UNIVERSITY OF EDUCATION, WINNEBA

INTERFACING FABRICS AWARENESS AND USAGE AMONG SMALL SCALE GARMENT PRODUCERS IN LAPAZ-ACCRA

EDITH ABLA KLUDZI

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A THESIS IN THE DEPARTMENT OF HOME ECONOMICS EDUCATION, FACULTY OF SCIENCE EDUCATION, SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES, UNIVERSITY OF EDUCATION, WINNEBA, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PHILOSOPHY (HOME ECONOMICS EDUCATION) DEGREE

MARCH, 2018

DECLARATION

STUDENT'S DECLARATION

I Edith Abla Kludzi declare that this thesis, 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 ……

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

Name of Supervisor: Professor Phyllis Forster.

SIGNATURE……

DATE ……...

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DEDICATION

I dedicate this work to my mother, Madam Mansa F. Nyatornu, Mr Kofi Tsey and to the memory of my Dad Mr. Raphael K. Kludzi.

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ABSTRACT

The purpose of this study was to examine the selection and application of interfacings among small scale garment producers at Lapaz in Accra to ascertain their competency levels and proffer strategies for improvement if necessary. The objectives were to assess the level of awareness of varieties of interfacing fabrics on the market among small scale garment producers in Lapaz, Accra; identify factors they considered in the selection of interfacing fabrics; describe methods used by them to apply interfacings and evaluate the interfaced garments produced by them. A hypothesis –There is no significant association between educational qualification and the factors considered in selecting interfacings" was also tested in this study. The target population for the study was small-scale garment producers in Lapaz-Accra. Convenience and snow ball sampling techniques were employed in selecting the garment producers in the area. Observation guides and interview schedule were used to collect data. Data were analysed using Statistical Package for Social Sciences (SPSS) version 20 and Microsoft Excel to generate frequencies and percentages and presented in pie chart, bar charts and tables. The result of the study revealed that all the respondents had a high level of awareness of self-fabric interfacing and vilene; majority (more than 70%) of the respondents also had a high level awareness of calico and grey-baft interfacing fabrics. Vilene was used by all the respondents of this study because it was less expensive, readily available, comes in different weight, easy to use and give desired results the respondents needed. Factors which mostly influenced the selection of interfacing fabrics among the respondents were: weight of the fashion fabric, area of the garment to be interfaced, application method, and colour of the fashion fabric. Fabrication method and care requirements of the fashion fabrics were not considered by the respondents. Lapped seam of joining interfacings and lapped dart method of reducing bulk were the main interfacing application methods used by the respondents. The mean of means score for quality of interfaced garments of the respondents was 2.59 which is quite high. A hypothesis tested to determine relationship between educational qualification and factors considered in selecting interfacing indicated a moderate positive correlation ($r = .552$, $p<.05$) with the aggregate factors for selecting interfacings. Based on the findings it is recommended that the findings be made available to the respondents and Council for Technical and Vocational Education and Training (COTVET) so that respondents would be educated on the; varieties of interfacings, factors considered in selecting interfacings, methods of applying interfacings and also develop standards on interfaced garments made in Ghana.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The garment production industry has been recognised as one of the largest industries which employs millions of people worldwide (Dickerson, 1991; Wolfe, 1989). The number of people engaged in this industry has brought competitiveness and specialization (Frings, 1982). The garment industry has indeed become an important economic factor worldwide (Dickerson, 1991 & Wolfe, 1989). For any producer to remain competitive therefore, many efforts have to be put in to meet the demands of the market.

Garment making is one of the basic contents of fashion designing. It is necessary to know the techniques of sewing for producing attractive garments with good fit. Garment making is thus a technical accomplishment that requires knowledge of fabrics, principles of clothing construction and skills involved in it. This depends on the ability to select the correct fabric, colour, design and accessories to suit an individual occasion. A garment that is made will be attractive if it fits well and proper attention is paid to its finer details.

LaBat (1987) and Frost (1988) defined clothing fit as the relationship of clothing to the body, combining the visual analysis of fit and the physical evaluation of comfort. Brown and Rice (2001) on the other hand said fit is how well the garment conforms to the three-dimensional human body. A few studies have also defined two dimensions of apparel fit as aesthetic fit, which relates to the appearance of the garment in relation to the body; and functional fit, which relates to the comfort and

performance of the garment due to the fit (Eckman, Damhorst & Kadolph, 1990; Outling, 2007).

Certain elements of a garment are crucial to determining the fit of garments. According to Song and Ashdown (2010), the degree to which the quality of fit of garment is obtained is influenced by every stage of the apparel product development, production and consumption processes.

A garment is made not only from the apparel fabric but also from various accessory items. Fabric is the basic material in garment manufacturing. With the exception of fabric for garment, the other materials are known as garment accessories or notions. These notions have to be chosen in such a way that they complement the outer fabric both aesthetically, and practically, in terms of ensuring that the garment performs as expected in its intended end use. Various kinds of accessories are used on garments. Some form part of the garments for instance, buttons, zippers, and interlining among others, while others are used for decorating to enhance the product‘s appearance. Suitable selection of all these items help produce a good quality clothing product. Forster (2014) stated that sewing notions include threads, fasteners, edge finishers, shaping notions, and underlying notions. Underlying notions are applied to the wrong side of articles to enable them look better and they include lining, interlining, underlining and interfacing. Fabrics such as net, wadding, taffeta, grey-baft, calico, iron-on cotton, voile, felt and vilene, may be used for underlying processes.

The shape of a garment is enhanced and preserved by underlying fabrics such as interfacing, lining, underlining, and interlining fabrics. Other supporting methods may also be used to achieve or maintain the desired shape. Garments made from woven

fabrics may contain one or more underlying fabrics. Although not visible from the outside of the garment, these fabrics help maintain the garment‘s shape and/or lend it other qualities such as durability and warmth (Brown & Rice, 2001). Eliminating underlying fabrics to reduce costs results in limp garments that do not maintain their original shape as the garments tend to wrinkle and stretch out of shape. The presence of supporting fabrics such as underlying in a garment is usually a sign of quality. However, very few consumers make a purchase decision based on the underlying fabrics of a garment. It must be noted that the, ultimate satisfaction with the aesthetic and functional performance of any garment is affected by its supporting fabrics (Brown & Rice, 2001). Brown and Rice (2001) further explained that the choice of underlying fabrics depends on the design, fabric, and end use of the garment. Waistbands that roll, collars and lapels that bubble, and knees, elbows, seats and pockets that bag can be avoided if the manufacturer carefully selects and correctly applies supporting fabrics. The fact however, is that the addition of underlying fabrics to a garment increases production costs in terms of both materials and labour.

Brown and Rice (2001) stated that interfacing lends body, shape, and reinforcement to limited areas. Collars, collar bands, cuffs, buttons and buttonholes, pockets, waistbands, and other small design details are usually interfaced. In tailored coats and jackets, the shoulders and lapels are interfaced. In high quality coats and jackets, the designer or patternmaker also interfaces the armholes, patch pockets, sleeve hems, garment hem, and sometimes the entire garment front. Interfacing is usually hidden between the garment and its facing. This explains the name ―interfacing”. Byrne (2000) opined that for certain classes of garment, especially men's tailored garments, the processes of fusing an interlining to selected cut parts,

and final pressing of the fully assembled garment, are at least as important as the sewing operation itself for the production of good quality garments.

Klupp (2006) noted that most garments look more professional and wear longer if they are interfaced. Selecting and using interfacing correctly is an important component of clothing construction. Interfacing gives stability, shape and reinforcement to details such as collars, cuffs, waistbands, pockets, lapels and buttonholes. Interfacing prevents stretching and sagging of loosely woven fabrics. Klupp further explained that even simple garment styles need interfacing to add stability to necklines, facings or hems and also add body to a garment and keep it crisp through repeated washings and wearing. Thus the need for garment producers to be skilful in the selection and application of interfacings.

1.2 Statement of the Problem

Interfacing fabrics are underlying supportive fabrics placed between a facing and the outer fabric of a garment during garment construction. Its purpose is to give stability, shape and reinforcement to details such as collars, cuffs, waistbands, pockets, lapels, buttonholes, hems, necklines, etc, and prevent stretching and sagging of loosely woven fabrics. There was over-reliance and use of vilene as an interfacing fabric by garment producers in Lapaz. Most small scale garment producers (tailors and seamstresses) in Lapaz used only vilene to interface their products, even though many varieties of interfacing fabrics were available for different fabrics and projects. These observations came to light when the researcher interacted with small scale garment producers in Lapaz-Accra during her industrial attachment in 2006 and 2007. Interactions with other small scale garment producers in Winneba, Dzodze and Akatsi by the researcher also revealed same. A term paper of the researcher on ―Common

Sewing Notions on the Ghanaian Market" revealed that there were different types and weights of interfacings for different purposes in the market. Vilene by its nature has several characteristics which limits its usage in garment construction. It is visible on the right side of sheer fabrics and the fusing adhesive comes through lightweight fabrics, sheers, or open structures such as eyelets. The fusing process which fixes the interfacing to the fashion fabric also flattens the surfaces of napped or crinkled fabrics and does not give a good look to the finished garments. The purpose of this study was to examine the interfacings used and their application of interfacing and quality of interfaced products among garment producers at Lapaz in Accra to ascertain their competency levels and proffer strategies for improvement if necessary.

1.3 Purpose of the Study

The purpose of this study was to examine the selection and application of interfacing among garment producers and the quality of their interfaced garments at Lapaz in Accra, to ascertain their competency levels and proffer strategies for improvement if necessary.

1.4 Objectives of the Study

This study specifically sought to:

1. Assess the level of awareness of varieties of interfacing fabrics on the market among small scale garment producers in Lapaz, Accra.
2. Examine the factors considered by the small scale garment producers in the selection of interfacing fabrics.
3. Describe the methods used by small scale garment producers in applying interfacings to their garments

4. Evaluate the quality of interfaced garments produced by the garment producers.

1.5 Research Questions

The following research questions were posed to guide the study:

1. What is the level of awareness of varieties of interfacing fabrics on the market among small scale garment producers in Lapaz, Accra?
2. What are the factors considered by small scale garment producers in the selection of interfacing fabrics?
3. What methods are used by garment producers in applying interfacings to their products?
4. What is the quality of interfaced garments made by the small scale garment producers?

1.6 Hypothesis

H_1: There is a significant association between educational qualification and the factors considered in selecting interfacings.

H_0: There is no significant association between educational qualification and the factors considered in selecting interfacings.

1.7 Significance of the Study

The outcomes of this study are anticipated to be beneficial in the garment manufacturing industry and to the nation in several ways. Not much has been done by way of research into matters that affect competencies in garment construction in Ghana. The study is therefore intended to: improve understanding in this field, fill the

knowledge gap thereby making it possible for garment producers to recognise practices that contribute to quality products and thereby make their products competitive. The findings may help to identify requirements for training, financing and technical assistance needed to improve practices and products in the small scale garment industry. It may also help develop effective policies and practices that will sustain the garment industry.

1.8 Delimitation of the Study

This study is limited to small scale garment producers at Lapaz-Accra who use interfacings in garment production, hence the findings cannot be generalised to producers in medium and large garment industries. Only interfaced sections of garments were assessed to determine the quality of a garment. This may not give information on the total quality of the garment because other parameters like fabric, thread and stitching, seams and hems, grain and pattern, lining, fasteners and closures and finishing details can also affect the quality of a garment as noted by Schmieder (2010).

1.10 Organization of the Study

The study is organized in five chapters. Chapter one is the introduction and it includes the background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, research hypotheses, significance of the study, delimitations, limitations, definition of terms and the organization of the study. Chapter two contains conceptual frameworks, review of related literature on the research topic, and the chapter three covers the methodology. It includes the research design, population, sample and sampling technique, data collection instruments, validity, data collection procedure, method of data analysis. Chapter four focuses on

data analysis and major findings of the study, while chapter five presents summary, conclusion and recommendations based on the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines, analyses and critiques available literature on what researchers and experts in the field of clothing construction have said or written about the subject both locally and internationally, relating to the study. Sub-headings for the section cover: garment production in Ghana, methods of acquiring sewing skills, conceptual framework, interfacing, rationale for interfacing garments, selection of interfacing fabrics, making interfacing pattern pieces, pre-treatment of interfacing fabrics, methods of applying interfacing in garment construction, indicators of well interfaced products, and parts of the garment that are interfaced.

2.2 Garment Production in Ghana

Currently, Ghanaian garment producers are not only looking at the domestic market but also trying to extend their markets internationally. Targeting foreign markets means meeting international quality standards. The foreign market has a lot of opportunities for the Ghanaian garment manufacturer just as the local market. Biggs, Miller, Otto, and Tyler (1996) cited in Ampong (2004) in investigating the opportunities and challenges that exist for African products in Europe and the USA markets, found that the USA market has the highest concentration of Africans resident outside the continent with a purchasing power of US $223 billion and for which a higher proportion is allocated to apparel. There is also the resurgence of cultural identity among the African Americans evident in their desire to visit Africa, or use Afro centric products for identification.

The European market, according to Biggs et al. (1996), also values ethnic designs incorporated in traditional African textiles. However, the challenge is that the African producer must compete head-on with international producers in terms of price, delivery and quality to be successful in selling standard garments. For Ghanaian manufacturers to remain competitive and enjoy their fair share of the market, they must understand the market dynamics that relate to quality of production. This may be expressed in terms of how well the product is designed to achieve the stated purpose. Design ultimately involves careful planning of the product. This planning is not just restricted to the aesthetic considerations. Kadolph (1998) cited in Ampong (2004) indicated that, to achieve quality, inspection, testing and measuring should be an integral part of the production process and these should be monitored to ensure that the garments conform to specifications. According to Ministry of Trade and Industries report of 1996 cited in Ampong 2004, exports from individual garment producers in Ghana have had quality setbacks. Specifically, poor quality construction and finish, as well as use of inferior quality fabrics and notions together with delayed delivery were cited as reasons for rejection of Ghanaian garments in the export market. These put into doubt the credibility of Ghanaian made garments.

In May 2000, The Africa Growth and Opportunity Act (AGOA) an initiative of the US government to provide market access to eligible sub-Saharan African countries to enter the US market was signed into law by President Clinton. The AGOA law, which benefits 37 Sub-Saharan African countries, first came into effect in the year 2000 and expired on September 30, 2008. It was extended to September 30, 2015 and was recently extended again to September 20, 2025 by the US government. AGOA provides trade preferences for quota and duty-free entry into the United States for certain goods, expanding the benefits under the Generalized System of Preferences

(GSP) programme. Thus, whiles the US GSP covers about 4,600 products that receive duty free treatment, AGOA expanded the list to about 6,400 products, and includes textiles and clothing for the first time (African Growth and Opportunity Act, 2016).

This initiative of the US government seeks to expand U.S. investment and trade with sub-Saharan Africa, encourage economic integration, stimulate economic growth, and facilitate sub-Saharan Africa‘s integration into the global economy. With Ghana‘s credentials as a beacon of democracy on the African continent and meeting the AGOA eligibility criteria, including progress towards the establishment of a market-based economy, rule of law, economic policies to reduce poverty, protection of internationally recognized worker rights, and efforts to combat corruption, it became a member when the initiative was first introduced. Forty-one sub-Saharan African countries as at August 2014 were eligible for AGOA benefits (African Growth and Opportunity Act, 2016).

AGOA covers most sectors of trade and investment, textiles and apparel received detailed attention in the agreement due to its importance in the socio-economic development of African countries and the fact that textiles and apparels are not included in the GSP. Since its inception, AGOA has helped to increase trade between Ghana and U.S. It is expected that rejuvenating the textiles and clothing sector would create employment and also increase apparel export from $2 million to $157 million by the year 2020. For Ghanaian garment producers to take full advantage and benefit from this opportunity, many efforts have to be made by the producers to meet international standards to make Ghana–made garments competitive in the global market (African Growth and Opportunity Act, 2016).

A study conducted in Nigeria by Amubode and Folade (2012) to evaluate female consumers‘ expectation and post patronage satisfaction of tailoring services showed that customers have understanding of the fashion trend and some expectations from tailors in the discharge of their services that will lead to satisfaction and repurchase intention. The study further indicated that the tailors did not meet consumers‘ expectations despite the fact that consumers were not expecting any high standards. It can however be argued that tailors and seamstresses who cannot meet their consumers‘ expectations cannot favourably compete at the international market since they are still struggling to meet the minimal consumer expectations. If these tailors and seamstresses should engage in mass production of ready-to- wear garments, they would not be able to produce garments to meet required standards. Unlike developed countries like Europe where ready-to- wear garments dominate the clothing business, in the Ghanaian society, the prevalent clothing technique is custom made. Ready to wear garments are mass produced, using standard body measurements and are ready to be worn at the time of purchase. For custom-made garments on the other hand, fabrics are bought by customers and presented to a tailor or seamstress to sew a desired style of the customer, using the customer‘s actual body measurement.

2.3 Methods of Acquiring Sewing Skills

Continuous supply of any nation‘s workforce for the sustenance of technological and industrial growth of that nation‘s economy can be achieved through Vocational/Technical Education (VTE). Vocational and technical education offers the trainee both semi-skilled and skilled training required for either construction of new products or modification/maintenance of existing ones (Owolabi, 2003). This evolved from the non-formal apprenticeship programme to a more sophisticated formal training in skills acquisition (Arowolo, 2010). Owolabi (2003) stated that, the

educational levels of fashion designers (garment producers) may determine their level of complexity and detail in designing. He explained that cognitive power and creativity can be efficiently developed through higher education in the creative field since each higher level improves competencies of learners.

Arowolo (2010) assumed that, traditional apprenticeships in West Africa are widespread. In Ghana, the practice has particularly been linked to the informal of education. The market for apprenticeships has gained a hold in Ghana and is especially common place in urban areas. Although the system of entry are many and varied for a new entrant into the apprenticeship system, many authors have presented closely related yet different views as to what the entry requirements are. Owolabi (2003) for instance noted that the modalities regarding apprenticeship in the informal sector vary. Entry is for the most part open for anyone who can pay the training fee; minimum education requirements are non-existent, and other necessary qualifications besides ethnic or clan identity are uncommon (Arowolo 2010). Arowolo (2010) added that whether the training is non-formal, apprenticeship or a more sophisticated formal training, the leaner is equipped with relevant job skills.

Dreyfus and Dreyfus (1980) noted that the acquisition of skills is a predominant factor in everyday life. Anyone who wishes to acquire a skill can either try to learn by imitation, by trial-and-error, or can seek the help of an instructor or use instruction manual of the strategy used to acquire a skill independently (this process is time consuming and demands an effort from the person desiring to learn) . In one of the earliest articles on the theory of skill acquisition, Anderson (1982) postulated that it requires at least 100 hours of learning and practice to acquire any significant cognitive skill to a reasonable degree of proficiency. The exact amount of time needed to acquire a skill is hard to define and depends on many factors such as the task

characteristics, personal engagement, and capacities. Skill acquisition can be defined as a form of prolonged learning where through many pairings of similar stimuli with particular responses, a person can begin to develop knowledge of how to respond in certain situations (Speelman & Kirsner, 2005).

Three main theories of skill acquisition can be differentiated. The automaticity-based theories (Shiffrin & Schneider, 1977; Anderson, 1982) postulate that the acquisition of skills proceeds in accordance with approximate segments of practice and that there are three stages in this process. The skill acquisition process begins with resource dependency, proceeds to an increase in speed performance and accuracy achieved through practice, and culminates in skilled performance or automaticity. The knowledge-based theories (Crossman, 1959; Gibson, 1963; Chase & Simon, 1973; Ericsson & Kintsch, 1995) assert that with extended experience, experts acquire a large number of more complex patterns and use these new patterns to store knowledge about which actions should be taken in similar situations. Skill acquisition is achieved through three principles: information is encoded with numerous and elaborate cues related to prior knowledge, experts develop a retrieval long-term memory structure, and the time required by encoding and retrieval operations decreases with practice (Gobet, 2000). Finally, the psychometric theories (Fleishman, 1972; Ackerman, 1988) suggest that ability-performance relations, but not skills [such as chess mastery or physics problems] are sensitive to the consistency and complexity of the target task. Tasks with predominantly inconsistent stimulus-to-response mappings are expected to show little change in ability demands over practice, while other tasks that require consistent information-processing constraints are expected to show changes in ability demands as the learner develops the appropriate task skills (Ackerman & Cianciolo, 2000).

Acquiring skills to the point of becoming an expert requires that a person‘s performance is superior to other people, that it produces concrete results and that the performance can be measured and replicated (Ericsson, Prietula, & Cokely, 2007). The development of relevant skills is also a major instrument for better working conditions. Skill enhancement improves productivity as well as income and reduces work drudgery and occupational risks (Liimatainen, 2002). Factors such as the intellectual stimulation and challenges encountered in the classroom, students‘ interaction with other students and staff, the nature of the learning climate in the institutions, and personal development are known to contribute to students‘ positive outcomes (McInnis, Griffin, James, & Coates, 2001) and have an impact on their acquisition of skills. Other factors such as the amount of years of study also influence the perception of acquired skills in students (McInnis *et al*., 2001). In accordance with the theories of skill acquisition the more time an individual dedicates to learn a skill (Anderson, 1982) and the more a person goes through the different stages of increasing skills (Dreyfus & Dreyfus, 1980), the higher the amount of skill acquisition and, in turn, the perception of this increase.

The overriding requirement for practical is the ability of the learner to be able to do the job rather than only talk about it (Odu, 2011). According to Chauhan (1983), the job and competence of craftsmen are measured by what he/she can do as against how well he/she can describe what he/she can do. The worth of an individual to society grows out of contribution of his/her skills, knowledge and applied productive capacity to tasks that need to be completed rather than out of artificial status connotation attached to some glamorous jobs (Okorie, 2001). In this regard, VTE is a suitable type of education that is capable of responding to economic and labour force changes in the society (Dasmani, 2011).

With regard to garment construction, Amankwa (2007) stated that gone are the days when clothing production was for those who were not intelligent and had no formal education. Amankwa added that, clothing production is a vocation which requires knowledge and skills which assist the producer to design and construct garments that are very becoming and appealing to consumers. The outcome of learning, according to Granger and Sterling (2003), involves a change of behaviour and performance of the learner, therefore if the learner is equipped with knowledge, attitudes, information, abilities, skills and competences that make him or her able to perform and do something, it signifies that learning has taken place.

It could be established therefore that, the use of appropriate educational techniques that foster creativity and competency skill acquisition is crucial in garment design and construction. Therefore the appropriate skills training for Ghanaian small scale garment producers will help improve their garment production capabilities as the choice of appropriate educational strategies and materials enhance and improve students‘ learning (Brown, Oke & Brown, 1983).

2.4 Conceptual Framework

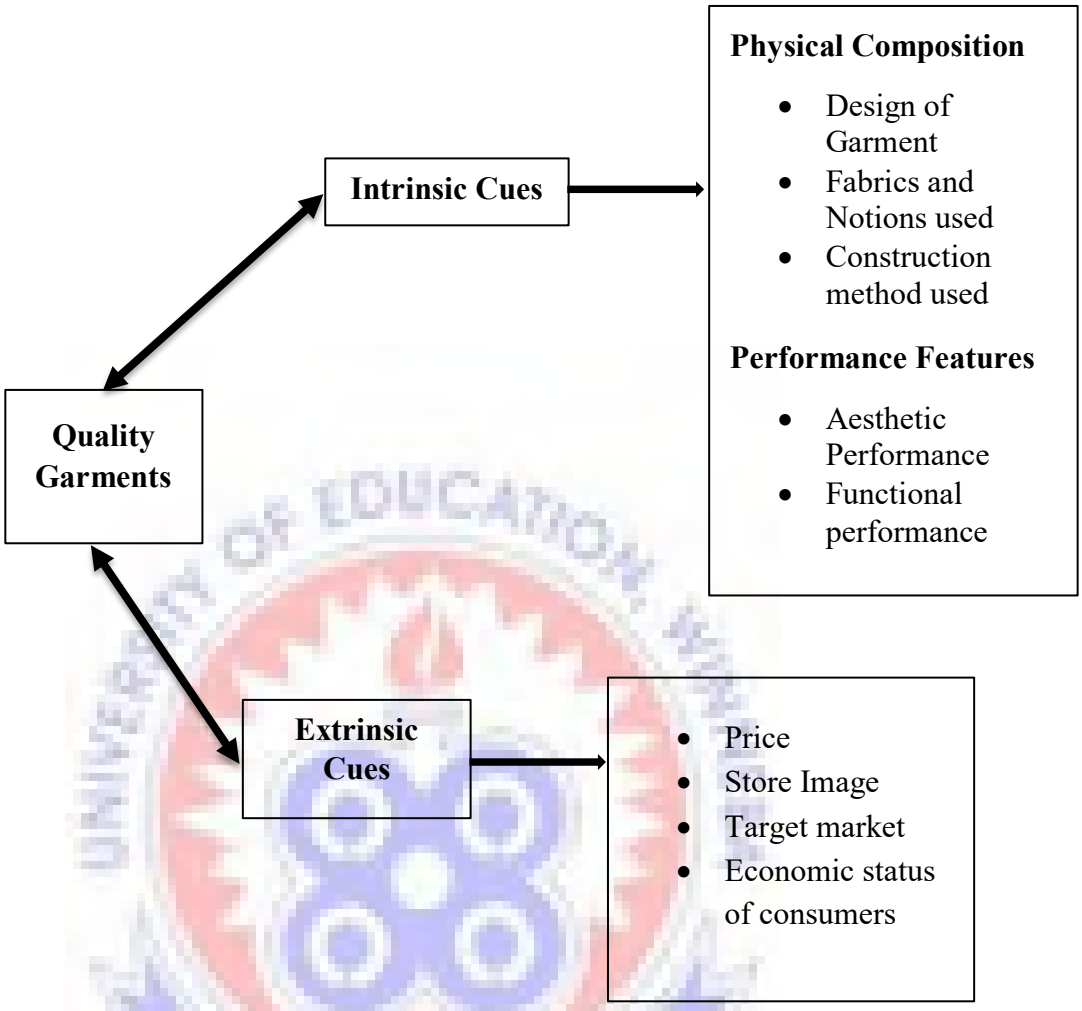

Figure 1: Interfaced Garment Quality Assurance

Source: Adapted from Olson and Jacoby (1972)

Quality in everyday usage means "good" (Holbrook & Corfman, 1985). Defining quality has been an important endeavour for researchers. Olson and Jacoby (1972) stated that one finds almost as many definitions of quality as writers on the subject. Quality has been variously associated with terms such as satisfaction, value, excellence, and conformance. Wheatley,Chiu and Goldman (1981) considered quality to be multidimensional and critical of studies that are based on a one-dimensional concept of quality. The definition of quality varies depending on the perspective and bias of the researcher. While the substance and determinants of quality is undefined,

its importance to firms and consumers is unequivocal. Research has demonstrated the strategic benefits of quality in contributing to share and return on investment as well as lowering production cost and improving productivity (Garvin, 1983). Quality, as a concept, is multidimensional and relative, and thus, difficult to perceive. However, there is nothing fundamentally unclear or mystic about quality if quality is seen from different viewpoints. It is not worth aspiring to a universal truth about quality, but it is both valuable and possible to define and assess quality in a particular context and from certain viewpoints.

Garvin (1983) cited by Clodfelter and Fowler (2003) recognised eight common themes of quality including aesthetics, conformance, durability, features, performance, perceived quality, reliability and serviceability. Aesthetic refers to how a product looks feels, tastes, smells, or sounds. These are the subjective experiences of a product. Conformance is the degree to which a product's characteristics meet established standards. Durability is the measure of product life, or the amount of use the product offers before it breaks down. Features are the characteristics that supplement basic functions, while performance refers to the product‘s primary operating characteristics that can be measured and ranked. Reliability is the probability that a product will fail or malfunction within a certain period of time. Serviceability is the speed, competence, and ease of repair and perceived quality focuses on inferences about quality that may be based on suggestive aspects.

The conceptual frame work of this study suggests that apparel quality can be defined based on a production or manufacturer‘s perspective or from a consumer‘s perspective. Quality of a product can be measured either from producers‘ perspective or consumers‘ perspective or both (Crosby, 1972). Producers based quality can be measured objectively from conformance to standard specification, performance,

workmanship, durability and serviceability standards, while consumers measurement of quality is based on perceived quality features, sensory, and emotional/expressive aspects (Flore & Damhorst, 1992; Abraham-Murali & Littrel, 1995; Hines & O'Neal, 1995). Perceived quality focuses on inferences reached on the basis of evidence or reasoning. These include product familiarity, prior experience with a specific product or brand, product price, consumers' level of education and personal values. A consumer-based approach to quality is more subjective and not easily verified (Zeithami, 1998). Therefore, consumers and product developers may define quality differently (Morgan, 1985).

Quality is always a compromise and every customer has in mind a set of requirements for a product. A good quality product is one that exactly meets the agreed requirements of the customer, delivered on time and in sound condition (Chuter, 2002). Many times, products meeting specification may not fully satisfy the consumers' notion of quality product resulting in a mismatch between producers and consumers perception of the product (Flore & Damhort, 1992). From the manufacturers' point of view, clothes that flatter a client and fit perfectly are of desirable quality. Apparel quality can be defined based on a production or manufacturer's perspective or from a consumer's perspective. According to the production or manufacturers perspective, perceived quality is conformance to the requirements (Crosby, 1972) or zero defects. This definition implies that specifications are available and conformance to these will result in quality. The definition emphasizes technical aspects of monitoring product quality in the industry.

Retief and M de Klerk (2003) defined quality as the extent to which the clothing and textile product satisfies the consumer's expectations and includes both physical and performance features of the product. Different attributes are used by consumers to

measure quality of a clothing item or apparel. Attributes of clothing are categorised into intrinsic and extrinsic cues (Olson & Jacoby, 1972). According to Olson and Jacoby, intrinsic cues refer to product attributes that are inherent in the product (for example, fibre content, style, colour), whereas extrinsic cues are attributes that do not form part of the physical product but are added by retailers and manufacturers (e.g., brand name, price, package).

Intrinsic attributes involve the physical composition of the product which cannot be changed without altering the nature of the product itself and performance features which determine what standards the product meet and how this benefits the consumer. The intrinsic cues most frequently examined include style, fit, design, fibre content, colour, care, and appearance.

Brown and Rice (1998) described the physical features of a garment as its tangible form and composition. These include the design (garment plan), all the materials and components used to produce the garment (fabric and notions), the construction or workmanship (stitches and seams used) and any wet processing used to finish the garment. Design is the fulfilment of the client‘s needs and wants through style, fit and features. The result may be seen in these elements, and most importantly, in how the user looks and feels in the garment. Fabrics and notions are central ingredient of style, usually pre-existing to the style of a garment. Through the maker‘s hands and skills, fabric and notions are made into a garment. Construction technique or workmanship refers to human skill and the use of tools in constructing a garment. Although garment construction techniques refers to something concrete, it should not be understood as mechanical and distinct from aesthetics, as construction technique together with fabric and notions make the style of garment tangible.

Performance features of apparel consist of aesthetic and functional performance. Attractiveness is described as aesthetic performance which usually satisfies the emotional needs of a consumer and includes the design elements, design principles and the current fashion trends (Retief & M de Klerk, 2003). Functional performance refers to the product‘s utility and durability. Utility is the usefulness of the product and how well it conforms to end use standards (Brown & Rice, 1998). Durability is seen as serviceability or the ability of a product to retain its structure and appearance after wear and care. A garment‘s durability is determined by the abrasion, resistance, tear resistance or seam strength, dimensional stability (shrink resistance) and colour fastness (Retief & M de Klerk, 2003).

Extrinsic attributes are product related but not part of the physical product itself. These include price, brand name, country of origin and store image (Olson & Jacoby, 1972). In relation to this study‘s concept, price, store image, target markets and economic status of consumers were considered as extrinsic attributes of quality garments.

Researchers, examining the effects of price with other attributes, have found that its importance depends on the type and level of the other variables (Hatch & Roberts, 1985; Norum & Clark, 1989). Consumer-related factors such as familiarity with the product, confidence, and education also have an impact on the use of price as a cue in determining apparel quality (Lambert, 1972; Shapiro, 1973; Valenzi & Eldridge, 1973). King (1993), Clodfelter and Fowler (2003) cited Baugh and Davis (1989) that a single cue store image has little effect on consumers' perception of the quality of a store's merchandise.

A product can appeal to a variety of buyers who have different motivations for purchasing. Marketing works best when it is targeted and focused. To effectively market and get products out into the real world, garment producers need to identify their main customers and different types of buyers and refine their profiles over time (Brown & Rice 1998).

Apparel manufacturing companies always strive to produce garments that meet their customer requirements. A wide range of quality processes, are used in the apparel industry to ensure that these quality standards are met (Chuter 2002). The examination and measurement of garments are common ways of ensuring that the garments produced meet customer specifications. Apparel producers must look to their target market to see what factors consumers apply when they assess the quality of their apparel purchase. Most consumers are concerned with aesthetics and performance (Chuter 2002). Apparel producing companies need to set standards that meet or surpass the expectation of its target market. When an apparel company directs all activities in all departments to delivering quality products that will satisfy its target market and at the same time reach its own business objectives, it is practicing total quality management (TQM). Apparel producers must know the expectation of their target market and then incorporate their real or perceived need into each garment (Retief & M de Klerk, 2003). They need to develop consistent criteria, standards and specifications when deciding which material, design, construction details to include in their line. Specification sheets communicates critical quality information which can include minimum acceptable quality levels or a range of acceptable quality values known as tolerances. A defect is determined when any part of the apparel product does not meet the established standards and specifications (Retief & M de Klerk, 2003). The target market participates in the apparel producers‘ determination of its

acceptance level, which is the number of each type of defect that would cause a garment to be rejected by the consumers.

Economic status of consumers also determine the quality of apparel an individual uses. Apparel is a highly symbolic product category due to its high visibility. Individuals will often make assumptions about a person‘s economic status simply on the basis of his/her clothing (Clodfelter & Fowler, 2003). Economic status is a dynamic structure that changes according to the nature of the social surroundings or situation (Brown & Rice, 1998). Consumers will change their consumption behavior based on a current change in their economic status (Brown & Rice, 1998). The symbolic nature of clothing as a visual expression of economic status can incorporate various clothing styles, brands, retailer outlets and memberships in particular subcultures (Clodfelter & Fowler, 2003).

Jacoby, Olson and Haddock (1971) reported that under certain conditions intrinsic cues are more important than extrinsic cues in shaping judgment of products. Flore and Damhorst (1992), and Szybillo and Jacoby (1974), when studying specific garments, found intrinsic cues related to aesthetic properties to have a substantial effect on perception of quality than extrinsic cues.

2.5 Interfacing

The garment industry in Ghana comprises numerous small-scale enterprises which are in the form of a sole proprietorship and are engaged in making garments for individuals and groups locally and for export (Quartey, 2005). Years ago, dressmakers used whalebones, hoops, bustles, corsets, and metal bands to maintain shape in garments (Baker, 2006). Today, special interfacing fabrics, either woven, knit, or nonwoven can be used to give the desired shape. Interfacing is invisible yet a

fundamental component and an essential ingredient to successful sewing as garment without interfacing is like a cake without a leavening- which sags (Shaeffer, 2008). Forster (2014) explained interfacing as a third layer cut to the size of a facing for a section of a garment and sewn between the section and the facing. Forster added that interfacing is applied only to certain sections or areas like collars, front or back openings, lapels, hems, pocket flaps and welt, belts, waistbands, jackets, yokes and cuffs. Adamtey (2008) also described interfacing as a piece of fabric placed between a facing and the outer fabric of a garment. He explained further that the purpose of interfacings is to add body and often crispness to the faced area and edge. It also improves appearance and preserves shape. According to Shaeffer (2003), an interfaced garment look more professional and wears longer.

Interfacing is an inner construction material that lies between layers of fashion fabric to add shape, strength, and body. Almost every garment constructed requires some type of interfacing for inner stability (Hackler, 1998). Moyes (1999) pointed out that interfacing is a textile used on the unseen or –wrong" side of fabrics to make an area of a garment more rigid. To sum up, interfacing is a structural material placed between fabric layers in areas where more stability, body and support are needed beyond the fabric thicknesses themselves (Creative Publishing International, 2009).

2.5.1 Types of Interfacing Fabrics

The silhouette of a garment can be shaped and reinforced with interfacing and/or underlining (Kratzer, 2008). According to Creative Publishing International (2009), interfacings are manufactured of natural fibres (such as cotton) or manufactured fibres (such as nylon, polyester, or rayon); however, natural and manufactured fibres are blended in varying percentages in most interfacings. Hackler

(1998) noted that fabrics used as interfacings have a combination of qualities such as body, firmness, crispness, softness, stiffness and they give and drape, in the midst of others. Different areas of a garment may require different kinds of interfacing fabric. Baker (2006) outlined three basic types of interfacings namely woven, nonwoven and knit. Interfacings can be ―sew-in" or ―fused"; that is, they are available with or without fusible adhesive. According to Creative Publishing International (2009), fusible interfacings are useful for stabilizing fabrics that ravel, around buttonholes, corners, points, and gussets. They explained further that sew-in interfacing remains separate from the actual garment or project fabric and are only caught in the construction seam lines. Woven and non-woven interfacing fabrics are available in different weights and colours; thus light, medium, and heavy weights and black, white and neutral colours. According to Hackler (1998), each type of interfacing creates a different effect on the fabric.

The characteristics of various fabric structures give different properties to fabrics yet the construction of the interfacing fabric and the garment fabric may be different but still compatible. The purpose of the interfacing helps select the best type of construction (Komives, 1992).

2.5.2 Woven Interfacings

Shaeffer (2003) opined that woven interfacings are made by interlacing yarns at right angle. She further explained that woven interfacings have stability in the lengthwise grain with give in the cross-wise grain and stretch on the bias. Forster (2014) noted that woven interfacing provides a better shaping than a non-woven interfacing. She further stated that woven interfacing fabrics include hair canvas, lawn, batiste, Holland, grey baft and calico.

Woven interfacings are available in many fibres and are suitable for all woven fabrics and some knit and non-wovens. Komives (1992) stated that woven interfacings may be made of cotton, rayon, wool, polyester, or a blend of fibres. Woven interfacings have a yarn direction or grain that affects the give. Woven interfacings are cut on the same grain as the garment sections they interface. Garment sections and woven interfacings can be cut on the bias if a great deal of give is desired or if the section needs to be shaped (Komives, 1992). Woven interfacings in the appropriate weight and cut on the bias are used with stable and moderate stretch knit. Interfacings containing wool can be shaped and moulded with steam (Komives, 1992). Shaeffer (2008) pointed out that woven interfacings are applied to garment sections so they shadow-proof the seams, causing the seam line to roll to the underside. She further indicated that abutted or lapped seams are used to shape garment sections with dart or ease.

Woven interfacings are used on knits to stabilize and to prevent excess stretching. Self-fabric or some firmly woven fabrics such as organdy, tulle, net, or muslin may be used as the interfacing; however, self-fabrics should not add bulk to the area being interfaced (Baker, 2006). Klupp (2006) observed that solid colour sheer fabrics, smooth wash-and-wear fabrics and smooth lightweight cottons may be used for self-fabric interfacing. Self-fabric interfacings match the garment fabric in colour, care, weight and drapability (Klupp, 2006). Shaeffer (2008) explained that self- fabric interfacings are attractive on sheer fabrics especially for button closures.

2.5.3 Non-Woven Interfacings

Shaeffer (2003) indicated that non-woven interfacings are made with fibres which are fused together with heat and moisture and or chemicals. The format of the

fibres that is parallel, right angle or helter-skelter determines the stability and or stretch of the interfacing since the fibres form invisible yarn in the material. Shaeffer further noted that when fibres are parallel, the interfacing is stable in the length and tears easily from top to bottom and when scattered helter-skelter, the interfacing has give in all directions like a bias, and it is difficult to tear. Baker (2006) similarly stated that non-woven interfacings are fibre webs and are made by bonding or felting fibres together. Non-woven fabrics are flexible and do not ravel, wrinkle, or lose their shape. Komives (1992) also noted that non-woven interfacings are made of manufactured fibres, usually polyester, nylon, rayon, or blends of these fibres. Non-woven interfacings are made by distributing fibres randomly and holding them together with chemical binders and heat; because of the nature of construction, non-woven interfacings have no yarn direction or grain and will not ravel. Non-wovens are porous, washable, and quick drying. They do not drape well like woven interfacing of the same weight and are used for crisper (harder) shaping (Komives, 1992).

Non-woven interfacings are available in regular no stretch, stretch only in one direction, modified one-way stretch, and all-bias with stretch in any direction. Non-woven interfacings without stretch give firm support to flat areas, non-woven interfacings with stretch only in one direction, are cut to take advantage of stretch or stable properties, all-bias non-woven interfacings have give in all directions, and can be manipulated for flexible shaping and support (Komives, 1992). The weight and amount of stretch vary significantly among non-woven interfacings.

2.5.4 Knit Interfacings

Tondl and Tolman (1993) mentioned that, knit interfacings are available in tricot, weft insertion and warp insertion forms. Tricot has crosswise stretch and

lengthwise stability. Tricot adds shape and body to practically any knit or woven fabric. They added that weft insertion knit has additional yarns inserted in the crosswise direction that enables the interfacing to provide stability in both the crosswise and lengthwise directions and are used when more stability than a tricot, but less stability than a woven interfacing is needed. Warp insertion knits have additional yarns inserted in the lengthwise direction and provide stretch in all directions. Forster (2014) also noted that knit interfacings are suitable for knit fabrics and fabrics that stretch.

Knit interfacings may be nylon or polyester. Most knit interfacings are fusible and tend to be softer than woven interfacings (Komives, 1992). Tricot knits are used for lightweight fabrics. They have the most give in one direction, making them compatible with soft knit fabrics when both are cut in the same yarn direction. Warp insertion interfacings can be fused at lower ironing temperatures. This makes them compatible with fabrics such as silks and microfibres that cannot take higher temperatures (Komives, 1992). According to Baker (2006), knit interfacings are softer and more flexible because they stretch in all directions; they are available in black, white, and neutral colours.

2.6 Rationale for Interfacing

Patson (2009) indicated that the primary purpose of interfacing is to give stability, shape, and reinforcement to the fashion fabric. Interfacing is also used to prevent stretching and ravelling when the fashion fabric is trimmed. All interfacings must be compatible with the weight and characteristics of the garment fabric. Komives (1992) noted that areas needing interfacing include collars, cuffs, faced

necklines, front or back openings, lapels, hems, and details such as flaps, pockets, and welts.

Baker (2006) also emphasised that the purpose of interfacing is to stabilize fabric by preventing stretching and sagging, customize seams, reinforce areas, support facings and/or garment details, and stabilize necklines and waistbands. They also soften edges, give smooth, firm body and provide shape to areas such as shoulders, hems, collars and cuffs. Baker further noted that interfacings strengthen and stabilize fabric with respect to areas where buttons, buttonholes, or other fasteners are sewn. It shapes and defines design features such as facings, necklines, collars, pocket flaps, cuffs, pockets, jacket hems, and waistbands. Moreover, it gives body to facings and necklines and stabilizes areas of strain. It also increases the life span of a garment.

2.7 Selection of Interfacing Fabrics

Selection of interfacing fabrics is important in clothing construction. The selection is determined by availability, the fabric care, amount and direction of stretch, quality, weight, hand and colour, the fibre content, the design of the garment, the area to be interfaced, garment quality and finished appearance (Komives, 1992).

In the view of Baker (2006), the appropriate interfacing to use in a specific garment should complement and reinforce, not overwhelm the fabric. The best choice depends on garment fabric, fabric care, fabric construction and desired effects. Baker added that interfacings are of variety of weights from sheer to heavyweight. Lightweight interfacing might be used for a draped collar, while a tailored collar would require a heavier interfacing. It may be necessary to use more than one type and weight of interfacing in a garment, depending on its purpose (Shaeffer, 2008).

Creative Publishing International (2009) stated that craft interfacings for a home décor project such as a fabric bowl, or an accessory like a brimmed hat are stiffer than garment interfacings. The organisation further noted that heavy, dense, non-woven interfacings labelled ~~–e~~raft interfacing" is suitable for home décor and accessories. Craft interfacings are available in sew-in or fusible with adhesive on one or both sides depending on the brand. On the other hand, non-stick press cloths are used on double-sided fusible craft interfacings and are fused to the fabric only one side at a time during the construction process.

Selecting an interfacing compatible with the fashion fabric ensures a finished garment with the desired standards of care, shrinkage and washability and poorly selected interfacing can damage the fashion fabric (Hackler, 1998). Hackler further observed that 100% nylon interfacing distorts spandex or stretch denim fabrics, and a nylon/polyester blend interfacing works with 100% rayon, 100% cotton, and 100% challis.

Tondl and Tolman (1993) pointed out the following factors to consider when selecting interfacing fabrics:

Care- The fashion fabric and interfacing must have similar care requirements. "dry clean only" interfacing should be used with garment that are intended to be dry cleaned not in a garment that is intended to be laundered.

Colour- the colour of interfacing must be compatible with fashion fabric since colours do show through some fabrics. Beige coordinates with neutral shades and warm pastel tones. Blue coordinates with cool tones, silver with neutral shades and cool pastels tones, red with warm, white with all tones and charcoal, and black with dark tones.

Fabrication- interfacings are available in woven, non-woven or knit fabric fabrications.

Application- interfacings can be applied by fusing (fusible) or sewing (sew-in). Selection of the appropriate fabric and the best application method helps achieve the desired results.

Give or stretch- Some interfacings are very stable or stiff; others have varying amounts of stretch or give. Stable or stiff interfacings are used in areas of the garment that are not intended to stretch (buttonholes, waistband) however, stretch interfacings are used in areas that need shaping (necklines, armholes).

Weight- interfacings weights vary from sheer to quite heavy; interfacing weight should be slightly lighter than the fashion fabric to complement the fashion fabric not dominate it. An interfacing heavier than the fashion fabric is desirable only if special shaping or effect is needed, other than that too heavy interfacing may give unprofessional results.

Tondl and Tolman (1993) further explained that fashion fabric is draped over sew-in interfacings to determine if a sew-in interfacing is suitable. The combination is shaped and manipulated to check if it gives desired results. However, the appropriateness of a fusible interfacing is determined by fusing a small piece of the interfacing to the fashion fabric; in the fusing process, the fashion fabric gains extra body. Patson (2009) indicated that having a supply of interfacings makes it easier to test fusible types of interfacing to see if they provide the desired results; including ease of fusing and quality of adhesion. Shaeffer (2008) also observed that the decision between using fusible and sew-in interfacing is dependent on fashion fabric, degree of firmness and personal choice.

2.8 Applying Interfacings

2.8.1 Pre-Treatment of Interfacing Fabrics

Patson (2009) debated that interfacings shrink and pre-shrinking them aid to avoid problems with bubbling or poor adhesion. Moreover, fashion fabrics should also be pre-shrunk to be compatible with the interfacings. She added that surface problems like bubbling show up when the interfacing and the fashion fabric have incompatible shrinkage. Fresia (2011) noted that pre-treating fabrics prepare it for sewing by removing excess dyes as well as finishes or sizing. It also takes care of shrinkage ahead of time so that the finished garment reliably maintains its size and shape. Most interfacings perform better if they are pre-shrunk before they are applied to the project other than that, irreparable rippling and bubbling result (Patson, 2009). Komives (1990) also noted that many interfacings and fashion fabrics shrink so pre-shrinking the interfacing alone will not prevent bubbling if the fashion fabric is not pre-shrunk as well. Komives further explained that sew-in interfacings should be pre-shrunk in the same way that the finished garment will be cared for. Hence, selecting a method of pre-shrinking that avoids distorting the fabric or fusing compound is paramount (Komives, 1992).

Klupp (2006) noted that common methods used for pre-shrinking interfacing include washing, dry cleaning, steaming, and immersing. Klupp further stated that with respect to washing and dry cleaning, sew-in woven interfacings should be pre-shrunk along with the fashion fabric. This includes laundering, thus both the fashion fabric and the interfacing should be washed in the washer. Klupp added that if the garment will be dried in the dryer, then, the sew-in woven interfacing and fashion fabric should be dried in the dryer before the fabric is cut out.

According to Komives (1990), interfacing and fashion fabric should be dry cleaned or steamed for garments that are intended to be dry cleaned. Komives (1990; 1992) further stated that fusible interfacings should not be washed in the washer or dried in the dryer. The washer‘s action may remove the adhesive resin and the dryer may set the resin which may adhere to the dryer drum.

With reference to immersing, Komives (1990; 1992) explained that woven, weft-insertion, cool temperature, and knit fusible interfacings be pre-shrink in water. Loosely folded interfacing is soaked in warm to hot water for 15-20munites before removing it from the water. Komives further stated that excess water is removed from the interfacing by gently squeezing the interfacing and rolling in towel after which the interfacing is laid out to dry. According to Baker (2006), woven and weft insertion knit interfacings can be carefully hanged over a shower rod or a drying line to air dry. Hackler (1998) suggested that the interfacing can also be allowed to drip dry. Komives added that agitating the interfacing disturbs and damages the resin that holds the interfacing to the fashion fabric. Dried interfacings are folded or rolled to prevent wrinkles (Komives, 1990; 1992).

According to Creative Publishing International (2009) steam shrinking is done by hovering a heated iron over the interfacing (without touching it in the case of fusible interfacings) for several minutes. Non-woven and knit fusible interfacings are successfully pre-shrunk this way. Hackler (1998) noted that steam shrinking is a technique used on non-woven interfacings that are less prone to shrinkage. The garment fabric is pressed with steam to remove wrinkles and to warm up the fabric. The interfacing and the garment section are then layered together with fusible side down to wrong side of the garment section and shots of steam are applied for 7 to 10 seconds by holding the iron 5cm to 10cm above the layered fusible non-woven

interfacing and garment section. The interfacing is allowed to sit rest and dry and then fused to the garment section together following the manufacturer‘s directions (Baker, 2006).

Creative Publishing International (2009) indicated that before committing an interfacing to a project, it should be tested with the outer fabric to be certain it creates the stability needed; cut a 15cm square of fabric and interfacing, fuse (if applicable) or sew together at the edges, and drape the square together to test its compatibility. If the first choice does not feel right, one should try again until the stability desired is achieved. The manufacturer's instructions are followed for a fusible application, as brands vary with requirements for moisture, steam, and press cloths etc., the worker should allow fused pieces to cool thoroughly before moving on. Fusible interfacings should be checked for adhesive show through as sometimes on lightweight fabrics dotted pattern may result on the fabric from the interfacing bonding agent. In this instance, a sew-in interfacing is suitable or another different brand should be used (Creative Publishing International, 2009).

Patson (2009) indicated that most interfacings are narrower than their fabric counterparts, so the pattern guide sheet should be employed so as to identify which pattern pieces need to be cut from interfacing, and in some instances these are not the same pieces used to cut the fashion fabric. According to Creative Publishing International (2009), some sewers or garment producers trim 0.6cm to 1cm from the interfacing seam allowances to help eliminate bulk and any necessary markings are transferred to the interfacing instead of the fashion fabric (in areas where interfacing is applied), otherwise markings may not be visible. Interfacings are attached before sewing the fashion fabric pieces together, as it helps to stabilize them, especially on loosely constructed fabrics (Creative Publishing International, 2009). Patson (2009)

indicated that press cloth be kept for interfacing purposes only with one side labelled _UP' and always press with this side up towards the iron surface to prevent adhesives of fusible interfacings from sticking on the sole of the iron.

2.8.2 Making Interfacing Pattern Pieces

Patson (2009) indicated that separate interfacing patterns (not the facing patterns used to cut interfacings) make construction faster since the pieces can be cut to correct size, eliminating the need to trim seam allowances later. She outlined the following steps for making separate interfacing pieces.

a. Press the pattern piece needing interfacing with a warm iron
b. Lay the pattern on a flat surface and place a piece of wax paper the size of the interfacing needed on top of the pattern piece.
c. Using a 15cm sewing guide, place the tab at 1.3cm and trace the pattern cutting line on every seam allowance edge.
d. The ruler edge will etch (engrave) the wax paper at the new cutting line.
e. This new cutting line will be 0.3cm past the stitching line into the seam allowance. Using a permanent marker, trace the rest of the pattern cutting lines, mark the grain line, and label the piece with pattern number and name. Cut out the pattern piece.
f. Lay the newly created wax paper pattern on the interfacing and cut out.

2.8.3 Fixing Interfacings

Interfacing can be applied by sewing it in or fusing it to the garment. The type of interfacing selected determines the application method. Darts included in interfacings for jackets and coats which cover large section of the bodice are made as

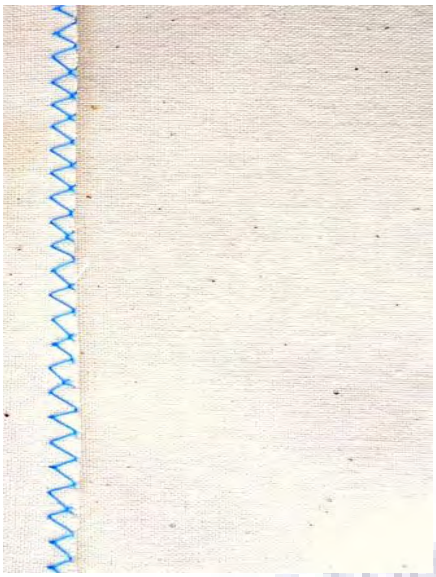

Fig. 8A: Overlapped zigzag seam **Fig. 8B: Overlapped zigzag seam**

Overlapped zigzag seam may also be used to join interfacing pieces. The edges of the seam allowance are overlapped with the seamline aligned and zigzag stitching made in the centre of the overlapped edges and the seam allowances trimmed on both sides of the zigzag stitching line (Kindersley, 2003).

According to Patson (2006), an iron-on or sew-in interfacings are applied up to a fold lines of one piece collars, cuffs, and centre front facings rather than the fabric edge. In this instance, the fold lines are marked by a pressed crease or tailors tacks for long integrated centre front facing with the iron-on interfacing placed on the wrong side aligned with the crease fold line and pressed. However, sew-in interfacings are place on the wrong side along with the crease fold line and herringbone-stitched loosely along the fold line.

2.8.4 Applying Sew-In Interfacing

Patson (2009) indicated that the benefit of sew-in interfacing is that it gives softer and supple shaping and may also be used with woven and knit fabrics. Light weight and medium weight interfacings are applied to separate garment pieces before joining the interfaced units together or the interfacing pieces joined and applied as a unit to the corresponding seamed garment units (Komives, 1990; 1992). Kindersley (2003) observed that chevron or parallel pad stitching is used in tailoring to attach canvas interfacing to the fabric on lapels and collars. Short and close pad stitching shape the garment three dimensionally, while long and spaced stitching simply hold the woven interfacing firmly to the fabric. Kindersley further explained that light and medium weight sew-in interfacing are stitched to the facing however, the interfacing works most effectively when stitched directly behind the garment fabric and on top of the seam allowances. In this instance it is preferable to interface the garment itself rather than the facing.

Shaeffer (2008) explained that heavyweight sew-in interfacings are stitched either to the garment or the facing with seam allowances trimmed before the interfacing is hand stitched in place with herringbone stitches and machine stitched along the seam line close to the trimming. Seam allowances of heavy weight sew-in interfacings that are too thick to be stitched into the facing seams are replaced with a strip of organdie, a very lightweight interfacing or another fine fabric to reduce bulk at seamlines (Kindersley, 2003).

According to Komives (1990), when interfacing a folded edge such as a cuff, straight collar or hem, the interfacing is positioned along the fold line and catch stitched into place for a sharp edge or extended approximately 1.3cm beyond the fold

for a softer, rounded edge. Interfacings‘ edges which extend beyond the fold lines are held in place with uneven basting stitches, making the short stitches as invisible as possible on the outside of the garment.

Some weaknesses of sew-in interfacings are that sew-in interfacings may shrink, a non-woven sew-in interfacing may buckle in an area such as collar where the interfacing is too heavy for the fabric and completely enclosed, some sew-in interfacings soften after washing and they also need machine or hand pad stitching for firm shaping (Patson, 2009).

2.8.5 Applying Fusible Interfacings

Komives (1990) opined that fusible interfacings are used on garment‘s facing not on the outside piece. She further explained that if it is not possible to apply interfacing to the garment‘s facing, the entire garment piece should be interfaced to avoid a ridge line. Fusible interfacings are applied so that 0.3cm is caught in the seam allowance to make the seam stronger and reduce bulk while allowing the interfacing to be held by the seam. In addition, corners of fabric that do not ravel are trimmed away diagonally 0.6cm. Darts are cut out from the fusible interfacing pattern piece to eliminate bulk (Komives, 1990). On light weight fabrics, lighter weight and fusible interfacings are recommended for use on both sides of collar, cuff and waistband instead of applying one heavier interfacing to one side (Komives, 1990; 1992).

Komives (1992) pointed out that the manufacturer‘s instructions be followed in applying fusible interfacings since some fusible interfacings fuse with steam and others fuse with dry iron. Komives (1992) mentioned temperature, moisture, time and pressure as considerations for applying fusible interfacings. Steam setting is ideal for wool whereas silk setting is recommended for low temperature fusible interfacings.

With reference to moisture steam or dry iron are used with either damp or dry press cloth. Komives indicated further that heat applied to light weight fusible interfacings last between 10-12 seconds and 15 seconds for heavier weight fusible interfacings bearing in mind that some interfacings require firm pressure to force the heat-sensitive resin into both interfacing and garment fabric. Patson (2009) argued that the fusing may not hold and result in a puckered and bubbled look if manufacturer‘s instructions are not followed. Fusible interfacings generally adhere best to fabrics that are fairly flat with little surface texture (Komives, 1992).

Patson (2009) outlined some general directions on the application of fusible interfacings which do not have manufacturer‘s instruction as always pre-testing the fusing procedure as follows:

i. Set the iron on steam or wool setting. Lay fabric piece to be interfaced right side down (wrong side up) on the ironing board and press.
ii. Place fusible interfacing with the fusible side next to the wrong side of garment fabric (fusing down).
iii. Heat baste the fusible interfacing in place by lightly pressing, with a ―lower and lift‖ motion, from the centre to the outside edges allowing about 2 seconds in each location without sliding the iron.
iv. Place a damp press cloth over the area to be fused.
v. Fuse about 10 seconds for lightweight interfacing and 15 seconds for medium to heavyweight interfacing without sliding the iron in the process. Use firm pressure on the iron. For firm fabrics, bear down with both hands. Count slowly the number of seconds needed for fusing or use the second hand on a watch or clock. Decide on whether to reduce or increase pressure and time after evaluating the interfacing and garment fabric test sample.

vi. Move the iron to the next section of the interfacing with a little overlap between sections and press again. Repeat this process until the interfacing is completely fused in place. For medium to heavy weight fabrics, turn the piece over at this point (interfacing and fashion fabric are fused together in one piece), cover with a press cloth, and repeat the pressing procedures. This results in a more solid bond between the fashion fabric and interfacing.

vii. Cool before handling**.** Handling the fabric before it cools, may damage the adhesive and may need to be pressed again.

As such Hackler (1998) outlined that after cooling the fused sections should be permanently bonded, fashion fabric and the interfacing should be smooth, there should not be a colour change in the fashion fabric, and adhesive is not supposed to be visible on the right side of the interfaced piece.

Komives (1990; 1992) and Patson (2009) consequently stated that fusible interfacings are quick to use since they are applied without basting, they help build shape in garment as they are fused and do not require hand or machine pad stitching, fusible interfacings add firmness to an area and they are also good for fabrics that ravel easily. Komives and Patson further specified that fusible interfacings get firmer after fusing, steamed pressed interfacings may damage fabrics that are not steamed pressed, adhesive may come through light weight fabrics, sheers, or open structures such as eyelets, the fusing process may also flatten the surface of nap, and crinkle finished fabrics. Hackler (1998) opined that fusible interfacings are not suitable for some fabrics such as metallic, beaded, raised design, and open fabrics.

Shaeffer (2008) stated that fusible interfacings are applied to the facing of a garment to avoid a demarcation on the outside garment or they can be applied to the entire garment section such as the garment front, collar or cuffs. Patson (2009)

observed that fusible interfacings are removed by holding a steam iron 1.3cm above the fused area and steamed for about 5 seconds to soften the adhesive and then peeling off the interfacing. In the process, the fashion fabric might be distorted and become unusable if not handled gently. She added that fusing agent left on the garment fabric is removed by placing a damp, lightweight scrap of absorbent cotton fabric over the piece and pressing then peeling off the fabric scrap while still warm; this is done severally if necessary, using a different fabric scrap for each pressing. Resins that come in contact with the sole plate of the iron is removed by mild abrasive or a commercial iron cleaner and smoothness restored to the sole plate by gliding the hot iron over wax paper.

2.8.6 Indicators of a Well-Interfaced Product

Baker (2006) stated that a suitable, well-applied interfacing should:

a. Be appropriate to the fashion fabric in relation to fibre content, care, construction type (knit, woven, Nonwoven) and manner applied (sew-in or fusible). Have the same –grain" or –give" as the fashion fabric with which it is used.
b. Coordinate in colour as closely as possible. Use light colour with light coloured fashion fabrics and dark with dark colours.
c. Provide the appropriate support or reinforcement needed to improve the shape of the garment or fabric area.
d. Be used in the appropriate location in a garment or home decorating item.
e. Not alter colour or hand of the fashion fabric. If an appropriate weight cannot be found, it is best to go for lighter than heavier.
f. Appear flat and smooth; no bubbles, wrinkles, or folds when applied.

g. Suit the pattern design and construction situation. Multiple types and weights of interfacing could be used depending on the area and function (Baker, 2006).

Collars, cuffs, pocket, flaps and welt, waistbands, belts, jackets, yokes, sleeve caps front or back openings, lapels, hems are some parts of the garment that are interfaced.

2.8.6.1 *Cuffs and plackets*

A cuff is a separate panel attached to bottom of the sleeve to make the sleeve tighter around the wrist. There is the extended type which adds length to the sleeve, finishes the lower edge and also controls fullness.

Kindersley (2003) indicated that most types of cuffs are made from one piece of fabric that is folded in half. Two-piece cuffs are formed from a separate outer cuff and a cuff facing is joined with a seam at the lower edge and usually, only the outer section of each cuff is interfaced, although both layers may be interfaced if greater stiffness in the cuff is required.

Betzina (2000) posited that the key to a well-made cuff is making the inner cuff smaller than the outer cuff, interfacing both cuff pieces and cutting all cuff pieces on the bias for the cuff to circle the wrist without puckering. Betzina added that fabrics with distinct designs, like a stripe the outer cuff are cut on the straight grain and the inner cuff and both of the interfacing pieces cut on the bias. Seam allowances and corners of sew-in interfacing for cuffs are trimmed completely to reduce bulk and the trimmed edges used as a guide for stitching the seams however the finished section is topstitched to secure the interfacing in place (Shaeffer, 2008).

Plackets are part of cuff construction and are made prior to attaching the cuff. Plackets are almost always made of more than one layer of fabric, and often have interfacing in-between the fabric layers; this is done to give support and strength to the placket fabric, because the placket and the fasteners on it are often subjected to stress when the garment is worn. The two sides of the placket often overlap to protect the wearer from fasteners rubbing against their skin and to hide underlying clothing or undergarments. The underlap and overlap of placket are interfaced to have a crisp look.

2.8.6.2 *Collar*

Kindersley (2003) explained that collars frame the neck and face and as they are close to eye level yet form one of the most noticeable parts of a garment. A collar may stand, drape over or stand and fall over the neckline, as the design requires. According to Neal, Brown-Wilson and Edwards (2014), flat collars lie flat on the garment when attached, examples include Peter pan and sailor‘s collars, while standing collar extends above the neck seam line. The collar may be a narrow band that hugs the neck or a turtle neck (a wide band that is folded back on itself) shirt collar and mandarin collars. The rolled collar stands up from the neck edge and then falls down to the rest of the garment. Rever and shawl collars are in this category.

Kindersley (2003) noted that, stand collars such as mandarin are simple to make and are frequently used on dresses and tops whereas flat collars such as peter pan and sailors collars are often made on blouses and children‘s clothes and rolled collars and shawl collars are suitable for blouses, tailored jackets and coats. A collar is cut as one piece, which is folded in half or as two pieces, which is seamed together depending on the finished shape.

Clotilde (2004) specified that upper collars are cut slightly larger than the under collar to help the collar to roll smoothly, stay in proper position and also prevent the under collar from showing around the edges of finished collar. In the same way, Kindersley (2003) stated that the upper collar is cut slightly larger than the under collar to hide the outer seam when the collar is completed or attached to the garment. The outer edge of an upper collar is increased between 0.6cm-1cm depending on the thickness of the fabric. The wrong side of an upper collar piece of rolled and flat collars and the outer part of a stand collar is interfaced to support the top layer of fabric and also helps to mask the indentation of the seam allowance on the right side of the collar, especially on lightweight fabrics, with the exception of tailored collar where interfacing is applied to the under collar to shape the roll line of the collar (Clotilde, 2004; Kindersley, 2003).

Clotilde (2004) clarified that under collar of full-roll collar used on jackets and coats are interfaced to give support to the stand. Sometimes an extra piece of interfacing is applied to the stand area for greater firmness and both the outer and inner stand of collars with separate stand are interfaced to give more support.

Seam allowances and an extra 0.3cm of fusible interfacings are trimmed away to reducing bulk and to ensure that interfacing is not visible around the edges of the collar after the collar has been stitched in place. Extra patch of interfacing is applied to the collar points to help keep them neat and flat (Clotilde, 2004). Clotilde further indicated that sew-in interfacings are trimmed in the corners and machine stitched 0.3cm outside the given seam line then trimmed close to the machine stitching to reduce bulk. The finished sections are top stitched to secure the interfacing in place (Shaeffer, 2008).

According to Clotilde (2004), grain lines or direction of stretch affects the way a collar rolls, therefore woven interfacings should be cut on the lengthwise for a sharp crease along the roll line, and on the bias for softer roll. Likewise, non-woven interfacings are cut with the stretch running the length of the collar for a soft roll line and on the lengthwise grain for a sharper crease. Collar interfacing for knit fabrics are cut across the stretch or on the bias to preserve the stretch of the fabric and give a soft roll (Clotilde, 2004). Shaeffer (2008) observed that interfacings for a tailored collar are cut to have a centre back seam so that the collar points will be on the same grain.

2.8.6.3 *Waistband*

Cole and Czachor (2014) described a waistband as a band of fabric, usually fully interfaced, seamed to the waistline of skirt or pant and fastened to hold the garment firmly around the waist. Waistbands hold the garment in proper position on the body and they can be both functional and decorative. In its functional use it finishes the edge of a garment and provides support on the body, in its decorative use the style and the eye appeal of the garment are enhanced. Cole and Czachor further indicated that waistbands are categorised into three as; straight, curved and extended. Straight waistbands are cut in one piece with a foldline in the middle and can be wide or narrow but on average are cut 5cm plus seam allowance for a finished width of 2.5cm.

Kindersley (2003) similarly stated that straight waistbands are of about 2.5 to 4cm wide and are suitable for all types of fabrics except bulky fabrics. The entire straight waistband is interfaced with a fusible interfacing, or a sew-in interfacing is cut the same width as the waistband and machine stitched to the waistband below the fold line on the facing half to prevent the interfacing from shifting, or a slotted

waistband specifically designed for waistband to give full support to the straight waistband (Cole & Czachor, 2014). Curved or contoured waistband is shaped to coincide with the contour of the upper hip and belt loops are a feature of curved waistbands (Cole & Czachor, 2014). However, curved waistbands are usually wider than straight waistbands and are decoratively shaped on the lower edge to accommodate the body shape (Kindersley, 2003).

Firm interfacing, stay stitching and twill tape are necessary to contour the waistband, accordingly the fabric and type of interfacing need to work together to support the shape required (Cole & Czachor, 2014). Moyes (1999) pointed out that interfacing keeps waistbands upright and crisp and also keep waistband from collapsing. In the same way, Cole and Czachor (2014) stated that waistbands are interfaced for long lasting wear and to stay in shape. Sew-in and fusible interfacings are applied to the waistband before attaching it to the garment but ready-made stiff waistbanding is applied to the waistband after the waistband has been attached to the garment (Moyes, 1999).

2.8.6.4 *Pocket, flaps and welt*

Pocket is an extra fabric attached to the inside or outside of a garment to form a pouch with a top or side opening and may play both decorative and functional roles in garment design (Keiser & Garner, 2012). Similarly, Forster (2014) contended that pockets are style features on articles such as garment and may be decorative or plain. She added that the main purpose of pocket is to store small objects such as handkerchiefs, pens and money.

Placement of pocket on the garment depends on whether the pocket is functional or strictly decorative. Pocket which is functional is placed at a level which is comfortable for the hand to reach and decorative pockets are placed where they are most flattering on the garment (Kindersley, 2003).

Keiser and Garner (2012) classified pockets as inside and outside or patch pockets. The pouch or bag of an outside pocket is visible from the right side of the garment whereas the pouch or the bag of an inside pocket falls inside the garment with only one opening visible from the outside of the garment. They added that patch pockets are designed in many shapes and sizes and work best on fabrics that are not too soft and hold their shape but not ideal for fabrics that has a great deal of drape or stretch as the pocket may sag.

Patch pockets may be embellished with pleats, tucks, topstitching or buttons and may be combined with a flap, they are also made into three- dimensional shape by incorporating a piece of fabric in the perimeter of the pocket to accommodate carrying of large objects (Keiser & Garner, 2012; Forster, 2014). Shaeffer (2011) noted that patch pockets may be lined or unlined; lined patch pockets consist of three layers; the pocket itself, lining and interfacing which usually match the garment lining. Shaeffer added that pockets made of transparent or open-weave fabric are backed to hide the construction details or are cut with a self-fabric lining and an interfacing. Kindersley (2003) posited that extra body is given to the top of patch pockets by interfacing the integrated facing before the pocket is sewn to the garment by top stitching or hand stitching.

On a self-faced patch pocket, the interfacing is cut to fit the facing and pressed or tacked to the wrong side with the lower edge along the facing fold line; reinforcing

the top edge of the pocket with interfacing and the outer flap piece gives a lasting finish to the pockets (Kindersley, 2003).

Keiser and Garner (2012) categorised inside pockets as slash, in-seam and front hip pockets. Slashed pockets are normally used on tailored garment. The pocket opening is slashed into the garment body and finished with a flap or welt, with the pocket pouch hidden in the garment. Slash pockets include double-welt or bound, welt and flap pocket. Double welt or bound pocket is fixed into a slit in a garment and consist of two welts which are sewn to the top and bottom of the slit/slash which form the entrance of the pocket which resembles a large buttonhole; bound pockets are normally found on gents' trousers and shorts and are about 5cm wide (Forster, 2014; Keiser & Garner, 2012). Welt pockets have a single welt typically 0.6-1.3cm wide which is attached to the bottom edge of the slash and flips up over the pocket to cover the opening. The lips of a welt pocket are piped into seams at the pocket entrance and are shown on the right side; welt pockets are normally found on jackets, coats, trousers and shorts (Forster, 2014). Flap pockets consist of a flap that is sewn to the top edge of the slash and falls over the pocket opening; the pocket flap is lifted to have access to the pocket (Keiser & Garner, 2012). Kindersley (2003) indicated that all welts and flaps of slashed pockets are interfaced for crispness and long lasting effect.

In-seam pockets are designed into an existing seam of the garment. They are mostly found in side seams, princess seams, yokes and waist seams. In-seam pockets provide function without disrupting the line of the garment (Keiser & Garner, 2012).

Kindersley (2003) observed that in-seam pockets are constructed in three different ways; all-in-one in-seam pocket, separate in-seam pocket and extension in-

seam pocket. All-in-one in-seam pocket; the pocket piece is cut in one with the garment front and back and it is stitched around at the same time as the side seams, separate in-seam pocket; the two pocket pieces are cut separately from the garment and extension in-seam pocket; each garment piece is cut with an extension at the pocket opening position so that the pocket fabric will not be visible when the pocket is pulled open since the pocket is usually cut in the lining fabric to reduce bulk.

Front hip pockets are attached to the garment at the waist side seam and waistline. Besides, part of the garment piece is cut away to form the pocket opening. Front hip pockets are made from two pieces; a facing piece and a pocket piece and are usually found on casual wear (Kindersley, 2003). Front hip pockets are applied before side seams are joined and are interfaced to give support to the upper edge of the pocket. Interfacing for front hip pocket is cut from the pattern pieces for the pocket facing and applied to the wrong side and pocket facing applied to the right side of the garment (Keiser & Garner, 2012).

2.8.6.5 *Sleeves*

Baker (2006) enumerated set-in, kimono or all-in-one, and raglan sleeves as the three basics types of sleeves. Baker observed that set-in sleeves are set into a seam encircling the arm over the shoulder. Kindersley (2003) observed that set-in sleeve pattern can be a one piece or two pieces. Kindersley explained further that one-piece set-in sleeve has one underarm seam and are normally used on dresses and coats while two piece sleeves are designed for suits and are cut with front and back seams to conform to the normal bend of the arm from elbow to wrist. All-in-on sleeve is cut in one with the bodice parts and has a long seam if the bodice is cut in two parts. However, the raglan sleeve joins a garment with a diagonal seam running from the

underarm to the neckline. Down (1999) explained that sleeves can be cap, short, ending mid-way between shoulder and elbow, long, elbow-length or three-quarter sleeves. Betzina (2000) suggested that fabrics that do not ease well and so make it difficult getting a smooth professional-looking cap should be interfaced to improve the appearance of the sleeve and make it crisp enough to prevent the upper portion from collapsing. This is achieved by cutting a 5cm wide bias strip of interfacing (hair canvas, lamps wool) the measurement of the sleeve pattern piece from notch to notch over the sleeve cap. The strip is attached to the cap by stretching while stitching (without stretching the sleeve cap) from the middle of the cap to each notch of the cap. An ease is pulled in when the strip returns to a relaxed state and this helps build a sleeve head at the same time as the strip leaves an extra lift in the cap. Similarly, Shaeffer (2011) indicated that sleeve interfacing duplicate the sleeve cap; interfacing is sewn to the sleeve cap rather than the shoulder area of the garment and can be used with or without shoulder pads. She further stated that depending on the amount of support required and the shell fabric, the interfacing can extend just to the notches or as much as 5cm below the armhole. Sleeve hems and vents are also interfaced to make them firm.

2.8.6.6 *Hems*

Shaeffer (2003) outlined some common type of hem as double hems, faced hem, horsehair braid hem, double stitched hem, lettuce hem, machine rolled hem, pin hem, twin needle hem, shirttail hem and interfaced hems. Shaeffer added that the hem is an important part of the silhouette and the overall structure of the garment.

Cole and Czachor (2014) stated that interfacings are applied to hems to support the garment from the base up and to support the garment silhouette to hold its shape.

Jackets and coats irrespective of their length need some form of interfacing. Hems can be interfaced with fusible or sew-in interfacing. Shaeffer (2008) observed that interfaced hems add body, prevent wrinkling and help avoid creasing at the edges. For a crisp hem organza, organdie, muslin, horsehair braids are ideal, while lamps wool, polyester fleece or cotton flannels are ideal for soft hems. She further said that fusing stiffens hems, are suitable for woven and thick fabrics, children's garments and casual designs.

Shaeffer (2003) stated that hem interfacing for unlined garment should be the width of the hem while hem interfacing for lined garment should be wider than the hem allowance. Interfaced hems are used on trousers/pants, skirts and jackets. Interfaced hems add body and weight to the hemline and make it fall perfectly (Cole & Czachor, 2014).

Kindersley (2003) observed that hems are chosen based on the edge to be hemmed, the thickness of the fabric and the design of the garment. Hems are interfaced to prevent the hem edge from creating a line on the right side of the fabric, it also helps to add body to the hems. The interfacing is cut on the bias, 5cm wider than the hem allowance and attached before the hem is turned up.

2.8.6.7 *Belts*

Kindersley (2003) argued that a well-made belt adds a professional finish to a garment. Tie belts are the simplest and softest type. Lightweight interfacing is applied to half the belt, up to the fold line or the whole belt for a stiffer finish. However two layers of interfacing may be applied on the waistline only leaving the tie ends with a single layer. Straight belts are made by inserting belt stiffening into a strip of fabric that has been sewn into a tube. Two layers of interfacings are used to build up

stiffness in shaped belts that are shaped along the long edges. However firm pelmet stiffening are also used to build up stiffness the same way.

2.8.6.8 *Facings*

A facing may be a separate pattern piece to be added to the garment or an extension of the pattern piece itself. The facing is cut on the same grain as the garment section it will face so that it will wear and hang in the same manner (Mack, 2010). Shaped facing is a separate piece of fabric cut from a pattern to the same shape and on the same grain as the garment edge it will finish. An extended facing is however cut as an extension of the garment and then folded back along the edge it finishes. Extended facings are often used on garments with front or back openings cut on a straight line. The neckline of an extended facing is a shaped facing and are applied using the same techniques as other facings. The third type of facing enumerated by Mack is the bias facing which is a narrow strip of lightweight fabric cut on the bias so that it can be shaped to conform to the curve it will finish. Bias facings are often used on sheer fabrics to eliminate a wide facing that may show through and also on children‘s garments. He further observed that interfacing is used when facing to prevents stretching or sagging of neckline or armholes, and it acts as reinforcement for button and buttonhole extensions, and gives the garment a smooth but firm body. The interfacing is applied to the facing piece of fabric, prior to any stitching. Sew-in interfacings are catch-stitched to the facing prior to any stitching whereas a fusible interfacings are fused in place before proceeding.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter focused on the technique used in finding relevant data in order to achieve the objectives of the study. It covers the study area, the research design, the population of the study, sample and sampling technique, data collection instruments, pilot-testing of instruments, ethical considerations, data collection procedures and data analysis procedure.

3.2 The Study Area

The study was conducted in Lapaz-Accra to examine the selection and application of interfacing fabrics among small scale garment producers. Lapaz is a sub-urban area in the Greater Accra region, under the Accra Metropolitan Assembly in the Accra Metropolitan district with an estimated population of 50,000. There were many haberdashery shops in Lapaz, where different kinds of sewing notions were sold. There were also many sewing shops for small scale garment producers (tailors and seamstresses) in the area. These tailors and seamstresses produced custom-made and ready-to-wear garments which required the use of interfacing for consumers in those shops.

3.3 Research Design

A research design comprises the steps that are used to collect data and specific data analysis techniques or methods that the researcher used (Fraenkel & Wallen, 2000). Burns and Grove (2001) described research design as a blueprint for conducting a study that maximises control over factors that could interfere with the

validity of the findings. It spells out the strategy the researcher plans to adopt to develop information that is accurate and interpretable. In view of this, the researcher adopted a descriptive survey design using the mixed method approach for the study to help answer the research questions being investigated.

Kraemer (1991) identified three distinguishing characteristics of survey research. First, survey research is used to quantitatively describe specific aspects of a given population. These aspects often involve examining the relationships among variables. Second, the data required for survey research are collected from people and are, therefore, subjective. Finally, survey research uses a selected portion of the population from which the findings can later be generalized back to (Kraemer, 1991).

The researcher opted to use this research method considering the objective to obtain first hand data from the respondents. The descriptive survey method is advantageous for the researcher due to its flexibility; this method can use either qualitative or quantitative data or both, giving the researcher greater options in selecting the instrument for data-gathering. Descriptive research involves collecting data in order to test hypothesis or answer questions concerning the current status of the subject of the study (Creswell, 2009). According to Polit and Hungler (1995), descriptive survey aims predominantly at describing, observing and documenting aspects of a situation as it naturally occurs rather than explaining them. A descriptive survey involves asking the same set of questions to a large number of individuals. It is appropriate when a researcher attempts to describe some aspect of a population by selecting unbiased samples of individuals who are asked to complete questionnaires, interviews or tests (Frankel & Wallen, 1993).

Consequently, the study adopted a mixed method approach, in that both qualitative and quantitative data were collected. Creswell (2009) stated that mixed method research is conducted when both qualitative and quantitative data are collected and both type of data together provide a better understanding of a research problem than either type by itself.

The process perspective and the manner in which the phenomenon is perceived and practised should principally inform the adoption of any methodology. This invariably necessitates the examination of the contextual background in which the research is set. This is to enable the researcher to obtain an in-depth view of all related factors that influence the use of interfacing fabrics by garment producers in Lapaz-Accra. In this study, it is contended that employing both qualitative and quantitative information is the best means of gaining a fuller understanding of the use of interfacing fabrics by garment producers in Lapaz-Accra.

3.4 Population of the Study

When researchers decide on a phenomenon to measure, they consider whom and what to study. Who to study is often referred to as the population (Babbie, 2010). Babbie defined population as a group of people or objects whom social scientists want to draw conclusions on in a study. A population refers to any set of persons or objects that possesses at least one common characteristic (Busha & Harter, 1980). The target population for the study was all small-scale garment producers in Lapaz-Accra. These stakeholders constituted the population because they directly made use of interfacing fabrics in garment production at their workshop.

3.5 Sample and Sampling Techniques

Social scientists are never able to study the entire population. They depend on selected constituents to infer meanings into the larger population. These constituents are also called samples (Babbie, 2010). A sample is a subset of a population selected to participate in the study, it is a fraction of the whole, selected to participate in the research project (Salant & Dillman, 1994). Salant and Dillman observed that sample selection depends on the population size, its homogeneity, the sample media and its cost of use and the degree of precision required.

The need for sampling frame identification for a research project has been argued by Cohen, Manion, and Morrison (2000). They mentioned that upon identification of a population, researchers must select sampling technique early in the planning process to manage time, accessibility issues, and expenses. Sampling technique can be defined as the process whereby a subset of items is picked from a set, and done using a systematic process (Scheaffer, Mendenhall & Ott, 1995). In order to arrive at the sample size for the study, convenience and snowball sampling which are non-probability sampling techniques were employed in selecting a total of fifty (50) respondents made up of twenty five (25) tailors and twenty five (25) seamstresses in Lapaz-Accra. The basis of selecting fifty respondents as the sample size for the study is in tandem with Cohen et al. (2000) submission that a sample size of thirty is a minimum number if researchers plan to perform statistical computation with the data. Convenience sampling or, as it is sometimes called, accidental or opportunity sampling involves choosing the nearest individuals to serve as respondents and continuing that process until the required sample size has been obtained, or those who happen to be available and accessible at the time (Cohen et al., 2000). Researchers simply choose the sample from those to whom they have easy

access. As it does not represent any group apart from itself, it does not seek to generalize about the wider population (Cohen et al.). In snowball sampling researchers identify a small number of individuals who have the characteristics in which they are interested. These people are then used as informants to identify, or put the researchers in touch with, others who qualify for inclusion and these, in turn, identify yet others hence the term snowball sampling (Cohen et al., 2000).

In this study, the researcher, being a fashion designer herself who lives in Lapaz, happens to know three of the respondents who were initially chosen as the main contact persons in this study. These respondents also introduced other seamstresses and tailors. The introduction continued until the target of 50 respondents was reached.

3.6 Data Collection Instruments

A research instrument is a tool designed to collect data and to answer the research questions for the study. The key instruments used in collecting the data from the sampled respondents were, interview schedule and observational guides. Salant and Dillman (1994) noted that personal or face-to-face interview is a particularly flexible tool that can capture verbal inflexion, gestures, and other body language. They further indicated that a skilled interviewer can obtain additional insights into the answers provided by observing the respondent‘s body language.

Observation guide is a tool used in gathering data by watching behaviour(s), events, or noting physical characteristics in their natural setting. Observation allows a researcher to watch peoples‘ behaviours and interactions directly, it may be direct observation, that is, watch for the results of behaviours or indirect, that is, interactions (Taylor-Powell & Steele, 1996).

The choice of an interview schedule is because of its flexibility and adaptability in controlling the response situation, scheduling a mutually convenient time and place, and controlling the sequence and pacing of the questions asked. Also, an observation guide was chosen because it lists the interactions, processes, or behaviours to be observed with space to record open-ended narrative data.

In relation to this study, the interview schedule used to collect data was divided in four sections. The first section consisted of items that gathered information on demographic data of the small scale garment producers. The second section was based on the level of awareness of varieties of interfacing fabrics among the respondents in Lapaz, Accra (objective one). Questions related to objective one solicited answers from the respondents on their level of awareness of varieties of interfacing fabrics. The third section was centered on the factors considered by respondents in their selection of interfacing fabrics (objective two). The fourth section covered methods used by the respondents to apply interfacings (objective three). Observational checklist was also used to collect data for objective three. Quality assessment items on observational guide (assessment form) were used to evaluate the quality of interfaced garments produced by the respondents (objective four). The items on the assessment were constructed in a Likert scale form.

3.7 Pilot-Testing of Instruments

Selection of instrument(s) requires extensive examination of its reliability and validity (Burns & Grove, 2001). The purpose is to produce trustworthy evidence that can be used in evaluating the outcomes of a research study. Jackson (2009) referred to validity as whether a measure is truthful or genuine. In other words, it is the degree to which an instrument measures what it is supposed to measure. A measure that is valid

measures what it claims to measure. Jackson also described reliability as the consistency with which an instrument measures an attribute. In other words, whether an instrument measures exactly the same way each time it is used.

It is worth noting that the interview and observational guides were constructed under the supervision of the researcher‘s supervisor and other lecturers in the Home Economics Department of University of Education, Winneba to determine the content validity and reliability of the items. The guides (instruments) were later pre-tested among five (5) tailors and seamstresses each in Winneba in the Central Region of Ghana to determine the validity of the instruments. This was to refine the items on the guides so that respondents would have no problem in answering the questions. The responses were then coded and subjected to complete item analysis to determine among other things the internal consistencies and validity of the instrument. However, few items which were found to be misleading were reconstructed to facilitate their understanding before they were taken to the field for the main study.

3.8 Ethical Considerations

This study required the involvement of human respondents, specifically tailors and seamstresses in Lapaz and for that matter certain ethical issues were considered. The consideration of these ethical issues was crucial in order to ensure the privacy of the information provided and safety of the respondents.

The ethical principles of psychologists and code of conduct of the America Psychological Association (2002) cited in Jackson (2009) affirm the importance of respect for individuals, safeguard individual dignity and privacy and condemn unfair discriminatory practices. In view of this, significant ethical issues well-thought-out in the research process included informed consent, confidentiality and anonymity. An

introductory letter (Appendix A) was obtained from the department of Home Economics Education of University of Education, Winneba, to assist in the successful collection of data by the researcher. The researcher relayed all important details of the study including its aim and purposes and the researcher‘s identity so as to secure the approval of the respondents. This helped the respondents to understand the significance of partaking in the research process.

Moreover, names or personal information in the research were not disclosed in order to ensure the confidentiality of the respondents. Only relevant details that helped in answering the research questions were included. Yet, respondents were given an option to withdraw from the study if they deemed it fit to do so, which indicates that they were not forced to participate in the study.

3.9 Data Collection Procedures

Personal interviews were conducted concurrently with observations for twenty five (25) tailors and twenty five (25) seamstresses by the researcher via the use of interview schedule and observational guides in Lapaz since the respondents use interfacing fabrics in the production of garments in their respective workplaces. These guides aided in probing the knowledge, beliefs, attitudes, behaviours, processes, and interactions of respondents which were also often inadequately contemplated. The guides also assisted in obtaining more information and clarified ambiguous issues of primary concern. The researcher explained the purpose and the significance of the study to the respondents after which the researcher collected both the interview and observational data by spending about an hour with each respondent in their shops.

Some processes involved in the application of interfacings were observed and interfaced products of the respondents were also assessed. Baker (2006) indicators of a well applied interfacings and Association of Sewing and Design Professionals (2008) Standards of Quality of interfacings were adopted and adapted to collect data for this study. The indicators used to justify the quality of interfaced garments of the respondents included the interfacing's use at appropriate location on the garment; its ability to provide appropriate support needed to improve the shape of the garment; similarity in fabrication methods of interfacing and fashion fabrics. Bubbles, wrinkles or folds were also not to be seen on the finished product etc.

Salant and Dillman (1994) suggested that researchers use a series of related questions to gauge beliefs, attitudes, and behaviours then examine responses to identify patterns and consistencies in the answers. O'Leary (2004) remarked that collecting credible data is a tough task, and it is worth remembering, that one method of data collection is not inherently better than another. Therefore, the data collection method used depended upon the research objectives and the advantages and disadvantages of each method.

3.10 Data Analysis Procedure

The data collected were coded and analysed with the use of Statistical Package for Social Sciences (SPSS) version 20 software and Microsoft Excel to generate frequencies, percentages and presented in pie chart, bar charts and tables. Quotes from the responses were made where necessary to support quantified data and discussion.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results of the study under Demographic data of the respondents; Level of awareness of varieties of interfacing fabrics on the market among the respondents; Factors considered by the respondents in their selection of interfacing fabrics; Methods used by the respondents to apply interfacings to their products; Quality of interfaced garments of the respondents; and Testing of hypothesis.

4.2 Demographic Data of Small-scale Garment Producers in Lapaz

The demographic data cover the following: sex, age, level of education, and method of training in dressmaking or tailoring the respondents had. Equal percentages of males (50%) and females (50%) participated in the study. This means that the respondents comprised 25 tailors and 25 seamstresses, respectively. The data in Figure 9 shows age distribution of the respondents.

(n = 50)

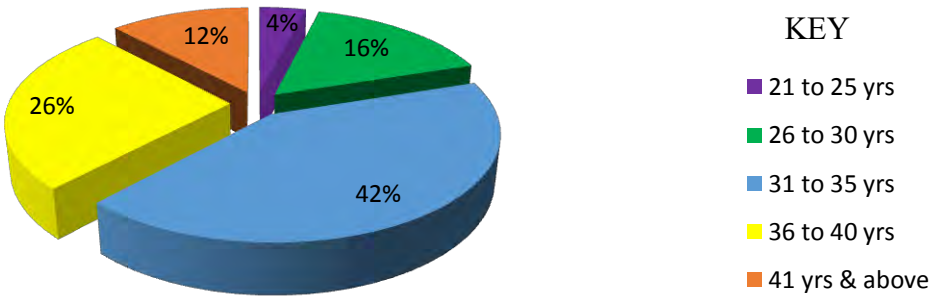

Figure 9: Age Distribution of the Respondents

Figure 9 indicates that 4% respondents were between 21 and 25 years of age, 16% of them were within the ages of 26-30, 42% were between the ages of 31 and 35, 26% were within 36-40 years of age, while 12% were aged 41 years or more. The youngest among the respondents (21-25 years) were therefore very few.

Figure 10 presents data on educational levels of the respondents.

(n = 50)

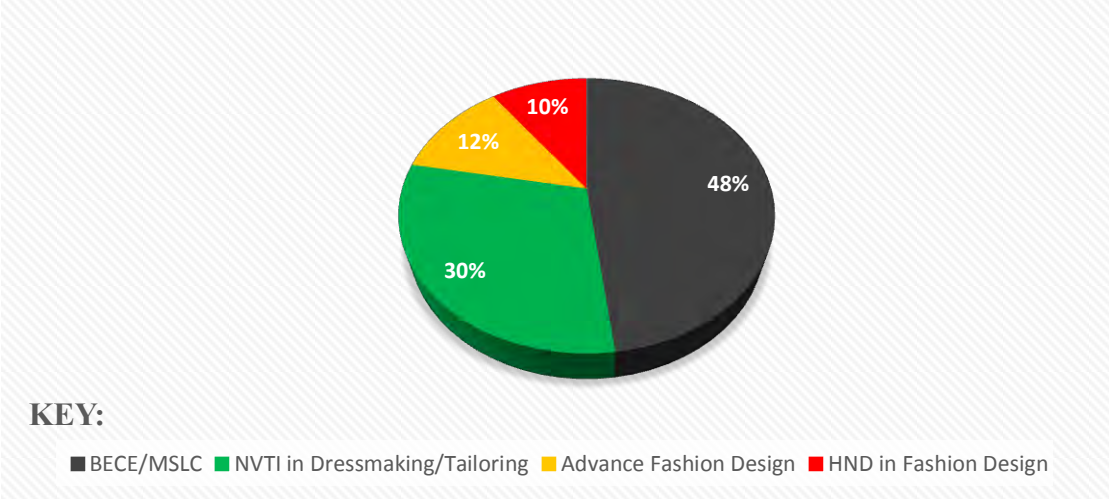

Figure 10: Educational Levels of Respondents

As many as 48% of the respondents had obtained Basic Education Certificate or Middle School Leaving Certificate (MSLC). This was followed by 30% who had attended National Vocational Training Institute (NVTI). Only 12% of respondents had Advanced Fashion certificates while 10% of them had Higher National Diploma (HND) in Fashion Design. It could be inferred from the results that 52% of the respondents had had formal education in garment production but all of them (100%) had had formal education. Owolabi (2003) stated that, the educational levels of fashion designers (garment producers) may determine their level of complexity and detail in designing. He explained that cognitive power and creativity can be efficiently developed through higher education in the creative field since each higher level improves competencies of learners. It can be deduced that, those who had formal

education in garment construction would have acquired higher professional practices in garment construction.

Table 1. The Respondents' Sources of Skill Training

(n = 50)

Source of Training	Frequency	%
Apprenticeship	37	38
Workshop and short training programmes	35	36
Formal schooling	25	26
Total	**97**	**100**

* Total >50 due to multiple response.

Table 1 gives information on how the respondents acquired skills for their trade. The data shows that 38% of the respondents acquired knowledge of dressmaking or tailoring through apprenticeship training. As noted by Arowolo (2010), traditional apprenticeships in West Africa are widespread. In Ghana, the practice has particularly been linked to the informal of education. The market for apprenticeships has gained a hold in Ghana and is especially common place in urban areas. Although the system of entry are many and varied for a new entrant into the apprenticeship system, many authors have presented closely related yet different views as to what the entry requirements are. Owolabi (2003) for instance noted that the modalities regarding apprenticeship in the informal sector vary. Entry is for the most part open for anyone who can pay the training fee; minimum education requirements are non-existent, and other necessary qualifications besides ethnic or clan identity are uncommon (Arowolo (2010).

Those who acquired skills in dressmaking or tailoring through workshop and short training programmes, and formal schooling were 36% and 26% respectively.

Literature suggests that vocational and technical education offers the trainee skills required for either construction of new products or modification/maintenance of existing ones (Owolabi, 2003). The researcher is of the view that, the formal education in vocational, technical and polytechnic that the respondents received was expected to have provided them with the relevant skills for garment construction. Arowolo (2010) added that whether the training is non-formal, apprenticeship or a more sophisticated formal training, the leaner is equipped with relevant job skills.

4.3. Findings and Discussion of Data on Research Questions

4.3.1 Research Question 1: What is the level of awareness of varieties of interfacing fabrics on the market among small scale garment producers in Lapaz, Accra?

All the respondents (100%) used interfacing in their production of garments. Figure 11 presents data on interfacing fabrics which the respondents were familiar or not familiar with.

(n = 50)

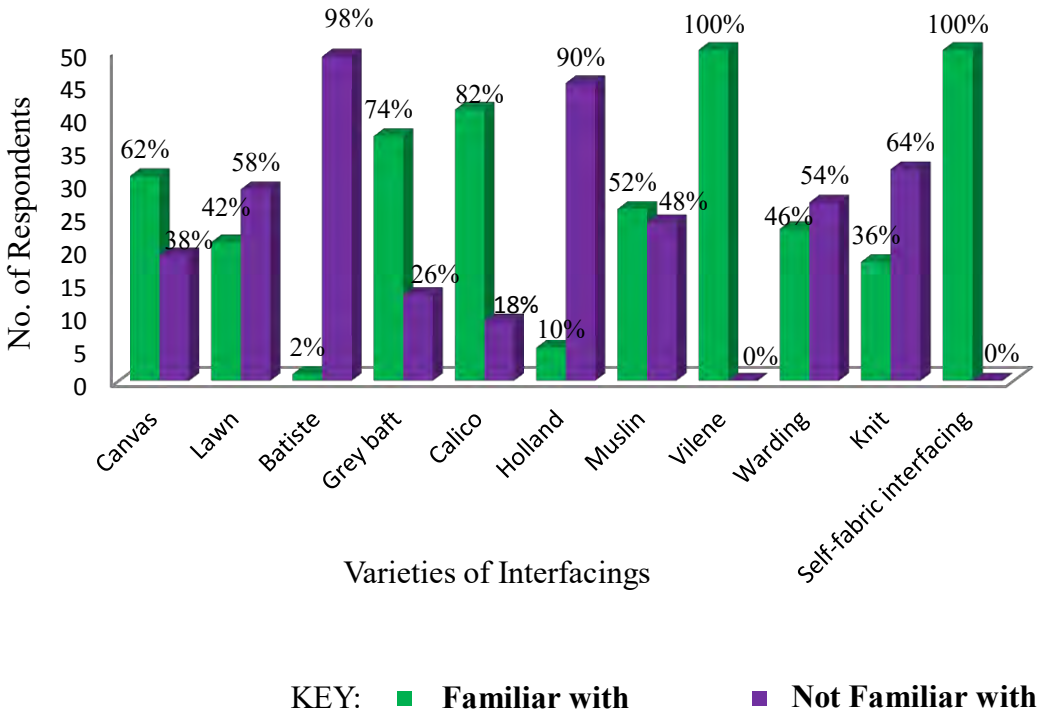

Figure 11: Responses on Interfacing Fabrics Respondents were Aware of

Scale: 1-19 = very low; 20-49 = low; 50-69 = moderate; 70-100 = high

A moderate percentage of the respondents (62%) were aware of canvas as an interfacing fabric; 42% of them said they knew about lawn; 2% knew about batiste; 74% knew about grey baft; 82% knew about of calico; 10% were aware of Holland; 52% knew about muslin; all of the respondents knew about vilene and self-fabric interfacing; 46% knew about wadding; and 36% knew about knit interfacings.

Literature suggests that, there are three types of interfacings namely woven (w), non-woven (nw) and knit (Baker, 2006). Woven interfacings included canvas, lawn, batiste, grey baft, calico, holland and muslin, while non-woven interfacings include vilene, wadding (fusible and non-fusible) and knit interfacings. Self-fabric interfacings are obtained from the fashion fabric used for the garment.

It could be established from the results of this study that the respondents were aware of both woven (w) and non-woven (nw) interfacing fabrics. It emerged from the result that more than 70% of the respondents had a high level of awareness of vilene (nw), self-fabric interfacing, calico (w) and grey baft (w). Comparatively, there was much more awareness of woven interfacing fabrics than non-woven interfacing fabrics among the respondents. The level of awareness of other woven interfacing fabrics such as canvas and muslin was found to be moderate with percentage scores of 62% and 52% respectively. It is likely that the respondents were much more aware of these fabrics because they were readily available on the Lapaz or generally Accra market. This finding confirms Forster's (2014) observation on the availability of woven interfacing fabrics such as canvas, lawn, batiste, holland, grey baft and calico in hyberdashery shops in Accra. It could also be that they were aware of them because they might have been introduced to them in school, during their training, or they might be using them for their operations in garment production. There was a low level of awareness of lawn (nw) and wadding (w) among the respondents with percentage scores below 50%. There was a very low level of awareness of batiste (w), and Holland (nw) as an interfacing fabric among the respondents with a percentage score of 2 and 10 respectively.

The issue of awareness of interfacing fabrics available on the market among the respondents brings to the fore the degree of their usage for garment production. What then is the relationship between awareness of an interfacing fabric and its usage?

Table 2. Interfacing Fabrics Readily Available to the Respondents

(n = 50)

Available interfacing fabrics	Available		Not Available	
	Frequency	%	Frequency	%
Vilene (nw)	50	100	0	0
Grey baft (w)	50	100	0	0
Calico (w)	50	100	0	0
Canvas (w)	32	64	18	36
Knit	25	50	25	50
Sew-in wadding (nw)	20	40	30	60
Lawn (w)	11	22	39	78
Muslin (w)	11	22	39	78
Holland	5	10	45	90
Batiste (w)	1	2	49	98

*Multiple responses

KEY: nw – non-woven; **w –** woven

Table 2 presents data on interfacing fabrics which the small-scale garment producers found readily available on the market. All the respondents (100%) were aware of the availability of vilene (nw), calico (w) and grey baft (w) on the market. As many as 64% respondents affirmed the availability of canvas (w) on the market, but 36% of them held opposing views. Also, 50% respondents confirmed but 50% did not that knit interfacing fabrics were available on the market.

Forty percent (40%) respondents affirmed, whereas 60% did not admit that fusible warding (nw), interfacing fabric was available on the market. Similarly, 40% respondents admitted, whereas 60% did not that sew-in wadding (nw) interfacing fabric was available on the market.

A small percentage (22%) answered in the affirmative, whereas majority (78%) of them gave a negative response on the availability of lawn (w) interfacing fabric on the market. Twenty-two percent (22%) respondents admitted while 78% did not that muslin (w) interfacing fabric was available on the market. Only 5% and 2% of the respondents respectively confirmed the availability of Holland (w) and batiste interfacing fabrics on the market. The results of this study established that vilene, grey baft and calico (100% in each case) were readily available and very common on the market and self-fabric was also available and could be used for interfacing. Canvas and knit were fairly available on the market with percentage scores of 64% and 50%, respectively. Wadding, lawn, muslin batiste and holland were not common (less available) on the market with percentage scores of 40%, 22%, 22%, 10% and 2%.

It could be determined from the results of the current study that holland and batiste were not readily available on the market, or the respondents were unaware of such products and their uses. However, 10% (Holland) and 2% (batiste) of the respondents, respectively were aware of these two interfacing fabrics. This is an indication of difference between awareness and availability of an interfacing fabric. Forster (2014) also found the presence of canvas, grey baft and calico on the market. Even though the respondents did not find Holland and batiste readily available on the market, earlier observations of Forster (2014) established their availability.

Table 3. Interfacing Fabrics Commonly Used by the Respondents

Name of interfacing	Frequency	%
Vilene (nw)	50	100
Knit	15	30
Canvas (w)	13	26
Lawn (w)	7	14
Fusible wadding (nw)	4	8
Muslin (w)	4	8

* Multiple responses

Table 3 shows the interfacing fabrics which respondents stated they commonly used. Vilene (1st) was the most commonly used interfacing fabric among the respondents. This was followed by knit (2nd), canvas (3rd), lawn (4th), fusible warding (5th) and muslin (5th). The result suggests that sew-in wadding, batiste, grey baft, holland and calico were not used for interfacing by the respondents though some of them were aware of them and their availability on the market. Some of the respondents (70%) explained that ―vilene was less expensive and it was readily available". Others (78%) also explained that their ―master-craftmen used only vilene during the training because vilene was easier to use and they got the desired result always when that interfacing was used". Very few of the respondents explained that they ―used self-fabric when the fabric is a see-through fabric, when the fabric is stretchy and on knit fabrics". It was detected that, though, all the respondents were aware of self-fabric interfacing, and it was always available to them but majority of them did not use it for interfacing.

It could be inferred from the results of this study that vilene which is a non-woven interfacing was predominantly used by all of the respondents (100%) for their

garment production. Forster (2014) noted that woven interfacings provide a better shaping than a non-woven interfacing. Probably the respondents did not consider the outcome of the product much. It is also likely that the high usage of vilene was precipitated by the level of high awareness among the respondents, its commonness and high availability on the market as well as its preference.

Table 4: Cross Tabulation of Types of Fashion Fabric and Interfacing used by the Respondents

(n = 50)

Interfacing	Wool fabrics Freq (%)		Suiting fabric Freq (%)		Satin Freq (%)		Lightweight fabrics Freq (%)		African Print Freq (%)		Total
Canvas	14	(28)	1	(2)	4	(8)	4	(8)	3	(6)	26
Lawn	1	(2)	2	(4)	4	(8)	4	(8)	2	(4)	13
Batiste	1	(2)	0	(0)	0	(0)	0	(0)	0	(0)	1
Grey baft	14	(28)	2	(4)	4	(8)	4	(8)	0	(0)	24
Calico	14	(28)	2	(4)	4	(8)	4	(8)	0	(0)	24
Muslin	5	(10)	0	(0)	0	(0)	4	(8)	0	(0)	9
Knit	5	(10)	1	(2)	4	(8)	4	(8)	0	(0)	14
Vilene	1	(2)	2	(4)	0	(0)	1	(2)	46	(92)	50
Wadding	4	(8)	5	(10)	0	(0)	0	(0)	1	(2)	10
Self-fabric interfacing	0	(0)	0	(0)	15	(30)	12	(24)	5	(10)	32

The data in Table 4 shows cross tabulation of the type of fashion fabrics the respondents used for production and interfacings they used for those fashion fabrics. Canvas was used as interfacing fabric for wool fabrics as indicated by 28% of the respondents (10 tailors and four seamstresses). According to the respondents, they used canvas to interface lapels, collars, tailored skirts and waistbands, for suiting fabric (2%), satin (8%), African prints (6%) and for lightweight fabrics (8%). Lawn was also used for woollen fabrics (2%), (4%), satin (8%) African print (4%), and for

lightweight (8%). Lawn was used to interface hems, sleeve edges, fly fronts, buttonhole extensions, lapels and pocket edges as indicated by the respondents. Batiste was used to interface woollen fabric only as stated by 2% (a tailor) and was specifically used to interface collars, fly front, sleeve edges and hems.

Grey baft was used on wool fabric by 28%, suiting fabrics 4%, satin 8%, and for lightweight fabrics by 8%. According to these respondents, they used the grey baft was used for collars, lapels, buttonhole extensions, fly fronts and hems. Similarly, calico was used for woolen fabric by 28% respondents, suiting fabrics by 4%, satin by 8%, and for lightweight fabrics by 8% of them. Sections that were interfaced with calico were named as lapels, collars, hems, fly fronts, pockets and sleeve edges. With regard to muslin, it was used to interface woolen fabric by 10% of the respondents light weight fabrics 8% and the sections that were interfaced with fabric were named as hems and sleeve edges. In the case of knit was used on woolen (10%), suiting (2%), satin (8%), and lightweight fabrics (8%) as button extensions, waistbands, collars and lapels.

It also came to light from the results of this study that vilene was used as interfacing fabric for woollen fabrics (2%), suiting fabric 4%, African prints (92%), and lightweight fabrics (2%) to interface lapels, collars, hems, fly fronts, buttonhole extensions, placket, pocket and sleeve edges. Wadding was used on woollen fabrics by 8%, suiting fabrics by 10% and Africa print by 2% to interface collars and lapels. Self-fabric on the other hand was used on satin by 30%, for African print by 10%, and lightweight fabrics by 24% to interface hems, collars, pockets, sleeve edges and button extensions as explained by the respondents.

A comparison of the percentage distributions show that most of the small-scale garment producers in this study had a high level of awareness of the following interfacing fabrics: vilene (100%), self-fabric interfacing (100%), calico (82%), grey baft (74%), canvas (62%), and muslin (52%). This finding suggests that the respondents knew about woven interfacing fabrics but not all of them patronized each kind of them. This finding confirms Forster's (2014) observation on the availability of woven interfacing fabrics such as hair canvas, lawn, batiste, Holland, grey baft and calico on the market. A low percentage of the respondents were aware of wadding (46%), lawn (42%), Holland (10%) and batiste (2%) as interfacing fabrics.

The findings further indicated that vilene, grey baft, calico and self-fabric interfacing seemed to be the most popular interfacing fabrics among the respondents. Vilene (nw) was identified as the most preferred interfacing fabric in this study and the respondents used it to interface garments of all fabrics except satin. Forster (2014) noted that woven interfacing provides a better shaping than a non-woven interfacing. Hence using a non-woven interfacing such as vilene may not enable the shapes of certain sections to come out well. It also emerged from the findings of this study that canvas, grey baft and calico were mostly used for woollen fabric. Indeed comments from some of the respondents indicated that these interfacing fabrics provided better shaping as stated by Forster (2014). For instance, Interviewee A7 said –I get the desired result when I use woven interfacings" Another respondent, interviewee B12 explained that –such woven interfacings are unique, they make the garments look more attractive compared to using vilene. I believe that is what makes my customers always come back to me for another service".

Table 5. Selection and Use of Interfacing fabrics by the Respondents

(n = 50)

Response	Frequency	%
I use self-fabric interfacing for garment made in knit fashion fabrics	32	64
I use different weight of interfacing in same garment	29	58
I use fashion fabric for interfacing	13	26
I use more than one interfacing for the same garment	2	4

Table 5 shows that 4% respondents admitted using more than one kind of interfacing fabric for the same garment, but 96% of them did not. This outcome differs from Hackler (1998) who noted that fabrics used as interfacings have a combination of qualities such as body, firmness, crispness, softness, stiffness and they give and drape, in the midst of others and so different areas of a garment may require different kinds of interfacing fabrics. While the neckline of a dress may need vilene for a crisp finish, frills at the hem of the same dress may need light-weight iron-on cotton to allow the skirt to drape well. More than half (58%) of the respondents had been using different weights of interfacing for the same garment, but 42% of them did not. This outcome is a good sign and in line with Shaeffer's (2008) submission that it may be necessary to use more than one type and weight of interfacing in a garment, depending on its purpose. As indicated earlier, interfacing for a neckline and frills at the hem of a dress or a sleeve will have differences in weight or texture for good effect.

A small percentage (24%) averred, but 74% said that they had not been using fashion fabrics for interfacing though all (100%) the respondents were aware of self-fabric interfacing. The result challenges Klupp (2006) observation that self-fabric

interfacings match the garment fabric in colour, care, weight and drapability, hence solid colour sheer fabrics, smooth wash-and-wear fabrics and smooth lightweight cottons may be used for self-fabric interfacing and Shaeffer (2008) who also explained that self- fabric interfacings are attractive on sheer fabrics especially for button closures. Observations made at the respondents' workshops showed that though there were pieces of fashion fabrics the respondents could have used for interfacing, they rather used vilene for their projects.

Also, 64% admitted while 36% did not, that they had been using self-fabric interfacing for garments made in knit fashion fabrics. This vindicates Forster (2014) who noted that knit interfacings are suitable for knit fabrics and fabrics that stretch.

4.3.2. Research Question 2: What are the factors considered by small-scale garment producers in their selection of interfacing fabrics?

For an interfaced product to come out well, careful considerations need to be made in the selection of the interfacing fabric. Information on factors considered by the respondents in their interfacing selection is presented in Figure 12 below;

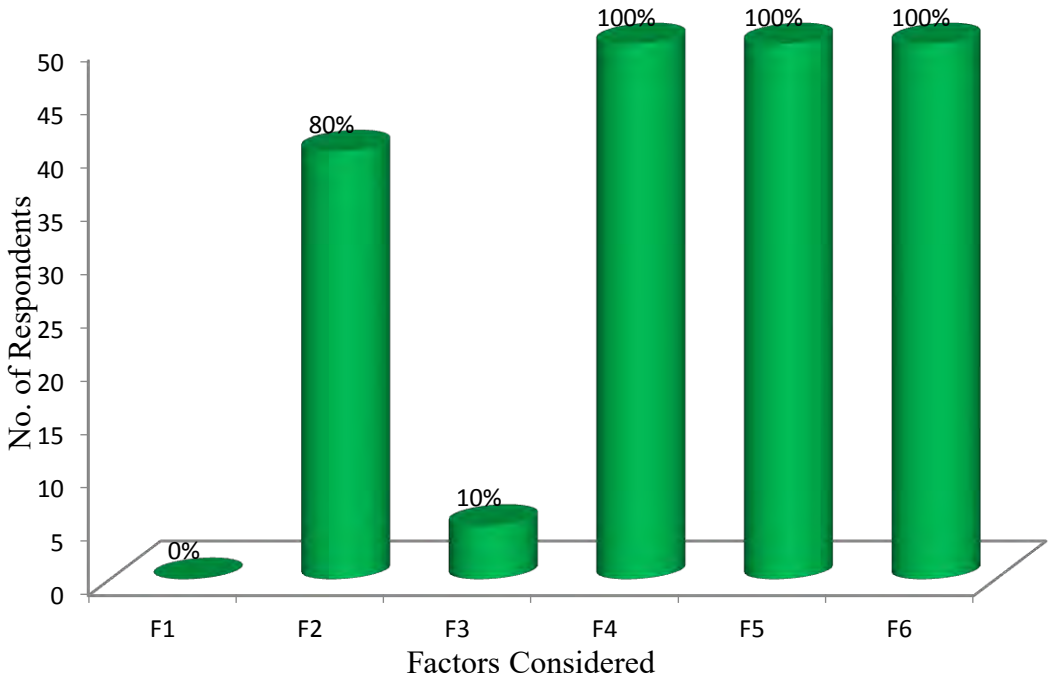

Figure 12

Factors:

(**F1**) - Care requirements of the fashion fabric

F2 - Suitability of colour of the fashion fabric

F3 - Types of fabrication for the fashion fabric

F4 -Suitability of application method for the fashion fabric

F5 - Area of the garment to be interfaced

F6 - Weight of the fashion fabric

Figure 12. Factors Considered by the Respondents in Selecting Interfacing Fabrics

The data in Figure 12 show that the weight of the fashion fabric (100%), area of the garment to be interfaced (100%), and suitability of application method used in applying the interfacing to the fashion fabric (100%) were the most influential factors which determined the selection and use of interfacing fabrics among the respondents. These were followed by colour of the fashion fabric (80%). The factor that was least considered was fabrication method used in constructing the fashion fabric, which Forster (2014) indicated is very important. Care requirements of the fashion fabric as a factor had no significant influence on the choice and use of interfacing fabrics by the respondents. Komives (1992) specified that selecting and using an interfacing is determined by availability, the fabric care, amount and direction of stretch, quality, weight, hand and colour, the fibre content, the design of the garment, the area to be interfaced, garment quality and finished appearance. The beauty, fit and function of a sewn product are likely to be compromised if the quantities mentioned by Komives are not considered in the selection and use of interfacings.

The findings of this study indicated that weight of the fashion fabric, area of the garment to be interfaced, application method, and colour of the interfacing fabric were the factors which mostly determined the selection of interfacing fabrics for use among the respondents. However, type of fabrication method used for the fashion fabric and care requirements of the fashion fabric had no significant influence on the selection and use of interfacing fabrics among the respondents. This finding is in tandem with the views of Tondl and Tolman (1993), and Klupp (2006) who also identified weight, colour and application method as factors to consider when selecting interfacing fabrics. The finding that type of fabrication used for the fashion fabric and

care requirements had no significant influence on the choice of interfacing fabrics for their sewing projects contradicts the views of Tondl and Tolman (1993) who pointed out that care and fabrication methods are some of the factors that influence the selection of interfacing fabrics among garment producers. Similarly, Hackler (1998) observed that selecting an interfacing compatible with the fashion fabric ensures a finished garment with the desired standards of care, shrinkage and washability and poorly selected interfacing can damage the fashion fabric. Interfaced areas of the garments produced by the respondents would not improve appearance and preserve shape, and the stability needed in the areas of strain may therefore not be achieved. According to Patson (2009), the primary purpose of interfacing is to give stability, shape and reinforcement to the fashion fabric. Patson further explained that all interfacings must be compatible with the weight and characteristics of the fashion fabric, otherwise the objective of using them would not be achieved.

4.2.3. Research Question 3: What methods were used by garment producers to apply interfacings to their products?

The data for this research question were obtained from responses to interview questions and observations made by the researcher at the workshops of the respondents. Responses to application methods used by them are presented in Table 6.

Table 6. Interfacing Application Methods used by Respondents

(n = 50)

Preparation and application processes	Frequency	%
Lapped seam was used to join interfacing	50	100
Lapped dart method was used to reduce bulk	46	92
Interfacing was applied before sewing various sections	45	90
Interfacing was cut smaller than the area to be interfaced	43	86
Interfacing was applied to facing and not to the fashion fabric	40	80
Corners of fusible interfacing were trimmed to reduce bulk	38	76
Edge to edge dart method was used to reduce bulk	35	70
Edge to edge seam was used to join interfacing	23	46
Press cloth was used during application of fusible interfacing	10	20
Overlap zigzag seam was used to join interfacing	9	18
Edge to edge zigzag seam was used to join interfacing	1	2

*Multiple responses

Table 6 gives information on interfacing of garment application methods used by the respondents. Eighty-six percent (86%) affirmed, whereas that they cut interfacing fabric smaller than the area to be interfaced. This outcome confirm Patson‘s (2009) observation that most interfacings are narrower than their fabric counterparts. In the same way Creative Publishing International (2009) also advised that garment producers should trim 0.6cm to 1cm from the interfacing seam

allowances to help eliminate bulk. Majority of the respondents in this case were therefore doing the right thing. Also, 70% respondents agreed that they applied interfacing by the use of edge to edge dart method to reduce bulk when there is a dart in the interfaced section. It was observed at the workshop that respondents A9 and B4 used edge-to-edge dart method to reduce bulk in their garment with a dart in the interfaced sections. Respondents B21, A4 and A18 did not used edge-to-edge dart method or any of the methods to reduce bulk though there were darts in the interfaced sections of the garments they were sewing. Kindersley's (2003) advised that darts included in interfacings for jackets and coats which cover large sections of the bodice should be made as flat as possible to reduce bulk with the use of edge to edge dart method of reducing bulk. Hence, darts and seam portions of garments made by respondents who never observed the trimming rules were bulky. None of the respondents used herringbone-stitched dart method to reduce bulk in in the interfaced sections with dart though it could have been used in place of any of the methods used in reducing bulk in an interfaced sections of garments with darts.

As many as 92% respondents affirmed, that they applied interfacing fabric by the use of lapped dart method to reduce bulk when there is a dart in the interfaced section. Some respondents were seen using the lapped dart method during the observation at the workshops to reduce bulk in interfaced sections with darts. This finding is also in line with Kindersley's (2003) advice that darts included in interfacings for jackets and coats which cover large section of the bodice are made as flat as possible to reduce bulk with the use of lapped dart method. A small percentage of the respondents (46%) consented that they applied interfacing fabric by the use of edge to edge seam method to reduce bulk when there is a seam in the interfacing. Only 2% applied interfacing fabric by using edge to edge zigzag seam method to

reduce bulk when there is a seam in the interfacing. This result opposes Kindersley's assertion that edge-to-edge and edge-to-edge zig-zag seam methods are used to reduce bulk when there is a seam in the interfacing. All the respondents confirmed that they applied interfacing fabric by the use of lapped seam method to reduce bulk when there is a seam in the interfacing. This finding is also in line with Kindersley's assertion that lapped seam method is used to reduce bulk when there is a seam in the interfacing.

Eighteen percent (18%) respondents indicated that they applied interfacing fabric by the use of overlap zigzag seam method to reduce bulk when there is a seam in the interfacing. This finding differs from Kindersley's (2003) method of using overlap zigzag seam method to reduce bulk when there is a seam in the interfacing. The respondents explained that "when joining fusible interfacing they slightly overlapped the edges together and ironed to make the edges stick together to make up for the length of interfacing required". Kindersley (2003) also said that seams are made in interfacings either to make up the length for a long facing or to use the interfacing economically. Though the respondents did not make any seams they overlapped and ironed on their fusible interfacings for the needed extension. It was observed that majority of the respondents (90%) applied interfacing before sewing various sections of the garment together. The respondents explained that "applying interfacings to the various sections needing interfacing before joining them together made their work easier and simple and also gives the work a neat appearance".

Komives (1992) stated that light weight and medium weight interfacings are applied to separate garment pieces before joining the interfaced units together, or the interfacing pieces are joined and applied as a unit to the corresponding seamed garment units. It was observed in this study that different weights of vilene, thus

lightweight, medium and heavyweight were used by all the respondents. Sew-in interfacings used by the respondents had no variation in weight. There was no variation in weight for canvas, lawn, muslin, calico, grey-baft and bastite.

Majority (80%) of the respondents applied interfacing on the facing, while 20% applied it on the garment fabric itself. The respondents explained that "applying interfacing on the facing of the garment made their garments look more professional," while others also said that, "that is what we learnt from our masters". Kindersley (2003) explained that light and medium weight sew-in interfacing are stitched to the facing however, the interfacing works most effectively when stitched directly behind the garment fabric and on top of the seam allowances. In this instance it is preferable to interface the garment itself rather than the facing. It was observed that 20% respondents used press cloth while 80% did not it during application of fusible interfacings. The finding differs from Patson's (2009) observation that press cloth should be placed over the area to be fused to prevent the interfacing from getting stacked on the iron plate. None of the respondents replaced seam allowances of heavy weight sew-in interfacings with strip of light weight interfacings to reduce bulk. This finding deviates from Kindersley's (2003) assertion that seam allowances of heavy weight sew-in interfacings are too thick to be stitched into the facing seams, hence, they are replaced with a strip of organdie, a very lightweight interfacing or another fine fabric to reduce bulk at the seamlines. Clotilde (2004) on the other hand indicated that sew-in interfacings are trimmed in the corners and machine stitched 0.3cm outside the given seam line, then trimmed close to the machine stitching to reduce bulk. The finished sections are then top-stitched to secure the interfacing in place as observed by Shaeffer (2008). The respondents top-stitched collars, waistbands, cuffs

and buttons extensions interfaced with both sew-in and fusible interfacings as observed by the researcher at their workshops.

At the respondents‘ workshops, 76% respondents were observed trimming corners of fusible interfacing to reduce bulk, while 24% did not do so. This findings is in line with Clotilde (2004) who specified that seam allowances and an extra 0.3cm of fusible interfacings should be trimmed away to reduce bulk and ensure that interfacing is not visible around the edges of collars after the collar has been stitched in place.

In summary interfacing application methods identified as used by the respondents were: joining of interfacing fabric by using lapped seam method to reduce bulk in the interfacing (100%); lapped dart method to reduce bulk in an interfaced section of the garment with dart (92%); and application of interfacing before sewing various sections of the garment together (90%); cutting interfacing smaller than the area/section of the garment to be interfaced (86%); trimming corners of fusible interfacings to reduce bulk (76%); application of interfacing by using edge to edge dart method to reduce bulk in an interfaced section of the garment with dart (70%); and application of interfacing on the facing of the garment (70%). The least used methods were: joining of interfacing by using edge-to-edge seam method (46%); application of interfacing on garment sections (20%); using of press cloth during application of fusible interfacing (20%); and joining edges of interfacing by using overlap zigzag seam to reduce bulk in the interfacing (18%). All the respondents (100%) never used washing, steaming, dry cleaning and immersion in water as pre-shrinking methods when applying interfacings to garment.

Patson (2009) observed that interfacings shrink, hence pre-shrinking them aid to avoid problems with bubbling or poor adhesion. In lieu, some of the respondents (60%) sometimes used steam iron to pre-shrink non-woven interfacing while others (32%) occasionally sprinkled water on the interfacing during ironing as noticed by the researcher during the observation at their workshops.

Patson (2009) explained that surface problems like bubbling show up when the interfacing and the fashion fabric have incompatible shrinkage. Patson continued by saying that most interfacings perform better if they are pre-shrunk before they are applied to the project other than that, irreparable rippling and bubbling result. In addition to Patson's observation, Fresia (2011) noted that pre-treating fabrics takes care of shrinkage ahead of time so that the finished garment reliably maintains its size and shape. What it then means is that the respondents were not likely to meet the required quality standards of garment construction when it comes to the use of interfacing. This may compromise aesthetic quality and the durability of their garment would be compromised. Interfaced garments with bubbles, folds, wrinkles and interfacings which do not shape and define design features such as facings, necklines, collars, pocket flaps, cuffs, hems and waistbands well may therefore unfavourably have to compete with quality goods on the international market and even at the local market level, only to be rejected by well-informed consumers.

Kadolph (1998) cited in Ampong (2004) indicated that, to achieve quality, producers should ensure that their garments conform to specifications. According to Ministry of Trade and Industries (1996) cited in Ampong (2004), exports from individual garment producers in Ghana have had quality setbacks. Specifically, poor quality construction and finish, as well as use of inferior quality fabrics and notions, together with delayed delivery were cited as reasons for rejection of Ghanaian

garments on the export market. These put into doubt the credibility of Ghanaian made garments.

In Nigeria, Amubode and Folade (2012) evaluated female consumers' expectations and post patronage satisfaction of tailoring services and found that customers have understanding of the fashion trend and some expectations from tailors in the discharge of their services that will lead to satisfaction and repurchase intention. The study further indicated that the tailors did not meet consumers' expectations despite the fact that consumers were not expecting any high standards. It can be argued that tailors and seamstresses who cannot meet their consumers' expectations cannot favourably compete at the international market since they are still struggling to meet the minimal consumer expectations on their local market. If these respondents should engage in mass production of ready-to- wear garments, they might not be able to produce perfectly fitted garments. It was expected that the respondents who attended vocational/technical schools, polytechnics, would be able to apply their knowledge and skills in interfacing it is a topic treated in Dressmaking and Fashion Technology in vocational/technical schools and Polytechnics. None of the respondents of this study had first or second degree in fashion and so knowledge and skills that would have been acquired for higher professional practice in the use of interfacing were likely not to be accessible to them.

4.2.4. Research Question 4: What is the quality of interfaced garments made by the small scale garment producers?

The data for this research question were obtained from responses to Likert scale items on the observation guide (Assessment form). Baker's 2006 indicators of a well interfaced garments and Association of Sewing and Design Professionals (2008)

Standards of Quality of interfacings were adapted to collect data for this research question. The data from the observation were further collapsed into three categories as high (3), average (2) and low (1) with 3 being the highest and 1, being the lowest. This was done in order to find out the quality level of interfaced garments made by the respondents. The data are presented in Table 7.

Table 7. Evaluation of Interfaced Garments Produced by the Respondents

Quality of interfaced Garments	H (3) Freq.	A (2) Freq.	L (1) Freq.	Mean	SD
1. Appropriateness of interfaced location in garment	50 (150)	0 (0)	0 (0)	3.00	.00
2. Compatible in weight to fashion fabric	49 (147)	1 (2)	0 (0)	2.98	.14
3. Shape of garment	48 (144)	2 (4)	0 (0)	2.96	.19
4. Bubbles and fold lines on right side of products	46 (138)	2 (4)	2 (2)	2.88	.27
5. Matching of grain lines of interfacing and fashion fabrics	42 (126)	8 (16)	0 (0)	2.84	.37
6. Compatibility of interfacing and fashion fabric textures	37 (111)	13 (26)	0 (0)	2.74	.44
7. Suitability of application method	33 (99)	13 (26)	4 (4)	2.58	.64
8. Compatibility in colour	31 (93)	19 (38)	0 (0)	2.62	.49
9. Interfacing complements and reinforce without overpowering product	26 (78)	24 (48)	0 (0)	2.52	.50
10. Similarity of fabrication methods for interfacing and fashion fabric	0 (0)	33 (66)	17 (17)	1.66	.47
11. Compatible care methods for interfacing and fashion fabric	0 (0)	36 (72)	14 (14)	1.72	.45
Grand mean				**2.59**	**.30**

Key: High (H) =3; Average (AV) =2; Low (L) = 1

Grand mean for quality level of interfaced products is 2.59 (which is quite high)

Table 7 presents data on the evaluation of interfaced products of the respondents of this study. All the respondents (100%) used interfacings fabrics in appropriate locations in their garments, hence, their positioning were rated high (3) which resulted in a mean of 3.00 (SD=.00) which is interpreted as high. Majority of the respondents (98%) weight of interfacing and fashion fabrics compatibility was high (3). Only 2% respondent scored average (2). The mean score for this variable was 2.98 (SD= .14) which is quiet high. Again, majority of the respondents (96%) interfacings provided appropriate support to shape the garment and were rated high (3). Only 4% respondents were graded average (2) for the same item. The mean score was 2.96 (SD= .19) which is also high.

It was also observed that majority (92%) of the respondents' interfacing fabrics did not show bubbles and fold lines on the right side of the products and so were rated high (3) on that item. Only 4% of them were rated average (2) for the same reason, while 4% of them had their interfaced products showing bubbles and fold lines on the right side of the garment and scored low (1). The mean was 2.92 (SD=.27) which is quiet high. However, 84% of the respondents matched grain lines of interfacing and fashion fabric and were valued as high, while 16% scored average on the same item. This trend resulted in a mean of 2.84 (SD= .37) which is quiet high.

Majority of the respondents' (74%) were rated high (3) because their interfacing fabrics were compatible to the textures of fashion fabrics. Few respondents' (26%) products were scored average (2) for the same reason which resulted in a mean of 2.74 (SD= .44) which is quiet high. It was also detected that 66% of the respondents' interfacing application methods suited that of the fashion fabrics and were rated high (3). However, 26% were rated average, while 8% were scored low for the same item, with a mean score of 2.58 (SD=.64) which is interpreted

as quiet high. Though for this group of respondents, interfacing showed through slit of buttonhole on the right side, there were bubbles and wrinkles on the interfaced area, the interfacings were also visible on the right side of see-through fabrics which made their garments unattractive. It was observed that 62% of the respondents' interfacing and fashion fabrics' colours' compatibility were rated high (3) but 38% of them were rated average (2) for the same purpose with a mean score of 2.62 (SD= .49) which is quite high.

About half (52%) of the respondents' interfacing fabrics were rated high (3), however, 24 (48%) were rated average (2) for the fashion fabrics they were used for because they complemented and reinforced the fabric without overpowering products. This resulted in a mean score of 2.52 (SD= .67) which was interpreted as quiet high.

However, 66% of the respondents were rated average for similarity of fabrication methods in the fashion and interfacing fabrics, nevertheless 34% of them were rated low. The mean score in this case was 1.66 (SD=.47) which is interpreted as average. Finally, more than half of the respondents' that is 36 (72%) interfaced products were rated average for compatibility of care methods required for interfacing and fashion fabric, but 28% of them were rated low for same function. The mean score for all the respondents was 1.72 (SD=.45) which is interpreted as average. The mean of means score for the quality of interfaced products made by respondents of this study was 2.59 (SD=.30) which is quiet high.

These findings are in consonance with the indicators identified by Baker (2006) who stated that a suitable, well-applied interfacing should provide the appropriate support or reinforcement needed to improve the shape of the garment or fabric area; be used in the appropriate location in a garment; not alter colour or hand

of the fashion fabric. If an appropriate weight cannot be found, it is best to go lighter than heavier as recommended by Baker. Other studies by Brown and Rice (2001) explained that a suitable interfacing should help maintain the garment‘s shape and/or lend it other qualities such as durability and warmth. This result further justifies the views of Patson (2009) who stated that the primary purpose of interfacing is to give stability, shape, and reinforcement to the fashion fabric.

It was observed that none of the respondents‘ was ranked high for similarity of fabrication methods for interfacing and fashion fabrics; and compatibility of care methods. This is very serious because the two different fabrics are treated as one in construction, use and care treatment and a single method may be favourable to one of the fabrics and unfavourable for the other. For instance, the same seam is used for the fashion fabric and interfacing and both the thread and stitch density are the same. Again the same laundry treatment is given to the garment so both fabrics should be able to endure the kind of laundry treatment given by the user of the garment to prevent damage.

All the respondents of this study have been using interfacing in garment production during their training and after they became master-craftsmen of their own and started producing garments for their customers. It is therefore, expected that, they would be to apply their knowledge and skills acquired in the use of interfacings. As in accordance with the theories of skill acquisition the more time an individual dedicates to learn a skill (Anderson, 1982) and the more a person goes through the different stages of increasing skills (Dreyfus & Dreyfus, 1980), the higher the amount of skill acquisition and, in turn, the perception of this increase.

In garment production, perfection is the ultimate and anything below that faces the threat of rejection by consumers. For the individual garment producers to remain in business and perform well in a competitive garment market, they need to build up their skills in the areas where their scores were not high. As it is, the mean of means which indicate their general level of competency in interfacing as well as quality of their interfaced products is quite high.

4.4 Testing of Hypothesis

In order to understand and explain the association between the variable educational qualification and factors considered in interfacing selection, a hypothesis was set and tested. Data for research question two was used to test the hypothesis (what are the factors considered by small scale garment producers in their selection of interfacing fabrics?).

H_0 : There is no significant association between educational qualification and the factors considered in selecting interfacings.

In testing the hypothesis to determine if the level of educational qualification of respondents had significant relation with factors considered in choosing an interfacing, Spearman‘s correlation statistical analysis was used and results presented in table 8.

Table 8: Correlation between Respondents Educational Qualification and Factors Considered in Selecting Interfacing

Factors Considered	r	Sig. (*p* values)	N
Care requirements of fabric	.155	.341	50
Area of garment to be interfaced	.152	.080	50
Weight of the fashion fabric	.151	.080	50
Colour suitability	.280*	.031	50
Types of fabrication	.560*	.000	50
Suitability of application method	.260*	.000	50
Aggregate (all factors)	.552*	.000	50

* Correlation is significant at the 0.05 level

In Table 8, educational qualification had no significant association with factors such as care requirements of fabric, area of garment to be interfaced, and weight of the fashion fabric. However, other factors showed correlation with educational qualification. Among such factors is colour suitability. It correlated significantly with educational qualification, $r = .280$; $p < .05$. There was a positive correlation between colour suitability and educational qualification, indicating that as the garment producers' educational background improved, their consideration for colour suitability in interfacing selection also improved. Even though the direction was positive, the magnitude was low. This suggests that colour suitability was not a vibrant factor in interfacing selection.

Further, Types of fabrication $r = .560$; $p < .05$, correlated significantly with educational qualification. The correlation was not only positive but also the magnitude was moderate (.560). This indicate that as educational background increases, consideration for fabrication type was moderately made. More so,

suitability of application method r= .260; p<.05, correlated significantly with educational background. The positive direction of correlation between suitability of application method and educational background was low in terms of magnitude and that it did not influence much in the selection of interfacing.

The Null hypothesis which states ~~t~~here is no significant association between educational qualification and factors considered in selecting interfacing" is therefore rejected as the two variables were moderately positively correlated, r= .552; p<.05. In other words educational qualification had a moderate positive correlation with the aggregate factors for choosing interfacing fabric by the respondents in this study.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter highlights the summary of the study, draws conclusions and makes recommendations based on findings of the study. Suggestions for further studies are also put forward in this chapter.

5.2 Summary

The purpose of this study was to specifically assess the level of awareness of interfacing fabrics; their selection, methods used to apply interfacings and quality of interfaced products produced by the respondents in Lapaz, a suburb of Accra. The four key themes which emerged from this study based on the research objectives and questions were: the level of awareness of varieties of interfacing fabrics on the market among the respondents in Lapaz, Accra; their selection of interfacing fabrics; methods used by them to apply interfacings to their products; and the quality of interfaced garments they produced. The researcher adopted a descriptive survey design using the mixed method approach to answer the research questions raised. The population for the study was all small scale garment producers in Lapaz-Accra. A sample size of fifty (50) consisting of twenty five (25) tailors and twenty five (25) seamstresses were obtained using the convenience and snowballing non-probability techniques. Interview schedule and observational guides were the instruments used for data collection. The data were analysed using the SPSS version

20 and Microsoft excel to generate frequencies, percentages, means and correlations and presented in tables and figures.

5.2.1. Key Findings

1. Majority (more than 70%) of the respondents had a high level of awareness of self-fabric interfacing, vilene, calico, and grey baft. Canvas and muslin had a moderate level of awareness. There was a low level of awareness of wadding and lawn and a very low level of awareness of batiste and Holland as interfacing fabrics among the respondents.
2. Factors which mostly influenced the selection of interfacing fabrics among the respondents were: weight of the fashion fabric, area of the garment to be interfaced, application method, and colour of the fashion fabric. Fabrication methods and care requirements of the fashion fabric were not considered by respondents in selecting interfacings.
3. All the respondents used lapped seam method to join interfacings, majority (92%) used lapped dart method to reduce bulk at interfaced sections of their garments and interfacing was applied before joining various sections of the garment by majority (90%) of the respondents as well. None of the respondents used any pre-shrinking methods for the interfacings and press cloths were not also used by majority (80%) of the respondents during application of fusible interfacings, which made their method of application inappropriate
4. All the respondents positioned their interfacings in appropriate locations of the garments, majority (96%) of the respondents‘ interfacings were compatible in weight to the fashion fabric and interfacing also improved the shape of the garments made by majority of the respondent. Few respondents‘ interfacings

showed through slit of buttonholes on the right side, bubbles and wrinkles were on the interfaced area, the interfacings were also visible on the right side of see-through fabrics which made their garments unattractive.

5. The hypothesis tested showed a moderate positive relationship between educational qualification of respondents and the factors considered in the selection of interfacings (r = .552; p<.05) in this study. Thus the higher the educational level of the respondents the more likely they were to consider the various factors in selecting interfacings.

5.3 Conclusions

Based on the results of the study it is concluded that:

1. The respondents were aware of different types of interfacing fabrics. The majority used Vilene for garment production due to its availability, suitable weight, application method and its ability to improve the shape of the garment or interfaced area.
2. Respondents considered weight of the fashion fabric, area of the garment to be interfaced, application method, and colour of the interfacing fabric when selecting interfacings.
3. Lapped seam method of joining interfacing, lapped dart method of reducing bulk at interfaced sections and applying interfacings before joining various sections of the garments together were popular methods used by respondents during application of interfacings.
4. The mean of mean score for quality of interfaced garment produced by the respondents was 2.59 which is quite high.

5. There was a moderate positive correlation between educational qualification and the factors considered in selecting interfacings among the respondents.

5.4 Recommendations of the Study

In the light of the findings of this study, it is suggested that the findings be made available to the respondents and Council for Technical and Vocational Education and Training so that the small scale garment producers would be educated on:

1. The varieties of interfacing fabrics available
2. The appropriate information on selecting interfacing fabrics
3. Garment interfacing application procedures to build their capacity
4. Finally it is recommended that the Council for Technical and Vocational Education and Training (COTVET) and the respondents should develop standards for interfaced garments made in Ghana to meet international standards of a well applied interfaced garments.

5.5 Suggestion for Further Research

A study on standards of custom made garment is necessary for the improvement of clothes produced by small scale garment producers in Ghana.

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APPENDICES

APPENDIX A

UNIVERSITY OF EDUCATION WINNEBA
FACULTY OF SCIENCE EDUCATION
DEPARTMENT OF HOME ECONOMICS EDUCATION
P. O. Box 25, Winneba, Ghana. Tel. (0432) 21177
E-mail: homeecons@uew.edu.gh

OUR REF: HED/...

November 30 2010

Dear Sir/Madam,

LETTER OF INTRODUCTION
MS. EDITH ABLA KLUDZI

We write to introduce Ms. Edith Abla Kludzi, an M.Phil student of the Department of Home Economics Education, University of Education, Winneba, who is conducting a research titled: "THE USE OF INTERFACING FABRICS BY GARMENT PRODUCERS IN ACCRA METROPOLIS".

We would be very grateful if you could give her the assistance required.

Thank you

Yours faithfully,

MS. COMFORT KUTUM MADAH
AG. HEAD OF DEPARTMENT

APPENDIX B

INTERVIEW SCHEDULE

INTRODUCTION

This interview is intended to solicit your views on the availability of varieties of interfacing fabrics on the Ghanaian market. It also seeks your knowledge of the factors influencing their selection and use, application methods and processes. I assure you of confidentiality in handling this information while at the same time ensuring that the data obtained is used for research purpose only. Please kindly feel free to answer the questions to the best of your views. **Thank you.**

SECTION A: DEMOGRAPHIC DATA

1. Sex: Male [ ] Female [ ]

2. Age Range: 21 -25 [ ] 26 – 30 [ ] 31 – 35 [ ] 36 -40 [ ] 41 and above [ ]

3. What is your highest level of education?

   BECE /MSLC [ ] NVTI in dressmaking/tailoring [ ]

   Diploma in Fashion Design [ ]

   HND in Fashion Design [ ]

   Others [ ] (**Please Specify**) ……

4. How did you acquire your knowledge in dressmaking/ Tailoring?

   a. Through formal school instruction [ ]

   b. Through apprenticeship [ ]

   c. Through workshop/ short training programmes [ ]

   d. Natural gift/self-taught [ ]

   e. Other [ ] (**Please Specify**):……

SECTION B: LEVEL OF AWARENESS OF THE GARMENT PRODUCERS ON THE AVAIBILITY OF INTERFACING FABRICS ON THE MARKET

5. Do you use interfacing fabrics? Yes [ ] No [ ]

6. If **yes**, which of the following interfacing fabrics are you familiar with?

Canvas [ ] Lawn [ ] Batiste [ ] Grey baft [ ] Calico [ ] Holland [ ]

Muslin [ ] Vilene [ ] Warding [ ] Knit [ ] Self-fabric interfacing [ ]

7. Which of the following interfacings are readily available in the market?

Canvas [ ] Lawn [ ] Batiste [ ] Grey baft [ ] Calico [ ] Holland [ ]

Muslin [ ] Vilene [ ] Warding [ ] Knit [ ] Self-fabric interfacing [ ]

8. Which of the following interfacings do you normally use?

Canvas [ ] Lawn [ ] Batiste [ ] Grey baft [ ] Calico [ ] Holland [ ]

Muslin [ ] Vilene [ ] Warding [ ] Knit [ ] Self-fabric interfacing [ ]

8b. Why do you normally use the interfacing(s) mentioned above?

……

9. Do you use more than one interfacing for same garment? Yes [ ] No [ ]

10. Do you use different weight of interfacing in same garment? Yes [ ] No [ ]

11. Do you use fashion fabric for interfacing Yes [ ] No [ ]

12. Which fabrics do you use the following interfacings for?

Canvas ……

Lawn ……

Batiste ……

Grey baft ……

Calico ……

Holland ……..…….

Muslin …….

Vilene ……..…….

Warding ……..…….

Knit ……..……

SECTION C: FACTORS INFLUENCING THE SELECTION OF INTERFACING FABRICS

13. Which factors do you consider in the selection and use of interfacing fabrics?

a. Care requirements of the fashion fabric Yes [ ] No [ ]

b. Suitability of colour of the fashion fabric Yes [ ] No [ ]

c. Types of fabrication for the fashion fabric Yes [ ] No [ ]

d. Suitability of application method for the fashion fabric Yes [ ] No [ ]

e. Area of the garment to be interfaced Yes [ ] No [ ]

f. Weight of the fashion fabric Yes [ ] No [ ]

g. Other [ ] (**Please Specify**) :……..……

SECTION D: PREPARATION AND APPLICATION PROCESSES OF INTERFACINGS USED BY GARMENT PRODUCERS

14. Do you pre-shrink fashion fabrics when producing garments? Yes [ ] No [ ]

15. If **yes**, which of the following pre-shrinking processes or methods do use for pre-shrinking the fashion fabrics?

a. washing b. steaming c. immersing in water d. dry cleaning

16. Do you pre-shrink interfacings when producing garment? Yes [ ] No [ ]

If **yes**, which of the following pre-shrinking processes or methods do use for pre-shrinking the interfacings?

a. washing b. steaming c. immersing in water d. dry cleaning

17. Which method(s) do you use to reduce bulk if there is a dart in an interfaced section?

Edge to edge dart [ ] Herringbone- stitched dart [ ] Lapped dart method [ ]

Others [ ] (please specify) ……

18. Which methods do you use to join interfacings if there is a seam in an interfaced section?

Edge to edge seam [ ] Edge to edge zigzag seam [ ]

Lapped seams [ ] Overlap zigzag seam [ ]

Others [ ] (please specify) ……

19. Do you cut interfacings smaller than the area to be interfaced Yes [ ] No [ ]

APPENDIX C

OBSERVATION CHECK LIST

1. Is interfacing applied before sewing various sections? Yes [ ] No [ ]
2. Is interfacing applied to facing and not to the fashion fabric? Yes [ ] No [ ]
3. Is press cloth is used during application of fusible interfacing? Yes [ ] No [ ]
4. Are seam allowances of heavy weight interfacing fabrics replaced with strip of light weight interfacings? Yes [ ] No [ ]
5. Corners of fusible interfacing are trimmed to reduce bulk Yes [ ] No [ ]

APPENDIX D

OBSERVATION GUIDE (ASSESSMENT FORM)

SECTION E: THE SUITABILITY OF INTERFACING FABRICS USED BY GARMENT PRODUCERS FOR THEIR PRODUCT

Suitability of interfacing fabrics	H(3)	A(2)	L (1)	Remarks
1. Interfacing complements and reinforce the fashion fabric without overpowering it				
2. Compatible care requirement for interfacing and fashion fabric				
3. Weight of interfacing and fashion fabric are compatible				
4. Interfacing and fashion fabric colours are Compatible				
5. Interfacing fabrication matches with that of fashion fabric				
6. Interfacing application method suits the fashion fabric				
7. Interfacing is cut on the same grain as area to be interfaced				
8. Interfacing provides appropriate support to shape the garment				
9. Interfacing is used at the appropriate location in garment				
10. Interfacing does not alter the texture of fashion fabric				
11. Interfaced area appears flat and smooth with no bubbles, wrinkles or folds				

Key: **H** – High; **A** – Average; **L** - Low

APPENDIX E

BAKER'S (2006) INDICATORS OF A WELL APPLIED INTERFACINGS

1. Be appropriate to the fashion fabric in relation to fibre content, care, construction type (knit, woven, Nonwoven) and manner applied (sew-in or fusible). Have the same —grain" or —give" as the fashion fabric with which it is used.
2. Coordinate in colour as closely as possible. Use light colour with light coloured fashion fabrics and dark with dark colours.
3. Provide the appropriate support or reinforcement needed to improve the shape of the garment or fabric area.
4. Be used in the appropriate location in a garment or home decorating item.
5. Not alter colour or hand of the fashion fabric. If an appropriate weight cannot be found, it is best to go for lighter than heavier.
6. Appear flat and smooth; no bubbles, wrinkles, or folds when applied.
7. Suit the pattern design and construction situation. Multiple types and weights of interfacing could be used depending on the area and function.

APPENDIX F

QUALITY INTERFACING INDICATORS

STANDARDS OF QUALITY

Compiled by

THE STANDARDS AND PRACTICES COMMITTEE

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INTERFACINGS

- An interfacing is a special type of fabric applied directly to the facing or to the fashion fabric of a garment to give it body and shape.

1. The interfacing complements and reinforces the fashion fabric without overpowering it.
2. Care requirements of the interfacing are compatible with those of the garment fabric.
3. Interfacings have been properly preshrunk.
4. Interfaced seams and darts are treated to reduce bulk.
5. The interfacing does not show through to the right side of the garment.
6. Woven and knit interfacings are on the same grain as the garment areas to be interfaced, unless design or fabric warrant bias.
7. Interfacing is used in any areas requiring shape, body, support, and reinforcement, and where seam impressions may be a problem.
8. Fusible interfacings have been applied with the correct temperature and pressure in order to evenly and permanently bond them to the fashion fabric.
9. Interfacing is caught into the seams or hand tacked to prevent detaching.