## UNIVERSITY OF CAPE COAST

EVALUATION OF THE PERFORMANCE OF SCHOOL UNIFORM FABRICS AND SATISFACTION AMONG SELECTED KINDERGARTENS IN HO MUNICIPALITY

ASHIGBIE SITSOFE ABLA

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## EVALUATION OF THE PERFORMANCE OF SCHOOL UNIFORM

## FABRICS AND SATISFACTION AMONG SELECTED

 KINDERGARTENS IN HO MUNICIPALITYThesis submitted to the Department of Vocational and Technical Education of the Faculty of Science and Technology Education, College of Education Studies, University of Cape Coast, in partial fulfillment of the requirements for the award of Master of Philosophy degree in Home Economics Education

## DECLARATION

## Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature
Date
Name: $\qquad$

## Supervisor's Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

## Principal Supervisor's Signature

 Date $\qquad$Name: $\qquad$

Co-Supervisor's Signature:
Date $\qquad$
Name: $\qquad$


#### Abstract

This study was a descriptive survey which investigated the choice, performance of school uniform fabrics and satisfaction among parents who have children in private kindergartens (PKGs) in Ho Municipality. Simple random sampling method was employed in selecting 236 parents from 14 private kindergartens for the study. Data was collected via questionnaire and observation guide and $99.3 \%$ of the respondents returned completed questionnaires. The instrument yielded a Cronbach Alpha coefficient of 0.879 . Descriptive statistical methods such as frequencies, percentages and means were used to present results. From the results, comfort, durability in appearance and durability in strength were the most perceived intrinsic fabric choice factors among parents. Aesthetics was the highest rated performance attribute among performance attributes. The outstanding reason for parent's satisfaction was ease of care. Also, most uniforms in some schools were affected by yarn slippage, pilling, fading, loss of strength and nonresistance to high temperature. Pre-determining fabric's performance prior to purchase ensures reduction in fabric failure. It is therefore recommended that school authorities and PTA who make fabric choices for Private kindergartens, do performance tests on fabrics prior to purchasing large quantities.


## KEY WORDS

Choice

Fabric

Kindergartens

## Parents

Performance
Satisfaction

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## DEDICATION

To my parents: Reverend W.E. Ashigbie and Mrs. F.A. Ashigbie.

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## LIST OF ACRONYMS

A: Aesthetic
C: Comfort

DA: Durability in Appearance
DS: Durability in strength
EC: Ease of care
GES: Ghana Education Service
KG: Kindergarten
PKG(s): Private Kindergarten (s)
SHS: Senior High School
SPSS: Statistical Package for Social Sciences
SSS: Senior Secondary School

## CHAPTER ONE

## INTRODUCTION

## Background to the Study

Clothing is worn by humans worldwide because it is one of the basic needs of life. The term clothing refers to any wearing apparel or enclosures that cover the body (Picken, 1973; Roach-Higgins \& Eicher, 1992). The history of clothing could be traced as far back as the prehistoric times when clothing was made from natural animal skins and leaves as shown by the ancient cave drawings, statues and the remains of materials used for clothing. Today, though there had been great technological developments in fibre manufacturing or processing, fabric construction and finishing processes, the purposes for which people wore clothing have obviously not changed (Millan \& Mittal, 2017; Qiu \& Hu, 2014; Todorović, Toporišiĉ \& Pavco-Cuden, 2014). People still wear clothing to satisfy their basic needs which are physical, psychological, emotional, social, economic and spiritual (Todorović et al., 2014).
. Clothing the human body seems to be an important activity of everyday life. The importance of school uniforms to the Ghanaian student cannot be over emphasized. The findings of Rathi and Gupta (2017) in the study "Primary school uniforms for girls: to study the preferences and to develop suitable uniforms" showed that parents and teachers believe that school uniforms benefit students greatly because they reduce non-academic distractions, remove clothing stress on students and parents and foster a sense of community. Children derive certain benefits from wearing school uniforms to school. Clothing plays an important role in the learning and development of
children. Children are dressed in order to (i) support their play and learning and (ii) promote their health safety and well-being (Stonehouse, 2010). Purchasing the right clothing in the right fabric for the right activity for children demands careful considerations given to certain factors.

A school uniform should have fundamental features such as absorbency of body perspiration, appearance, attractiveness, pleasing design and colour, feeling of pride and uniqueness in uniform, good fitting and comfort during school hours wearing (Gupta, Mogra \& Jain, 2015) and weight of the uniform. The fabric used to sew uniform is a key feature which contributes to the fundamental features mentioned by Gupta et al. (2015). The quality of fabrics for making school uniforms is very important during selection.

Research shows that before people buy items, predictions are made on how the item will perform (choice factors). This is done in comparison to other available alternatives prior to purchase. They then compare the item's performance to their expectations (choice factors) - a good or higher performance brings them satisfaction while a poor performance brings them dissatisfaction (Kadolph, 2007). Performance of a fabric refers to how a textile product responds when it is exposed to some elements in the environment such as sunlight, dew, humidity and soils that might adversely affect its life span (Koranteng, 2015). Also, the way fabrics react or respond to treatments they are exposed to during use and care such as boiling, washing, ironing, and even storage can be described as its performance (Laitala, Klepp \& Henry, 2018).

## Statement of the Problem

In Ghana, students in the pre- tertiary level put on uniforms to school. Government managed schools and schools co-managed with certain
institutions such as religious bodies have prescribed uniforms common to the group. Variably, privately owned schools have individual uniforms made from different kinds of locally designed or imported fabrics according to the preference of the School Management and Parent Teacher Association (PTA). The choice each school makes identifies and differentiates it from other schools in the community.

Kindergartens serve children from four to six years (Afenya, 1999). Children within this age group experience rapid growth physically, psychologically, socially, and their motor skills continue to develop. These children wear uniforms at least half of the day in school. They learn more by engaging in playful activities which often leaves uniforms dirty resulting in frequent laundering which may contribute to early deterioration such as tearing, yarn slippage, fading, abrasion and pilling. Therefore, it is expected that fabrics chosen for children's school uniforms should possess certain qualities suitable for them and their activities.

Previously in Ghana, some studies conducted centered on school uniforms in the basic public schools. Koranteng (2015) researched on the quality of construction processes and the fit of government supplied uniforms while Danquah (2017) studied on performance characteristics of a suitable fabric for Ghanaian basic school uniforms. Both authors suggested that the quality of fabric and the effect of washing on school uniforms should be studied. Danquah suggested that there should be more research to identify additional fabrics on the market that can be useful for making good quality school uniforms and to also determine their suitability for the purposes for which they are being used.

Varyingly, this research will study samples from private kindergartens. The existence of several brands of uniform fabrics in the Ghanaian market coupled with the propensity of each private school to be different in uniform is likely to drive some schools to go in for sub-standard but appealing fabrics. This study seeks to evaluate the performance of fabrics being used for constructing uniforms and parents' satisfaction among private kindergartens.

## Purpose of Study

The purpose of the study is to evaluate the performance of school uniform fabrics and parents' satisfaction among private kindergartens.

## Objectives of the Study

The objectives of the study are to:

1. identify the intrinsic factors parents perceive as important in the selection of school uniform fabrics;
2. assess parental perception of the performance of the respective school uniform fabrics;
3. assess parents' satisfaction of children's school uniform fabrics.

## Research questions of the study

1. What intrinsic factors do parents perceive as important in the selection of children's school uniform fabrics?
2. What perceptions do parents have regarding the performance of the respective uniform fabrics?
3. Are parents satisfied with the performance of children's school uniform fabrics and why?

## Significance of the Study

The essence of the study is firstly to enhance parent's knowledge on fabrics which help parents to improve criteria ensuring quality selection of suitable fabrics for uniforms for kindergartens. Secondly, it is anticipated that this study will provide parents with information on fabric's performance to enhance their level of understanding to help them adopt the right care measures during use of uniform fabrics. Thirdly, the study will serve as a source of information to help the suppliers and manufacturers of school uniform fabrics to better satisfy consumers. Lastly, the study will contribute to literature since there is limited literature in the area of performance of fabrics used for school uniforms in the country.

## Delimitation

Uniforms may include garments, foot wears and symbols such as pins or badges etc. but this study was limited to garments. Though different types of uniforms are worn on specific days, the focus of this study was on the main uniform usually worn on Mondays. School uniforms are usually designed with two fabrics but this study focused on one, that is, the major fabric in boy's shirt (may also be used in girl's dress). Though fabric performance and satisfaction assessment may include both extrinsic and intrinsic factors, this study covered only intrinsic factors.

Time and financial constraints did not allow the researcher to expand the study to the lower and upper primary pupils and other districts or regions. The work was limited to only some few schools in the Ho municipality.

## Limitations

This study just like any other research work was subjected to some challenges. Dress codes are set by School Management and Parent -Teacher Association and may even supply the fabrics or the uniforms to parents who are obliged to follow the set standards. Hence School Management and Parent Teacher Association would rather be able to provide the needed information on important choice factors.

It was difficult to assess certain attributes such as fabric shrinkage and change in shape of uniform during the qualitative observation employed in this study. Hence findings on these attributes were only based on parents' perceptive assessment.

Also, it was impossible to make generalization to all uniforms used by private schools in the Municipality because each private school had a different uniform made in a different fabric.

## Definition of Terms

Bleeding: is the loss of colour of a fabric during cleaning and washing.
Choice Factors: factors which influenced parents purchase decision of school uniform fabrics.

Comfort: it describes how textile products interact with the human body and comprises physical, physiological and psychological factors such as fibre material, yarn structure, fabric structure, transmission characteristics (air, heat and moisture).

Durability of appearance: it describes the ability of a fabric or clothing to still look new after several uses.

Durability of strength: it refers to a fabric's ability to remain strong during use and care.

Ease of care: Ease of care refers to ease of cleaning soiled items to return them to a clean state or near-to-new condition.

Performance: the reaction of a fabric when it comes into contact with chemicals, surfaces, ultraviolet rays and substances in the environment during use and care.

Satisfaction: The fulfillment felt by consumers (parents) when the performance of purchased items meet predictions made prior to purchase or expectations held for the purchased item.

## Organization of the Study Report

This study report is in five chapters. Chapter one is introduction which describes background of the study, statement of the problem, objectives of the study, significance to the study, limitations, definition of terms, and organization of the report.

Chapter two reviewed literature relevant to the study which includes the conceptual framework of the study; clothing as a uniform, history of school uniform, factors that influence choice of clothing, selecting fabrics for children's clothing (school uniform), performance qualities (serviceability properties) of textile fabrics, consumer's satisfaction with clothing.

The methodology of the study is discussed in chapter three. It comprises research design, population, sampling, samples, instruments for data collection, data collection process and data analysis procedure.

Findings and observations are discussed in chapter four. Results were presented and discussed according to the objectives of the study. The fifth chapter contains summary of the study.

## Chapter Summary

The problem under study is the performance of school uniform fabrics and parental satisfaction among private kindergartens. Only fabrics used for constructing school uniforms for KG pupils in private kindergartens had been studied. This study sought to evaluate parents' perceptions on the intrinsic factors considered important during choice of fabrics, fabrics performance and parents' satisfaction of the respective fabrics among private kindergartens. The study is important because it will improve criteria of fabric selection, enhance parental knowledge on fabric care measures, and also add to literature.

## CHAPTER TWO

## LITERATURE REVIEW

## Overview

This study assessed the choice, performance of fabrics and parents' acceptability of the performance of school uniform fabrics. In this chapter, literature related to the study is reviewed on the following topics:

1. Conceptual Basis for the Study:
a. Concept of evaluative criteria
b. Concept of clothing quality
c. Conceptual framework for the study
2. Empirical Review for the Study:
a. Clothing as a School Uniform:

History of school uniform
Classification of uniforms

Importance of school uniforms
b. Factors Which Influence Consumer's Clothing Choice:

Physical factors
Physiological factors
Sociological factors
Economic factors
Cultural factors
Psychological factors
Environmental factors
c. Selecting Fabrics for Children's Clothing:

Fabrics suitable for school uniforms
d. Fabric Quality and Performance
e. Fabric Performance Attributes:

Aesthetics

Durability
Comfort
Care properties
f. Consumers Satisfaction with Fabric Performance

## Conceptual Basis for the Study

The conceptual framework of this study was based and developed on the concepts of evaluative criteria and the clothing quality. These concepts were considered relevant and related to this study as it provides a clear picture and meaning to the relatedness and processes involved in consumers' choice of clothing, performance of clothing and satisfaction of consumers.

## Concept of evaluative criteria

The variety of textile products on the market requires that consumers choose by making decisions. The concept of evaluation is important in choosing products among alternatives. An evaluative criterion refers to the particular dimensions or attributes that are used in judging the choice alternatives (Engel et al. as cited by Jeong \& Kyu-Hye, 2014). Consumers use evaluative criteria as standards to make decisions (Forney, Park \& Brandon, 2005). Examples of evaluative criteria examined found in literature include price, style, colour, quality, size/fit, fabric, coordination with other clothing, comfort, pattern, pleasantness to others, appropriateness, brand name and country of origin (Eckman, Damhorst \& Kadolph, 1990; Hsu \& Burns, 2002).

Measures of evaluative criteria revealed by literature include intrinsic and extrinsic factors (Eckman et al., 1990). Per this criteria, intrinsic factors cover product composition, performance and quality while extrinsic qualities cover product attributes which are not component parts of the physical product. Intrinsic attributes have been further classified into aesthetic criteria, usefulness criteria, performance and quality criteria while extrinsic attributes are classified into economics and social (Swinker \& Hines, 2006; Lee \& Park, 2006a). Intrinsic attributes cannot be changed or manipulated unless the product's physical characteristics are successfully changed (Ekman et al., 1990). A product's composition includes fabric technique, style, colour, texture while performance qualities include durability and care measures. Lee and Park explained social extrinsic components such as brand name, country of origin, model, and advertisement are product attributes that can be influenced by social judgments while economic extrinsic components such as price and discount are connected to economic benefits.

Abraham (1992) in a study "Consumers' conceptualization of apparel attributes and apparel quality" also identified physical appearance, physical performance, extrinsic and expressive attributes as evaluative criteria. Comparatively, Abraham's physical appearance and performance attributes refer to the intrinsic attributes as stated by Eckman, et al. (1990); Swinker and Hines (2006); Lee and Park (2006a). Abraham's expressive attributes has to do with affective attributes such as likes or dislikes.

## Clothing quality concept

Quality can be defined as a judgment of performance excellence (Oliver, 1997) where by consumers judge the ability of a product or service to
performance features. Physical features have formal, material, construction and finishing aspects. The material aspect includes fibre, yarns, fabrics, and finishes and this study focused on fabrics.

A product's physical features determine product's performance. Physical features refer to a product's tangible form and composition which in terms of garments, include materials, construction and finishes (Brown \& Rice as cited by Retief \& De Klerk, 2003). According to Retief and De Klerk, Brown and Rice classified performance features in to aesthetics and functional as indicated in Figure 1. Aesthetic performance features refer to sensorial attractiveness or beauty of the product, emotional (feelings evoked by using the product) and symbolic (messages conveyed by the product) qualities of the product. Aesthetic features of this study included the sensory aspects "feel" and "see" of the clothing quality concept. Functional performance features describe the products utility and durability aspects. These include durability, comfort, maintenance and end use serviceability as in Figure 1 of this study. These utility features are part of the focus of this study.

## Conceptual framework for the study

The conceptual framework (See Figure 2) for this study was adapted from the concept of clothing quality (Fiore \& Damhorst; Rice \& Brown cited by Retief \& de Klerk, 2003). Consumers often have clothing needs they want to meet, for example, fabric for a new set of school uniform. When the need is identified, a decision is made to purchase the needed item (fabric) based on consideration given to intrinsic choice factors. These factors may include aesthetics, durability, comfort, appearance retention, and care for the fabric.

When the important factors have been identified, consumers purchase the needed item (fabric) and envisage that fabric will perform as such. Consumers hold on to these performance expectations until they begin using and caring for the items (fabrics). Bello (2019) indicated that these expectations cover consumer's cognitive, emotional, affective, physical and social domains. This suggests that consumers may use all these domains in evaluating the fabric they bought during use and care. During use and care, consumers may now discover the actual qualities of the fabric. In case their expectations (needs) are met, consumers become satisfied. If expectations are not met, consumers become dissatisfied (See Figure 2).

## Intrinsic Fabric Choice Factors considered <br> Aesthetics, durability, comfort, care maintenance

## Choice

Perceived fabric performance during use
Aesthetics, Durability, Comfort, Care and Maintenance

Figure 2: School uniform fabric's choice, performance evaluation and satisfaction

Source: Adapted from Fiore and Damhorst; Rice and Brown (38-39) as cited in Retief and De Klerk, (2003).

A consumer uses a product to an extent to meet goals effectively, efficiently and with satisfaction (Beven et al. as cited by Mujinga, Eloff \& Kroeze, 2018). While consumers' satisfaction refers to consumers' perception of (experience with) a product in relation to their expectation, consumers' perception of a product's quality is a predictor of consumer satisfaction and perceived quality is regarded as consumer's judgment of the product's overall excellence satisfaction (Bello, 2019; Shiffman \& Wisenblit as cited by Bello, 2019; Vasić, Kilibarda \& Kaurin, 2019; Zeithaml, 1988).

## Empirical Review for the Study

The empirical review for this study covered clothing as a uniform, factors which influence consumer's choice of clothing, selecting fabrics for children's clothing, fabric quality and performance and consumer's satisfaction with fabric performance. These areas were considered important and related to this study regarding consumers' choice of clothing, performance of clothing and satisfaction of consumers.

## Clothing as a School Uniform

Literally, the word uniform is derived from the Latin words "una" (one) and "forma" (form) (Pfanner, 2004; Mupfumira, 2017; Tofan, 2017). A uniform generally means clothing that distinguishes a certain group of people such as school, service, firm or profession and designed in a particular fabric with a particular design, colour or/ and insignia, that are established by the regulations of a group (Tofan, 2017). Todorović et al. (2014) added that a uniform is the most obvious external feature that has its service in determining relationship between personal and social reality, and determines the affiliations towards certain social and professional groups. Uniforms are used
worldwide. The use of uniform can be seen among nations, companies, firms, services, institutions, associations, groups and professions such as the military, health workers, bankers, security personnel, sports and athletics and schools (Todorović et al., 2014).

## History of school uniform

The genesis of wearing school uniform could be linked with secular and religious influences over the earliest universities in Germany, France and England. Though there is no defined history about how school uniforms came into existence, the earliest documented proof of institutionalized use of a standardized academic dress dates back to 1222 when the then Archbishop of Canterbury, Stephen Langton, ordered the wearing of the Cappa Clausa (Brunsma, 2004). It was also believed that during the 16th century in the United Kingdom, an orphanage institution named the Christ Hospital School in London was the first school to use a school uniform in 1552 (Scott, 2014). The use of uniform has spread into many countries since then. Anecdotal evidence proves that Ghanaians might have presumably learned to put on school uniforms from their colonial masters, the "British", who equally introduced them to formal education.

## Classification of uniforms

Uniforms have been classified as formal and quasi-formal by Joseph and Alex cited in Mupfumira (2017). They explained that formal uniform is based on legal sanctions, that is, they are protected by laws and also help to legitimize laws or regulations in organizations or institutions, for example, military or police clothing. On the other hand, quasi-formal uniforms arise informally and may be regulated by conventions or standardized dress codes.

These uniforms are used by bureaucratic organizations. Examples are classic suits and tie or skirt suit. Both types of uniforms serve almost the same purposes. However, the authors added that quasi-formal uniforms require a slightly lesser degree of conformity. School uniforms may be classified as quasi-formal uniforms because they are guided by policies or dress codes adopted by the schools.

## Importance of school uniforms

School uniforms are worn for formal purposes in educational institutions world-wide. Rathi and Gupta (2017) defined school uniform as an outfit or a set of standardized clothes worn primarily in an educational institution. The term 'school uniform' is a sub-set of clothing and its importance can be seen in the multiple roles it performs just like clothing such as protection of the body from elements, beautification of the body, uniformity, identification, belongingness, social status, modesty and decency and communication (Kaiser, 1985; Bohn, 2004; Anyakoha, 2008; Quist cited by Dzramedo, 2009; Gupta, 2011; Kantheti, Sharada \& Anitha, 2013; Todorović et al., 2014; Asare et al., 2016). School uniform is a big part of the student's life and a good memory of the precious school years (Gupta et al., 2015). Also, school uniform worn by all students of a particular school becomes an emblem to the school because the school and its members are known by that peculiar uniform. For this reason, a school uniform can be described as a product produced to meet physical and socio-cultural needs of wearers. Eicher et al. (2000) stated that dress is produced through the process of creativity and technology to modify or supplement the appearance of individuals to meet physical needs as well as socio-cultural expectations.

## Factors Which Influence Consumer's Clothing Choice

People consider certain factors when making clothing choices. Eicher
et al. (2000); Nwadi and Anyakoha (2011); Kantheti et al. (2013); Aji (2015);
Asare et al. (2016), identified psychological, sociological, cultural, environmental and physiological factors which influence people's choice of clothing. Throughout childhood, parents are continuously dressing their children to conform to socio-economic, gender, religious and other role expectations (Damhorst, Miller \& Michelman, 2005).

## Physical factors

Considerations are given to physical factors of clothing during selection. Physical factors refer to the inherent constituents of the fabric. Any change in these attributes is tantamount to change in physical appearance and physical performance. These may include beauty of the clothing or fabric, construction of fabric, finishing and finishes applied to the fabric. O'Neal in Abraham (1992) classified features of clothing items as physical. These physical factors or attributes also refer to intrinsic cues (Olson and Jacoby as cited by Abraham, 1992). Wrinkle factor, weave type, fading, fabric designs, fabric's roughness or smoothness and garment finishing were some physical factors identified by Dogbey, Kuma - Kpobee, Dedume, and Osei (2015).

## Physiological factors

Physiological factors may include age of wearer, the activity and physiological response of the body. Clothing needs of people are different depending on their age. Clothing suitable for pre-school child may not be suitable for a secondary school child. Powel and Gilbert (2009) stated that children wear clothing which reveals their position in the age order. The body
of the wearer responds to the clothing worn at the same time the climatic conditions of the environment in which the clothing is worn. According to Shittu (2011), the weather condition of a particular locality naturally affects the nature of clothing because cold and hot climatic conditions are prevailing in the world. Therefore, clothing ought to be planned to suit children's needs, activities and climatic conditions.

## Sociological factors

People wear clothing to establish their social identity. According to Roach-Higgins and Eicher (1992), sociological factors include political, religious, and economic and kinship activities and society's moral and standard for dress. Riungu (2009) and Kitheka (2014) mentioned that age, educational level, social class, income and price of clothing may have influence on people's choices of clothing. A person may choose clothing depending on his /her social engagement as well as status in life. Clothing choice may be based on the approval of family, friends, school, and type of work and also the dictates of one's religion. Simpson (1989) studied on "Influences, parental selection factors, and parents' feelings on preschool children's clothing" and found that mothers were the most influential in selecting clothing for the preschool child. Harper, Dewar and Diack (2003) in a study "the purchase of children's clothing - who has the upper hand?" and concluded that parents are most influential in deciding children's clothes which were purchased.

Though clothing limits are set by our societies, individuals choose clothing they believe is suitable during social activities or in social groups. Kantheti et al. (2013) mentioned that "clothing creates its own room within
a room and its own climate within the larger climate of the wearer's surroundings" For the growing child, conformity in dressing becomes increasingly important and he/she feels belonging and socially comfortable being in similar apparel like peers in pre-school, parents, older siblings and admired adults around them (Ryan, 1966; Damhorst et al., 2005).

## Economic factors

Availability of money is an important factor considered during clothing selection. Consumers may be influenced by cost/price during selection of clothing (Kitheka, 2014). Others may be influenced by their income level (Riungu, 2009). Consumers with little experience and limited knowledge on textile goods may be convinced to buy fabric because of low or high price. Some consumers may take highly priced fabrics for good quality fabrics.

## Cultural factors

Clothing becomes an essential element of identity which reflects the culture and the society in which we live (Asare et al., 2016). People choose clothing according to the dictates of their culture. In some cultures, a person's sex determines the clothing they put on. For example, according to the dictates of some cultures, males and females do not put on the same style of uniforms to school. In Ghana, Muslim girls cover their heads with their head dresses hijab to school while the boys do not. Though people choose their individual clothing, they also want to meet society's expectation or be socially and culturally acceptable.

## Psychological factors

Psychological factors play key role in the choice of clothing. Clothes are related to our self-concept and help us to develop, maintain and modify our
notions of who we are (Kaiser, 1985). A person's self-concept relates to his/her feeling of self- acceptance and self-respect (Storm cited by Riungu, 2009). Kaiser stated that psychological factors provide one of the most visual and easily manipulated means of presentation of an individual. The selfconcept involves a person's perception of his or her abilities, weakness, personal character, personal worth, appearance and attractiveness in relation to himself and other people. When people choose clothing, they prefer clothing which is acceptable (Banerjee \& Sarwat, 2014). People want to wear clothing which can make them feel self-worth, high self-esteem, confident and psychologically comfortable.

## Environmental factors

Environmental factors are crucial in choosing clothes to wear. This depends on one's geographical location and weather conditions during various seasonal and climatic changes experienced at a particular place. People chose clothes which will keep them warm in cold weather conditions and clothes that will keep them cool in warm climates. Clothing is therefore worn to protect the human naked body from environmental hazards and dangers. Environmental dangers include sunlight, extreme weather conditions (heat or cold and precipitations), insects, noxious chemicals, weapons, abrasive substances and other hazards (Kaiser, 1990). Prevailing weather condition in some parts of the world required selection of certain colours for clothing. Shittu (2011) mentioned that certain colours attract heat and should be considered when selecting clothing for environmental condition.

Though all these factors may influence clothing selection, they may also serve as standards against which the performance of the purchased clothing is measured.

## Selecting Fabrics for Children's Clothing

The end use of fabrics determines which particular one to buy. Choosing fabrics for children's clothing is among major considerations prior to garment construction. In selecting fabrics for children's clothing, consideration is given to fabric's quality. Quality fabric refers to the colour, texture, arrangement of fibre to give the desired appearance and hand feel and its ability to go through care process without any sign of deterioration (Shittu, 2011).

Gawne and Oerke (1975); Hassan and Leighs (2016); Rathi and Gupta (2017); and Abu-Rous, Dabolina and Lapkovska (2018) stated that parents consider aesthetics, comfort and durability during selection of fabrics for children's clothing or school uniform or clothing. Kantheti et al. (2013) indicated durability as a guideline for selecting school uniforms. According to Norsaadah (2011) and Kantheti et al. (2013) explained that there is the need to give special attention to factors such as safety, comfort, durability and freedom of movement because children need protection from risks associated with outdoor activities and while performing activities faster.

A garment's attraction depends partly on its fabric design. Dogbey et al. (2015) mentioned that wrinkle factor is a very important consideration during apparel selection for children. Fabrics used to make children's clothing should bounce back after squeezing. This will enable children to fold their garments during play and still have their garments free from wrinkles.

According to Afroza (2018) and Dogbey et al. (2015), the weave of a fabric should be importantly considered when making apparel for children in that it should not be too loose or too tight. An indication of light between the fibres upon a close examination of the weave shows that the fabric is loosely woven. During play, fabric may come in to contact with certain objects which could easily pull-out loose yarns deforming the fabric's structure and affecting the fabric's appearance and durability. Tightly woven fabrics on the other hand will not allow fibres to ease or shift causing self-destruction among the fibres due to friction and will affect durability (Dogbey et al., 2015).

In selecting fabrics for children's apparel, Jones (as cited in Dogbey et al., 2015) opined that generally parents consider design printed in fabric, the quality of print, cost of fabric, ease of care and fitness to a particular occasion.

## Fabrics suitable for children's school uniforms

School uniforms may be made from fabrics made from cotton, polyester, nylon, wool, acrylic and cotton - polyester blends. Though cotton fabrics are widely used for children's clothing because they are easy to care for and comfortable to wear, they may shrink and crease badly if not treated with permanent fabric finishes such as shrinkage controlled or blended with other fibres (Sew-lutions Guidelines, 2008). Polyester may dry faster, control creases or wrinkles, durable but not very absorbent (Abu-Rous et al., 2018). Kalaoglu and Meric (2005) and Seif (2014) added that polyester fabrics being made of filament yarns usually have slippery surface making them more prone to yarn slippage. Wool is warm to wear but may irritate delicate skins and requires some special care (Dogbey et al., 2015). Acrylic fibres such as orlon and acrilan are warm, machine washable, require no special care but may pill.

According to Hollen and Kundel (1972); Ashish, Rashmi, Rishka, and Rupika (2011), cotton and synthetic blends have increased and are durable in strength, wrinkle resistant and easy to care for. The commonly used woven fabric blend is $35 \%$ cotton and $65 \%$ polyester while a knitted fabric blend of $50 \%$ polyester and $50 \%$ cotton is mostly used. Polyester-cotton blends exhibit the qualities of abrasion resistance, permanent press finish, wash ability, absorbency, comfort, durability and ease of care.

## Fabric Quality and Performance

Quality can be seen from the producer's point of view as well as the consumer's point of view. According to Zeitaml (1988) and Cooklin (2006), quality is the superiority or excellence of a product such that it is free of deficiencies and has the characteristics to satisfy the stated or implied needs. Juran (1992) and Cooklin described the reason for which people purchase clothing with the phrases - "fitness for use" or "fitness of purpose". Chuter cited by Cooklin (2006) defines fitness of purpose as quality of design, quality of conformance and quality of delivery. However, Harvey and Green (1993) argue that the definition of term "fitness for purpose" is only limited to the specifications of the manufacturer but it should also cover the consumer's specifications for the products being purchased. Koranteng (2015) added that fitness of use goes with level of acceptance based on customer's values from time to time.

Textile fabrics are the raw materials for constructing most garments and may be described as quality if they meet all standards and specification by the producer and also all requirements expected by consumers in terms of use and care. The industry considers quality of textile and clothing products based
on quality and standard of fibres, yarns, fabric construction, colour fastness, designs and the final finished garments (Shittu, 2011; Koranteng, 2015). Also, a designer will often specify a fashion fabric with performance qualities such as appearance, texture, drape, hand, print, colour and other aesthetic qualities
related to the design of the product (Kadolph, 2007).
Fabrics used for clothing should be of good quality. Fabrics for school uniforms should be chosen because they have performance qualities related to the design. Fabric quality describes the degree to which a fabric possesses desirable physical or intangible attributes. A quality fabric is a serviceable one and a serviceable fabric is durable, comfortable to wear, retains its appearance after being handled, and does not lose its aesthetic qualities during or after use and care. Castelo and Cabral (2017) studied on the factors that consumers consider when buying products and found out that consumers of garment considered quality as an important factor.

## Fabric Performance Attributes

Hollen, Sadler, Lanford and Kadolph (2007) defined fabric to be a planer substance constructed from solutions, fibres, yarns and fabrics, or any combination of these. They further explained that fibre, the basic unit of fabric, contributes to the aesthetic appearance, durability, comfort, appearance retention, care of the fabrics as well as the cost of the fabric. These are the qualities with which consumers measure the performance of fabrics bought for clothing.

## Aesthetics

In selecting clothing, most people seem to depend on aesthetic appearance of the fabric. Aesthetics seems to be the most subjective measure of quality which describes how a textile is perceived by a person's physical senses of sight, sound and touch. Kadolph (2007) describes aesthetics as the satisfaction of customers' needs in terms of appearance, fashion preferences, fit, and styling. Korateng (2015) asserted that a good fit is the way a garment conforms to the body of the wearer such that the wearer looks smart in the garment. Hung (2000); Matilla and Wirtz (2001) wrote that the satisfaction of the senses fills an important role when consumers select apparel products. Aesthetics cover aspects of textile products such as hand, weight, texture, colour and fashion (Kadolph, 2007; Mothersill, 2008). Aesthetics concerns appropriateness of the appearance of the school uniform fabrics as well as the wearer as judged by the senses.

## Durability

Durability refers to how long a textile fabric will be suitable for its end use. People who purchase and use a textile good will determine when it is no longer suitable for its original end use. Durability in appearance describes the ability of a fabric or clothing to still look new after several uses and care while durability in strength refers to a fabric's ability to remain strong during use and care (Kadolph, 2007).

Durability's physical measures include qualities such as colour fastness, abrasion resistance and less favourable measures such as fit and fashion. It also covers measures of strength, structural integrity, resistance to snagging and deformation (Kadolph, 2007).

Colour fastness refers to the fabric's ability to resist fading or running bleeding when exposed to elements such as sunlight, crocking or abrasion, washing either by hand or machine, perspiration, bleach, gas fumes, phenolic acid. Fabrics which are not colour fast may bleed resulting in fading. When fabrics fade, they change in colour, thus causing change in the original appearance of the fabric (Kadolph, 2007).

One of the important factors a quality fabric possesses is the ability to recover from induced wrinkles and creases. Wrinkles are fabric deformations based on its viscoelastic properties (Can, Akaydin, Turhan \& Ay, 2009). According to these authors, wrinkles can be desirable or undesirable. Desirable wrinkles are for the smartness of clothes while undesirable ones occur during wear. Undesirable creases can affect the appearance of fabrics. Can et al. (2009) indicated that fibre, yarn and fabric characteristics contribute to the formation of wrinkles. Can et al. (2009) mentioned that wool and cultivated silk unlike cotton, linen and viscose have good resistance to creasing. Cotton fabrics are treated with non-formaldehyde compounds to resist wrinkling. This treatment improves cotton fabrics in terms of comfort, ease of maintenance, dimensional stability, pilling performance and quick drying. Wrinkling in Knitted fabrics has a higher wrinkle resistance than woven fabrics. The thicker the fabric, the lesser wrinkles form in them. Also, polyester is wrinkle resistant.

Abrasion resistance is fabric's ability to resist erosion as a result of rubbing against another material. It occurs when fibres are held under tension in the fabric and transverse cracks appear on the fabric's surface. It can occur in both dry and wet state of a fabric during wear and agitation in cleaning.

Abrasion with pressure may distort the fabric, cause fibres or yarns to be pulled to the fabric's surface, or remove fibre ends from the fabric's surface affecting its appearance (Kadolph, 2007). Pilling is usually caused by abrasion. Pilling is described as a fabric surface effect caused by wear and tear as fibres migrate to yarn surface resulting in the emergence of fuse on fabric's surface (Fan, Yu \& Hunter, 2004). Pilling in fabrics (especially spun yarn fabrics) occurs when the fibre ends work to the fabric's surface, become abraded, break off and entangle with other fibres that are still attached to the fabric. Though the pills break off, new one's form rarely making the surface of the fabric improved in any way (Kadolph, 2007). Simply put, pilling occurs through four stages: fuzz formation, entanglement, and growth and wear off (Fan et al., 2004). Pilling is a fabric surface effect caused by wear and tear which considerably spoils the original appearance of the fabric (Fan et al., 2004). Pilling always compromises fabric's aesthetic appearance as well as strength and according to these authors, can create unsightly appearance during wear.

Consumers may buy the same product for different reasons and may have different expectations for the products. Thus, the same products will have different periods of deterioration or life span depending on how it is used and cared for. School uniforms are garments worn five days in a week for at least half a day and require frequent washing which may affect their longevity. Kantheti et al. (2013) and Rathi and Gupta (2017) in their study found that school uniforms were durable from 1 year to 2 and attributed it to low quality of fabrics. In addition, several other factors affect the longevity of children's garment apart from low quality of fabric. Kantheti et al. (2013) and Laitala et
al. (2018) found that problems associated with style and fit of garments, fashion change, environmental conditions, activities of the wearer, children outgrowing clothing, high frequency of clothing use and care, dissatisfaction with clothing's performance could equally contribute to short life span of

## clothing.

## Comfort properties

Comfort is a desirable property required of every textile fabric. It describes how textile products interact with the human body and comprises physical, physiological and psychological factors. Comfort is the result of the interrelationship between fibre material, yarn structure, fabric structure, transmission characteristics (air, heat and moisture) and tactile aspects of textile materials on thermo-physiological and neurophysiological processes (Apurba \& Alagirusamy, 2010). Physiological and sensorial comfort is very important in fabrics or clothes that touch the skin and especially for children.

An important factor related to physiological comfort is fabric hand. Fabric's softness and smoothness are determinant of fabric's sensorial comfort. Softness is an essential requirement of materials used for clothing which will have direct contact with the skin and for children's comfort (Kadolph, 2007; Song cited by Abu-Rous et al., 2018). Another factor which contributes to the hand of a fabric is fabric's smoothness. It is important in measuring fabric feel or hand. Consumers of children's clothing preferred fabrics that are smooth and do not irritate children's skin (Limeneh, Ayele, Tesfaye, Liyew \& Tesema, 2020; Afroza, 2018).

Another attribute essential to physiological comfort is the ability of the textile material to remove moisture generated by perspiration away from the
skin surface, thus supporting the body cooling mechanism. A textile product is considered comfortable if the wearer wears it without thinking about them, complaining about them or without a feeling of discomfort. However, in a study, Gupta et al. (2017) found that children complained of discomfort in uniform during different physical activities because the absorbing capacity of the cotton - polyester blends is very low. Comfort is a very important requirement when selecting fabrics for children's school uniforms. Wear comfort has been listed as the most important property of clothing demanded by users and consumers (Song, 2011). Feeling cool or warm in a garment may depend on certain fabric properties such as air/water/vapour permeability, water absorption, and thermal resistance. These are influenced by fabric structure differences such as weave, fibre/yarn type and size, fabric pores (Limeneh et al., 2020). Polyester or other synthetics unlike cotton, $100 \%$ polyester is not water/vapour permeable, have low water or body moisture absorption, retain body heat and are not cool to wear (Demeo, 1996; Özdemir, 2017).

Fabric's weight is another attribute which contributes to wear comfort. May and Koester (1991) and Dogbey et al. (2015) asserted that for comfort requirements, children need light weight fabrics and not heavy bulky fabrics for their clothing.

## Care properties

Pupils are to look presentable at all times in school and out of school. To ensure this, pupils need school uniforms that are functional, aesthetically pleasing and easy to care for. Care maintenance may include laundry and storage. Kadolph (2007) described care as how a product responds to
recommended cleaning procedure(s) aimed at returning a soiled item to a clean state or near-to-new condition. Care, according to Kadolph, includes the effect of cleaning on fabric's colour such as bleeding, fading and migration; other problems such as pilling, snagging, fabric distortion and yarn slippage may occur during care. Fabrics which possess qualities such as colour fastness, easy removal of soil/stain, may be easy to care for. School uniform fabrics should be easy to care for and colour fast. However, per the study of Rathi and Gupta (2017), most mothers expressed that their children's uniforms faded out easily.

Since all fabrics are made from different fibres, yarns and finishing processes, they will react in different ways to chemicals and elements during laundry. For example, Polyester fabrics are resistant to stain while stains are easily removed from cotton fabrics but oily stains/ soils bond more firmly to synthetics and fabrics with permanent or durable press finishes or wrinkle-free fabrics than untreated ones (Smith, 2004; Kumari, Neethu, Alekya, Singh \& Sai, 2017). It is therefore important that the type and quantity of detergent/soap, type and quantity of water, the process of washing, the method and temperature of drying are observed. Appropriate stain removers ought to be used in the right quantities in treating stains such that the stain is removed without destroying the fabric.

Literature also revealed that polyethylene terephthalate (PET) which are used in textile fabrics as thermoplastic may change shape after the application of heat (Kumari et al., 2017). Polyester has high melting point $\left(260^{\circ} \mathrm{C}\right)$ hence sensitive to high temperatures and a moderate temperature of
$120^{\circ} \mathrm{C}$ to $160^{\circ} \mathrm{C}$ should be used to iron heat sensitive fabrics such as polyester (Camlibel, 2018; Mupfumira \& Jiga, 2013). For cotton fabrics, Ashraf (2014) indicated that cotton decomposes after prolonged exposure to temperatures of $150^{\circ} \mathrm{C}$ or over.

The ability of a fabric to dry quickly when wet with sweat or water depends on the moisture content of its fibre, the drying temperature, the relative humidity and the velocity of the air in contact with the fibre (Hassan \& Leighs, 2016). When uniform is washed and squeezed, the remaining water in a fabric is determined by the thickness, structure (size and shape of pores of the fabric) and the chemical interaction between water molecules and fabric's surface (Hassan \& Leighs, 2016). The authors added that fabrics are described as hydrophilic or hydrophobic and the more a fabric is hydrophilic the more it absorbs water and takes longer to dry vice versa.

## Consumer's Satisfaction with Fabric Performance

Consumers always have expectations for the products they purchase. These expectations may be based on the cost, durability, comfort, fashion, end use and perceptions of other people (Kadolph, 2007). The author further explained that consumers build their performance expectations from the experiences they had using similar products, recommendations from friends and families, assumptions regarding trade/brand names of products, fibre content, fabric type and colour. The Ghanaian market is flooded with numerous brands of fabric comprising both local and foreign. However, this does not rule out the absence of cheap and low-quality fabrics (Quartey, 2006). Consumers may have limited knowledge, distorted facts and biased perspectives about textile products before purchasing or vice versa.

Consumer's satisfaction or dissatisfaction with a product is usually noticed during use of the product (Abraham, 1992; Mothibi, 2007). Consumer satisfaction or dissatisfaction may be described as the result of performance evaluation of a product. It is expected that a good or higher performance brings parents satisfaction as stated by Kadolph.

Juran (1992) pointed out that the reason why consumers buy a product is satisfaction with product features. Low quality fabrics may perform poorly and result in dissatisfaction among consumers. When quality factors are not duly considered before purchase, consumers may become aware of the fabrics' failures only during use and care and be dissatisfied. However, if consumers do their homework well, they may purchase good quality fabric which may meet their expected needs and bring them satisfaction.

## Summary of the Literature Review

Available literature reviewed above have sufficiently established the factors considered for choosing specific fabrics for children's school uniforms, fabric performance and factors that inform consumer satisfaction/ dissatisfaction. School uniforms are important because they play the role of giving special identification to students and the schools they belong. School uniforms are important because they may be worn generally for social, academic and economic purposes (Bodine, 2003).

Choosing the right fabrics for school uniforms involves consideration of several important factors which may serve as measures for assessing performance and satisfaction. Consumers use intrinsic evaluative criteria to judge clothing quality and performance throughout purchase and ownership of items bought. In selecting, evaluating performance and satisfaction of
children's school uniform fabrics, comfort, durability, aesthetics, appearance retention, and ease of care are important attributes to consider. When consumer's needs are met, they are satisfied but if not, they are dissatisfied.

## CHAPTER THREE

## RESEARCH METHODS

## Overview

The problem of study is the performance of school uniform fabrics and satisfaction among kindergartens in the Ho Municipality. The study seeks to solicit information on the intrinsic factors which influence parental choice of children's school uniform fabrics, performance of respective school uniform fabrics, and parental satisfaction with children's school uniform fabrics.

This chapter describes the procedures, methods and techniques that were employed in conducting the study. These include research design employed, population, and sample and sampling procedures, instrument for data collection, data collection procedures and the means of analysis of data.

## Research Design

The study design represents the researcher's plan to carry out the study. It includes all the methods and procedures required to boost the completion of the research analysis Dawson (2002, p. 14) argues that the research approach is the theory or the overall rules that guide research. It can also be described as "the overall approach to studying a subject which involves issues that need to be considered, such as restrictions, dilemmas which ethical choices within your research" (Dawson, 2002, p. 14). Research design is also classified by researchers into two different categories, namely quantitative and qualitative research designs. It can be remembered that the third perspective on how research should be carried out in recent times has acquired a great deal on popularity among social scientists. This research approach, which incorporates the two orthodox views of the research methods, is regarded as a mixed form.

The mixed approach arose as a result of the ongoing debate among scholars as to which research technique is most convenient and effective for the conduct of research. Jick (1979) claims that the aim of the coming into being of a mixed system was to act as a third force to the current methodologies used in the organization of study. Creswell (2012, p. 22) stated that the mixed approach uses both qualitative and quantitative methods in the collection and analysis of data which provides a superior advantage in the research sample.

According to Blaxter, Hughes and Tight (2006) qualitative analysis is concerned with gathering and evaluating information in as many ways as possible, mostly non-numeric. Also, Shank (2002) adds that qualitative researchers analyze objects in their natural contexts, seeking to make sense of, or explain, phenomena in terms of quality research method. Qualitative analysis, by definition, aims to concentrate on examining, in as much depth as possible, smaller figures of illustration meant to reflect on the 'deep' rather than the 'breadth' of phenomena. Creswell (2009, p. 1) states that qualitative analysis is "a way of investigating and recognizing the significance that persons or organizations assign to a social or human problem." Therefore, the description of qualitative study suggests that the use of analysis and any of the guidelines laid down is used to gather evidence in order to explain reasonably the factors behind an actual phenomenon.

Despite the advantages that can be gained by the qualitative analysis method, there are certain problems that come with it. For Osuala (2007), the qualitative approach takes too much time and effort to gather and interpret results. Osuala added that a significant amount of time investment is needed to
systematically and comprehensively explore the relationships, reactions and behaviors of the sample in the study environment. Silverman (2010) also claims that this approach frequently omits conceptual sensitivities and concentrates only on impressions and interpretations, thereby not painting in whole.

Quantitative study design on the other hand, is the sort that relies heavily on quantity or numerical calculation. This method of study takes on the name qualitative because it tries to explain the social environment by using statistics (Mustafa, 2010). Mustafa continued that survey method is employed in a quantitative study and it involves gathering information by administering the same collection of questions to all. Creswell (2012, p. 13) indicated that quantitative research design requires the setting of objectives, hypothesis and carefully designing a research model for collecting and analyzing data as well as the occurrence of errors and biasness on the part of the researcher among others. These may pose difficulties in conducting a quantitative study. However, quantitative research approach is more structural and enables information to be collected from relatively larger number of respondents as compared to qualitative data gathering (Ben-Eliyahu, 2014).

Both the survey and observation sought to explore a real-life contextual understanding, multi-level perspectives using quantitative and qualitative data gathering and analysis techniques for this study. The mixed method procedures employed in this study are quantitative data for survey and qualitative data for observation. Mixing occurred during data collection and analysis of data.

Ho shares boundaries with Republic of Togo on the East, Ho West district on the West, Hohoe Municipality on the North and Agortime - Ziope District on the South. The climate of the area is marked with high temperature throughout the year. It has a Mean monthly temperature range from $22^{\circ} \mathrm{C}$ to $32^{\circ} \mathrm{C}$ and annual temperature ranges from $16.5^{\circ} \mathrm{C}$ to $37.8^{\circ} \mathrm{C}$. Ho is a tropical region which experiences two extreme seasons known as rainy or wet and dry or harmattan seasons. The rain falls from March to July and then from September to November and its highest rainfall is recorded in September and October. Also, Ho is marked with seasonal variation in humidity. Humidity based on comfort level on dew point determines evaporation of perspiration from the skin responsible for cooling of the body. The lower dew points feel drier and the higher dew points feel more humid. Annually, $80 \%$ of the period is muggy and it usually lasts almost 11 months $\left(29^{\text {th }}\right.$ January to $24^{\text {th }}$ December). The most humid month in Ho is May with 31 muggy days while January is the least humid month with about 23 muggy days.

## Population of the Study

Kothari (2004) referred to population as an aggregate of items possessing a common trait. The population for the study was kindergartens in Ho municipality and constituted 550 parents of KG 2 pupils from 14 private kindergartens (see list of schools from Appendix A). The population was considered for the study due to accessibility by the researcher. KG 2 classes have been selected based on the assumption that children's uniforms might have gone through certain physical changes since pupils might have worn them for at least a year. Parents were the respondents for their childrenbecause KG pupils cannot undertake the mental analytical exercise
required by this study and do not buy nor care for school uniforms by themselves.

## Sample and Procedure

The process of sampling is the act of selecting or choosing some units from entire population which can represent the population in terms of decision making and conclusion of a study. Researchers may fairly conclude and generalize their findings back to the population from where the sample was selected (Trochim, 2006). Similarly, Kotari (2014) defined sampling as the process of choosing some elements from a population for research so that, conclusions can be drawn on the basis of findings emerging from the selected elements or sample. The process of sampling can be done in two major ways, which are probability and non- probability sampling procedures.

The sampling technique which involves the use of non-probability procedure is the process which does not require any basis for estimating the possibility that each of the items in the population has the same or equal opportunity or chance of being selected to be part of the sample (Kothari, 2004; Singh \& Masuku, 2014). Examples of non-probability sampling procedures are quota sampling and convenience sampling. According to Cooper and Schindler (2011), non-probability sampling is employed in a case of using a relatively smaller sample size that permits intensive probing of respondents and also for a detailed insight into the phenomenon under investigation.

In contrast, Probability sampling procedure, which is also known as random sampling, is the act of choosing a sample in a manner that gives each member of the population the same opportunity or chance of being included in
the sample of the study (Leedy \& Ormrod, 2015). According to Leedy and Ormrod, examples of probability sampling are stratified random sampling and simple random sampling and that probability sampling is the best option to consider when the researcher seeks to generalize the findings of a study to the entire study population. Leedy \& Ormrod stated that the lottery method, random numbers method and computer method are the means by which a random sample can be selected from the study population. This study employed simple random sampling technique. According to Singh and Masuku (2014), simple random procedure gives each unit a preassigned chance of inclusion in the study and provides better estimate of parameters in the studies in comparison to purposive sampling procedure. To enhance the confidence in the findings and conclusions from the study, scientific and empirical means was followed to determine the sample size.

According to Louangrath (2013), if the population of a research work is finite or known, the Yamane (1967) formula can be used to determine the sample size. The study therefore adopts the model developed by Yamane (1967) in determining the sample size and it is presented as:

$$
\begin{equation*}
\mathrm{A} \quad=\quad \mathrm{k} /\left[1+\mathrm{k}\left(e^{2}\right)\right] \tag{3.1}
\end{equation*}
$$

Where $\mathbf{A}$ is the sample size, $\mathbf{k}$ is the population; $\mathbf{e}$ is the error limit ( 0.05 on the basis of $95 \%$ confidence level). Substituting the data on the variables in the equation, the sample size is determined as: $A=555 /\left[1+555\left(0.05^{2}\right)\right]$

$$
\mathrm{A}=555 /[1+555(0.0025)]
$$

$$
\mathrm{A}=555 / 1+1.388
$$

$$
\mathrm{A}=555 / 2.388
$$

$$
\mathrm{A}=232.4 \text { or approximately }=232
$$

The sample size for this study based on statistics is 232 . However, the study focused on objects (school uniform fabrics) which necessitated equal sample distribution across the 14 schools which ensured fair analysis of data as well as clear interpretation of results. Hence, 17 pupils were sampled from each school except PKG 9 where the class size was 15 , making a total sample size of 236 (see Table 1).

Table 1: Population and Sample size Distribution

| School | Class size | Class sample |
| :--- | :--- | :--- |
| PKG 1 | 37 | 17 |
| PKG 2 | 23 | 17 |
| PKG 3 | 22 | 17 |
| PKG 4 | 26 | 17 |
| PKG 5 | 21 | 17 |
| PKG 6 | 33 | 17 |
| PKG 7 | 43 | 17 |
| PKG 8 | 21 | 17 |
| PKG 9 | 15 | 15 |
| PKG10 | 92 | 17 |
| PKG11 | 46 | 17 |
| PKG12 | 66 | 17 |
| PKG13 | 68 | 17 |
| PKG14 | 42 | 17 |
| Total | 555 | 236 |

Source: Field survey by researcher (2018)

## Data Collection Instruments

Research cannot be successful without employing the right data or information for analysis. Data could be obtained from a secondary source (data that are available for readily usage) and from primary sources (data that is to be gathered and used for the first time). According to Leedy and Ormrod, (2015, p. 94) basically, there are two major sources of data for conducting a study, which are primary and secondary data sources. (Banerjee \& Chaudhury, 2010) indicated that, primary data is gathered by the researcher for specific
objective of studying a phenomenon or addressing a particular challenge. There exist a number of ways of collecting primary data. These include, and are not limited to, observation checklist, questionnaires, and semi-structured, in-depth and group interviews (Creswell, 2012, p. 212-228). However, data collected from census, government and organizational publications, journals, magazines, newspapers, personal records among others constitute secondary data (Blaxter, Hughes, \& Tight, 2006). This study adopted primary sources for data collection by the use of questionnaire to obtain direct responses from respondents.

Questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from response (Blaxter, Hughes, \& Tight, 2006). Questionnaires are documents covering queries on a problem to be examined according to Twumasi (2001). A questionnaire instrument was considered because according to Kothari (2004), it eliminates bias in a research analysis compared to other research instruments and can also cover a large number of people.

Items on the questionnaire covered the demographic background of parents, parents' choice of fabric, fabrics' performance and parental satisfaction with school uniform fabrics. The questionnaire included close ended, open ended and likert type items aimed at addressing the objectives of the study. The likert type items were rated on four-point scale (refer to Appendix D). Choice factors were rated as Very Important (VI), Important (I), Less Important (LI) and Not Important (NI) (Refer to Appendix C) while fabric performance items were rated as Strongly Disagreed (SD), Disagreed (D), Agreed (A), Strongly Agreed (SA). There were two open ended items for
satisfaction. The first item required 'Yes' or 'No' response while the second required justification of 'Yes' or 'No'.

Data was also collected by means of field observation. The observation was intended to find evidence on deformations or deteriorations in uniforms worn by pupils (See Appendix E). An observation guide and protocol were developed prior to data collection. The observation guide covered demographics, colour suitability, fabric design (aesthetic attributes) and functional attributes. These included wrinkling/creasing, pilling, fading, colour bleeding and staining (durability in appearance); yarn slippage and tearing strength (durability in strength); sweat absorption, hand and texture of fabric (comfort). The observation protocol contained space for descriptive notes as well as reflective notes. It helped in recording the entire observation. The observation guide helped the researcher to remain focused and consistent in observing uniform fabrics from the 14 PKGs. pictorial data on fabric deformation was collected during observation.

## Pre-Testing of Instrument

The questionnaire for the study was pre-tested to ensure appropriateness or content validity and reliability of the instruments. The aim of the pre-test was to identify weaknesses and make corrections in the questionnaire and also check clarity of the questions before the actual data collection. Forty parents from three private kindergartens in the Ho Municipality participated in the pre-testing of the questionnaire. These parents were not part of the sample of study but were selected from schools with similar characteristics. The pre-test took three weeks to be completed. Reliability coefficient was calculated to check the internal consistency of the
questionnaire by using Cronbach's Alpha. The reliability coefficient for the pretest was 0.879 . According to Tavakol and Dennick (2011), Cronbach's Alpha is acceptable if it ranges from 0.70 to 0.95 .

## Data Collection Procedure

Data collection can be defined as the systemic criteria of collecting and measuring data or information from different sources to arrive at a complete and accurate picture of a subject or a phenomenon of interest. The process of gathering data or information especially, from primary source involves the administering of a structured questionnaire to various respondents for answers or conducting an interview. According to Patton (2018), a questionnaire is an instrument which consists of a series of questions that needs to be answered by respondents for the objective of obtaining relevant data or information for a research work.

Qualitative data and quantitative data for the study were collected concurrently. Onwuegbuzie and Collins as cited by Johnson and Christensen (2014) wrote that the process of collecting quantitative and qualitative data for a study at the same time or approximately the same time is known as concurrent time criterion. Questionnaires for the survey were delivered by hand to the parents to complete by themselves. However, parents who could not read nor write, were helped by reading out questions to them as well as recording answers they provided on the questionnaire. The researcher observed uniforms worn by pupils in their classes for observable attributes. The researcher recorded evidence found on the observation protocol with codes matching with the items on observational guide. Pictorial data was collected by taking pictures of relevant evidence on the field. The pictures
were labeled and coded to match with evidence earlier recorded.
Participants were informed by means of letters prior to data collection and also, parents participated in the study by consent (see consent form in Appendix C). These two actions helped in checking non-response in the selected schools. Two follow ups were made to remind respondents who could not complete the questionnaire on schedule. These actions yielded a very high return rate of distributed questionnaires. Two hundred and thirty-six questionnaires were distributed to parents and 234 were returned. This represents $99.3 \%$ return rate. The high return rate was partly due to the presence of the researcher during the administration of questionnaires and partly due to the high level of education of respondents as indicated later in this chapter.

Also, field assistants helped the researcher in the data collection. They comprised a teacher and one other person who had been trained by the researcher. The criteria used in selecting the members of the research team include the following:
a) The field assistants must be matured and must be at least twenty years of age; they must have the ability to
b) read and write good English;
c) speak both English and the local dialect (Ewe); and
d) translate both languages with ease.

The researcher liaised with the school authorities to appoint the teacher in each school. The field assistants were taken through the research problem, objectives of study, items on the instruments for the study (questionnaire and observation guide) and the roles expected of them. The field assistants helped
in administering and retrieving questionnaires as well as identifying deformations and deteriorations regarding the attributes of the study during the observation phase of the study. With the presence of their teacher in the team, it was easier to establish rapport with pupils in each PKG.

## Data Processing and Analysis

Data collected from the field were processed using Statistical Package for Social Sciences (SPSS) version 20. Results were analyzed and presented per the objectives of the study. Frequencies and percentages were used to analyze data for objective one which sought to assess the intrinsic factors that influenced parent's choice of fabric. For objective two, parent's opinions on fabric's performance were analyzed with frequencies, percentages and means. For objective three, 'Yes' or 'No' items on parental satisfaction were analyzed by frequency, percentage. Qualitative data from observation was used to confirm quantitative data from questionnaire during presentation of results as well as discussions.

## Ethical Considerations

Ethics as defined (De Vos \& Van Zyl, 1998, p. 256-276) is "a set of moral principles that is usually followed by an individual or a group and which includes rules and behavioral norms for the most correct conduct towards experimental subjects and respondents, managers, backers, other researchers, assistants and students." Ethical considerations were considered in this review. First of all, the researcher went through the process of ethical clearance from the school as well as obtaining an introductory letter from the department to be given to the respondents to assure them that the information is strictly for academic purpose (refer to Appendix B).

The administration of questionnaires was carried out with utmost respect to standards of conducting research. The purpose of the study, the confidentiality of responses as well as the choice to voluntarily participate or withdraw anytime from the study were explained to respondents. More so, certain key words in the questionnaire were explained in order to ensure easy comprehension and assure accurate responses. Also, the researcher administered the questionnaires in cases where respondents had literacy challenges. The respondents' right to remain confidential included exclusion of any information (such as names and addresses) that could identify them. The questionnaire contained information that requested respondents to take part in the study. Participants were made to give verbal consents after they received briefing about the nature of the study and encouraged to ask questions regarding any issue about the study. Those who agreed to participate and verbally consented were given the questionnaires to complete.

## Summary

In summary, chapter three discussed the methods and techniques employed in conducting this study. The research was a survey conducted in 14 PKGs with a population of 550 and a sample size of 234 . Simple random method was employed to select sample. Questionnaires and observation guide was used in data collection. Data was analyzed with Statistical Package of Social Sciences (SPSS) version 20. Presentations of findings were done by frequencies, percentages and means. Since each private school had a uniform made in a different fabric, it was impossible to make generalization to all uniforms used by private schools in the Municipality.

## CHAPTER FOUR

## RESULTS AND DISCUSSION

## Overview

This chapter presents and discusses findings of the research. The purpose of the study was to assess the performance of school uniform fabrics being used by private kindergartens and satisfaction among parents (respondents). This chapter has sections on the description of biographic data of respondents, data analysis and findings, discussions of results and summary or key findings. Data collected during the survey has been summarized by school and by factors under the subheading's parent's perception on fabric choice, parent's perception on fabric performance and parent's satisfaction with school uniform fabrics. Results have been presented according to the objectives of the study. Frequencies, percentages and means have been used to present findings. Also, findings from field observation have been summarized by themes and used to confirm findings from questionnaires.

## Questionnaire Administration and Return Rate

A total of 236 questionnaires were administered to the parents and 234 were retrieved from the respondents. This amounts to $99.3 \%$ return rate from sampled parents of the selected private schools. The high return rate was probably due to the presence of the researcher during the administration of questionnaires.

## Demographic Characteristics of Respondents

This section of the chapter deals with the demographic characteristics of respondents for the study. Though it was not the main purpose of the study, it is important to know the background characteristics and experiences of
respondents which are likely to influence their decisions on the performance and their satisfaction of school uniform fabrics of their children.

## Age of respondents

Table 2: Age of Respondents (Years)

| School | Below 20 | $20-29$ | $30-39$ | 40 above | Total \% |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | f (\%) | $\mathrm{f}(\%)$ | $\mathrm{f}(\%)$ | $\mathrm{f}(\%)$ | $\mathrm{f}(\%)$ |
| PKG 1 | 0 | $1(6)$ | $6(35)$ | $10(59)$ | $17(100)$ |
| PKG 2 | 0 | $3(18)$ | $12(71)$ | $2(12)$ | $17(100)$ |
| PKG 3 | 0 | $5(29)$ | $11(65)$ | $1(6)$ | $17(100)$ |
| PKG 4 | $1(6)$ | 0 | $11(65)$ | $4(25)$ | $16(100)$ |
| PKG 5 | 0 | $6(35)$ | $11(65)$ | 0 | $17(100)$ |
| PKG 6 | 0 | $6(35)$ | $4(24)$ | $7(41)$ | $17(100)$ |
| PKG 7 | 0 | $6(35)$ | $4(24)$ | $7(41)$ | $17(100)$ |
| PKG 8 | $1(6)$ | 6 | $8(47)$ | $2(12)$ | $17(100)$ |
| PKG 9 | 0 | $1(7)$ | $12(80)$ | $2(13)$ | $15(100)$ |
| PKG10 | 0 | $2(12)$ | $10(59)$ | $5(29)$ | $17(100)$ |
| PKG11 | $1(6)$ | $2(13)$ | $9(56)$ | $4(25)$ | $16(100)$ |
| PKG12 | 0 | $1(6)$ | $11(65)$ | $5(29)$ | $17(100)$ |
| PKG13 | 0 | $8(47)$ | $7(41)$ | $2(11)$ | $17(100)$ |
| PKG14 | 0 | $3(18)$ | $8(48)$ | $6(35)$ | $17(100)$ |
| Total | $3(1.3)$ | $50(21.4)$ | $124(53)$ | $57(24.3)$ | $234(100)$ |
| Soure: Fid | $2 r v y$ |  |  |  |  |

Source: Field survey (2019)
Data on parents' age is presented in Table 2. Apart from three parents who were below 20 years, most parents (98.7\%) were above 20 years of age. The majority $124(52 \%)$ were within the age group of ' 30 to 39 ' years. This was followed by 57 (24\%) who were within the age group 40 and above.

## Parent's Level of Education

Table 3: Parent's Level of Education

| School | No <br> formal <br> edu. | Basic <br> school | VOC/ <br> Secretarial | SSS/Tech/ <br> SHS | Tertiary | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathrm{f}(\%)$ | $\mathrm{f}(\%)$ | $\mathrm{f}(\%)$ | $\mathrm{f}(\%)$ | $\mathrm{f}(\%)$ | $\mathrm{f}(\%)$ |
| PKG 1 | $1(6)$ | $9(53)$ | 0 | $6(35)$ | $1(6)$ | $17(100)$ |
| PKG 2 | 0 | 0 | 0 | $1(6)$ | $16(94)$ | $17(100)$ |
| PKG 3 | 0 | $3(18)$ | $1(6)$ | $3(18)$ | $10(59)$ | $17(100)$ |
| PKG 4 | 0 | $1(6)$ | $3(19)$ | $3(19)$ | $9(56)$ | $16(100)$ |
| PKG 5 | 0 | 0 | 0 | $1(6)$ | $16(94)$ | $17(100)$ |
| PKG 6 | $4(24)$ | $8(47)$ | 0 | $2(12)$ | $3(17)$ | $17(100)$ |
| PKG 7 | $1(6)$ | $5(29)$ | $2(12)$ | $4(24)$ | $5(29)$ | $17(100)$ |
| PKG 8 | $1(6)$ | $4(24)$ | $3(18)$ | $4(24)$ | $5(29)$ | $17(100)$ |
| PKG 9 | 0 | $1(7)$ | 0 | $3(20)$ | $11(73)$ | $15(100)$ |
| PKG10 | 0 | $3(18)$ | 0 | $2(12)$ | $12(71)$ | $17(100)$ |
| PKG11 | 0 | $2(13)$ | 0 | $7(44)$ | $7(44)$ | $16(100)$ |
| PKG12 | $1(6)$ | $3(18)$ | 0 | $1(6)$ | $12(71)$ | $17(100)$ |
| PKG13 | 0 | $6(35)$ | $2(12)$ | $4(24)$ | $5(29)$ | $17(100)$ |
| PKG14 | 0 | 0 | $1(6)$ | $3(18)$ | $13(76)$ | $17(100)$ |
| Total | $8(3.4)$ | $45(19.2)$ | $12(5)$ | $44(19)$ | $125(53.4)$ | $234(100)$ |

Note: Edu. = Education; VOC = Vocational; SSS = Senior Secondary School;

Tech $=$ Technical $; S H S=$ Senior High School

Source: Field survey (2019)

Parent's level of education is shown in Table 3. With the exception of $8(3.4 \%)$ respondents who had no formal education, 226 parents had some level of formal education. It was also found that the majority $125(53 \%)$ respondents had tertiary education, followed by $45(19.2 \%)$ who had basic education.

## Objective One: Parent's Perception on the Choice of School Uniform

## Fabrics

The conceptual framework of this study posits that consumer choose fabrics based on certain factors they consider important. The first objective of the study is to identify intrinsic factors that influenced the choice of school
uniform among parents. In response, parents indicated intrinsic factors they perceived to be important in selecting fabrics for children's school uniform.

The descriptive is shown in Table 4.
Table 4: Parents' Perception on the Choice of School Uniform Fabrics

| School | Respo <br> ndents | Aesthetics <br> $\mathrm{f}(\%)$. | Durability in <br> appearance <br> $\mathrm{f}(\%)$. | Durability in <br> strength <br> $\mathrm{f}(\%)$. | Comfort <br> $\mathrm{f}(\%)$. | Ease of <br> care <br> $\mathrm{f}(\%)$. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| PKG1 | 17 | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ | $16(94)$ |
| PKG2 | 17 | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ |
| PKG3 | 17 | $16(94)$ | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ |
| PKG4 | 16 | $16(100)$ | $16(100)$ | $16(100)$ | $16(100)$ | $16(100)$ |
| PKG5 | 17 | $16(94)$ | $17(100)$ | $17(100)$ | $17(100)$ | $15(88)$ |
| PKG6 | 17 | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ |
| PKG7 | 17 | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ | $16(94)$ |
| PKG8 | 17 | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ | $16(94)$ |
| PKG9 | 15 | $15(100)$ | $15(100)$ | $15(100)$ | $15(100)$ | $15(100)$ |
| PKG10 | 17 | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ | $16(94)$ |
| PKG11 | 16 | $16(100)$ | $16(100)$ | $16(100)$ | $16(100)$ | $16(100)$ |
| PKG12 | 17 | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ |
| PKG13 | 17 | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ |
| PKG14 | 17 | $14(82)$ | $17(100)$ | $17(100)$ | $17(100)$ | $17(100)$ |
| Total | 234 | $229(98)$ | $234(100)$ | $234(100)$ | $234(100)$ | $229(98)$ |

Source: Field survey (2019)
Findings from Table 4 shows that most parents (98\%) perceived intrinsic fabric choice factors in this study as important. From the total score, comfort, durability in appearance and durability in strength are the outstanding intrinsic fabric choice factors perceived by parents.

## Objective Two: Parents' Perception of the Performance of School

## Uniform Fabrics

The second objective of the study is to examine the performance of the respective school uniform fabrics among parents of private kindergarten
children. The conceptual framework of this study stipulates that fabric consumers only confirm the real qualities of fabrics they buy during use and care. The attributes examined in this study are aesthetics, durability in appearance, and durability in strength, comfort and ease of care. These attributes have been assessed over a number of sub attributes and the results have been presented in Tables 5, 6, 7, 8 and 9 while the means of these results are presented in Table 10 and 11. Also, to ensure the consistency of results uniforms were observed by sight and touch based on performance attributes of the study. Findings from observation served as confirmation to findings from parental assessment.

## Fabric's Aesthetic Performance

Aesthetics describes how people use their physical senses of sight, sound and touch to perceive a textile fabric in terms of appearance, fashion preference, fit, and styling. In this study, three attributes of aesthetics have been assessed which are beauty of colour, pupil's attractive look and smart look. Results on aesthetics have been presented in Table 5.

Table 5: Parents' Perception on Fabric's Aesthetics

| School | Performance <br> Attributes | Disagreed <br> $\mathrm{f}(\%)$ | Agreed <br> $\mathrm{f}(\%)$ | Total <br> $100 \%$ |
| :---: | :---: | :---: | :---: | :---: |
| PKG 1 | A1 | $1(6)$ | $16(94)$ | 17 |
|  | A2 | $1(6)$ | $16(94)$ | 17 |
|  | A3 | $3(18)$ | $14(82)$ | 17 |
| PKG 2 | A1 | $1(6)$ | $16(94)$ | 17 |
|  | A2 | 0 | $17(100)$ | 17 |
|  | A3 | 0 | $17(100)$ | 17 |
| PKG 3 | A1 | 0 | $17(100)$ | 17 |
|  | A2 | $2(12)$ | $15(88)$ | 17 |
| PKG 4 | A3 | 0 | $17(100)$ | 17 |
|  | A1 | 0 | $16(100)$ | 16 |
|  | A2 | 0 | $16(100)$ | 16 |
| PKG 5 | A3 | $7(44)$ | $9(56)$ | 16 |
|  | A1 | 0 | $17(100)$ | 17 |
|  | A2 | $1(6)$ | $16(94)$ | 17 |

Table 5 continued

|  | A3 | 0 | $17(100)$ | 17 |
| :--- | :--- | :--- | :--- | :--- |
| PKG 6 | A1 | $1(6)$ | $16(94)$ | 17 |
|  | A2 | $1(6)$ | $16(94)$ | 17 |
|  | A3 | $2(12)$ | $15(88)$ | 17 |
| PKG 7 | A1 | 0 | $17(100)$ | 17 |
|  | A2 | 0 | $17(100)$ | 17 |
|  | A3 | 0 | $17(100)$ | 17 |
|  | A1 | 0 | $17(100)$ | 17 |
|  | A2 | $1(6)$ | $16(94)$ | 17 |
|  | A3 | $1(6)$ | $16(94)$ | 17 |
|  | A1 | $1(7)$ | $14(93)$ | 15 |
|  | A2 | $1(7)$ | $14(93)$ | 15 |
|  | A3 | $1(7)$ | $14(93)$ | 15 |
|  | A1 | 0 | $17(100)$ | 17 |
|  | A2 | 0 | $17(100)$ | 17 |
|  | A3 11 | A1 | $1(6)$ | $16(94)$ |
|  | 0 | $16(100)$ | 17 |  |
|  | A2 | $5(31)$ | $11(69)$ | 16 |
|  | A3 | $5(31)$ | $11(69)$ | 16 |
|  | A1 | 0 | $17(100)$ | 17 |
|  | A2 | $1(6)$ | $16(94)$ | 17 |
| PKG 13 13 | A3 | $1(6)$ | $16(94)$ | 17 |
|  | A1 | 0 | $17(100)$ | 17 |
|  | A2 | 0 | $17(100)$ | 17 |
| PKG 14 | A3 | 0 | $17(100)$ | 17 |
|  | A1 | 0 | $17(100)$ | 17 |
|  | A2 | $1(6)$ | $16(94)$ | 17 |
|  | A3 | 0 | $17(100)$ | 17 |

Note: A1 = Colours in the fabric are beautiful; A2 $=$ Pupils look attractive in uniform; A3 $=$ Pupils look smart in uniform.
Source: Field Survey (2019).
It was found that colours in uniform fabrics were beautiful and pupils
looked attractive and smart in uniform. However, in PKG 4 (Refer to Table 5),
almost half (44\%) of respondents indicated that pupils do not look smart in uniform.

## Durability in Appearance

Durability in appearance describes the ability of a fabric or clothing to still look new after several uses. Durability in appearance in this study covers dimensional stability (garment shape and shrinkage), wrinkling or creasing, presented in Table 6.

Table 6: Parents' Perception of Fabrics' Durability in Appearance

| School | Performance Attributes | Disagreed f (\%) | Agreed f (\%) | Total |
| :---: | :---: | :---: | :---: | :---: |
| PKG 1 | DA 1 | 16(94) | 1(6) | 17 |
|  | DA 2 | 17(100) | 0 | 17 |
|  | DA 3 | 15(88) | 2(12) | 17 |
|  | DA 4 | 16(94) | 1(6) | 17 |
|  | DA 5 | 9(53) | 8(47) | 17 |
|  | DA 6 | 5(29) | 12(71) | 17 |
| PKG 2 | DA 1 | 11(65) | 6(35) | 17 |
|  | DA 2 | 10(59) | 7(41) | 17 |
|  | DA 3 | 15(88) | 2(12) | 17 |
|  | DA 4 | 10(59) | 7(41) | 17 |
|  | DA 5 | 12(71) | 5(29) | 17 |
|  | DA 6 | 8(47) | $9(53)$ | 17 |
| PKG 3 | DA 1 | 12(71) | 5(29) | 17 |
|  | DA 2 | 12(71) | 5(29) | 17 |
|  | DA 3 | 5(29) | 12(71) | 17 |
|  | DA 4 | 14(82) | 3(18) | 17 |
|  | DA 5 | 14(82) | 3(18) | 17 |
|  | DA 6 | 4(24) | 13(76) | 17 |
| PKG 4 | DA 1 | 16(100) | 0 | 16 |
|  | DA 2 | 15(94) | 1(6) | 16 |
|  | DA 3 | 5(31) | 11(69) | 16 |
|  | DA 4 | 16(100) | 0 | 16 |
|  | DA 5 | 6 (37.5) | 10(62.5) | 16 |
|  | DA 6 | 2(12) | 14(88) | 16 |
| PKG 5 | DA 1 | 1(6) | 16(94) | 17 |
|  | DA 2 | 17(100) | 0 | 17 |
|  | DA 3 | 11(65) | 6(35) | 17 |
|  | DA 4 | 14(82) | 3(18) | 17 |
|  | DA 5 | 13(76) | 4(24) | 17 |
|  | DA 6 | 3(18) | 14(82) | 17 |
| PKG 6 | DA 1 | 10(59) | 7(42) | 17 |
|  | DA 2 | 14(82) | 3(18) | 17 |
|  | DA 3 | 13(76) | 4(24) | 17 |
|  | DA 4 | 15(88) | 2(12) | 17 |
|  | DA 5 | 5(29) | 12(71) | 17 |
|  | DA 6 | 6(35) | 11(65) | 17 |
| PKG 7 | DA 1 | 17(100) | 0 | 17 |
|  | DA 2 | 17(100) | 0 | 17 |
|  | DA 3 | 10(59) | 7(41) | 17 |
|  | DA 4 | 17(100) | 0 | 17 |
|  | DA 5 | 17(100) | 0 | 17 |
|  | DA 6 | 0 | 17(100) | 17 |
| PKG 8 | DA 1 | 16(94) | 1(6) | 17 |
|  | DA 2 | 17(100) | 0 | 17 |
|  | DA 3 | 13(76) | 4(24) | 17 |
|  | DA 4 | 15(88) | 2(12) | 17 |
|  | DA 5 | 15(88) | 2(12) | 17 |
|  | DA 6 | 0 | 17(100) | 17 |
| PKG 9 | DA 1 | 14(93) | 1(7) | 15 |
|  | DA 2 | 12(80) | 3(20) | 15 |

Table 6 continued


Note: DA stands for durability in appearance. DA1 = Uniform changes in shape DA2 = Uniform reduces in size after laundry; DA3 $=$ Uniform wrinkles or creases badly; DA4 $=$ Colour bleeds and stains material; DA5 $=$ Uniform fades after few washes; DA6 = Small fuzzy balls appear on the fabric's surface. Source: Field Survey (2019).

From Table 6, the majority (94\%) and almost half (42\%) of parents in PKGs 5 and 6 respectively noted that uniforms changed shape. Majority (56\%) and almost half (41\%) of parents in PKGs 11 and 2 noted that uniform reduces in size after laundry. Majority ( $71 \% ; 69 \% ; 69 \% ; 53 \%$ ) from PKGs 3, 4, 11 and 9 respectively agreed that uniform wrinkles or creases badly. However, during
observation no evidence of change in shape, reduction in size and bad wrinkles/ creases was seen. Another finding is that majority ( $71 \% ; 71 \%$ \& $62.5 \%$ ) of parents from PKGs 6, 12 and 4 and almost half of parents ( $47 \%$ \& 41\%) from PKGs 1 and 10 agreed that uniforms fade after few washes. During observation, faded uniforms were found in only PKGs 4, 11 and 12 (See Appendix H). Interestingly, all parents from PKGs 7 and 8 and majority (94\%; $94 \% ; 93 \% ; 88 \% ; 88 \% ; 82 \% ; 76 \%, 76 \% ; 71 \% ; 65 \% ; 53 \% \& 50 \%)$ of parents from PKG $10,13,9,4,12,5,3,14,1,6,2$ and 11 indicated that fabrics develop small fuzzy balls on its surface (pilling). Evidence on pilling was found in all 14 private kindergartens. However, it was a serious issue of concern in PKGs 3, 6 and 14 (Refer to Appendix H).

## Durability in Strength

Durability in strength refers to a fabric's ability to remain strong during use and care. Durability in strength assessed in this study included yarn slippage and fabric's strength as sub attributes. The results are presented in Tables 7.

Table 7: Parents' Perception of Fabrics' Durability in Strength

| School | Performance <br> Attributes | Disagreed <br> $\mathrm{f}(\%)$ | Agreed <br> $\mathrm{f}(\%)$ | Total <br> $100 \%$ |
| :--- | :--- | :---: | :---: | :--- |
| PKG 1 | DS1 | $2(12)$ | $15(88)$ | 17 |
|  | DS2 | $13(76)$ | $4(24)$ | 17 |
| PKG 2 | DS1 | $16(94)$ | $1(6)$ | 17 |
|  | DS2 | $10(59)$ | $7(41)$ | 17 |
| PKG 3 | DS1 | $16(94)$ | $1(6)$ | 17 |
|  | DS2 | $15(88)$ | $2(12)$ | 17 |
| PKG 4 | DS1 | $2(12)$ | $14(88)$ | 16 |
|  | DS2 | $15(94)$ | $1(6)$ | 16 |
| PKG 5 | DS1 | $17(100)$ | 0 | 17 |
|  | DS2 | $11(65)$ | $6(35)$ | 17 |
| PKG 6 | DS1 | $14(82)$ | $3(18)$ | 17 |
|  | DS2 | $13(76)$ | $4(24)$ | 17 |
| PKG 7 | DS1 | $17(100)$ | 0 | 17 |
|  | DS2 | $17(100)$ | 0 | 17 |

Table 7 continued

| PKG 8 | DS1 | $16(94)$ | $1(6)$ | 17 |
| :--- | :--- | :--- | :--- | :--- |
|  | DS2 | $17(100)$ | 0 | 17 |
| PKG 9 | DS1 | $15(100)$ | 0 | 15 |
|  | DS2 | $11(73)$ | $4(27)$ | 15 |
| PKG 10 | DS1 | $17(100)$ | 0 | 17 |
|  | DS2 | $17(100)$ | 0 | 17 |
| PKG 11 | DS1 | $17(100)$ | 0 | 17 |
|  | DS2 | $9(56)$ | $7(44)$ | 16 |
| PKG 12 | DS1 | $17(100)$ | 0 | 17 |
|  | DS2 | $13(76)$ | $4(24)$ | 17 |
| PKG 13 | DS1 | $16(94)$ | $1(6)$ | 17 |
|  | DS2 | $17(100)$ | 0 | 17 |
| PKG 14 | DS1 | $17(100)$ | 0 | 17 |
|  | DS2 | $14(82)$ | $3(18)$ | 17 |
| Note: DS 1 | Yars |  |  |  |

Note: DS 1 = Yarns in fabric slips out of seam/stitching; DS $2=$ Material becomes weak when stitching removes

Source: Field Survey (2019)
From Table 7, it was found according to majority ( $88 \%$ \& 88\%) of parents in PKGs 1 and 4 that uniform fabrics has the problem of yarn slippage. During observation, evidence of yarn slippage was found on some uniforms in PKG 1, 2 and 6 (see appendix H) but not PKG 4. It was also found that almost half ( $44 \%$ \& $41 \%$ ) of the respondents from PKGs 11 and 2 agreed that fabric loses its strength by the time seams rip in uniform. No evidence was found during observation to confirm findings in PKG 11 but in PKGs 2. However, evidence of deterioration in strength was found in other two kindergartens (PKGs $4 \& 6$ ). It was observed that some uniforms got torn before seams could rip from uniform (see Appendix H). The torn areas were either patched or left like that as pupils wore them to school.

## Fabric's Comfort

Comfort describes how textile products interact with the human body and comprises physical, physiological and psychological factors such as fibre material, yarn structure, fabric structure, transmission characteristics (air, and moisture). Attributes assessed under comfort in this study are absorbency,
fabric softness, coolness, weight and smoothness. Results are presented in
Table 8.
Table 8: Parent's perception on the performance of fabrics' comfort

\begin{tabular}{|c|c|c|c|c|}
\hline School \& Performance attributes \& Disagreed f (\%) \& \begin{tabular}{l}
Agreed \\
f (\%)
\end{tabular} \& \[
\begin{aligned}
\& \hline \text { Total } \\
\& 100 \% \\
\& \hline
\end{aligned}
\] \\
\hline \multirow[t]{2}{*}{PKG 1} \& C 1 \& 2(12) \& 15(88) \& 17 \\
\hline \& C 2 \& 1(6) \& 16 (94) \& 17 \\
\hline \multirow[t]{3}{*}{} \& C 3 \& 8(47) \& 9(53) \& 17 \\
\hline \& C 4 \& 0 \& 17(100) \& 17 \\
\hline \& C 5 \& 0 \& 17(100) \& 17 \\
\hline \multirow[t]{5}{*}{PKG 2} \& C 1 \& 11(65) \& 6(35) \& 17 \\
\hline \& C 2 \& 1(6) \& 16(94) \& 17 \\
\hline \& C 3 \& 10(59) \& 7(41) \& 17 \\
\hline \& C 4 \& 0 \& 17(100) \& 17 \\
\hline \& C 5 \& 0 \& 17(100) \& 17 \\
\hline \multirow[t]{5}{*}{PKG 3} \& C 1 \& 4(24) \& 13(76) \& 17 \\
\hline \& C 2 \& 0 \& 17(100) \& 17 \\
\hline \& C 3 \& 0 \& 17(100) \& 17 \\
\hline \& C 4 \& 3(18) \& 14(82) \& 17 \\
\hline \& C 5 \& 0 \& 17(100) \& 17 \\
\hline \multirow[t]{5}{*}{PKG 4} \& C 1 \& 5(29) \& 12(71) \& 16 \\
\hline \& C 2 \& 0 \& 16(100) \& 16 \\
\hline \& C 3 \& 5(31) \& 11(69) \& 16 \\
\hline \& C 4 \& 0 \& 16(100) \& 16 \\
\hline \& C 5 \& 0 \& 16(100) \& 17 \\
\hline \multirow[t]{6}{*}{PKG 5

PKG 6} \& C 1 \& 8(47) \& 9(53) \& 17 <br>
\hline \& C 2 \& 0 \& 17(100) \& 17 <br>
\hline \& C 3 \& 0 \& 17(100) \& 17 <br>
\hline \& C 4 \& 0 \& 17(100) \& 17 <br>
\hline \& C 5 \& 0 \& 17(100) \& 17 <br>
\hline \& C 1 \& 6(35) \& 11(65) \& 17 <br>
\hline \multirow{4}{*}{PKG 6} \& C 2 \& 0 \& 17(100) \& 17 <br>
\hline \& C 3 \& 12(71) \& 5(29) \& 17 <br>
\hline \& C 4 \& \& 17(100) \& 17 <br>
\hline \& C 5 \& 0 \& 17(100) \& 17 <br>
\hline \multirow[t]{5}{*}{PKG 7} \& C 1 \& 1(6) \& 16(94) \& 17 <br>
\hline \& C 2 \& 0 \& 17(100) \& 17 <br>
\hline \& C 3 \& 5(29) \& 12(71) \& 17 <br>
\hline \& C 4 \& 0 \& 17(100) \& 17 <br>
\hline \& C 5 \& 0 \& 17(100) \& 17 <br>
\hline \multirow[t]{5}{*}{PKG 8} \& C 1 \& 5(29) \& 12(71) \& 17 <br>
\hline \& C 2 \& 0 \& 17(100) \& 17 <br>
\hline \& C 3 \& 6(35) \& 11(65) \& 17 <br>
\hline \& C 4 \& 0 \& 17(100) \& 17 <br>
\hline \& C 5 \& 0 \& 17(100) \& 17 <br>
\hline PKG 9 \& C 1 \& 4(27) \& 11(73) \& 17 <br>
\hline
\end{tabular}

Table 8 continued

| PKG 10 | C 2 | 0 | 15(100) | 15 |
| :---: | :---: | :---: | :---: | :---: |
|  | C 3 | 4(27) | 11(73) | 15 |
|  | C 4 | 0 | 15(100) | 15 |
|  | C 5 | 0 | 15(100) | 15 |
|  | C 1 | 6 (29) | 11(65) | 17 |
|  | C 2 | 0 | 17(100) | 17 |
|  | C 3 | 0 | 17(100) | 17 |
|  | C 4 | 0 | 17(100) | 17 |
|  | C 5 | 0 | 17(100) | 17 |
| PKG 11 | C 1 | 4(25) | 12(75) | 16 |
|  | C 2 | 1(6) | 15(94) | 16 |
|  | C 3 | 5(31) | 11(69) | 16 |
|  | C 4 | 0 | 16(100) | 16 |
|  | C 5 | 0 | 16(100) | 16 |
| PKG 12 | C 1 | 3(18) | 14(82) | 17 |
|  | C 2 | 0 | 17(100) | 17 |
|  | C 3 | 0 | 17(100) | 17 |
|  | C 4 | 0 | 17(100) | 17 |
|  | C 5 | 0 | 17(100) | 17 |
| PKG 13 | C 1 | 6(35) | 11(65) | 17 |
|  | C 2 | 0 | 17(100) | 17 |
|  | C 3 | 6(35) | 11(65) | 17 |
|  | C 4 | 0 | 17(100) | 17 |
|  | C 5 | 1(6) | 16(94) | 17 |
| PKG 14 | C 1 | 7(41) | 10(59) | 17 |
|  | C 2 | 2(12) | 15(88) | 17 |
|  | C 3 | 0 | 17(100) | 17 |
|  | C 4 | 0 | 17(100) | 17 |
|  | C 5 | 2(12) | 15(88) | 17 |

Note: $\quad C 1=$ Uniform readily absorbs sweat; C2 = Fabric feels soft; C3 = Uniform is cool to wear; C4 = Fabric is light in weight; $C 5=$ Material feels smooth.

Source: Field Survey (2019).
Findings from Table 8 show that majority ( $65 \%$ ) of parents from PKG 2 and almost half ( $47 \%$ \& $41 \%$ ) of parents from PKGs 5 and 14 indicated that fabrics do not absorb sweat. An observation made during children's play time in each of the 14 PKGS generally revealed two groups of fabrics in terms of absorbency: a) some fabrics readily absorbed sweat, showed wet portions which could not dry up quickly while b) some fabrics did not absorb sweat readily, showed little sign of wetness and dried quickly. Another finding from

Table 8 is that more than half ( $71 \%$ \& $59 \%$ ) of the respondents from PKG 6 and PKG 2 respectively disagreed that fabric is cool to wear. Almost half (47\%) of respondents from PKG 1 indicated that fabric is not cool to wear.

## Fabrics' Ease of Care

Ease of care refers to ease of cleaning soiled items to return them to a clean state or near-to-new condition. Ease of care attributes covered by this assessment are hand wash ability, stain removal, colour fastness, resistance to high temperatures (ironing) and ability to dry quickly. Results are presented in Tables 9.

Table 9: Parents' Perception on Fabrics' Ease of Care

| School | Performance <br> attributes | Disagreed <br> $\mathrm{f}(\%)$ | Agreed <br> $\mathrm{f}(\%)$ | Total <br> PKG 1 |
| :--- | :--- | :--- | :--- | :--- |
| EC1 | 0 | $17(100)$ | 17 |  |
|  | EC2 | $2(12)$ | $15(88)$ | 17 |
|  | EC3 | $4(24)$ | $13(76)$ | 17 |
|  | EC4 | $9(53)$ | $8(47)$ | 17 |
|  | EC5 | 0 | $17(100)$ | 17 |
| PKG 2 | EC1 | $1(6)$ | $16(94)$ | 17 |
|  | EC2 | $7(41)$ | $10(59)$ | 17 |
|  | EC3 | 0 | $17(100)$ | 17 |
|  | EC4 | $8(47)$ | $9(53)$ | 17 |
|  | EC5 | $3(18)$ | $14(82)$ | 17 |
| PKG 3 | EC1 | $2(12)$ | $15(88)$ | 17 |
|  | EC2 | $3(18)$ | $14(82)$ | 17 |
|  | EC3 | $4(24)$ | $13(76)$ | 17 |
|  | EC4 | $3(18)$ | $14(82)$ | 17 |
|  | EC5 | $3(18)$ | $14(82)$ | 17 |
| PKG 4 | EC1 | 0 | $16(100)$ | 16 |
|  | EC2 | $1(6)$ | $15(94)$ | 16 |
|  | EC3 | $1(6)$ | $15(94)$ | 16 |
|  | EC4 | $6(38)$ | $10(63)$ | 16 |
|  | EC5 | 0 | $16(100)$ | 16 |
| PKG 5 | EC1 | $1(6)$ | $16(94)$ | 17 |
|  | EC2 | 0 | $17(100)$ | 17 |
|  | EC3 | $6(35)$ | $11(65)$ | 17 |
|  | EC4 | 0 | $17(100)$ | 17 |
| PKG 6 | EC5 | $1(6)$ | $16(94)$ | 17 |
|  | EC1 | 0 | $17(100)$ | 17 |
|  | EC2 | 0 | $17(100)$ | 17 |
|  | EC3 | $4(24)$ | $13(76)$ | 17 |
|  | EC4 | $9(53)$ | $8(47)$ | 17 |

Table 9 continued

Note: EC 1 = Uniform is easy to wash by hand; EC $2=$ Stain is easily removed from uniform; EC $3=$ Uniform's colour do not bleed during washing; EC $4=$ Material is resistant to high ironing temperature; EC $5=$ Uniform dries quickly.
Source: Field Survey (2019).
Findings show that most uniforms are easy to care for. However in
PKG 2, almost half of respondents did not agree that stains in uniform are
easily removed. In PKG8, 88\% of parents noted that uniforms bleed. Most parents agreed that uniform is resistant to high ironing temperature but majority (53\%) of parents in each of the PKGs 1, 6, 7, and 14, disagreed. Also majority ( $56 \%$ \& $71 \%$ ) of parents from PKGs 11 and 13 indicated that uniform is not resistant to high ironing temperature. During observation, burnt uniforms were found in PKGs 2 and 11 though most parents did not indicate nonresistance of fabrics to high temperature in PKG 2. Some burnt uniforms were patched while others were worn without patching. Another finding on ease of care is that most parents noted that uniforms dry quickly.

## Means Results for the Performance of School Uniform Fabrics

The means results of parent's perceptual assessment of the performance of school uniform fabrics have been presented in Table 10. Findings from the total means result of responses (Table 10) revealed that the performance of fabric's aesthetic $221(94 \%)$ was outstanding followed by

Table 10: Mean Result for Performance of School Uniform Fabrics

| Factors |  | Aesthetics |  | Durability in appearance |  | Durability in strength |  | Comfort | Ease of Care |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| School | Respond ents | Disagreed $\mathrm{f}(\%)$ | Agreed <br> $\mathrm{f}(\%)$ | $\begin{aligned} & \text { Disagreed } \\ & \mathrm{f}(\%) \\ & \hline \end{aligned}$ | Agreed <br> $\mathrm{f}(\%)$ | Disagreed $\mathrm{f}(\%)$ | Agreed $\mathrm{f}(\%)$ | Disagreed f (\%) | Agreed f (\%) | $\begin{gathered} \text { Disagreed } \\ \mathrm{f}(\%) \\ \hline \end{gathered}$ | Agreed $\mathrm{f}(\%)$ |
| PKG1 | 17 | 1.7(10) | 15.3(90) | 13(76) | 4(24) | 8(47) | 10(59) | 2.2(13) | 14.8(87) | 3(18) | 14(82) |
| PKG2 | 17 | 0.3 | 16.7(98) | 11(65) | 6(35) | 13(76) | 4(24) | 4.4(26) | 12.6(74) | 3.8(22.4) | 13.2(77.8) |
| PKG3 | 17 | 0.7(4) | 16.3(96) | 11(65) | 6(35) | 16(94) | 1(6) | 1.4(8.4) | 15.6(91.6) | 3(18) | 14(82) |
| PKG4 | 16 | 2.3(14.7) | 13.7(85.3) | 9(56) | 7(44) | 9(53) | 8(47) | 2(13) | 14(88) | 1.6(10) | 14.4(90) |
| PKG5 | 17 | 0.3 | 16.7(98) | 10(59) | 7(41) | 14(82) | 3(18) | 1.6(9.4) | 15.4(90.6) | 1.6(10) | 15.4(90) |
| PKG6 | 17 | 1.3(8) | 15.7(92) | 11(65) | 6(35) | 14(82) | 3(18) | 3.6(21.2) | 13.4(78.8) | 2.6(16.6) | 14.4(85) |
| PKG7 | 17 | 0 | 17(100) | 14(82) | 3(18) | 17(100) | 0 | 1.2(7) | 15.8(93) | 1.8(10.6) | 15.2(89.4) |
| PKG8 | 17 | 0.6(4) | 16.3(96) | 12(71) | 5(29) | 17(100) | 0 | 2.2(12.8) | 14.8(87.2) | 4.6(27) | 10.4(73) |
| PKG9 | 15 | 1(7) | 14(93) | 10(67) | 5(33) | 13(87) | 2(13) | 1.6(10.8) | 13.4(89.2) | 2.8(18.6) | 12.2(81.4) |
| PKG10 | 17 | 0.3 | 16.7(98) | 13(76) | 4(24) | 17(100) | 0 | 1.2(5.8) | 15.8(93) | 2.4(14.2) | 14.6(85.8) |
| PKG11 | 16 | 3.3(20.6) | 12.7(79.3) | 9(56) | 7 (44) | 13(81) | 3(19) | 2(13) | 14(88) | 4.8(30) | 11.2(70) |
| PKG12 | 17 | 0.7(4) | 16.3(96) | 11(65) | 6(35) | 15(88) | 2(12) | 0.6(3.6) | 16.4(96.4) | 2.2(13.2) | 14.8(86.8) |
| PKG13 | 17 | 0 | 17(100) | 12(71) | 5(29) | 16(94) | 1(6) | 2.6(15.2) | 14.4(84.8) | 3.2(19) | 13.8(76.2) |
| PKG14 | 17 | 0.3 | 16.7(98) | 13(76) | 4(24) | 16(94) | 1(6) | 2.2(13) | 14.8(87) | 4.8(28.4) | 12.2(71.6) |
| Total | 234 | 13(5.6) | 221(94) | 159(68) | 75(32) | 198(85) | 38(16) | 29(12.4) | 205(88) | 42.2(18) | 189.8(81) |

Source: Field survey (2019)
comfort 205(88\%), durability in strength 198(85\%), ease of care 189.8(81\%) and durability in appearance $159(68 \%)$. These mean that $94 \%$ of parents agreed that colours in children's uniform is beautiful, pupils looked attractive and smart in school uniform; $88 \%$ of parents indicated that fabric is absorbent, cool to wear, feels soft and light in weight; $85 \%$ disagreed that yarns slip out of seams and fabric becomes weak when stitching removes; $81 \%$ of parents answered that uniform is easily washed by hand, stain is removed easily from uniform, colours do not bleed during washing, uniform is resistant to high ironing temperature and dries quickly and $68 \%$ of parents also disagreed that uniform changes in shape, reduces in size after laundry, wrinkles or creases badly, colour bleeds to stain material, fades after few washes and fuzzy balls appear on fabrics surface.

Also considering the performance uniforms for individual schools (Table 10), aesthetic performance was outstanding in PKGs 7 and 13, fabric's comfort was outstanding in PKGs 3, 7, 10 and 12, durability in strength was outstanding from PKG 7, 8, and 10, ease of care was outstanding in PKGs 5 and 8 while durability in appearance is outstanding performance from PKG 7. These further show that uniform fabrics from PKG 7 were beautiful in colour , attractive and smart looking, durable in appearance and strength, comfortable to wear, and easy to care for. However, it is worth noting that in PKG 1, majority ( $56 \%$ ) agreed that fabric is not durable in strength.

## Years of Wearing Current School Uniform

As part of objective two of the study, parents indicated how long children have been wearing the current school uniforms in Table 11. This helped the researcher to know the length of uniform usage.

Table 11: Years of Wearing Current School uniform

|  | Less <br> than 1 <br> year f <br> $(\%)$ | $1-2$ <br> years <br> $\mathrm{f}(\%)$ | Over <br> years <br> $\mathrm{f}(\%)$ | Total <br> $\mathrm{f}(\%)$ |
| :---: | :---: | :---: | :---: | :---: |
| School | $6(35)$ | $8(47)$ | $3(18)$ | $17(100)$ |
| PKG 1 | $6(35)$ | $8(47)$ | $3(18)$ | $17(100)$ |
| PKG 2 | $2(12)$ | $8(47)$ | $7(41)$ | $17(100)$ |
| PKG 3 | $3(19)$ | $9(56)$ | $4(25)$ | $16(100)$ |
| PKG 4 | $7(41)$ | $6(35)$ | $4(24)$ | $17(100)$ |
| PKG 5 | $4(24)$ | $8(47)$ | $5(24)$ | $17(100)$ |
| PKG 6 | $4(24)$ | $5(29)$ | $8(47)$ | $17(100)$ |
| PKG 7 | $3(18)$ | $6(35)$ | $8(47)$ | $17(100)$ |
| PKG 8 | $5(33)$ | $7(47)$ | $3(20)$ | $15(100)$ |
| PKG 9 | $2(12)$ | $8(47)$ | $7(41)$ | $17(100)$ |
| PKG 10 | $3(19)$ | $7(44)$ | $6(38)$ | $16(100)$ |
| PKG 11 | $6(35)$ | $7(47)$ | $4(24)$ | $17(100)$ |
| PKG 12 | $6(35)$ | $6(35)$ | $5(29)$ | $17(100)$ |
| PKG 13 | $4(24)$ | $7(41)$ | $6(35)$ | $17(100)$ |
| PKG 14 | $61(26)$ | $98(42)$ | $75(32)$ | $234(100)$ |
| Total |  |  |  |  |

Source: Field survey (2019)
Total responses in Table 11 show that $42 \%$ of children wore current uniform for 1-2 years while $29 \%$ children wore uniform for over 2 years. On individual school basis, outstanding scores for 1-2 years were from PKGs 1, 2, $3,4,6,9,10,11,12$; and 14 with the highest rating from PKG 4. Most children wore uniforms for over 2 years PKGs 7 and 8. This shows that some children wore uniforms since nursery. It was also found that most children from PKG 5 used uniform for less than 1 year.

## Objective Three: Parents' Satisfaction with Fabrics' Performance

Consumer's satisfaction or dissatisfaction with a product is usually noticed during use of the product. The third objective of the study is to assess satisfaction of parents with the school uniform fabrics. Satisfaction assessment covered performance attributes of the study (aesthetics, durability in appearance, durability in strength, comfort, and ease of care). Parents

Table 12: Parents' Satisfaction with Fabrics' Performance by Reasons

| School | Respondents | $\begin{gathered} \text { Satisfied } \\ \mathrm{f}(\%) \end{gathered}$ | Aesthetics f (\%) | Durability in appearance f (\%) | $\begin{gathered} \text { Durability in } \\ \text { strength } \\ \mathrm{f}(\%) \end{gathered}$ | Comfort $\mathrm{f}(\%)$ | $\begin{gathered} \text { Ease of Care } \\ \mathrm{f}(\%) \\ \hline \end{gathered}$ | Others f (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PKG1 | 17 | 17(100) | 3 (17.6) | 2(11.7) | 3(17.6) | 2(11.7) | 7(41.1) |  |
| PKG2 | 17 | 16(94) | 4(25) | 3(18.7) | 3(18.7) | 2(12.5) | 4(25) |  |
| PKG3 | 17 | 17(100) | 6 (35.2) | 5(29.4) | 2(11.7) |  | 4(23.5) |  |
| PKG4 | 16 | 6 (37.5) | 1 (16.6) | 0 | 1(16.6) | 2(33.3) | 2 (33.3) |  |
| PKG5 | 17 | 17(100) | 5(29.4) | 2(11.7) | 4(23.5) | 4(23.5) | 2(11.7) |  |
| PKG6 | 17 | 12(76) | 2(16.6) | 3(25) | 2(16.6) |  | 5(41.6) |  |
| PKG7 | 17 | 16(94) | 3(18.7) | 3(18.7) | 5(31.25) |  | 4(25) | 1(6.25) |
| PKG8 | 17 | 17(100) | 1(5.8) | 3(17.6) | 3(17.6) | 4(23.5) | 5(29.4) | 1(5.8) |
| PKG9 | 15 | 15(100) | 4(26.6) | 2 (13.3) | 3 (20) | 3(20) | 3 (20) |  |
| PKG10 | 17 | 14(82) | 1(7.1) | 3(21.4) | 3(21.4) | 2(14.2) | 3(21.4) | 2(14.2) |
| PKG11 | 16 | $9(56.2)$ | 3 (33.3) | 1(11.1) | 1(11.1) | 1(11.1) | 3 (33.3) |  |
| PKG12 | 17 | 17(100) | 5(29.4) |  | 3(17.6) | 4 (23.5) | 3(17.6) | 2(11.7) |
| PKG13 | 17 | 17(100) | 5(29.4) | 3(17.6) | 2(11.7) | 2(11.7) | 3 (17.6) | 2(11.7) |
| PKG14 | 17 | 17(100) | 2(11.7) | 5(29.4) | 4(23.5) |  | 5(29.4) | 1(5.8) |
| Total | 234(100) | 207(88.4) | 45(21.7) | 37(17.8) | 37(17.8) | 26(12.5) | 53(25.7) | 9(4.3) |

Source: Field survey (2018)
indicated their satisfaction/dissatisfaction and justified their answers. Table 12 presents the summary of parent's satisfaction based on the commonality of reasons by schools and by performance attributes. Any reasons given by parents apart from performance attributes in this study were captured under "others". Findings were presented by frequencies and percentages.

Per the total in Table 12, 207(88.4\%) parents were satisfied with children's uniform fabrics. The outstanding among reasons is fabrics' ease of care followed by aesthetics, durability in appearance and durability in strength followed by ease of care by equal rating and comfort was the least. Fabrics' ability to dry quick is one particular reason for parents' satisfaction with fabrics' ease of care (see Appendix G). The following are good examples of how parents described fabric's ability to dry quickly:
i) "Uniform dries in no time even if dried in the shade";
ii) "Uniform dries quickly even if it rains and you dry it in the room" These mean that fabrics dry quickly even if not dried in the sun.

It has been found that all parents from ten PKGs indicated that they are satisfied with fabric. Among these, ease of care was the most common reason stated by parents in PKG 1 and 8. Aesthetics is the most common reason given by parents in PKGs 3, 5, 9, 12 and 13. Durability in appearance and ease of care were the most common among reasons given by parents in 14, aesthetics and ease of care in PKGs 2 and 11, ease of care in PKG 6, durability in strength from PKG 7 and durability in appearance and strength in PKG 10

Contrariwise, only 37.5\% parents were satisfied in PKG 4. This shows that majority $10(62.5 \%)$ parents were dissatisfied with the performance of fabric (see Appendix G). The most common reasons given by parents for
being dissatisfied were that fabrics bled during washing, faded and get torn sooner than expected. These refer to fabric's lack of durability in appearance and strength.

## Discussion of Results

## Demographic characteristics of respondents

Findings on demographic characteristics of respondents in this study revealed that majority were within the age group of ' 30 to 39 ' years and had tertiary education. This indicates that parents who responded to this study are adults and highly educated. It is assumed that the maturity of respondents coupled with their high level of education probably made them capable of making good evaluations of fabric choices, performance and satisfaction for their children's school uniforms. It also helped during data collection since most parents understood the importance of this research and filled the questionnaires by themselves with little assistance.

## Parental Choice of School Uniform Fabrics

The findings for objective one show that most parents perceived intrinsic factors such as aesthetics, comfort, durability in appearance, durability in strength and ease of care very important for the choice of children's school uniform fabrics. This finding conforms to the assertions of Hassan and Leighs (2016); Rathi and Gupta (2017); Abu-Rous et al. (2018) and Jones cited by Dogbey et al. (2015) that parents perceived attractiveness and aesthetics, comfort, durability and ease of care during selection of fabrics for children's school uniform or clothing. It was also found that comfort, durability in appearance and durability of strength were outstanding because all parents from all 14 PKGs perceived them as important. This conforms to literature
that wear comfort has been listed as the most important property of clothing demanded by users and consumers (Song, 2011) and durability as a guideline for school uniform selection (Kantheti et al., 2013).

## Performance of School Uniform Fabrics

The second objective of the study is to examine the perceived performance of the respective school uniform fabrics. Discussions cover attributes which are aesthetic; durability (in appearance and strength), comfort and ease of care as well as the sub-attributes under them.

## Fabric performance: Aesthetics

Colourful prints make the best of children's clothes while attractiveness and smart appearance are both sensorial aspects of clothing's aesthetic quality. The observation that most fabrics used for children's uniform in all 14 PKGs have bright and vivid colours such as green, yellow, orange and violet coupled with suitably beautiful fabric designs such as gingham or checks, plaids, plains, stripes and prints confirmed the finding that most parents regarded children's school uniform fabric as beautiful in colour, look attractive and smart on pupil. These findings prove the assertion of Gupta, Mogra and Jain (2015), Korateng (2015) and Rathi and Gupta (2017) that a school uniform should have fundamental features such as attractiveness, pleasing design and colour, good fitting. Aesthetic in this study was the fourth consideration for parents during choice of fabric. This contradicts the assertion of Turker and Turan (2018) that comfort properties of the fabrics come out as the first consideration of the user after their colour factor.

## Durability in Appearance

Most parents (68\%) noted that uniforms were durable in appearance but there were few exceptions. Most parents in PKGs 5 noted that, uniforms change in shape. This might have been the reason why most parents from PKG

5 indicated that children used uniforms for less than one year (refer to Table 11). In PKGs 3, 4, 9, and 11, most parents indicated that uniform wrinkles/creases badly. Can, Akaydin, Turhan and Ay (2009) mentioned that wrinkles can be desirable or undesirable. Can et al. explained that desirable wrinkles are for the smartness of clothes while undesirable ones occur during wear. In the case of PKGs $3,4,9$, and 11 wrinkles/creases were undesirable because they are not part of the fabric design but were formed during wear. Though no evidence was found during observation, these undesirable creases can create unpleasant appearance of the uniform.

Also, more than half of the parents from PKGs $1,4,6,10$ and 12 noted that uniforms faded after few washes yet indicated that children wore current uniforms between one to two years. It could also mean that the parents had expected uniforms to maintain their new look through their use within one to two years. During observation, faded uniforms were found in PKGs 4, 12 and also in PKG 11. Though the majority (69\%) of the parents disagreed that fabrics faded in PKG 11, the researcher observed that the school's logo which served as patterns printed in the fabric faded from most uniforms. Also, the entire garment faded in PKG 4 while garment areas such as necklines, collars, back yokes of some uniforms faded in PKG 12. The researcher noted that faded uniforms lost their beauty. Kadolph (2007) explained this phenomenon better that when fabrics fade they change in colour, thus causing change in the
original appearance of the fabric. Ross as cited by (Dogbey et al., 2015) opined that a good fabric for making children's apparel should not fade.

Within the 14 PKGs , the response of most parents revealed that uniforms pilled. Pilling could be considered as one of the main problems of school uniform fabrics being used in private schools. Pilling occurs as a result of applying mechanical actions such as rubbing to the surface of a fabric during wear or cleaning resulting in abrasion or wear and tear of fibres which migrates to yarn surface resulting in the emergence of fuse on fabric's surface and then entangling with other fibres that are still attached to the fabric to form lots of small balls (Fan, Yu \& Hunter, 2004; Kadolph, 2007). Pills occurring on the surface of the uniforms is not surprising since children who wear them are very active and usually rubbed uniforms on surfaces thus causing pills on the surface. Also, children's school uniforms may be susceptible to pilling due to frequent cleaning.

Despite the surface deformation and unappealing state of these uniforms, it has been observed that students still wore them to school with special reference to PKGs 3, 6 and 14. Pilling affected uniforms' beauty. This aligns with the assertion of Fan et al. (2004) and Kadolph (2007) that the formation of pills on fabric's surface during wear can create unsightly appearance and though the pills break off, new ones form rarely making the surface of the fabric improved in any way.

## Durability in Strength

Most parents indicated that fabric is durable in strength. With regards to uniforms used in PKG 1 and 4, the responses of most parents show that fabric has been affected by yarn slippage. But the researcher found evidence
on yarn slippage in PKG 1, 2 and 6 (see Appendix H). In PKG 1, the weft yarns in the shirt shifted apart leaving the warp yarns in position showing that fabric's weave is not compact. Per researcher's observation, fabrics used for making the affected uniforms appeared and felt like polyester because they looked brighter in appearance and felt plastic like. Polyester fabrics are usually made of filament yarns. Filament yarns due to their slippery surface are more prone to yarn slippage (Kalaoglu \& Meric, 2005; Seif, 2014). Since children's uniforms are often laundered, according to Kadolph (2007), yarn slippage could also result from care of fabrics.

Most parents noted that fabrics are still durable in strength when seams rip in uniform. This is also an indication that seam efficiency of the uniforms is rather low and should be looked into. In garment construction the seam should be almost as strong as the fabric so that the seam can have about the same life span as the fabric. Seam efficiency is more important in the uniforms of children since they play a lot resulting in a lot of strain on the garment fabric and seams. Notwithstanding, the researcher observed that some pupils in PKG 4 and 6 wore torn, torn but stitched or patched uniforms to school (see Appendix H). This shows that fabrics are not durable in strength. Fan et al. (2004) and Kadolph (2007) mentioned that early deterioration such as tearing, yarn slippage and pilling may occur during use and care compromising fabric's strength. School uniforms for KG pupils are frequently worn and laundered and might have contributed to early deterioration. Early deterioration may also be indicative of low quality.

## Fabric Performance: Comfort

Most parents indicated that fabric is comfortable to wear. The most absorbent material per parent's response was from PKG 7. However, from researcher's observation, most uniforms in PKG 7 appeared to made of polyester or synthetic fabrics. Literature revealed that polyester or synthetics are hydrophobic, that is, absorbs little or no water at all and so most fabrics in PKG 7 could not have been outstanding in sweat absorbency assessment. This finding suggests two things: i) that fibre may be cotton - polyester blend, the reason for its absorbency and ii) or parents may be oblivious to characteristics of polyester and cotton fibres.

Contrarily in PKG 2, the response of most parents was that material is not absorbent. Parent's indication that fabrics do not absorb sweat in PKG 2 coupled with researcher's observation that most fabrics did not absorb sweat readily and even when wet, showed little sign of wetness and dried quickly suggests that uniforms were made of polyester or polyester blends or other synthetics. Literature revealed that polyester is hydrophobic (Hassan \& Leighs, 2016), that is, absorbs little or no water at all and so most fabrics in PKG 2 could not be absorbent. Polyester may dry faster, but not very absorbent (Abu-Rous et al., 2018).

Most parents indicated that fabrics are cool to wear. But in PKGs 2 and 6, it was found that fabrics did not feel cool. The reasons why uniforms did not feel cool may be due to fabrics properties. Per researcher's observation, most uniforms being used in PKGs 2 and 6 seem to be made from polyester or synthetics based on the finding that most fabrics do not absorb sweat during children's play at break period. Fabrics which are not absorbent are likely to
feel warm. Unlike cotton, $100 \%$ polyester is not water/vapour permeable, have low water or body moisture absorption, retain body heat and are not cool to wear (Demeo, 1996; Özdemir, 2017). hence will feel warm and uncomfortable in warm climates.

Fabric softness assessed by parents described sensorial comfort which refers to the induction of various nerve impulses when the textile is in contact with the skin. Parental response showed that most fabrics are soft on the skin. This finding reiterates the assertion of Kadolph (2007) and Song cited in AbuRous et al. (2018) that fabric's softness is an essential requirement of materials used for clothing which will have direct contact with the skin for children's comfort. Most parents noted school uniform fabrics as light in weight. This finding highlighted the assertion of May and Koester (1991) and Dogbey, Kumah Kpobee, Dedume and Osei (2015) that children need light weight fabrics and not heavy bulky fabrics for their clothing for comfort. Smoothness is one of the important attributes used in measuring fabric feel or hand. From parental assessment, most uniform fabrics are smooth to see and feel. This conforms to Limeneh et al. (2020) indicated that smoothness is a determinant of fabric's sensorial comfort. Afroza (2018) equipped fabrics which are smooth to feel do not irritate children's skin.

## Fabric performance: Ease of Care

Parental assessment shows that fabrics were easy to care for. The finding that most uniforms were easily washed by hand may be because fabrics are soft, light weight and durable as revealed earlier by findings. Findings show that most uniforms are easy to wash with hand and stains are removed with ease. The easy removal of stain from most uniforms may be due
to the type of fibres: cotton, polyester and cotton blends fabrics mostly used per researcher's observation. Polyester fabrics are stain - resistant while stains are easily removed from cotton fabrics but oily stains bond more firmly to synthetics and fabrics with permanent or durable press finishes than untreated ones (Smith, 2004; Kumari et al., 2017).

All parents noted that fabrics do not bleed during washing except in PKG8, where majority (88\%) of parents noted that uniforms bleed. Bleeding of fabric's colour during washing usually leads to colour loss resulting in to fading. Fabrics for children's school uniform should be colour fast. Colour fast fabric is the one that resists bleeding and fading when exposed to elements such as water, perspiration, and bleach during washing (Kadolph, 2007). Fabrics which are not colour fast may be indicative of low quality.

Parental response indicated that most uniforms are resistant to high ironing temperature except in PKGs 1, 6, 7, 11, 13 and 14 where most parents declined. In PKG 11, some burnt uniforms were found. Fabrics used in making uniforms used by PKGs $1,6,7,11,13$ and 14 appears to be polyester or blends courtesy researcher's observation. Polyester fabrics are susceptible to decomposition at high temperature. They may change shape after the application of heat (Kumari et al., 2017) hence sensitive to high temperatures of $160^{\circ} \mathrm{C}$, melts at $260^{\circ} \mathrm{C}$ and should be ironed at a moderate temperature of $120^{\circ} \mathrm{C}$ (Camlibel, 2018; Mupfumira \& Jiga, 2013). On the contrary, cotton decomposes after prolonged exposure to temperatures of $150^{\circ} \mathrm{C}$ or over according to Ashraf (2014).

Also, most parents noted that uniforms dry quickly except for PKG 14 where $65 \%$ of parents indicated that uniforms do not dry quickly. During
satisfaction assessment (see Appendix G), two reasons given by parents for being satisfied are good examples of how parents described fabric's ability to dry quickly:
iii) "uniform dries in no time even if dried in the shade";
iv) "uniform dries quickly even if it rains and you dry it in the room" These mean that fabrics dry quickly even if not dried in the sun. The quick drying ability indicated over here complements the earlier finding and observation that uniforms were made of light in weight cotton, polyester or cotton - blend fabrics. The ability of a fabric to dry quickly when wet with sweat or water depends on the amount of moisture absorbed into its fibre, the drying temperature, the relative humidity and the velocity of the air in contact with the fibre (Hassan, \& Leighs, 2016). When uniform is washed and squeezed, the remaining water in a fabric is determined by the thickness, structure (size and shape of pores of the fabric) and the chemical interaction between water molecules and fabric's surface (Hassan, \& Leighs, 2016). Though cotton uniform fabrics are hydrophilic and should take longer time to dry, their light weight and fabric structure might have enabled them to dry quickly just like the polyester or synthetic uniform fabrics which are hydrophobic.

## Parental Satisfaction

Consumers become satisfied or dissatisfied after using a product. Parental satisfaction assessment in Table 12 indicates that most parents were satisfied with uniforms. Among reasons given by parents for their satisfaction, ease of care was outstanding. This was followed by aesthetics, durability in appearance, durability in strength and comfort.

However, in PKG 4, only $38 \%$ of parents indicated their satisfaction. It means that $62 \%$ of parents were dissatisfied. Reasons given include fabric bleeding, fading and uniform tearing sooner than expected. Parents might have been dissatisfied because fabrics did not perform as expected. This could be explained from Table 4 where all parents from PKG 4 considered all intrinsic factors during choice of fabric and might have held high expectations for fabric's performance. This could have led to their dissatisfaction since the discovery of fabric's actual attributes during use and care did not meet their expectations. This supports the assertion of Abraham (1992) asserted that at the time of purchase some attributes play an important role as indicators of the future performance of the product; however, as the product is being used consumers are able to assess the actual performance. This also reflects the conceptual framework of this study that consumers choose fabrics based on certain factors they consider important and only confirm the real qualities of fabrics during use and care.

It is expected that a good or high performance brings consumers satisfaction (Kadolph, 2007). However, observations based on findings show that parents were not always satisfied with the highest performing attribute or indicate same high performing attributes as reasons for satisfaction. For example, in PKGs 3, 6, 7, and PKG 14, the average result for performance shows that majorities ( $91.6 \%, 78.8,93 \%$ and $87 \%$ ) of parents confirmed fabric to be comfortable during performance assessment but declined stating comfort as reason for their satisfaction (Table 10 and 12). This shows that parent's satisfaction is subjective. It could also be due to the fact that the parents are
not the direct users of the garments and therefore find it difficult to make an objective assessment on the comfort of the fabrics.

## Summary

In summary, most parent respondents were within the age group of '30 to $39^{\prime}$ years and had tertiary level education. Per observation, cotton and polyester were the mostly used fabrics in making children's school uniform. Most uniforms were worn one to two years. Comfort and durability in appearance, durability in strength were the outstanding, followed by ease of care and aesthetics as parental choice factors. Perceive choice factors were measured during performance and the actual attributes were discovered. Most parents indicated their satisfaction with fabrics' performance and fabric's aesthetic was outstanding followed by comfort, durability in strength, durability in appearance, and ease of care. This shows that comfort, durability in appearance and in strength which was firstly important during choice, became second, third and fourth during performance confirmation. It indicates that parents' perception and consideration of fabric attributes during choice and purchase differed from the actual fabric attributes discovered during use and care and parents did not always confirm these discovered attributes for satisfaction.

## CHAPTER FIVE

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## Overview

The purpose of the study was to assess the performance of school uniform fabrics being used by private kindergartens and satisfaction among parents (respondents). This chapter highlights the most important findings of the study, recommendations given to parents and school authorities on choice and performance of school uniform fabrics and also suggestions for further study.

## Summary of Results

The study was conducted among 14 selected private kindergartens in the Ho Municipality of the Volta Region. The study was a mixed method comprising survey and observation. It employed both quantitative and qualitative approach (Mixed methods) in collecting data and data analysis. The study sought to describe the perceptions of parents about choice, performance of fabric and satisfaction of parents with school uniform fabrics. Two hundred and thirty six parents were randomly selected from 14 selected schools. Two hundred and thirty four parents responded to the questionnaires. It was a high return rate of $99.3 \%$. Data collected during the survey has been summarized and findings were presented according to the objectives of the study using frequencies, percentages and means. Most parents were within the age group of ' 30 to 39 ' years and had tertiary level education.

The aim of the study was to evaluate parents' perceptions on the intrinsic performance and satisfaction of school uniform fabrics among selected kindergartens. The objectives of the study were to identify the
intrinsic factors parents perceive important during choice of school uniform fabrics, assess the parental perception of fabric's performance and parental satisfaction with children's school uniform fabrics.

## Key Findings

The study found that:

1. Comfort, durability in appearance and strength were the most perceived factors of fabric selection among the parents.
2. Aesthetics was the highest performance attribute. Colours in uniform fabrics were beautiful and pupils looked attractive and smart in uniform.
3. Most uniforms fabrics were deformed or deteriorated because of change in shape, shrinkage; wrinkling, fading, yarn slippage, loss of strength, colour bleeding and melting. Pilling was a major fabric deformation found in all PKGs of this study. Also in some schools, most uniforms were nonabsorbent and not cool to wear.
4. Majority ( $88.4 \%$ ) of parents was satisfied with fabric's performance and the outstanding reason for their satisfaction was ease of care.

## Conclusions

To conclude, most parents perceived intrinsic factors of this study as important. The evaluated uniforms were still being worn by children at the time of assessment. Parents cared for these uniforms, did assess the intrinsic attributes of fabrics and indicated the actual intrinsic attributes of these fabrics. Aesthetics was most perceived performing fabric attribute while ease of care was the most indicated reason for parents' satisfaction. Generally, parents noted that fabrics performed but confirmed some fabric failures in some schools as in the case of PKG 4. Most parents in PKG 4 were dissatisfied
because fabrics faded, and got torn earlier than expected. This also shows that most fabrics in PKG 4 are not durable in appearance and strength.

Though it is expected that parent's satisfaction should be based on fabric's performance, parents did not always indicate the same attributes confirmed during performance as reasons for their satisfaction. For example, ease of care which was the fourth factor considered by parents during choice was the fifth (least) during performance yet the first or most common reason for parent's satisfaction. Comfort which is an essential requisite for children's garments was the second performing attribute but the least satisfying fabric attribute in this study. Though it is expected that good performance should influence satisfaction, parents were not always satisfied because fabric's performance is good. These show subjectivity of parents in fabrics judgement.

## Recommendations

The following recommendations were made based on the findings of the study:

1. Since parents do not set dress codes but are obliged to follow the standards set by School Management and PTA, it is recommended that School Management and PTA should conduct a brief survey to seek parents' perceived intrinsic fabric choice attributes which will help them to take informed decisions in acquiring school satisfying uniform fabrics.
2. To enable parents to purchase fabrics which are comfortable, durable, beautiful and easily cared for, it is recommended that school authorities and PTAs collaborate to carry out performance tests on fabrics to predetermine fabrics' performance prior to purchasing large quantities thereby reducing fabric failure since low quality fabrics will not be bought.
3. School authorities should furnish parents with care information based on the results of the fabric performance tests carried out. This will help parents practice good care and maintenance of uniforms to promote good fabric performance and satisfaction among parents.

## Suggestions for Further Research

1. There is proliferation of brands of school uniform fabrics in the Ghanaian textile market today. A survey could be conducted in other private schools to find out the performance and parental satisfaction of their school uniform fabrics.
2. This study could be repeated using interview in addition to questionnaire and observation to collect data from parents, Parent Teacher Associations and school authorities.
3. There are so many influential factors regarding the choice of fabrics. A study could be conducted to identify both extrinsic and intrinsic factors affecting the choice of school uniform fabrics for private kindergartens.
4. A study could be carried out by means of laboratory observation to determine performance of fabrics apart from the natural observation done in this study.
5. The effect of washing on the durability attributes of fabrics in this study could be researched into.

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## APPENDICES

## APPENDIX A

Table 9: List of Schools

| Name of school | Code |
| :--- | :--- |
| Bless and Glory International | PKG 1 |
| Bright Kids Nursery and KG Care center | PKG 2 |
| Deo - Gratias Early Learning Center | PKG 3 |
| Evangelical Assemblies of God International School | PKG 4 |
| Ho International School | PKG 5 |
| Leaders Preparatory School | PKG 6 |
| McColin's Preparatory School | PKG 7 |
| Nileem Preparatory School | PKG 8 |
| Prince Charlse | PKG 9 |
| Royal Praise Preparatory School | PKG10 |
| Sonrise Christian International School | PKG11 |
| Springs School Complex | PKG12 |
| Vision International School | PKG13 |
| Volta Rising Star Academy | PKG 14 |

## APPENDIX B

## INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST COLLEGE OF EDUCATION STUDIES FACULTY OF SCIENCE AND TECHNOLOGY EDUCATION DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION<br>Direct: $03320-91097$ Telegrams \& Cables: University, Cape Coast Our Ref: VTE/IAL $/ \mathrm{V} .3 / 100$

## TO WHOM IT MAY CONCERN

Dear Sir/Madam,

INTRODUCTORY LETTER
We have the pleasure of introducing to you Ashigbie Sitsofe Abla who is an M. Phil student of this Department.

She is collecting data for her thesis on the topic "Evaluation of the Performance and acceptability of School Uniform Fabrics Among Private Kindergartens in Ho Municipality".

We would be very grateful if you could furnish her with the necessary information she requires from you.

We are counting on your usual cooperation.
Thank you.
Yours faithfully,


Ms.Irene Ampong For: HEAD OF DEPARTMENT
VDEPT. OF VOTEC
ERSITY OF : $\because$ COAST
$\triangle$ CAP:

## APPENDIX C

## UNIVERSITY OF CAPE COAST

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

CONSENT FORM

## EVALUATION OF THE PERFORMANCE AND SATISFACTION OF

SCHOOL UNIFORM FABRICS AMONG SELECTED PRIVATE
KINDERGARTENS
(Sitsofe A. Ashigbie, Graduate student, University of Cape Coast
(0242831813)

This survey is an M. Phil study aimed at determining the performance and satisfaction of uniform fabrics among parents of children in private kindergartens in Ho Municipality. Data will be collected by administering questionnaire to parents of pupils in kindergarten 2 who may have experiences purchasing and caring for the fabrics and will be able to assess their satisfaction with its performance. You are free to ask questions about the study before participation.

The study is purely academic and all information provided will be treated with the utmost confidentiality. There are no physical, psychological, economic or legal risks or discomforts associated with this study. The expected benefits regarding your participation are that the information provided will create more enlightenment about fabric products available for school uniforms and as well as improve upon fabric consumption practices among parents in Ghana.

The researcher provided the following information to help you take a decision on your participation in the study. Participating is voluntary and you are free to withdraw participation at any time without penalty. Your withdrawal from the study will not affect your relationship with the researcher.

I would be very grateful if you could kindly spend 15 minutes of your time to respond to the questions to help develop a suitable survey report. May i humbly request you to accept and sign this consent form? A copy of this form will be given to you to keep.

Thank you.

APPENDIX D

## UNIVERSITY OF CAPE COAST

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION QUESTIONNAIRE FOR PARENTS

## EVALUATION OF THE PERFORMANCE AND SATISFACTION OF

SCHOOL UNIFORM FABRICS AMONG SELECTED PRIVATE
KINDERGARTENS (KG)
The uniform being investigated is the shirt material used for the uniform of both boys and girls. Kindly write your responses for questions where answer options have not been provided. Where options have been provided, tick [ $\sqrt{ }]$ the option best applicable to you in the spaces provided.

## SOCIO-DEMOGRAPHIC INFORMATION

1. Child's school: $\qquad$
2. Age of parent: $\qquad$

Below 20
20 to 29
30 to 39

40 and above
3. Parent's highest level of education:

No formal education
Basic school
[ ]
Vocational/Secretarial School [ ]

Secondary/Technical Senior High [ ]
Tertiary

## ACQUISISION AND USE OF UNIFORM

4. How long have you been using the current school uniform?
Less than 1 year [ ]
1-2 years [ ]
3-4 years
[ ]
Others (specify)

## CHOICE OF SCHOOL UNIFORMS

In purchasing fabrics for your child's school uniform, how important do you perceive the following factors? Four options have been provided and ranked on a scale of 4 as follows: Not important $(\mathrm{NI})=1$, Less Important $(\mathrm{LI})=2$, $\operatorname{Important}(\mathrm{I})=3$ and $\operatorname{Very} \operatorname{Important}(\mathrm{VI})=4$.

| No | Tick [ $\sqrt{ }$ ] the option applicable to you. | NI | LI | I | VI |
| ---: | :--- | :--- | :--- | :--- | :--- |
| 5. | Material should be beautiful |  |  |  |  |
| 6. | Material should be durable in appearance |  |  |  |  |
| 7. | Material should be durable in strength |  |  |  |  |
| 8. | Material should be comfortable |  |  |  |  |
| 9. | Material should be easily cared for |  |  |  |  |

## PERFORMANCE OF UNIFORM FABRIC

You will assess only one fabric in this study. Using boys' uniform as a reference, the fabric is used for shirts but may also be used for girl's shirts, dress, pinafore or skirts. Four options have been provided and ranked on a scale of 4: Strongly Disagreed $(S D)=1$ Disagreed $(D)=2$, Agreed $(A)=3$ and Strongly Agreed $(S A)=4$. Show your level of satisfaction by ticking $[\sqrt{ }]$ the option most applicable to you.

| No | Tick [ل] the option most applicable to | SD | D | A | SA |
| :---: | :--- | :--- | :--- | :--- | :--- |
| you. |  |  |  |  |  |
| 10. | Colours in the material are beautiful |  |  |  |  |
| 11. | Pupils look attractive in uniform |  |  |  |  |
| 12. | Pupils look smart in uniform |  |  |  |  |
| 13. | Uniform changes in shape |  |  |  |  |
| 14. | Uniform reduces in size after laundry |  |  |  |  |
| 15. | Uniform wrinkles/creases badly |  |  |  |  |
| 16. | Small fuzzy balls appear on fabric's |  |  |  |  |
| surface | Uniform fades after few washes |  |  |  |  |
| 17. | Yarns in fabric slips out of seam/stitching |  |  |  |  |
| 19. | Colour bleeds and stains material |  |  |  |  |
| 20. | Material becomes week when stitching |  |  |  |  |
| removes | Uniform is easy to wash by hand |  |  |  |  |
| 22. | Stain is easily removed from uniform |  |  |  |  |


| 23. | Uniform's colour run (bleed) during <br> washing |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- |
| 24. | Material is resistant to high ironing <br> temperature |  |  |  |  |
| 25. | Uniform dries quickly |  |  |  |  |
| 26. | Uniform readily absorbs sweat |  |  |  |  |
| 27. | Uniform is cool to wear |  |  |  |  |
| 28. | Material feels soft |  |  |  |  |
| 29. | Material is light in weight |  |  |  |  |
| 30. Material feels smooth |  |  |  |  |  |

## PARENTS' SATISFACTION

31. Would you say you are satisfied with your child's school uniform fabric?

Yes
No
32. Give reasons for your answer in question 32 above.

Please return the questionnaire latest by $30^{\text {th }}$ May 2019.
THANK YOU

## APPENDIX E

UNIVERSITY OF CAPE COAST
DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION OBSERVATION GUIDE

## EVALUATION OF THE PERFORMANCE ANDACCEPTABILITY OF

 SCHOOL UNIFORM FABRICS AMONG SELECTED PRIVATE KINDERGARTENSThis guide includes a number of fabric attributes observable and data obtained may be relevant in supporting or discussing findings of the study. The researcher through field observation is required to answer/ tick against the following as it applies to each school.

|  | Fabric Attributes |
| :--- | :--- |
| Colours |  |
| Fabric design |  |
| Wrinkles or creases |  |
| Pilling |  |
| Yarn slippage |  |
| Colour fading |  |
| Colour staining colours |  |
| Wet patterns of sweat |  |
| Torn or patched portions |  |
| Burnt portions |  |
| Shinny marks by ironing |  |
| Any other |  |

## UNIVERSITY OF CAPE COAST

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION OBSERVATION PROTOCOL

EVALUATION OF THE PERFORMANCE ANDACCEPTABILITY OF
SCHOOL UNIFORM FABRICS AMONG SELECTED PRIVATE
KINDERGARTENS

For researcher's use only

| Time: | Brief description of project: |
| :--- | :--- |
| Date: |  |
| Length of observation: |  |
| Place: |  |
|  |  |

Observed item:
Observed attribute:
Descriptive notes $\quad$ Reflective notes:

## APPENDIX F

PKGS AND THEIR RESPECTIVE UNIFORMS




PKG 13


PKG 14

## APPENDIX G

Table 14: Parent's Reasons for Satisfaction/Dissatisfaction




Fabric has beautiful colours, look attractive and smart on pupils
Fabrics are easy to care for 3 (20)
Fabrics are of good texture, 3 (20) comfortable for the climate and children do not show any sign of discomfort in the uniform

## Total <br> 15 (100)

PKG10 Yes 14(82\%) Reasons F (\%)
Fabrics are durable in strength, 6 (42.8) does not bleed, fade or stain other colours

Fabric is easy to wash by hand, 3 (21.4)
dries quickly and easy to iron
Fabrics are readily absorbent
2 (14.3)
Child looks attractive and smart $\quad 1$ (7.1)
No reason 2 (14.3)
Total 14 (100)
Reasons for ' No ' answers
Fabric is not cotton, not absorbent 2 (66.7)
and not cool to wear
Fabric easily burned during ironing $\quad 1$ (33.3)
Total 3 (100)
PKG11 Yes 9(56) Reasons F (\%)
Fabrics look beautiful and smart on 3 (33.3)
my child
Fabric is strong and do not stain or 3(33.3)
fade
Fabric is easy to wash by hand, and
dry quickly even if not dried in the
sun
Fabrics is quality and absorbent
Total

No 7(41\%) Reasons

$$
\begin{array}{ll}
\text { Fabric is synthetic and does not } & 3(42.9) \\
\text { absorb sweat } \\
\text { Fabric pills and fades } & 3(42.9) \\
\text { Child feels heat in the uniform } & 1(14.3)
\end{array}
$$

|  |  | Table 14 continued |  |
| :--- | :--- | :--- | :--- |
|  |  | Total | $\mathbf{1 7}(\mathbf{1 0 0})$ |
| PKG12 Yes 16(94\%) | Reason | $\mathbf{f ( \% )}$ |  |

Fabric is beautiful, attractive and 5 (31.25) smart looking.
Fabric is cotton, absorbent and cool 4 (25) to wear

Fabric is easy to wash by hand, 3 (18.75)
remove stain, and dries quickly
Fabric is durable in strength and 3 (18.75) can withstand friction method of washing
Fabric is very affordable and easy 1 (6.25)
to get
Total 16 (100)
Reason
No answer 1 (6)
Total
PKG13 Yes 17(100\%) Reasons
1 (100)

Fabrics are beautiful $\quad 5(29)$
Fabrics are durable in strength and 5(29)
do not fade
Fabrics do not easily get dirty, easy 3(18)
to wash by hand and dry quickly
Fabric is cool to wear
Fabric is accessible in the market 2(12) and is affordable

Total
17(100)

| PKG14 Yes 17(100\%) | Reasons | $\mathbf{f ( \% )}$ |
| :--- | :--- | :--- |
|  | Fabric is pure cotton, durable in | $9(59)$ |
|  | strength is quality and does not fade |  |
|  | or bleed to stain other colours |  |
|  | Fabric is easy to wash by hand, | $5(29)$ |
|  | allow for easy removal of dirt and |  |
|  | dry quickly |  |
|  | Fabrics look beautiful and very | $2(12)$ |
|  | attractive on my child | $1(6)$ |
|  | No comment | $\mathbf{1 7 ( 1 0 0 )}$ |

## APPENDIX H

DEFORMATIONS FOUND ON UNIFORMS


PKG 4 Faded uniform
PKG 11 Faded logo in shirt


PKG 11: Faded collar
PKG 12: Faded collar


PKG 3 uniform pilled at the side


PKG 6 pilled unform; ripped seams


PKG 14 pilled uniform


PKG 2 yarns slipped at pocket



PKG 2 uniform burnt

