6%)	3.0
6	By manipulating the basic pattern pieces, it is possible to produce patterns for complicated and original design.	133(35.9%)	182(49.2%)	21(5.7%)	34(9.2%)	3.12
7	Unless the techniques and principles of drafting are known, it is difficult to prepare a paper pattern.	116(31.4%)	196(53.0%)	14(3.8%)	44(11.9%)	3.0
8	A pattern prepared on thick paper or cardboard can be preserved for a long time and can be used over and over again.	152(41.1%)	173(46.8%)	2(0.5%)	43(11.6%)	3.17
9	It is easy to understand and easy to work with drafting method for a new worker or learner.	135(36.5%)	149(40.3%)	27(7.3%)	59(15.9%)	2.97
10	Drafting is not good for personal use and for small scale garment production like local tailors, boutique.	45(12.2%)	72(19.5%)	104(28.1%)	149(40.3%)	2.03

Table 2 above shows the responses of the respondents that participated in the survey on the level of awareness on pattern drafting from where 89.8% of them claimed to be familiar with pattern drafting, 51.9% claimed that they are not perfect in using pattern drafting; 78.8% of the respondents claimed that pattern drafting have more advantages over free hand cutting or other method of cutting while 21.2% disagreed with the claim. Larger percentage of about 85.9% said pattern making helps in the fitness of garment; also, 82.4% of them claimed that a good pattern that has been adjusted to suit individual requirement helps to obtain a good fit. From the Study result, 85.1% of the respondents said they agreed that by manipulating the basic pattern pieces, it is possible to produce patterns for complicated and original design; 84.4% which takes the larger percentage in supporting the claim on the opinion that unless the techniques and principles of drafting is known, it is difficult to prepare a paper pattern. 87.9% of the respondents also claimed to be in support that a pattern prepared on thick paper or cardboard can be preserved for a long time and can be used over and over again while only 12.1% are not in support of the claim. 76.8% claimed that it is easy to understand and easy to work with drafting method for a new worker or learner and 68.4% of the respondents that participated in the survey claimed that drafting is good for personal use and for small scale garment production. This shows that fashion designers in the enumeration area are familiar with pattern drafting though some claimed not to be perfect in using it; the understanding and little ability in the use of the subject area will be of great help in upgrading the production of tailoring in Ibadan South West Local Government.

$$\text{MEAN OF MEAN} = \text{SUM OF MEANS} / \text{Number of Variables}$$

$$= 29.65 / 10$$

$$= 2.97$$

Where;

0.5 - 1.49= Very Low Awareness

1.50 - 2.49= Low Awareness

2.50 - 3.49= High Awareness

3.50 - 4.0= Very High Awareness

The above shows the average mean level of awareness for the entire sub variable in the section where it was shown that the respondents are aware about pattern drafting although they may not be proficient in the use but they are aware of the art.

TABLE 4.3: HOW FREQUENT IS THE USE OF PATTERN DRAFTING

S/N	VARIATION	Always	Often	Seldom	Never	Mean
1	When there is urgent need for the garment.	34(9.2%)	71(19.2%)	127(34.3%)	138(37.3%)	2.00
2	When there is no need for urgency.	49(13.2%)	96(25.9%)	154(41.6%)	71(19.2%)	2.33
3	If the customer request for the use of patterns.	115(31.1%)	112(30.3%)	88(23.8%)	55(14.9%)	2.78
4	Depending on the amount the customer is willing to pay.	117(31.6%)	143(38.6%)	79(21.4%)	31(8.4%)	2.93
5	Depending on the number of productions.	38(10.3%)	91(24.6%)	132(35.7%)	109(29.5%)	2.10
6	Depending on the number of time given.	68(18.4%)	122(33.0%)	94(25.4%)	86(23.2%)	2.46
7	For specific people.	76(20.5%)	150(40.5%)	81(21.9%)	63(17.0%)	2.80
8	Depending on the fabric texture.	91(24.6%)	128(34.6%)	65(17.6%)	86(23.2%)	2.60
9	Depending on the fabric length.	83(22.4%)	40(10.8%)	135(36.5%)	112(30.3%)	2.25
10	For cooperate attire.	59(15.9%)	27(7.3%)	165(44.6%)	119(32.2%)	2.07
11	For bulk garment production	66(17.8%)	95(25.7%)	130(35.1%)	79(21.4%)	2.40

Table 3 above shows the responses of the respondents that the questionnaire on their opinion on how frequent they use pattern drafting for garment construction where 37.3% which takes the highest percentage claimed they don't use it when there is urgent need for garment, 34.3% claimed they seldom use it when there is urgent need for the garment; 41.6% said they seldom use it when there is no need for urgency while 25.9% claimed they often use it when there is no need for urgency. 31.1% and 30.3% claimed they use it always and often respectively if the customer request for the use of patterns; 38.6% and 31.6% also claimed

they often and always use it respectively depending on the amount the customer is willing to pay, 10.3% and 24.6% said they do use it always and often respectively depending on the number of production. 33.0% claimed they use pattern drafting for garment construction often depending on the number of time given, while 25.4% and 23.2% claimed they seldom and never respectively use it base on the time given; 40.5% of the respondents that participated in the study claimed they often use it for some specific people while 21.9% also said they seldom use it for specific people. 34.6% claimed that they often use pattern drafting based on the fabric texture, while 24.6% also said they always use pattern drafting based on the fabric texture; 22.4% said they always use pattern drafting depending on the fabric length while 30.3% claimed they never base their criteria for using pattern drafting on the fabric length. 15.9% claimed to always use pattern drafting if it is cooperate attire; and 17.8% of the respondents that participated in the research claimed they always use the pattern drafting only for bulk garment production while 21.4% of the respondents said they don't use pattern drafting for bulk garment production. The table shows the result of the respondents that participated in the study on how frequent they use pattern drafting for garment construction and they all have different opinion and criteria in which they use pattern drafting.

MEAN OF MEAN = SUM OF MEANS/Number of Variables

$$= 26.72/11$$

$$= 2.43$$

Where;

0.5 - 1.49= Very Low Frequency

1.50 - 2.49= Low Frequency

2.50 - 3.49= High Frequency

3.50 - 4.0= Very High Frequency

The above calculation for the frequent use of pattern drafting shows that the frequency of use is low; majority of fashion designers do not use pattern drafting frequently. We can therefore conclude that the frequent use of pattern drafting is low.

TABLE 4.4: SHOWING THE CHALLENGES IN THE USE OF PATTERN DRAFTING

S/N	VARIATION	SA	A	D	SD	MEAN	RANK
1	It is time consuming as it takes a lot of time to draft pattern.	130(35.1%)	181(48.9%)	29(7.8%)	30(8.1%)	3.11	2
2	Unless the techniques and principle of drafting is known, it is difficult to construct.	138(37.3%)	174(47.0%)	25(6.8%)	33(8.9%)	3.12	1
3	It is waste of energy.	22(5.9%)	115(31.1%)	66(17.9%)	167(45.1%)	1.98	8
4	Lack of helping hand is a challenge to drafting pattern.	78(21.1%)	136(36.8%)	108(29.2%)	48(13.0%)	2.66	4
5	Pattern drafting waste fabric during cutting.	37(10.0%)	97(26.2%)	99(26.8%)	137(37.0%)	2.09	6
6	Once mistake is made on the drafted pattern it usually affects the fitness of the garment.	150(40.5%)	145(39.2%)	33(8.9%)	42(11.4%)	3.09	3
7	Pattern drafting destroy garment.	41(11.1%)	69(18.6%)	103(27.8%)	157(42.4%)	1.98	7
8	It is difficult to adapt to different styles.	104(28.1%)	124(33.5%)	46(12.4%)	96(25.9%)	2.64	5

Table 4 above shows the responses of the respondents gotten from their responses from the questionnaire administered to them in which the collation was based on their views on the challenges in the use of pattern drafting where 84.1% of them are in support that is time consuming as it takes a lot of time to draft pattern while 15.9% of them do not agree with the claim; 84.3% claimed that unless the techniques and principle of drafting is known, it is difficult to construct; while 15.7% disclaim this assertion. 63.0% of the respondents do not agree that pattern drafting is a waste of time, while 37.0% claimed it is just waste of energy;

the believe of each fashion designer vary but larger percentage do not believe pattern drafting is a waste of energy. 57.9% of the respondent that participated in the study agreed that lack of helping hand is a challenge to pattern drafting; yet, 41.2% still do not believe that the major challenges in pattern drafting is lack of helping hand. 63.8% disclaim the assertion that pattern drafting waste fabric during cutting while the remaining 36.2% claimed that pattern drafting waste fabric during cutting; 79.7% of the respondents that participated claimed that once mistake is made on the drafted pattern, it usually affect the fitness of the garment while just 20.3% are not in support of the claim. From the table, 70.2% of the respondents are not in support that pattern drafting destroy garment while 29.8% which is the remaining percentage of the respondents that participated in the study claimed that pattern drafting destroy garment; 61.6% of the respondents claimed that it is difficult to adapt to different styles using pattern drafting while 38.3% of the respondents also claimed that it is not difficult to adapt to different styles in pattern drafting.

TABLE 4.5:PERCEPTION OF FASHION DESIGNERS ON THE USE OF PATERN DRAFTING

S/N	VARIATION	SA	A	D	SD	MEAN
1	The best means of cutting fabrics for construction.	93(25.1%)	168(45.4%)	66(17.8%)	43(11.6%)	2.84
2	It is useful in the production of large garment.	115(31.1%)	205(55.4%)	22(5.9%)	28(7.6%)	3.10
3	Consumer appreciate garment constructed by patterns than any other means.	80(21.6%)	150(40.5%)	68(18.4%)	72(19.5%)	2.64
4	Patterns should be used in respect of the number of productions.	99(26.8%)	132(35.7%)	59(15.9%)	80(21.6%)	2.66
5	Pattern should be used only for large production.	106(28.6%)	123(33.2%)	78(21.1%)	63(17.0%)	2.74
6	Patterns are only good for few designs when constructing a garment.	102(27.6%)	126(34.1%)	36(9.7%)	106(28.6%)	2.61

7	Cutting with the help of paper pattern is quicker and easier than drafting straight away on the fabric (i.e. using free hand cutting).	159(43.0%)	139(37.6%)	30(8.1%)	42(11.4%)	3.12
8	Pattern drafting should be known by fashion designers.	276(74.6%)	80(21.6%)	6(1.6%)	8(2.2%)	3.69
9	Drafting pattern is not necessary for garment production.	89(24.1%)	84(22.7%)	47(12.7%)	150(40.5%)	2.30

Table 5 above shows the responses of the respondents that participated in the study on their opinion about pattern drafting use for garment construction from which it was revealed that 70.5% of the respondents claimed that pattern drafting is the best means of cutting fabrics for construction and 29.5% of them do not support the claim; 86.5% claimed pattern drafting is useful in the production of large garment; 62.1% of the respondents claimed customers appreciate garments constructed by patterns than any other means; 62.5% said patterns should be used in respect of the number of production while 61.8% agreed that pattern should be used only for large production; 61.7% also claimed that patterns are only good for few designs when constructing a garment. 80.6% of the respondents also claimed that cutting with the help of paper pattern is quicker and easier than drafting straight away on the fabrics; 96.2% said they supported the notion that pattern drafting should be known by fashion designers while 53.2% disclaim that drafting pattern is not necessary for garment production.

MEAN OF MEAN = SUM OF MEANS/Number of Variables

$$= 25.70/9$$

$$= 2.86$$

Where;

0.5 - 1.49= Very Low Perception

1.50 - 2.49= Low Perception

2.50 - 3.49= High Perception

3.50 - 4.0= Very High Perception

Everyone have their own view on things, and this led to finding the perception on pattern drafting use where it was revealed from the above mean that the perception of the respondent gave positive responses. With the above outcome, we can therefore conclude that the perception on pattern drafting use is positive.

TEST OF HYPOTHESES

Hypothesis 1

H₀: There is no significant relationship between socio-demographic (age) characteristics of the respondents and level of awareness of pattern drafting.

H₁: There is significant relationship between socio-demographic (age) characteristics of the respondents and level of awareness of pattern drafting.

			I AM FAMILAR WITH PATTERN DRAFTING				Total
			STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	
AGE	16-20YRS	Count	0	10	8	0	18
		Expected Count	3.0	13.1	1.4	.5	18.0
	21-30YRS	Count	33	147	8	4	192
		Expected Count	32.2	140.1	14.5	5.2	192.0

31-40YRS	Count	14	67	12	6	99
	Expected Count	16.6	72.2	7.5	2.7	99.0
41-50YRS	Count	15	40	0	0	55
	Expected Count	9.2	40.1	4.2	1.5	55.0
50years +	Count	0	6	0	0	6
	Expected Count	1.0	4.4	.5	.2	6.0
Total	Count	62	270	28	10	370
	Expected Count	62.0	270.0	28.0	10.0	370.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	59.293 ^a	12	.000
Likelihood Ratio	51.307	12	.000
Linear-by-Linear Association	7.648	1	.006
N of Valid Cases	370		

a. 10 cells (50.0%) have expected count less than 5. The minimum expected count is .16.

Conclusion

Since the P-value (0.000) is less than Sigma (0.05), we therefore reject the null hypothesis (H_0) and conclude that there is significant relationship between socio-economic characteristics of the respondents (age) and level of awareness of pattern drafting.

Hypothesis 2

H₀: There is no significant relationship between socio-economic characteristics of the respondents (scale of production) and level of awareness of pattern drafting.

H₁: There is significant relationship between socio-economic characteristics of the respondents (scale of production) and level of awareness of pattern drafting.

SCALE OF PRODUCTION * I AM FAMILAR WITH PATTERN DRAFTING Crosstabulation

			I AM FAMILAR WITH PATTERN DRAFTING			
			STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
SCALE OF PRODUCTION	SMALL SCALE	Count	17	119	20	2
		Expected Count	26.5	115.3	12.0	4.3
	MEDIUM SCALE	Count	43	140	4	8
		Expected Count	32.7	142.3	14.8	5.3
	LARGE SCALE	Count	2	11	4	0
		Expected Count	2.8	12.4	1.3	.5
	Total	Count	62	270	28	10
		Expected Count	62.0	270.0	28.0	10.0

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.277 ^a	6	.000
Likelihood Ratio	30.309	6	.000
Linear-by-Linear Association	5.052	1	.025

N of Valid Cases	370		
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a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .46.

Conclusion

Since the P-value (0.000) is less than Sigma (0.05), we therefore reject the null hypothesis (H_0) and conclude that there is significant relationship between socio-economic characteristics of the respondents (scale of production) and level of awareness of pattern drafting.

Hypothesis 3

H_0 : There is no significant relationship between level of awareness of pattern drafting and frequency of use of pattern drafting for garment construction.

H_1 : There is significant relationship between level of awareness of pattern drafting and frequency of use of pattern drafting for garment construction.

Conclusion

From the table below; the P-value (0.000) is less than Sigma (0.05), we therefore reject the null hypothesis (H_0) and conclude that there is significant relationship between level of awareness of pattern drafting and frequency of use of pattern drafting for garment construction.

I AM FAMILAR WITH PATTERN DRAFTING * IF THE CUSTOMER REQUEST FOR THE USE OF PATTERNS Crosstabulation

				IF THE CUSTOMER REQUEST FOR THE USE OF PATTERNS				Total
				ALWAYS	OFTEN	SELDOM	NEVER	
I AM FAMILAR WITH PATTERN DRAFTING	STRONGLY AGREE	Count		41	19	2	0	62
		Expected Count		19.3	18.8	14.7	9.2	62.0
	AGREE	Count		74	85	62	49	270
		Expected Count		83.9	81.7	64.2	40.1	270.0
	STRONGLY DISAGREE	Count		0	8	0	2	10
		Expected Count		3.1	3.0	2.4	1.5	10.0
	DISAGREE	Count		0	0	24	4	28
		Expected Count		8.7	8.5	6.7	4.2	28.0
Total		Count		115	112	88	55	370
		Expected Count		115.0	112.0	88.0	55.0	370.0

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	124.249 ^a	9	.000
Likelihood Ratio	135.599	9	.000
Linear-by-Linear Association	55.844	1	.000
N of Valid Cases	370		

a. 5 cells (31.3%) have expected count less than 5. The minimum expected count is 1.49.

DISCUSSION OF RESULTS

The findings of this study shows the socio demographic characteristics of the respondent where larger percentage of respondents that participated in the survey falls under the age range of 21-30 years, this implies that the respondents are youth despite this fact they are only aware about pattern drafting but not perfect in the use; many of the respondents are

married with 47.3% claimed to be married; since the enumeration area is in Yoruba land, many of the respondents belong to Yoruba ethnic group with 77.8% of them; 57.8% of the respondents have their education up to tertiary educational level; majority of tailors at the enumeration area that participated in the survey are females with the percentage of 71.6% of the respondents to be female this might be because of the love and passion of women for fashion, also, most of those that participated in the survey practices Christianity, taking a percentage of 64.6% of the population that participated in the study; many of the tailors at the enumeration area practices medium scale production of tailoring business lack of knowledge on the importance of pattern drafting can be an hinderances to large scales production because pattern drafting is majorly used for large garment production according to Anikweze (2012); also, majority of the respondents claimed to undergo training from another tailor as an apprentice for them to acquire their tailoring skill and this affect their skills on pattern drafting because they don't acquire their fashion skills under the tutelage of an established fashion institute; and from the study, it was revealed that majority of tailors at the enumeration area make between ₦31,000 to ₦40,000 from tailoring business on a monthly basis since majority practices medium scale production, this also affect their income.

It was shown 89.8% of the respondents claimed to be familiar with pattern drafting, 51.3% said that they are perfect in using pattern drafting; 78.8% of the respondents said pattern drafting have more advantages over free hand cutting or other method of cutting. Larger percentage of about 85.9% said pattern making helps in the fitness of garment; also, 82.4% claimed that a good pattern that has been adjusted to suit individual requirement helps to obtain a good fit. From the Study result, 85.1% of the respondents said they agreed that by manipulating the basic pattern pieces, it is possible to produce patterns for complicated and original design; 84.4% which takes the larger percentage in supporting the claim on the opinion that unless the techniques and principles of drafting is known, it is difficult to prepare a paper pattern. 87.9% of the respondents also claimed to be in support that a pattern prepared on thick paper or cardboard can be preserved for a long time and can be used over and over again. 76.8% claimed that it is easy to understand and easy to work with drafting method for a new worker or learner and 68.4% of the respondents that participated in the survey claimed that drafting is good for personal use and for small scale garment production.

The overall mean of the respondent is 2.97 which indicate that the respondents are aware about pattern drafting but might not be proficient in using it and this might be related to the fact that they are not properly thought during their course of training, this was revealed and supported by Gavar (2018) who found out that although, attention is paid to drafting of basics block but very little attention is given to adaptation for various designs.

It was shown that 37.3% of the respondents which takes the highest percentage claimed they don't use pattern drafting when there is urgent need for garment, 34.3% claimed they seldom use it when there is urgent need for the garment; 41.6% said they seldom use it when there is no need for urgency while 25.9% claimed they often use pattern drafting when there is no need for urgency. 31.1% claimed they use it always if the customer request for the use of patterns; 38.6% claimed they often use it depending on the amount the customer is willing to pay, 35.7% said they do use it always depending on the number of productions. 10.8% claimed they use pattern drafting for garment construction often depending on the number of time given, while 36.5% claimed they seldom use pattern drafting base on the time given; 40.5% of the respondents that participated in the study claimed they often use it for some specific people. 34.6% claimed that they often use pattern drafting based on the fabric texture; 36.5% said they always use pattern drafting depending on the fabric length while 30.3% claimed they never base their criteria for using pattern drafting on the fabric length. 15.9% claimed to always use pattern drafting if it is cooperated attire; and 17.8% of the respondents that participated in the research claimed they always use the pattern drafting only for bulk garment production. The mean of mean of this is 2.43 and this indicate that the frequency of use is low which can be related to the fact that since they are not perfect in the, they don't make use of it frequently this was supported by Gavar & Danquah (2018).

Also, according to Mclendon (2011) who emphasize that fit is the most critical component that ensure consumers satisfaction with garment constructed from commercial sewing pattern, this can be related to the positive perception given by the respondent towards pattern drafting ,they agreed with the fact that pattern helps in the fitness of garment and is the best means for cutting out fabric.

The test of hypotheses gave the result by concluding that there is significant relationship between socio-demographic characteristics of the respondents (age) and level of awareness of pattern drafting. Also, conclude that there is significant relationship between socio-

demographic characteristics of the respondents (scale of production) and level of awareness of pattern drafting. The third hypothesis gave the conclusion that there is significant relationship between level of awareness of pattern drafting and frequency of use of pattern drafting for garment construction.

CHAPTER FIVE

5.1 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.2 SUMMARY

The purpose of this study was to examine fashion designer's perception on the use of pattern drafting for garment construction in Ibadan South West Local Government. It was guided by five(5) objectives:

- To determine the socio demographic and socio economic characteristics of the respondents.
- To identify the respondents level of awareness on pattern drafting.
- To assess the respondents frequency of use of pattern drafting for garment construction.
- To identify the challenges hindering the use of pattern drafting.
- To determine the perception of fashion designers on the use of pattern drafting in garment construction.

The research revealed the socio demographic characteristics of the respondents as follows;that most of the respondents 21 – 30 years,it also showed that a larger percentage of the respondents were female (71.6%) ,In addition,the research also revealed that many of the respondents are married. Finally,the findings revealed that many of the respondents (57.8%) have their education up to tertiary level.Also,it showed the socio economic characteristics of the respondents as 40.5% of the respondent which is the largest percentage acquired their tailoring skills through apprenticeship with a tailor,it was also revealed that majority of the tailors at the enumeration area makes an average income of #31000 - #40000 from tailoring business on a monthly basis.

As regards the second objectives,it was concluded that there was a significant relationship between socio demographic (age) characteristics of the respondents and level of awareness of pattern drafting.Also,there was a significant relationship between socio economic

characteristics of the respondents (scale of production) and level of awareness of pattern drafting. As regards other objectives, it was found out there was significant relationship between level of awareness of pattern drafting and frequency of use of pattern drafting for garment construction.

5.3 CONCLUSION

In conclusion, based on the research carried out, it was revealed that majority of fashion designers at the enumeration area acquire their tailoring skills as apprentices, under the tutelage of an un-established fashion institute and local tailors; this affects their skills on pattern drafting. Although, most of the respondents are aware of the use of pattern drafting but are not proficient in using it; this made them not to frequently use the art. Majority of the respondents have the belief that unless the techniques and principle of pattern drafting is known, it is difficult to construct, and they believe it is time consuming which is as a result of lack of adequate training on the use. Also, majority gave positive perception on the use of pattern drafting that it is the best means of cutting fabric and must be known by all fashion designers.

5.4 RECOMMENDATION

Based on the findings of the study, it was recommended that:

- There is need to inculcate the use of pattern drafting skills as part of training curriculum of apprentices and also increase the period of training to allow trainees gain better understanding of the importance and use of pattern drafting this would help them make use of it frequently and manifest in the high standard on fit of apparel among the dressmaker and tailors at the near future

- Seminars should be organized by the Tailoring associations and stakeholders in the fashion industry for fashion designers, on the use of pattern drafting.
- The Federal Government should establish Schools of Clothing and Textile Technology; equip them properly to provide access for enthusiasts to study pattern drafting and garment making at advanced level.
- Fashion designers should master and develop appropriate basic patterns so as to encourage commercial patterns in Nigeria.

CONTRIBUTION TO KNOWLEDGE

The research will broadened the knowledge of students, tailors and fashion designers on the use and important of pattern drafting in garment construction which helps in the fitness of garment and avoid wastage of fabric that arise with the use of freehand cutting.

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APPENDIX

FEDERAL UNIVERSITY OF AGRICULTURE ABEOKUTA (FUNAAB)

COLLEGE OF FOOD SCIENCE AND HUMAN ECOLOGY (COLFHEC)

DEPARTMENT OF HOME SCIENCE AND MANAGEMENT

Dear Respondent,

I am a student of the Department of Home Science and Management (Clothing and Textile Option), University of Agriculture, Abeokuta, conducting a research on the topic **“PERCEPTION OF FASHION DESIGNERS ON THE USE OF PATTERN DRAFTING FOR GARMENT CONSTRUCTION IN IBADAN SOUTHWEST LOCAL GOVERNMENT”**.

I therefore, appeal to you to help in filling the questionnaire sincerely and honestly. I promise that all information given shall be treated confidentially. Thanks.

Lemo Omobolanle

SECTION A

SOCIO –ECONOMICS CHARACTERISTICS OF THE RESPONDENTS:

Please tick (☐) as appropriate.

1. Age: (a) 16-20 (☐) (b) 21-30 (☐) (c) 31-40 (☐) (d) 41-60 (☐) (e) 61&above (☐)
2. Marital status: (a) Married (☐) (b) Single (☐) (c) Divorce (☐) (d) Widow (☐)
3. Ethnicity: (a) Yoruba (☐) (b) Hausa (☐) (c) Igbo (☐) (d) others (.....)
4. Level of Education: (a) No Formal Education (☐) (b) Primary school Education (☐)
(c) Secondary School Education (☐) (d) Tertiary Education (☐)

5. Gender: (a) Male () (b) Female ()
6. Religion: (a) Christianity () (b) Islam () (c) Traditional () (d) Others (.....)
7. Scale of production: (a) small scale () (b) medium scale () (c) large scale.
8. How did you acquire your tailoring skill?
 (a) Studied in the Tertiary Institution () (b) Trained in fashion institution () (c) Learnt from a tailor (apprenticeship) () (d) Online Training () (e) Learnt from family member ()

SECTION B

LEVEL OF AWARENESS ON PATTERN DRAFTING: Please tick (☐) as appropriate to you

S/N	VARIATION	SA	A	SD	D
1	I am familiar with pattern drafting				
2	I am perfect in using pattern drafting				
3	Pattern drafting have more advantages over free hand cutting or other method of cutting you know				
4	Pattern making helps in the fitness of garment				
5	A good pattern of the right size which has been adjusted to suit individual requirement will enable you to obtain a good fit				
6	By manipulating the basic pattern pieces, it is possible to produce patterns for complicated and original design				
7	Unless the techniques and principles of drafting is known it is difficult to prepare a paper pattern				
8	A pattern prepared on thick paper or cardboard can be preserved for a long time and can be used over and over again				
9	It is easy to understand and easy to work with drafting method for a new worker or learner				
10	Drafting is not good for personal use and for small scale garment production like local tailors, boutique				

SECTION C

HOW FREQUENTLY DO YOU USE PATTERN DRAFTING FOR GARMENT CONSTRUCTION?

Strongly agree= SA, Agree= A, Strongly Disagree= SD, Disagree= D

Please tick (✓) as appropriate to you.

S/N	VARIATION	SA	A	SD	D
1	When there is urgent need for the garment				
2	When there is no need for urgency				
3	If the customer request for the use of patterns				
4	Depending on the amount the consumer is willing to pay				
5	Depending on the number of productions				
6	Always in producing garment				
7	Few times for specific people				
8	Depending on the fabric texture				
9	Depending on the fabric length				

SECTION D

WHAT ARE THE CHALLENGES IN THE USE OF PATTERN DRAFTING?

Strongly agree= SA, Agree= A, Strongly Disagree= SD, Disagree= D

Please tick (✓) as appropriate to you.

S/N	CHALLENGES	SA	A	SD	D
1	It is time consuming as it takes a lot of time to draft pattern				
2	Unless the techniques and principle of drafting is known it is difficult to construct				

3	It is waste of energy				
4	Lack of helping hand is a challenge to drafting pattern				
5	Pattern drafting waste fabric during cutting				
6	It is not always accurate after sewing or construction				
7	Once mistake is made on the drafted pattern it usually affects the fitness of the garment				
8	Pattern drafting destroy garment				
9	Depending on the fabric length				

SECTION E

WHAT IS YOUR OPINION ABOUT PATTERN DRAFTING USE FOR GARMENT CONSTRUCTION?

Strongly agree= SA, Agree= A, Strongly Disagree= SD, Disagree= D

Please tick (✓) as appropriate to you.

S/N	VARIATION	SA	A	SD	D
1	The best means of cutting fabrics for construction				
2	It is useful in the production of large garment				
3	Costumer appreciate garment constructed by patterns than any other means				
4	Patterns should be used in respect of the number of production				
5	Pattern should be used only for large production				
6	Pattern are only good for few designs when constructing a garment				
7	Pattern should be used only for small production				
8	Cutting with the help of paper pattern is quicker and easier than drafting straight away on the fabric (i.e using free hand cutting)				
9	Pattern drafting should be known by fashion designers				
10	Drafting pattern is not necessary for garment production				