ASSESSMENT OF COLLEGES OF EDUCATION HOME ECONOMICS STUDENTS SEWING SKILLS IN THE PRODUCTION OF CHILDREN'S WEARS IN NORTH CENTRAL NIGERIA

BY

Grace Onyowo ULOKO

P14EDVE8037 (P17EDVE8241)

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DECLARATION

I declare that the work in this dissertation titled “Assessment of Colleges of Education Home Economics students’ sewing skills in the production of children’s wear in North Central Nigeria" has been carried out by me in the Department of Home Economics. The several authors whose materials were used in the course of the work have been duly acknowledged in the text and in the list of references provided, no part of this dissertation was previously presented for another degree or diploma at this or any other institution.

Grace Onyowo Uloko _____ _____

Signature Date

CERTIFICATION

This dissertation titled "ASSESSMENT OF COLLEGES OF EDUCATION HOME ECONOMICS STUDENTS SEWING SKILLS IN THE PRODUCTION OF CHILDREN'S WEAR IN NORTH CENTRAL NIGERIA" written by Grace Onyowo ULOKO meets the regulation governing the award of Master's Degree in Education (M.Ed.) Home Economics of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

Prof. M. F. Ahuwan (Chairperson, Supervisory Committee)	_____ Signature	_____ Date
Prof. E. Ike (Member, Supervisory Committee)	_____ Signature	_____ Date
Dr. M.A. Abubakar (Head, Department of Home Economics)	_____ Signature	_____ Date
Prof. S Abdullahi (Dean, School of Postgraduate Studies)	_____ Signature	_____ Date

DEDICATION

This work is dedicated to all my brethren in the body of Christ and Jeremiah Uloko's family in general.

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OPERATIONAL DEFINITION OF TERMS

In this research work the following words are defined thus;

Finishing the garment: After the garment is assembled, it needs to be finished. That is putting some finishing touches to make it look neat like clip all hanging threads, hem need to be pressed lay flat, inside surged or make French seam, then press and packaged.

Fullness: a way of disposing extra fabric in a garment to form a style. Like gathers

Seam: is a style or method used in putting together one or more piece of fabric by sewing.

French seam; is the method or style used in putting together the side seam of this work that has to do with sewing from right and turning it to wrong side. It is a self-enclosed seam.

Sewing skill: using the knowledge acquired in a clothing class to put together some parts of garment to a precision for standard.

Skill Acquisition: an ability expected of an individual after having been exposed to some training.

Stitches: a way of passing needle and thread in and out of a fabric in other to join the pieces together.

Features: are parts of a garment that makes up the garment. Defining pieces that stylizes the garment.

Gathers: a type of disposal of fullness that has to do with drawing the thread of a running stitch or gather stitch at an edge of a fabric to form small tiny folds draping down.

ABSTRACT

This study was conducted to access College of Education Home Economics students sewing skill in the production of children's wear in North central Nigeria. To achieve this, four objectives, four research questions and four hypotheses were formulated to grade the study, the population for the study was three hundred and sixty-four N.C.E 111 Home economics students from twelve colleges of education in North Central Nigeria. Two colleges were purposely selected and a systematic sampling technique was used to select an intact class of 30 students from each of the two selected colleges were used. A descriptive survey was used for the study. A scorecard adopted from quality standard checklist inform of a rating scale was used to determine the sewing skills in making the French seam, constructing and attaching puff sleeve, construction and attachment of Peter Pan collar and construction of gathers. A panel of five judges who are expert in clothing and textiles were engaged to rate the students. IBM SPSS Statistics package was used to analyzed the data the findings of the study among others reveal that Peter Pan collar 4(PPC4) "fix according to correct method bias that hides the raw edge at the neckline is neatly attached flat was rated poorly", while in the making of gathers, all the four aspects tested were rated high which is a clear indication that student performs better in all. One sample t-test was used to determine the significance of the sewing skills demonstrated by the students. The result of analyses shows the students had significance adequate knowledge of the four sewing skills. (t-2.291, p.001; t=2.13, p.001; t=2.291, p.00; and t-2.232, p.00). The study, therefore, concludes that the student had adequate sewing skills of children wears. The study, therefore, recommends that; teachers should maintain the standards but try to focus more on the areas of the student's deficiency also clothing laboratory should be equipped and conducive enough to create interest in students to work. Teachers of clothing and textiles should teach in line with clothing construction skill to equip students with good sewing skill.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Home economics is one of the pre-vocational subject taught at the primary up to tertiary education level in the Nigeria educational system (Yusuf 2016). It is one of the major courses offered in colleges of education it has been defined by different authors in different ways as an applied science, vocational subject for skill acquisition. Such is the skill taught in clothing construction class, the course introduces students to the basic principles and skills required to sew, sewing is the practice of fastening two pieces of fabric together using a needle and thread. Although sewing is a needle craft, it differs from knitting, crocheting and embroidery because sewing is more of constructive skill, skill in sewing can be displayed in different areas like skill in finishing, skill in application of features and skill in stitches among others. proper knowledge of sewing machine manipulation plays a very important role in sewing skill knowing how to set stitch regulator in line with texture of the fabric, proper threading of the machine, pedaling, and sewing straight to the precision are part of sewing skills that cannot be over looked for these are preliminary stages to a perfect sewing. Sewing skill in this work involve the usage of clothing construction techniques in the production of some selected features in a baby dress according to specification as contained in clothing construction skill which are criteria's for acceptable quality and covers all the characteristics that can be accurately measured or assessed.

Assessment, in relation to this work, is the art of examining, evaluating and rating an outcome of students sewing skill on some selected garment features like seams, collar, sleeve and gathers reflected on a child's dress with Peter Pan collar at the neck line, peter pan collar

is a small, flat type of collar with rounded edges often used in children apparel. The dress has gather at the waist line, Gathers are produced by sewing the fabric only on one end of the fabric, and the remainder is left to fall loosely. This is to allow free movement especially in children who are active. With puff sleeve at the armhole, puff sleeves are designed with gathers at the cap line only or at the cap and hemline (see appendix 111 pp, 95) the closing up of the side seam of the dress with the usage of French seam. A seam is a line of stitching used to hold two layers of fabric together. French seam is an example of inconspicuous seam and is found most suitable for children dresses because it is easier to launder, and can withstand frequent washing because both raw edges are enclosed in a fell, which is pressed to one side of the seam, is a self-finished seam because no raw edges show through the fabric. Skill is the ability to do something expertly and well. It is essential for the development of intrinsic potentials in an individual (Okorie 2000). The manipulative ability in construction of garment features from structural level to the esthetic level, which brings about it neatness attractiveness and its acceptability by customers is what sewing skill is all about. Nigeria certificate in Education (NCE) is a certificate obtained after having graduated from college of education, is a special A- level grade course with three years' duration. It is a minimum qualification for all teachers in our schools as prescribe by national policy of education (2004). Expected to produce highly motivated conscientious and efficient classroom teachers for all levels of the Nigerian educational system.

There is an advantage in exposing students on training to practical sewing because completing a sewing project brings a sense of pride and accomplishment, thereby creating self confidence in an individual. New skills are learnt with each new project and knowledge built on prior knowledge; confidence are gained as attempting a challenge and mastering the skill.

Furthermore, this skill if learnt, would contribute to the achievement of educational goals, according to the National Policy of Education (FRN, 1998, FRN, 2016). In addition, these skills once acquired, increase the quality of classroom instruction. Seeing the need for skill acquisition after graduation in Nigeria is very high. Hence, it has become more imperative to assess the sewing skills of students in Colleges of Education offering clothing and textile in production of children's dress (pre-school of ages 3-5) that will be acceptable in a competitive market, seeing the relevance of skill acquisition presently in Nigeria.

1.2 Statement of the Problem

The fluctuating job market and increasing awareness of the need for vocational graduates to become competent in their area of specialization have necessitated the study on emphasis in skill acquisition in Nigerian schools. Skill acquisition prepares individuals to be thorough in manipulative skill for high standard performance as challenges are faced on a daily basis, especially in one's area of specialization. Competition in the labor market is high and nobody would like to settle for anything substandard. The world is changing and dynamic that our certificates are no longer enough. The graduate's inability to create jobs for themselves and others can be attributed to lack of proper acquisition of skills. Enough of theory without practicality, because output is the emphasis of the era, and the ability to produce tangible things that. Can be marketable for self-reliance is the need of the hour.

The researcher observed that most students of Home Economics in Colleges of Education upon graduation apparently lack practical skills to implement their professional training skills acquired during the course of study. Interactions by the researcher with some of the graduate of NCEs home economics students shows that the students are apparently not skilled enough to produce garments that meet up with the approved standards. To make the

situation worst some of the students have phobia when they are asked to operate equipment's for making garments. This problem was also observed by Anikweze (2006) that graduates were unskilled in the use of conventional equipment and also incapable of technical solutions to routine problems as expected of individuals with their levels of training.

The researcher begins to wonder what could be the reason why graduates of colleges of education home economics students are unable to practices what they have learnt in the school. Could it be that students were not taught according to the quality standard checklist? Or laxity on the part of students, and lack of enough time allocated to the course, among others. However, this prompted the researcher to carry out a study to assess college of education home economics students selected sewing skills on children's wears in North Central Nigeria.

1.3 Objectives of the Study

The major objective of this study is to assess selected sewing skills of College of Education Home Economics students on children's wear in North Central Nigeria. The specific objectives are to:

1. assess student's ability in the application of seams on children's wears in line with clothing construction skills.
2. assess student's ability in the construction of Peter Pan collar on children's wears in line with clothing construction skills.
3. assess student's ability in the making of gathers on children's wears in line with clothing construction skills.
4. assess students' ability in the construction of puff sleeve on children's wears in line with clothing construction skills.

1.4 Research Questions

The research answered the following questions:

1. What is the extent of College of Education Home Economics student's ability in the application of seams on children's wear in line with clothing construction skill?
2. To what extent is the College of Education Home Economics student's ability in the construction of Peter Pan collars on children's wear in line with clothing construction skill?
3. What is the ability of College of Education Home Economics students in the making of gathers on children's wear in line with clothing construction skill?
4. What is the extent of College of Education Home Economics student's ability in the construction of puff sleeves on children wear in line with clothing construction skill?

1.5 Research Hypotheses

The research answered the following questions:

1. There is no significant ability in the-application of seams on the children's wear by Colleges of Education Home Economics students in line with clothing construction skill is not significant
2. Peter Pan collars constructed by College of Education Home Economics students on children's wear in line with clothing construction skill is not significantly accurate?
3. Making of gathers on children's wear in line with clothing construction skills among College of Education Home Economics students is not significantly accurate?
4. Puff sleeves constructed by Colleges of Education Home Economics students on children wear in line with clothing construction skill is not significantly accurate?

1.6 Significance of the Study

Apart from contributing significantly to the body of knowledge in Home Economics, this study will be beneficial to the following: it will be beneficial to institutions where Clothing and Textile is studied, it will also be beneficial to Home Economics students, lecturers, parents, consumers, management of Colleges of Education in North central Zone and the National Commission for Colleges of Education (NCCE).

First and foremost, the outcome of this study will be beneficial to students in Home Economics Section by providing the opportunity to assess themselves in sewing task, which would enable them identify their strengths and weakness. The study will also serve as a tool for capacity building in sewing skills for entrepreneurial purpose, and a good resource material and for classroom teaching after graduation.

In addition, the findings will also assist lecturers teaching the course to assess the effectiveness of the teaching methods used, and show areas where improvement is necessary. This will help improve the effectiveness of the course in solving the problems of unemployment among students.

Parents will also find this research work useful since it will show and reflect their children's performance in skill acquisition; this will serve as a source of encouragement to parents who are sponsoring their children in school.

Consumers most especially mothers will benefit in the sense that they would have garments of good standard available at affordable price. This will reduce the burden of buying second hand clothes and also discourage over reliance on imported cloths for their children.

Also, the study will keep the management of different Colleges of Education and Home Economics Departments informed about how their students in clothing are performing

in sewing skill. The evidence produced by the assessment would be used for program improvement and modification. It will also serve as a guide for modification of the curriculum process.

Furthermore, the school authorities and Home Economics Departments would be able to pinpoint the faults, and suggests alternative ways of achieving the set goals through assessment which can be made possible through seminars workshops and conferences.

Findings from this study will also help the National Commission for Colleges of Education (NCCE) that introduced Vocational and Technical Education courses and set the minimum level standard of the NCE requirement to know the extent of achievement in this laudable Program.

Also, findings of this study would be a reference material to researchers who may embark on further studies in the same or related area. This will add more to the materials needed to carry out their research with ease.

1.7 Basic Assumptions of the Study

The researcher assumed that acquisition of sewing skill by Home Economics students in Colleges of Education will enable the students to make good quality garment in line with quality standard check list.

Other assumptions of the study include the following:

1. Home Economics students of college of education in north central know how to sew in line with quality standard check list after been taught by their teachers.
2. Home Economics students of college education in north central know how to sew garment features in line with clothing construction skill.

3. Home economic students of colleges of education in north central have acquired the necessary sewing skill in line with clothing construction skill.

1.8 Delimitation of the Study

The study is on assessment of Colleges of Education Home Economics students sewing skills on children's wear in North Central Nigeria. The study is delimited to a children dress of ages three to five years and to some specific parts of the dress like seams, Peter Pan collar, disposal of fullness (gathers and puff sleeve which wear measured in line with quality standard checklist. The study was also delimited to NCE III in two Colleges of Education out of the twelve Colleges of Education in the zone namely College of Education Akwanga, in Nasarawa State, and College of Education Oju in Benue State Nigeria.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to review all related literature that has relevance with the assessment of Colleges of Education Home Economics students sewing skills on children wear in North Central Nigeria. Hence, the related literature is reviewed under the following Sub Headings:

2.1 Theoretical frame work

2.2 Concept of assessment

2.3 Home Economics and skill acquisition

2.4. Children's wear

2.5 Concept of Sewing Skills

2.5.1 Types of sewing skills

2.5.2 Seams

2.5.3 Peter Pan Collar

2.5.4 Disposal of Fullness

2.5.5 Puff Sleeve

2.6 Sewing machine

2.7 Clothing Construction Standards

2.8 Review of related Empirical Studies

2.9 Summary

2.1 Theoretical Framework

Theoretical framework gives a strong scientific research base and provides support for the thesis. It is the platform from which issues in the research can be examined and even analyzed. Therefore, it is important that researchers should adequately provide theoretical basis for their work. The theoretical framework guiding this study is the theory of Skill Acquisition/Development as propounded by Dreyfus and Dreyfus (1980). The main idea behind Dreyfus Model is the distinction between "knowing that" and "knowing how". They argue that there are definite stages that an agent should go through to evolve from "knowing that" (novice) to "knowing how" (expert). The theory is appropriate to the study because the study is the assessment of Colleges of Education Home Economics sewing skill on children's wears in Colleges of Education in North Central of Nigeria. Thus, the main thrust of the theory is skill acquisition which is in tandem with the focus of this study, namely sewing skill acquisition in the production of children's wears.

As human beings acquire a skill through instruction and experiences, they do not appear suddenly from rule-guided and Dreyfus and Dreyfus (1980) believe that there is a gradual process involved for an agent to go through in order to reach the stage of experience. They claimed that there are five stages or different knowledge of a specific task and ways of decision making as a human improves his skill. The five stages according to these scholars are novice, advanced beginner, competence, proficiency and expertise. The stages are discussed one by one below.

Stage I: Novice: By definition, novices have little or no experience in the skill area. They are always concerned about their ability to succeed with little experience to guide them. Novices do not particularly want to learn; they just want to accomplish an immediate goal. They can

easily become confused especially when they make mistakes. But they can be easily guided if given context-free rules to follow, that is, rules of the form "wherever X happens, do Y".

Stage 2: Advanced beginner: Dreyfus and Dreyfus (1980) asserts that once a learner passes the notice stages he begins to see things from the viewpoint of an advance beginner. At this stage, an advanced beginner can start to break away from fixed rules a bit. That is, they can try tasks on their own but they may have difficulty troubleshooting. They can start to operate in the correct context based on similar situations they have experienced in the recent past. But they may not be able to have holistic understanding of issues and they may not also be able to formulate principles.

Stage 3: Competence: At this stage, practitioners can now develop conceptual models of the problem domain and work with those models effectively. They can troubleshoot problems on their own and begin to figure out how to solve novel problems. They can begin to seek for and apply advice from experts and use it effectively. At this stage, their work is based more on deliberate planning based on past experiences.

Stage 4: Proficiency: Proficient practitioners always seek out and want to understand the larger framework around a skill. They will be frustrated by oversimplified information. They can correct previous poor task performance, reflect on how they have performed and improve upon their approach and perform better next time. They can also benefit from the experiences of other. From the ability to learn from others comes the ability to understand and apply maxims which are fundamental truths that can be applied to current situations. All these are a leap from the earlier stages. So, someone at the proficient stage is much more like a junior expert than a competent learner.

Stage 5: Expertise: Expertise are the primary sources of knowledge and information in any field. They are the ones who continually seek for better ways and methods of doing things. They can easily tap into their vast experiences when the need arises. There are the folks who write books, articles and do lecture circuit. Experts work from intuition. Although they can be amazingly intuitive, they may be completely inarticulate as to how they arrived at a conclusion. They know the difference between relevant and irrelevant details, which are to focus on and which one to ignore. Experts are good at targeted focused pattern matching.

2.2 Concept of Assessment

Assessment is the systematic collection review, and use of information about educational programs undertaken for the purpose of improving learning and development (Banta l999). In education, the term assessment refers to the wide variety of methods or tools that educators use to evaluate, measure and document the academic readiness, learning progress, skill acquisition or educational needs of students (Petri,.2019). Assessment also is used to identify individual student's weakness and strengths so that educators can provide specialized academic support, educational programming, or social services. It is a participatory, interactive process that provides data/information about students learning. This information is gathered from multiple and diverse, sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences.

Assessment is a methodical way of acquiring reviewing and using information about someone or something, so as to make improvement where necessary. The term is interpreted in a variety of ways i.e. educational, psychological, financial, taxation, human resource and so on. In general, assessment is an ongoing interactive process, in which two parties (assessor

and assesses are involved. The assessor is someone who assesses the performance based on the define standards, while assessing is someone who is being assessed (Akhmadjonov, 2019) In summary assessment is a method of analyzing and evaluating student's achievement or program success (Zhizhi, & okon 2018). While assessment can take a wide variety of forms in Education, the following description provide a representative over view of a few major forms of educational assessment. Assessments are used for a wide variety of purposes in schools and educational systems.

High stakes assessments are typically standardized tests used for the purposes of accountability i.e. any attempt by federal, state or local government agencies to ensures that students are enrolled in effective schools and being taught by effective teachers. In general, 'high stakes' means that important decisions about students, teachers schools, or districts are based on the scores students achieve on a high-stakes test.

Pre assessments: are administered before student begin a lesson, unit, course, or academic program. They are generally used to establish a baseline against which educator's measure learning progress. Over the duration of a program, course, or instructional period or determine general academic readiness for a course, or new academic program.

Formative assessments are in process evaluation of student learning that are typically administered multiple times during a unit course, or academic program. The general purpose of formative assessment is to give educators in process feedback about what student are learning or not learning so that instructional approaches, teaching materials, and academic support can be modified accordingly.

Summative assessments are used to evaluate students learning at the conclusion of a specific instructional period typically at the end of a unit course, semester program or school

year. Summative assessment is typically scored and graded tests, assignments, or projects that are used to determining whether students have learned what they were expected to learn during the defined instructional period.

Formative assessments are commonly said to be of learning because educators use the results to modify and improve teaching techniques during an instructional period, while summative assessment are said to be of learning because they evaluate academic achievement at the conclusion of an instructional period. There are other forms assessment like in term assessment, placement assessment, screening assessments and standardized assessments (Wise, & Davenport 2019)

The benefits of successful feedback set in the context of learning outcomes are many. A successful feedback will: (1). build confidence in the students, (2.) motivate students to improve their learning; (3) provide students with performance improvement information (4) correct errors (5) and identify strengths and weaknesses. (Barrett & Ashworth 2020)

According to Black and Harrison (2004) a feedback, if it is to be effective, must reflect the following: (1). should initiate thinking enabling the learner to discuss her or her thoughts; (2) with the teacher or a peer in order instigate improvement; (3) prompts immediate action, (4.) Allows learners to match their own judgment of quality against that of the teacher or peer, and (5) may direct learners where to go for help and what they can do to improve their work. Therefore, it is said that the learner has to (a) possess a concept of the standard (or goal, or reference level) being aimed for, (b) Compare the actual (or current) the performance with the standard and (c) engage in appropriate action which leads to some closure of the gap (Taras, 2005).

2.3 Home Economics and Skill Acquisition

Home Economics is a vocational subject that is linked to various aspects of human development (Chidiebere, Chukwuocha & Chidirima, 2013). Home Economics is that aspect of education which leads to acquisition of practical and applied skills of scientific knowledge (NPE, 2004). Home Economics being a field of knowledge with numerous marketable skills can be exploited to make student of the program self-reliant and self-training; it equips them with salable skills to be self-reliant (McGregor, 2006 in Idealu, 2013). Adeniyi and Adeniji (2013) are of the similar opinion that Home Economics as one of the vocational education is aimed at making individuals well-armed with skills and knowledge to enable them secure employment, either by establishing a small or medium scale business, or by being gainfully employed, thereby utilizing their skills. Home Economics has the potential of making its graduates acquire saleable skills as stated in the curriculum.

The philosophy of Home Economics is centered on the acquisition of knowledge, attitudes and skills that can be applied for purposeful living. Joshua *et al* (2013) gave the major areas of Home Economics as clothing and textiles, home management, household and interior decoration, family and child development. These major areas of Home Economics are grouped into three with different career opportunities, namely food and nutrition, clothing and textiles, and home management, family living and child development. Clothing and textiles is the aspect of the Homes Economics that the present study derives it root from, therefore necessitating the following explanation about it. Clothing and textile is an important aspect of Home Economics education. It is a skill oriented subject taught at all levels in the Nigerian educational system. At the tertiary the education, clothing and textile education helps to

develop in an individual the needed skills which will lead to their personal development and consequently national development (Okeke, 2005).

Ossal (2003) is of the same view that clothing and textile education is concerned with the acquisition and development of practical skills of the beneficiaries. The philosophy is concerned with the acquisition of knowledge, attitudes and skills that can be applied for purposeful living. According to Oranu & Anyakoha (1992) as cited in Ossai (2003), clothing and textile is an aspect of Home Economics that prepares individuals for employment opportunities in occupations relating to clothing selection, clothing construction, costume designing, clothing care, craft work as well as clothing economics. It equips students with skills and develops creativity, patience and artistic abilities in them. It is also a course that is rich with varieties of saleable skills for self-reliance and national development (Okeke, 2005). Ossai (2003) outlines different areas of clothing and textile occupation as follows: sewing, tie-dyeing and batik, laundry and dry cleaning, bridal shop, textile and clothing merchandise, toys and gift shop, embroidery shop, knitting and crocheting enterprise, and clothes repair.

Garment Making

A garment is constructed by cutting the fabric into parts according to a pattern which fits the human form then the different parts are joined together by sewing. Kantiok (2000) further states that the principle of designing start from producing or obtaining a desired garment style, then its construction. This involves among others the taking of body measurements and applying them on fabric or paper. According to Kaka (1983) in Kantiok (2000), most traditional tailors in Nigeria use free hand cutting which involves direct application of a few body measurements on fabric such as bust circumference, waist, sleeve and shoulder length. Which does not have any documented standard or procedures. It works

mostly on individualized basic measurement using assumption or imagination which does not make it mathematically effective for use. According to Kantiok (2000), for each item of clothing, particularly standardized garments, a pattern must be produced starting from the basic pattern to the styled pattern which needs some specific procedures to be followed. She outlines the importance of clothing education as it helps develop creative abilities and teaches appreciation of works which gives pleasure because what you make yourself gives more satisfaction and boost self-confidence than one made by someone else. She further stresses the fact that no matter how good mass produced and machine made things are, there is a special satisfaction in making something for oneself and for others with one's hands. To achieve this objective Bancraft in Kantiok (2000) states that students who attend clothing construction class need to have the following:

(i) Better understanding of the pattern they are using before cutting the fabric.

(ii) A clarification of the pattern instruction guide.

(iii) Modern concepts of clothing construction techniques with clear explanations.

(iv) The properties of fabrics in line with its maintenance and storage.

This is obtainable only when clothing construction is practically taught in its widest context.

2.4 Children Wears

Clothing articles are very important for many reasons.it is necessary to understand the reasons for choosing and wearing clothes. Function of clothing is also the reasons why people choose and wear clothing. (Anyakoha, 2015).

Children's clothing are wears for children who have not yet grown to full height.

Children’s wear has a much broader range of styles than does men’s and women’s apparel. This is because of the different age groups through which children pass. From the infant stage through the preteen period, many different styles are required. Diamond & Diamond (2002). Clothing play important role in a child development. Since the clothing worn was dictated by parents, with children having little to say about dress preference parents needs to be aware of the special needs of these age groups in the making of children garment (diamond & diamond 2002) everyone would like children dressed attractively and beautifully, and apart from appearance, health and comfort features are important considerations when selecting children clothing. Because children need to run, climb, jump and squat freely. Tight clothes that restrict movement and which may interfere with natural circulation should be avoided.

Some other factors a designer for children's clothing should focus on are the changing shape of the growing kid and different proportions of the different parts of the body. they should be able to recognize the shape of a child at a particular stage. Aldrich (2006). These wears had to be easy to clean and durable because mothers' time was limited. s Creating children's wears offers some new challenges to the designer and pattern maker. Comfort, which reflects good fit, proportion, and function, is nowhere more important than in the creation of children's wear. (Armstrong 2002). According to Armstrong (2002), even though adults may sometimes be willing to sacrifice comfort for esthetics, children will never. The wardrobe of children of ages 3 to 5 (preschool) should be with as much care as that of any family members. Children's wears have certain general characteristics irrespective of where the child lives (Midred & Oris, 1979 in Ahmad 2014). Because he is constantly active, the

preschool child needs clothes that protect his body. Over all and long sleeved jackets are especially designed to give such protection.

There must be a totally different approach' in designing for the pre-school child, as compared to younger children. In contrast to the toddler, the child from three to five years is an individual who is aware of clothing and has quickly developed some very definite preference and opinions. Preschool children love brighter colors, soft interesting textures, basic comfort, clothing which is easy to get-in and out of, and what is similar to what other children are wearing (Craig, 1973 in Ahmad, 2002). This create a positive attitude towards the group.

The age bracket of 3-5 years called preschool years, which has a high need to climb, jump, run, carry and push with ease, demand clothing that is flexible and free, warm but not hot, absorbed, easily cleaned, soft and yet durable, easy to put on and take off, conducive for self-help and independent, attractive in design and fabric, adaptable to frequent toileting and adjustable to rapid growing body (Gamer 1996, in Ahmad 2002). Mildred and Oris (1979) in Anya (1991) in Ahmad (2002) remark that well designed clothes will have the features that will make them more suitable for children like collar, sleeve, disposal of fullness and others, and above all with some decorative feature like trimmings as in the case with this work.

Sizes

Sizes for children clothing are grouped according to body circumference and proportion (Armstrong, 2002); according to him overlap between toddlers and children's sizes occurs as proportions and heights vary within the age range, almost to the same degree that those with the 7 to 14 sizes overlap on the upper end with junior sizing. Body shapes from infants through children's size ranges are indistinguishable between boys and girls. Boys and

girls have similar shapes at this age, and the waistline, as yet, is not defined. Boys and girls begins to diverge at age 7. He explains that it is difficult for manufacturers, pattern makers, and designers to decide which set of measurements best represents their consumers and that age or height and weight may be used as the standard upon which to determine the sample size and from which to base the pattern grade. According to Diamond and Diamond (2002), girls' pattern grade clothing ranges in sizes from 3 to 6x and boys from 3 to 7.

In summary children's patterns have the same breast and waist measurement as toddler patterns. However, children's patterns are longer, and both the shoulders and the back are wider. These pattern ranges from 2 to 6 and in many instances these designs are suitable for both boys and girls. As children grow, both their bodies and their clothing types change. Children's patterns are designed for both changing shapes and changing fashion needs.

Fabric for children wear

Fabric must be functional and easy to maintain, and treated to resist dirt and wrinkles, because no child can play freely if he must constantly worry about soiling his clothing. Fabric selected for children clothes should be fire resistant. Children garment should be light in weight with maximum warmth and protection. This is necessary because heavy or cumbersome garments tend to tire the child and thus restrict his activity. According to Armstrong (2002), fabric print, plaids and narrows stripes tiny checks are proportioned for the smaller body, bold prints will over power the child.

A good quality with a firm, close weave, made of firmly twisted yarns that will not wrinkle or soil easily is preferable for children's wear suitable fabrics for children's clothing should wash and iron easily; preferably they should require no ironing. Cotton is by far the most important fiber for preschool children clothes. It is considered to be hygienic, easy to

launder, absorbent and comfortable. Apart from this, cotton blends with synthetic fibers and gives the wash and wears qualities. Special finishes providing crease resistance, water repellency and non-inflammability have, increased the desirability of cotton fabrics (Weber, 1990 in Ahmad 2014).

According to Ahmad (2014), colorful, attractive and durable fabric should be considered for a suitable design that the designer can select and develop style easily. Above all Luke (1982) in Ahmad (2014) is of the opinion that all fabrics used for pre-school children's cloth should be preshrunk; if not, the garment may shrink in the first washing and thus become un wearable. In addition, fabrics should be fast; constant washing will cause the' best of dyes to fade before a garment outlives its usefulness Suitable fabrics for preschool children's clothing should wash and iron easily, preferably they should require no ironing (Ahmad, 2014)

Allowance for growth

Mildred and Oris (1979) in Ahmad (2014) highlight that growth is most rapid during the preschool years, one of the greatest needs for this age is for longer wearing apparel that maintains good appearance through its life. Too large clothes are not comfortable or safe and may be worn and faded by the time a child grows to fit them. It is better to choose clothes to fit, with provisions for lengthening. Marshall, Jackson Stanley, Kefgen and Specht (2004) stated that the following features should be looked for when selecting garment for the pre-school child: deep hems or tucks in the hem area, and dresses with tucks at the waistline to lengthen the upper part of the dress.

Self-help and ease of dressing

Clothing for preschool children designed with features that encourage the child to dress and undress himself is believe to contribute to his independence and self-confidence. A self-help garment is one which the child can put on and take off with little or no help from an adult (Ahmad 2014). Being able to dress and undress themselves gives children a feeling of confidence and self-reliance. Many of the most attractive children's clothes are too difficult to put on or take off by young children. Das and Ishtiaque (2004) pointed out some points to remember:

i. Openings must be large enough so that a child can get in and out of the garment easily.

ii. Front openings are easier to use. There should be enough buttons to make a secure closing and large enough so they can be easily grasped by a child's hand. The following fastening will retard self-help in dressing: small snaps, hook and eyes, bows tied at the waist or tied at the neck, small buttons and thread loops.

iii. One piece garments are easier to put on than two- small ones.

iv. Note: Desirable as such "self-help" garment may be, these should not be achieved at the expense of attractiveness or make the garment appear too different from those worn by other children in the group. It is essential that the clothing of the child be such that the child feels a part of the group with which he associates.

Safety

Comfort and safety go hand in hand for children's clothing. Cloths which are too large may be uncomfortable and may also cause awkwardness. Loose garments can catch fire more easily. Dangling sashes and trims can get caught on object. Clothes which hang from the shoulders are usually more comfortable than those that hang from the waist line. Neckline

should be loose enough so there is no strain across the throat. Cloths that are too large can be as uncomfortable as those that are too small. Select garments that fit but which allow provision for growth.

Be aware of tiny buttons, hooks snaps pom-poms, bows and appliques, they can be choking hazards. Routinely check clothes and fasteners for these loose items. Buck et al (1996) in Ahmad (2014), highlighted some of the factors in selecting pre-school children clothing to include:

a. Garment should be light in weight with maximum warmth and protection; heavy or cumbersome garments tend to tire the child and thus restrict his activity, therefore, garment should be comfortable with plenty of room for movement.

b. Bright colors are desirable for pre-school children outer garments, because they make it easier to spot the child on the playground.

c. Children's garment should be made from suitable fabrics that will stand up to frequent washing e.g. cotton and linen

d. Small dainty designs are most suitable; avoid making garment with synthetics fabrics

e. Allow children to grow into the garment or soon the garment will be too small for them

f. Items should be made deep to allow the garment grow with the children. Back or front openings should be long enough to allow for easy wearing and taking off

2.5 Concept of Sewing Skill

Skill has to do with one's knowledge, practice and ability to do something well. Skill is the ability of students to use knowledge effectively and readily in performance, the ability to transform knowledge into action (Ohworieole & Ochonoger, 2008). Similarly, skill, as

perceived by Patrick and Harwell (2012), in Onyenwe & Adukwu (2016) is any combination of mental and physical qualities useful in industries which require a considerable time and practice to acquire. In the same vain Osuala (2006) stated that skill is ability to put into use acquired competencies, attitudes and behaviors after an exposure to theories and practices inherent in a field of study. According to Okorie (2000) skill is an organized sequence of action, proficiently executed and usually displaying a flexible but systematic tempered patterning. Olaitan (1996) in Nwakanma, Chukwuocha and Okereke (2013) defines skills in relation to competences an individual need in order to be established and be successful in an occupation. Osuala (1995) in Nwakan *et al* (2013) adds that skill helps one to bring about some end-result with maximum certainty and minimum outing of energy. According to Njoku (2002) in Okeke (2005), to possess skill is to demonstrate the habit of acting, thinking and behaving in a specific activity in such a way that the process becomes natural to the individual through repetition or practice.

Skill acquisition enable students to develop their self-confidence and preservation of skills learnt. It provides chances for students to be directly involved in practicing theoretical knowledge gained thereby increasing the mastery of knowledge acquired, it also gives them opportunities for developing manipulative skills that will enable them to function effectively in the society within the limits of their capacity (Ohwovorole & Ochonoger, 2008). Similarly, Particle and Harwell (2012) viewed skills as any combination of mental and physical quantities useful in industries which require a considerable time and practice to acquire. In the opinion of Osuala (2006), skills are to put into use acquired competencies, attitudes and behavior. After an exposure to theories and practices inherent in a field of study. Skills are therefore, the abilities and capacities acquired through deliberate, systematic and sustained

efforts to smoothly and adaptively carry out complex activities or job function involving issues, things and people. (Business Dictionary, 2009 in Leka 2016). The word acquisition simply refers to modes of acquiring or learning something meaningful. According to Olawale (2013) in Nwakanma (2013), skills acquisition is the process of learning how to perform tasks that are mechanical in nature through training.

2.5.1 Type of sewing skills

Sewing skills is the ability to put to use the basic principles required to sew like, design concepts, selecting and preparing patterns, taking body measurements, basic hand and machine stitches, pattern layout, fabric estimation, cutting, tailoring and finishing. The manipulative skills in putting together different garment features to bring about it beauty and attractiveness is what sewing skill is all about. Some of these examples are:

a. Skill in Finishing: Neatening of raw edges, application of trimming, and ironing/pressing.

b. Skill in Application of Features e.g. Collar, sleeves, gathers, hood, pocket, raffles cuffs among others.

c. Skill in Stitches: Seams

d Skill in Machine manipulation: Threading, pedaling and straight sewing.

However, for the purpose of this study, the skills considered are; seams, Peter Pan collar, gathers, puff sleeve in line with clothing construction skill. Which is from the category of C and B above. This was selected because these features were the mostly seen in children's wears and could be measured in line with clothing construction skill.

2.5.2 Seams

A seam is the application of series or stitch types to one or several thickness of materials. (Seetharam & Nagarajan, 2014). Seam line is stitch line of a seam. Seams are the structural lines of a garment used to join variously shaped pieces of fabric to give the style of a garment. Cooklin (2000) is of similar view that a seam is a joint where a sequence of stitches unites two or more pieces of material, and Lapere (2006) state that seams are the basic elements that form the structure of any apparel, home-finishing product and industrial textiles, and are the most important parameter to maintain product integrity. While Crawford (2011), said seams are created in the process of machining and sewing two or more pieces of fabric together to form finish edge. according to her the type of seam selected should be appropriate for the fabric type of garment, and location of the seam in the garment.

The purpose of most seams are purely functional and can be called as constructional seams. Seams should be as flat as possible and unseen except those that are used for decorative purposes for garment design and line (Mazharul, 2017). Anyakoha and Elawa (2010) noted that there are different types of seams which can be classified into flat seams and ridges seams. Seams may also be divided into conspicuous and inconspicuous seams. Inconspicuous seams, when finished, will not have stitches seen on the right side of the garment, for examples, plain and French seams.

Conspicuous seams are those that have stitches seen. on the right side of the garment, like run and fell seam and over laid or lapped seam give a decorative finish.

Types of seams

All seams used in clothing construction are variants of four basic types of seams:

i. Plain seams

ii. French seams

iii. Run and fell seam

iv. Overlaid or lapped seam

Open or Plain Seam: this is made on the wrong side of the fabric and is inconspicuous, it is the mostly widely used seam which is pliable. It is used on all types of fabrics except on very transparent kind and is suitable for some fabrics that do not ravel and will not be subjected to hand and frequent laundering. This is used for side seams, under arm seams and armhole seams. The stitch length is between 10 and 12 stitches per inch for most for most fabrics. The width of the seam allowance is usually 5/8 inch for fashion sewing and ½ inch for industry sewing. (Crawford 2011).

French seam: this is a self-neatened superimposed seam and overcomes the problem of showing the neatening through the structure of the fabric. This seam is performed by trapping the raw edges in between the two rows stitching; the raw edges of the fabric are enclosed within a seam. The French seam is classed as an inconspicuous seam because it will lie on the wrong side of the garment. The French seam is useful for functional clothing which require regular laundering e.g. children's wear with its self-neatening characteristic tends itself to stringent laundering technique. French seam limited to straight and slightly curved seams, as steep curves and corners would be extremely difficult to perform (Seetharam & Nagarajan, 2014).

Overlaid or Lapped Seam: this is a conspicuous seam and can be seen on the right side of the work. It is also a decorative seam that is mostly used to join one part of a bodice to the rest of the bodice, for example, a case of joining a gathered or unaltered section to a straight edge as in a yoke. Both pieces of the work should have the seam allowances clearly

marked. Therefore, the pattern cutting and garment assembly has to be performed with extra care to ensure that the garment fits together correctly. As a general rule, work from top downwards. If the lapped seam is on the skirt, the top of the skirt is lapped over the lower bodice, in a nutshell the seam allowances on one side overlap the other, hence the name lapped seam. (Seetharam & Nagarajan, 2014).

Run and Fell Seam or Double Stitched Seam: this is a conspicuous flat seam used on undergarments and sometimes on outer garments to emphasize a fashion line. When used as a fashion line, the seam is often machined on both folds and is called a double stitch seam. An example of such a seam is to be found on men's sport shirts, and pyjammas and the outside leg seams on jeans or inside seams of winter dressing gowns. The run and felled seam is used on various weights of fabric and types of garment all of which tend to be of hard wearing functional type, or are subjected to stringent laundering techniques (Seetharam & Nagarajan, 2014).

According to Anyakoha and Eluwa (2010), it is imperative to make the right choice of seam for any given article or part of garment. In their considered opinion, the following points should be borne in mind when choosing a seam.

1. Kind of material or fabric being sewn, for instance flat seam (e.g. run and fell seam is suitable for bulky material like wool, and French seam is suitable for this material like silk.
2. Purpose or use of the garment, for instance flat seam are suitable for night gowns.
3. The person to wear the cloths, for instance flat seam such as run a fell are suitable for children clothes that require constant washing.
4. Position of the seam, for instance lapped seam is suitable for curved seams.

Quality of a Seam

Seam Quality: The characteristics of a properly constructed seam, depends on the fabric and must take into account the following factors:

i. Strength

Extensibility (including elasticity)

ii. Durability

Appearance

Strength; A seam must be strong, the criteria being maximum strength and minimum thickness and economy of sewing thread. Seam strength has to be measured in two directions:

Lateral - across the seam

Longitudinal -along the length of the seams

Lateral

This refers to the free edges of material; the seam allowances or turnings are important. If the width of seam allowance is too narrow, the seam may pull apart, if the fabric is sewn has a tendency to fray.

The strength may be increased by:

a. Using larger turnings

b. Using a stronger thread

c. By increasing the number of stitches per cm (care should be taken to avoid bulkily stitched seam).

Longitudinal

The strength along the length of the seam is closely related to the extensibility of the seam, as insufficient strength will result in "cracking" during wear.

Appearance

Often the appearance of the seam is overlooked, but sometimes the optimum strength of a seam needs to be re-assessed as the look of the garment may be impaired by the use of a bulky unsightly looking seam. Another factor to consider when assessing the appearance of the seam is that the machinery has been set up correctly, a puckered seam will instantly spoil the hanger appeal of what could have been an attractive garment. Blunt needles not only weaken the strength of a seam but also can distort the weave or knitted structure of the fabric which again will impair the finished look of the garment. (Seetharam & Nagarajan. 2014).

2.5.3 Peter Pan collars

Collar is a design feature that frames the face and draws attention to it.

Unlike the/neckline which is part of the garment, a collar is an extra piece of fabric attached to Apparel at the neckline (Diamond & Diamond, 2002). In every garment, the part which attracts the eye is the neckline. Collars form the background for the face and neckline, and their importance in dress making must not be over looked. According to Armstrong (2000), collar encircles the neck, and can be developed close to or away from the neckline. They may be wide, narrow, flat, or high, and with or without an attached stand. Furthermore, Diamond & Diamond (2002) opine that collars are categorized as either flat, like Peter Pan, stand-up like mandarin, or rolled, as the case of the cowl. According to them more specific names are based on their shapes or some costume from which they have been adapted. The sailor collar, for example, derives its name from the collar on a sailor's middy.

The Choice of Collar

The choice of a collar design should complement and enhance the style and purpose of the garment (Armstrong, 2002). Collar styles should be chosen to suit the face shape,

hairstyle, the wearer and the material. This is necessary because collar is about the most important part of any garment and should be chosen to suit the style of the garment as well as the face and neck of the wearer.

Flat Collars

Flat collar is a duplicate of the section of the bodice that it covers. It lies flat, has a very slight roll against the neck, and can be any width or shape. Examples are: Peter Pan collar, Eton collar and Sailor collar. A flat collar which is narrow in width and has the points around is called a Peter Pan collar. Hutchinson, (1980) says that flat collar often called a Peter Pan, is one of the easiest and most common. It has a curved neck edge and make in two pieces with a tiny gap at both back and front, or have a curved, pointed or scalloped edge. Both collar and under collar are cut from the same pattern piece.

The Peter pan collar is either one complete collar with a center front opening or in two half collars with a center back opening (Cock 2003). These collars are circular in shape, the neckline the machine being the dame shape as the neckline of the bodice. The width may be quite narrow or it may extend to the width of the shoulder and the shapes are varied with trim turning to 0.6 - 0.6 - 0.3 cm according to fabric used snip notches into all curved turnings. Turn collars Right Side out bring stitched line on to the fold, press carefully. Tack round the edge to keep the fold in place. If fabric is slippery baste the two layers together (Cock, 2003).

Attachment of collars

There are 3 main methods of attaching collars namely;

1. With a collar that is self-neatening. This is always a simple collar.
2. With the use of a facing, a method suitable for straight or curved collars.
3. With the use of cross way strip, a method generally for curved collars (Cock, 2003).

How to attach a collar with the Use of a cross way strip?

The collar is fixed with a cross way strip which forms a facing on the inside of the neck: Cut a crossway strip in one color of material to match the collar. A lighter weight material can be used on woolen fabrics for example, rayon or cotton. The width of the facing, when finished, should be about 1cm. The strips should be cut long enough to go round the neck of the collar (Bull, 1979).

Place underside of collars to rights of garment and bring edges to center front and center back lines and bodices matching. If two half collars are used, they should meet exactly on the center front line at the neck fitting line.

According to Cock (2003) and Osai (2003), collars are made up and attached to the garment before the under arm seam is sewn. And that shoulder seam should be stitched and neatened before attaching collars.

Place the two pieces of collar Right Side together. Matching fitting lines, pin, tack and stitch outer edge of collar. Leave the neck edge open. Remove tack and press. Pin and tack collar in position, easing the bodice on to the collar.

(i) Put the cross way strip on top of the collar edge.

(ii) Machine the collar and cross way strip to the bodice on the pattern line.

(iii) Trim the turning to 6mm and snip the curved parts.

(iv) Lift the collar up from the bodice and fold the facing over to the wrong side of the work, pulling the bodice and facing down from the seam, pin and tack.

(v) Turn under the free edge of the crossway strip and pin and tack it flat on to the bodice. Hem or machine it down.

2.5.4 Disposal of fullness

According to Cock (2003), fullness of material is an important feature of the style. As well as a necessity for ease of movement in a well-fitted garment. Osia (2003) is of a similar view that when added the fashion changes, but the basic methods or ways of disposing fullness does not change; instead, they are adapted to enhance current style. Disposal of fullness is the arrangement of extra fabric to fit into required section. Fullness is done to accommodate the curves of the figure and to provide decoration, even though types of fabric and style chosen determine largely the construction method; it is good to note that even when good quality fabric is not properly handled garment might create bulky look even when the material is fine.

There different are methods of disposing a fullness in garment. The selection of the method to use depends on the function to perform, whether for shaping, correct filing or decorating the garment. Fullness in garment can be disposed by the means of dart, tucks pleats, sharing, smocking and gathers (Osia, 2003).

Gathers

Gathering is a sewing technique for shortening the length of a strip of fabric so that the longer piece can be attached to a shorter piece. It is commonly used in clothing to manage fullness. Gathers are used to control fullness to give an even finish of fine unstitched tucks. They provide a loose soft way of reducing fullness to fit into a smaller area. Such areas are yoke, waist, sleeve head and wrist (Osai, 2003). Gathering is the process of drawing up fabric fullness along the stitch line and distributing the fullness where desired. (Crawford 2011).

Gathers are used in variety of places on a garment to achieve fullness, like skirt, blouses, puffed sleeves dresses or anything with a ruffle. Gathering is just a way to bunch up

fabric so that it's a little more ruffle and full (Kattaf, 2012). The fuller the gather, the more fabric is required, when a soft material is used, the fabric falls softly, when a stiffer material is used, it will produce a stand- away effect (McCartney, 2002).

In sample gathering, parallel rows of running stitches are sewn along one edge of the fabric to be gathered. The stitching threads are then pulled or drawn up so that the fabric form small folds along the threads. The remainder is left to fall loosely, as in waist line of a skirt, it can be attached at the top or bottom of the material such as from the yoke of a blouse to its waistline to give a dramatic effect (Joy & Ellen, 2002). Gathers are very fine on children's wear.

How to make a gather

Gathering is suitable for light and weight fabric as it falls in soft folds below setting line, but look bulky and cumbersome on thick or stiff fabric. Gathers should be worked in two rows of 0.3cm below and above fitting line. The gathering thread is removed after setting in seam. Gathers can be done by hand or machine (Osai, 2003).

To Make (by Hand)

i. Fastened on the thread securely and work two rows of fine running stitches,

ii. For ease in drawing up, work second row in the opposite direction, draw up gathers and spread evenly.

By Machine

i. Using the longest stitch, work the first row.

ii. Stitch second row in line with those of the first

iii. Draw up one of the machine thread only. Drawing lines together, gently easing fabric along, until correct width is reached.

iv. Hold thread temporarily in place by twisting round vertical pin; disperse gathers evenly (Osai, 2003).

2.5.5 *Puff Sleeve*

Sleeves are one of the details and features of a garment. It is a part of a garment which covers the arm, or through which the arm passes or slips. Sleeves on a garments add beauty and elegance to the garment and the wearer (Osia, 2003). Sleeves are both functional and decorative and come in variety of styles and length. Among the most popular sleeve designs the bell sleeve that flares into a soft bell like shape; the cap sleeve that extends on the front and back covering the shoulders, the dolman sleeve featuring a wide armhole that tapers at the wrist, the Kimono sleeve, cut in one piece with front and back of the garment, the raglan sleeve that extends to the neckline and set in by seams slanting from under arm front and back, and the set-in-sleeve which is a fitted sleeve into the arm hole (Diamond & Diamond, 2002).

Sleeves have been used as a device for changing the silhouette of garments throughout the history of fashion. According to Armstrong (2000), there are two major classifications of sleeves:

a. The set-in-sleeve cut separately and stitched into the arm hole of the bodies; and

b. The sleeve combined with part in all the bodice.

The set-in-sleeve is the most commonly used because it is comfortable to wear and the best fit in most arm positions. This sleeve fits into the stitched circular armholes having the crown of the sleeve fitting to the armhole end of the shoulder seam, and the sleeve seam joining the side seam of the bodice at the under arm, (Osia, 2003). According to Armstrong (2000), set-in-sleeves can be designed to fit the armhole smoothly or with gather. They can be

designed fitted or with exaggerated fullness, and can be cut to any length. He went further to say that the hemline of the sleeve can be finished in a number of ways like as straight or full sleeve can be confined by an attached cuff, band, elastic, or casing (for elastic or tie). If not confined, the sleeve may have a self-hem (either folded back or rolled up), or may be faced or edged with trim.

Different types of sleeve exist under set in sleeve classification such as:

a. Sleeve cuffs

b. Cap sleeve

c. Dartless sleeve

d. Puff sleeves

e. Circular Hem Line Sleeves

f. Bell sleeves

g. Petal sleeves

h. Lantern sleeves

i. Wedding sleeve

j. Cool sleeve

k. Leg-of- mutton sleeve

l. Bishop sleeve etc. (Armstrong, 2000).

Secondly, the sleeve and top of any garment (blouse, dress, jacket, a coat) can be combined in a variety of ways, categorized as follows:

a. Kimono design

b. Raglan designs

c. Drop shoulder design

d. Deep - cut armhole

Each of the foundation pattern can be used to develop other design variations by exaggerating their special characteristic or by changing the style line positions, (Armslong, 2000).

Kimono Sleeve; Kimono sleeve is a term that strictly refers to the type of sleeve found on Japanese Kimonos-very loose, wide at the hem and cut low under the arm. A kimono sleeve gives on attractive continuous appearance to the bodice and sleeve, but is more difficult to cut than set-in-sleeve if it is to be comfortable to wear, as there are many factors to take into account. A Kimono sleeve is developed by combining the sleeve length with the bodice or top. Basic Kimono can be developed into Dolman sleeve. It takes more fabric to make the sleeve and soft fabric is most suitable for reinforcement at the underarm when it is cut short but a gusset is required when it is long for comfortable movement (Osai, 2003).

Raglan Sleeve: The Raglan sleeve pattern is developed by including part of the neckline and armhole to complete the sleeve draft. The Raglan can be designed for bodice, dress, blouse, jacket, coat, or other garments. The armhole is generally lowered at varying depths to create a more casual fit, it extends to the neckline, set in by seams slanting from underarm front and back (Jay & Ellen, 2002). The following are types of raglan sleeves

a. One - piece raglan

b. Deep - Armhole raglan

c. Armhole Princess raglan

d. Yoke Raglan with Bell Sleeve (Armstrong, 2002)

Puff Sleeve: According to Ossai (2003), puff sleeve has fullness added between the front and back arm lines which is gathered into the armhole.

Inflated puffy effect is created, when adopted basic sleeve is gathered at crown and hem. Ossai (2003) pointed out that gathers should be evenly distributed between front and back arm line (sleeve head), but not under the arm. While Armstrong (2000) pointed out that puff sleeve can be of any length, and fullness can be more or less. That puff sleeve is used for babies and children dresses and blouses. Types of puff sleeve include the following:

a. Puff sleeves with fullness at the top and bottom.

b. Puff sleeve with fullness at the bottom only.

c. Puff sleeves with fullness at the top only (Armstrong, 2000).

The following are the steps for constructing a puff sleeve:

i. Using the sleeve block, trace out the block. Divide into four equal parts or more and number them.

ii. Draw a straight line to mark the center of the sleeve from crown head to hem line, iii. Place slash pieces' line 1/2 of the amount of spacing to the end. For the right side repeat as for the left. Smoothen the crown of the sleeve and the hem, (Osai, 2003).

Factors affecting choice of sleeve

There are several factors to be considered in making selection of a sleeve: select a style that is becoming to one, that fits the overall garment design and function, that suits the garments fabric, and that present no undue construction difficulties (Sturm et al, 2008). It is often advisable to consider figure type height, arm length and width before making a decision about sleeve style. Most styles are more becoming to some people than to others. Considering the overall garment design and function is important before making a choice of sleeve pattern (Sturm 2008). Sleeves play a significant role in garment design. They can destroy the desired illusion, enhance or diminish garments usefulness.

2.6 Sewing Machine

Sewing tools and equipment;

There are many sewing tools and equipment but the only one that is of interest to the researcher in this work is a sewing machine. Sewing skills are very important and useful to every clothing construction standard. Having the right tools and equipment can make sewing faster, easier and more interesting (Anyakoha, 2015). The sewing machine is the main piece of sewing equipment and the most expensive. The sewing machine and the over locker (serger) enable the garment maker to produce articles with professional finish at a fast rate and with ease. Many different types of machines are available, from manually operated to the computer program. (Foster, 2014). A sewing machine uses a needle and rotary hook to interlock threads above (upper thread) and below (bobbin thread) a piece of fabric and produce a 'stitch.' These stitches can be designed to simply lock two fabrics together, encase the raw edges of a seam, or decorate fabric with a specific pattern (Crawford 2011).

There are machines which sew on buttons as well as machining the button holes. Some machines are fully automatic and will produce wonderful designs at the flick of a switch, while others will fasten the hems of garments almost invisibly or work two stitches forward and one stitch backward to give elasticity when stitching stretch fabrics. Apart from the basic general purpose of sewing machines, there is also a huge range of high performance special machines that are built to perform one operation only at a consistently high the quality

Different makes of sewing machines are threaded in different ways. It is important to follow the directions furnished by the manufacturer for threading and use Anyakoha and Eluwa (2010) observed that there are three different types of sewing machine. However, all sewing machines are basically similar. They opined that, sewing machine may differ in types

and number of kinds of stitches they make, or the way they operate. They identified the following as common types of sewing machines:

Hand sewing machine: This is simple, it is operated just with hand and requires to be placed on a table.

Treadle sewing machine: This is operated with the feet. The worker has both hands free for guiding the work. It normally has a special stand.

Electric sewing machine: This is operated with the aid of an electric motor. Some hand and treadle machines can easily be converted to electric sewing machine by using the electric motor. Some machines make just straight stitches while others make both straight and zig-zag stitches. Crawford (2011) advised that the choice of machine should be based on its suitability for the planned usage. for instance, home sewer might want a machine with many creative stitch functions, whereas a garment factory would select a machine with basic stitch functions and a stronger motor for faster sewing speeds.

In order to produce a lockstitch, four components must be in contact with each other to construct a seam. These components include the upper and lower layer of fabrics, needle thread and bobbin thread (Anyakoha and Eluwa 2010). These four components are operated with the help of the feed and needle mechanism to produce seams.

Herman (2006) as cited in Obiana (2016) stated that the sewing needles have three functions in the sewing machine first to penetrate the material and provide a hole for the thread to pass through; second, to carry the needle thread down through the material to a point where the stitch forming part can center the loop at the proper time; and third, to enter the loopier thread loop (on machines of the two-thread chain stitch or over edge types) and assist in forming the stitch. Sewing machine needles must be selected with the fabric and thread

type in mind, to develop a quality stitch. The point of a sewing machine needles as well as the size of the needle must be considered before undertaking a project.

Procedure for Operating a Machine

Preparation includes the following checks:

(i) Is the needle sharp?

(ii) Is it straight?

(iii) Is the needle correctly set?

(iv) Is the bobbing or spool evenly filled?

(v) Thread the needle correctly. Different makes of machine thread in different ways. Check with the instruction book provided with each machine that the method you are using is the correct one.

(vi) Before stitching, be sure that the upper and lower threads are pulled to the back of the presser foot and that the threads take up is the highest point.

(vii) Test the stitching on folded pieces of fabric to ensure that the tension is all right.

(viii) Place the fabric (work) in the machine so that the bulk of the cloth is at the left hand side where there is space for it.

(ix) Push both threads towards the back of the machine

(x) Lower the needle into the position required.

(xi) Lower the presser foot and begin to machine.

(xii) To turn the corner; stop with the needle in the material close to the corner. raise the presser foot, turn the material (pivot). drop the presser foot and continue stitching.

(xiii) To stop and remove the work from machine. Pace your right hand on the balance wheel. Let the needle be at the highest point.

(xiv) Always study the instructional manual that comes with the machine (Anyakoha, 2015).

Some common faults and solutions;

The stitches should look the same on both the top and the back of the work. If the stitches are loose on the top of the seam, loosen the tension screw by turning it (see instruction book for each machine). First check that the bobbin has been threaded correctly as this is the most likely cause of loose stitches.

If the stitches are loose making loops on the underside of the seam, tighten the tension screw, it is seldom necessary to alter the lower tension but it can, if necessary, be adjusted by means of a screw in the bobbin case, keep the presser foot down when regulating the tension screw. The tension screw varies in position from one machine to another, but it is easily recognizable by its circular shape with numbers from 0-9

For missing stitches, if the needle jumps a stitch making one long stitch where there should be two or more stitches check the following:

- Change the needle because it may be blunt
- Check that the needle is held tightly in the clamp, it may be loose see that the needle is set as high as it will go
- Check that the presser foot has not become loose. This sometimes happens after continuous machining at speed. If the presser foot is loose the fabric is not held down tightly for the needle to pass through the fabric, and the tension discs cannot operate.
- Make sure that the same quality of silk or cotton is being used in both the needle and on the spool.
- See that there is no fluff under the point of the needle.

In the case of seams puckering and thread breaking, it is probably that the top tension is too tight, loosened by turning the screw to a lower number. Also, the needle maybe set wrong way round, or the needle may have defective eye which is cutting the thread.

When threads of the material pulling up, it may be that the point of the needle may be blunt or bent. Needle Constantly Unthreading, it is probable that the machine needle has been set in the wrong way round. All machine needles have a groove along one side for the thread to run in, the needle is inserted with the groove on the side from which the needle must be threaded (Anyakoha, 2015).

Skill in using the sewing machine to have a complete mastery of the sewing machine and make it stitch exactly as and where you wish in order to turn out really good-looking products. awareness of details is necessary in securing professional looking sewing such as a perfect needles not blunt needle, the right length of stitch, or a smoothly wound bobbin. Use the left hand to anchor cloth near the presser foot and the right hand to guide into the feed and along the gauge.

Stitches

The term stitches refer to both the thread interloping or interlocking used to make seams that join two pieces of fabric that are sewn together. Stitches help determine the functional and esthetic performance of a garment. Stitches are created in a complete sewing action, using a threaded needle. They can be produced either by hand or machine. Stitches may be functional or decorative, and they may be concealed within or show on the face of a garment. Permanent stitches are used for seams, darts, and tucks. The length and tension of the stitch vary depending on the fabric used. On most medium weight fabrics, there are about 10 to 12 stitches per inch. Sheers require a finer stitch length, about 14 stitches per inch.

Heavy weight fabric is usually sewn at 8 to 10 stitches per inch. Regular stitches are a straight consistent, even- length stitch used as a permanent stitch. Some of the examples are stay stitches, top stitches, edge stitching under stitching, directional stitching among others. (Crawford 2011).

The Stitch

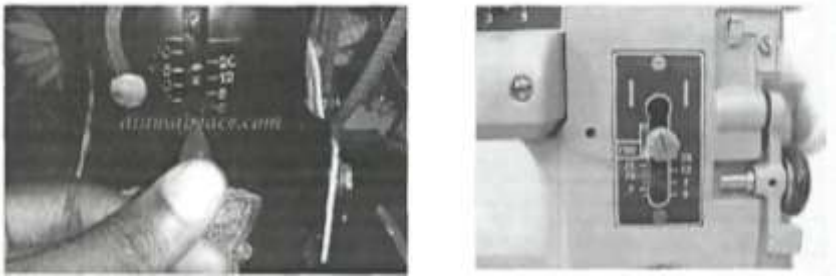


Plate one; Sewing machine showing stitch regulator

Stitch Regulator: The stitch regulator is used to determine the length and the shortening of stitches where 7 and 6 gives long stitches called gather stitch whereas 10 and 8 gives a normal sewing stitch, 15 and 12, 30 and 20 gives tiny, firm stitches.

The size: for fine work, average 16 stitches for an inch. For thicker work, such as wool and thick cotton goods average 12 stitches for an s inch.

The Tension: an even tension is important, the stitches above and below the work should appear exactly the same, loose stitches at the top often signify that the pool case is not threaded correctly or that the screw on the case is loose. The thread should come out of the case easily and smoothly.

Loose stitches on the underside: these suggest that the machine is not threaded correctly, or that the tension wheel may need tightening and adjusting. If the material puckers, the tension

may be the cause and this may need loosening. Always remember that the thread above and below the machine must be of equal thickness. Even thickness is essential for even stitching.

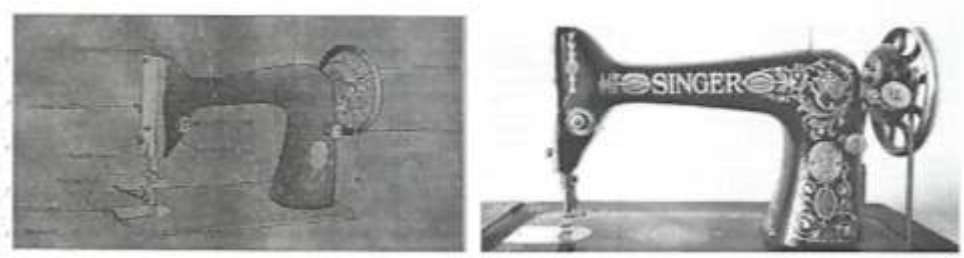


Plate two; Sewing machine

2.7 Clothing Construction and construction skill

Fischer (2009) defines clothing construction as the foundation of clothing and fashion design. According to Cole and Czachor (2008), clothing construction refers to the stitching of garments and all the sewing techniques involved in the process. They further mentioned that construction techniques involve stitching darts, pockets, seams, rucks, and pleats, zippers, waistbands, ruffles and flounces, collars, facings, cuff, sleeves, hems, linings, closures and finishing. Bane (1972) as cited in Philip (2016), is of the similar idea that clothing construction involves sewing machine, pattern selection, fabric selection preparation of pattern and alterations, layout and cutting, basis facing and binding, sleeve construction, collars, cuffs, pockets, decoration detail, these are all techniques in clothing construction, according to Philip (2016), without these skills cloths s cannot be made.

Construction skill is measured in line with Standards is a specification which sets out the criteria for acceptable quality and covers all the characteristics that can be accurately measured. (Cooklin, 1996). Similarly, quality is a concept and implies a degree of excellence, the nature of which is dependent on the reasons for the garment being purchased. An essential task for evaluating the quality of construction of any sewn item is to describe specific

characteristics that can be expected in high quality construction, compared with the work done by students. quality as sturdiness/durability involving garment seams, stitching, fabric construction, style and aesthetic like garment design, styling and overall performance.

These identified quality standards can serve as a basis for self-evaluation of construction skills. This information can serve as a practical tool for individuals, students of home economics in Colleges of Education seeking to improve their sewing skills. Methods, techniques, and materials will change over time, but the identified standards apply to almost all construction techniques. The construction techniques used should be compatible with the items fabric's style and purpose, the individual's skills and available sewing equipment. Regardless of the method used, the product should result in a detail, finish, or area that is:

(i) Attractive or inconspicuous;

(ii) Flat and smooth;

(iii) Free from bulk;

(iv) Characterized by secure stitching that is a uniform distance from an edge or fold; Functional; and durable (Hendrickson, *Hiller & Mordhorst*, 2000).

From this, other general appearance based on quality standard checklist are:

(i) Overall neatness

(ii) Plaids, stripes, checks, and other designs are matched at seams

(iii) Pattern and fabric are compatible

(iv) Fabric with a direction design (such as vertical flowers) or (such as corduroy) is cut in a consistent direction, unless fabric design requires variation.

(v) Motions are compatible with fabric and garment design.

2.8 Review of Related Empirical Studies

Okeke (2005) carried out a research on improving student's skill acquisition through effective clothing and textile education in tertiary institution, in Anambra State. The major objective of the study was to find out measures of improving the student's skills acquisition through effective clothing and textile education. While other objectives were the problems in the teaching and learning of clothing and textile education in tertiary institutions in Anambra state. And measures of improving the teaching of clothing and textile education in tertiary instructions in Anambra state. The researcher employed a survey design. Her target population was two hundred and twenty (220) lecturers and students of Home Economics in tertiary institution in the state. Random sampling technique was used to obtain a sample of one hundred and eleven (111) twenty-one (21) lecturers and ninety (90) students as sample for the study. Questionnaire technique was used to obtain data for the study, frequencies and percentage was used to analyze the data.

The result reveals that the respondents agreed with the problem affecting the teaching and learning of clothing and textile, which were inadequate facilities and equipment and unavailability of skilled clothing and textile teachers. It also reveals that lecturers do not adopt a clothing constructing skill that is complex and rigorous.

The empirical study is similar to the current study in the area of skill acquisition, students that the present work is using as population were also part of the old work population. However, they differ in area of the place where the research was conducted.

The research design differs from the present work while the old work used survey research design the present work used descriptive survey research design, While the current research was on assessment of selected sewing skills of Home Economics students on

children were in Colleges of Education, North Central however, the empirical study was on improving student skills acquisition through effective clothing and textile education in Anambra State. The present work fills a gap because it is subjecting the student into doing the actual work (sewing) which is part of skill acquisition.

Ampong and Gavor (2006) conducted a study to assess the construction quality of garment produced by Ghanaian tailors and seamstresses. The researcher drew their samples of two hundred and four (204 garment manufacturers, from Ghana National Tailors and Dress Makers Association with a total population of one hundred and sixty-eight (168), Ghana Associating of Fashion Designers and Exporters with a total population of thirty-six (36); purposive sampling was used to select 42 manufacturers. The instrument used for collecting data was observation and assessment form. Percentage was used to analyze the data collected. Three quality control experts in a clothing manufacturing industry assessed the quality of construction processes in the sampled garments. Rating by the assessors for the construction processes presented in the sampled garments indicated that 46.9% of the ratings of the construction process had values above the average. The rating also showed that the manufacturers were most competent in structural trim finishing and interlacing and less competent in pocket and hem, and specific construction defects identified included variable stitch per inch, uneven seam allowance, and unbalanced collar on neckline, absence of under-stitching of facing and width of top stitched parts.

Previous study by Ampong and Gavor was on assessment of construction quality of garments produced, by Ghanaian tailors and seamstresses, the present study is on assessing college of education home economic students sewing skills in the production of children's wear in North Central Nigeria. While the previous study was conducted in Ghana, the present

study was conducted in North Central Nigeria. Also, the targets populations of the previous study were Ghanaian tailors and seamstresses, the target population of the present study are Home Economics students of Colleges of Education, the area of interest in the made garment s different and the instrument used for assessing both are also different while the old work used observation and assessment the current work used a score card Nevertheless, the studies are related because they both deal with garment construction and assessment,

Another similarity is that both work used experts to score.

Chukwudumebi (2009) conducted a study on comparative analysis of foreign and Nigeria made children garment: implications for consumers. The age involved were pre-school children of 3-5 years. The location of the study was Ahmodu Bello University Teaching Hospital (ABUTH) Zaria and St Luke's Anglican Hospital (maternity section) and Sabon gari market Zaria in Kaduna state. Descriptive survey research design was used to collect information from sampled population. The population for the study comprised of all mothers of pre –school children attending maternity clinic in Ahmodu Bello University Teaching Hospital (ABUTH) Zaria that was 2226 and 600 from St. Luke's Anglican Hospital in Zaria giving a total population of two thousand eight hundred and twenty-six (2826) as the target population. Purposive sampling method was adopted for the study; three hundred and eleven (311) respondents were selected comprising two hundred and forty-four (244) from ABUTH Zaria and sixty-seven (67) from St Luke's. The instruments used for collecting data were structured questionnaire and non- participant observation. Four null research hypotheses were formulated. The two tailed t- test was used to test Null hypothesis at 0.05% level of significance. All the null hypothesis was rejected. The result indicated that the foreign made pre-school children's garments were discovered to be better in terms of stitching quality,

accessories hem finishing, trimming and fastening than the Nigeria made pre-school children's garments.

The present study is similar to the previous study with the level of the research that is pre- school and is also similar in the area of the research design both used descriptive survey research design both also used purposive sampling method. There are other similarities like area of interest in the old and the new work both are looking for some specific qualities in the making of the garment. However, there are differences in the following areas; the present study was carried out among NCE 111 Home Economics students in college of Education North Central assessing the students sewing skills in the production of some selected garment features like French seams, collar, sleeve and gathers while the formal work concentrated on stitching quality accessories hem finishing trimming and fastening. The population of the present work was 60 instead of 311 samples, hence experimental and three null hypotheses was formulated in the formal work. The formal work was a comparative work while the present work was an assessment in line with clothing construction skill. The gap filled was the construction of baby dress practically and assessing some selected areas. which was not like that in the old work.

A study conducted by Obiana (2013) investigated the effects of stitch densities, thread types and laundering (washing, starching and ironing) on the seam quality of plain seam made of Nigeria cotton wax-print fabrics. Nine objectives, some of which are: effect of laundering on seam strength of plain seam made of Nigeria plain woven cotton wax print fabric. Determine the effect of stitch-density on the strength of plain seam. Ascertain the effect of stitch –density on the elongation of plain seam. Asses the effect of stitch –density on the efficiency of plain seam. research questions and Null hypotheses were raised. Experimental

research design was adopted using practical laboratory method. The population of the study was made up of five Nigerian wax-print fabrics. The sample size used for the study was also five Nigerian wax-print fabrics. A total of 1,400 seamed specimens were used for the study, 200 were used for stitch density, 400 for thread types and eight hundred for laundering., effect of stitch density was tested for using four p (6,8,10 and 12 SP), two types of thread were used namely cotton and polyester thread. Laundering was assessed using washing, starching and ironing processes. Seam quality was determined by assessing properties such as seam strength, elongation and accuracy.

Data collected were analyzed and tested using mean, standard deviation, paired-t-test statistic and ANOVA at 0.05 Alpha the significance. The result showed that three are significant positive effects of stitch densities on seam strength, elongation and efficiencies of plain seam; the result also showed that there was a significant difference between Sew Strength accuracy seams made with, cotton and polyester sewing thread among others. Based on the findings, the researcher concluded that stitch density thread type and laundering has significant effect on seam quality. The study recommended that garment making education training, seminars and workshops should include in the curriculum and organized regularly for garment making students, tailors and apprentices before starting up their business.

The previous study by Obiana differ from this study because it was concerned with the effects of stitch density, thread types and laundering on seam quality of Nigeria wax-print fabrics, while the present study is on assessing college of education home economics students sewing skills in the production of children's wear in North Central Nigeria. While Home Economics students formed the population and sample size of the study, Nigeria wax-print fabric formed the population and sample size of the previous study. This study will access the

application of seam on the constructed children's wear by Home Economics student, the previous study looked at the effect of densities, thread types and laundering on the seam quality made of Nigeria cotton wax-print. They are however related because an aspect of the old work dealt with seam quality while an aspect of the new work also dealt with French seam, however there is a little difference in the area of emphasy while the formal work focused on seam quality the present work focused on the construction of the French seam.

Ahmad (2014) conducted a study on preschool children's wear using Velcro fastener and conducted in FCT Abuja, with the emphasis on self-dressing, with pre-test and post-test of experimental and control group. Purposive sampling technique was used to select two schools in Abaji area council local Education Authority. The major objective of the study was to examine the use of Velcro in the production of clothing for pre- school children in FCT- Abuja in Nigeria. The specific objectives are to produce garments for pre-school children using Velcro fastener in all the openings for convenient self-dressing, compare the time used for wearing uniform constructed with Velcro fasteners and the time used for wearing uniform construction button fastener by pre- school children, ascertain time used for undressing uniform with Velcro and time used for undressing uniform with button fastener by pre-school children. The major finding of the work was that there was significant difference between uniforms sewn with Velcro and those sewn with button fastener, for the convenient self-dressing by pre- schoolchildren. with Similarities with this present work is that both are on children wear of the same age. The both work used purposive sampling technique to select their study areas. Another area of similarities was that the both work produced a product that was used as a base for data collection The both work varies in the sense that while Ahmad work measured the ease of dressing with Velcro fastener the present work

assessed sewing skill of students. The present work has filled the gap that though Velcro could be used as a fastener that ease children's self-dressing the present work is emphasizing it being made in line with clothing construction skill. Furthermore, students of colleges of Education in home economics department produced a product that was assessed. while in the old work the researcher produced the product by herself with Velcro and button. while she watched the time used by the pre –school children in putting it on and off. The present work filled the gap in this particular situation in a way that students learnt a skill in producing some selected features in a baby dress.

Yusuf (2016) under took a work titled influence of Home Economics on application of entrepreneurial skills among Colleges of Education graduates in North East Geo-Political zone, Nigeria. The study had six objectives, some of which were, examine the extent to which the present NCE Home Economics program meets the minimum standard of National Commission for Colleges of Education (NCCE) in North East Nigeria; identify the influence of NCE Home Economics program on the application of entrepreneurial skill among graduates in North East Nigeria; identify the skills practiced by graduates of Home Economics in North East Nigeria, examine the extent to which entrepreneurial skills acquired in Home Economics program equip the graduates for self-employment in North East Nigeria, among others. Six research questions and six null hypotheses. Descriptive survey design was used to carry out the research. From a population of one thousand, two hundred (1,200), a sample of two hundred and ninety – one (291) was drawn using purposive sampling technique. The data was analyzed using descriptive and inferential statistics. Mean and standard deviation were used to answer the six research questions. Pearson Product Moment Correlation (PPMC) was used to test null hypothesis. The finding revealed that among others

that the NCE Home Economics programme has significant influence on the entrepreneurial skills among graduates of Home Economics in North-East Geo-Political Zone, Nigeria.

The old work by Yusuf found out how Home Economics programme influence entrepreneurial skill of Home Economics NCE graduates. The work differs from the present work in the following ways (1) the NCE graduates that are already out of school, while the present work is working with NCE students who are yet to graduate (2) the work is concerned with sewing skills which involved in the production of a products by the students (3) Both works were carried out in the different geo-political zone of Nigeria. The current work is specific the old work was general. Although both are similar in the following ways: Home Economics NCE students were used. Both are concerned about skills.

There is a gap that the present work fills, while the former work generalized all the skills, the present work was specific by emphasizing on sewing skill only, students were subjecting into doing it practically for assessment.

2.9 Summary Review of Literature

The review of related literature was carried out under different headings with different findings. The theoretical framework of this study is the theory of skill acquisition. They argue that there are definite stages that an agent should go to become an expert in skill acquisition. Human beings acquire a skill through institution and experiences, but do not appear suddenly but through stages and gradually a skill will be acquired. In view of this accessing a product identifies individual student weakness and strengths so that educators can provide specialized academic support. With the review of home economics and skill acquisition, it was discovered that home economics as one of the vocational education is aimed at making individuals well-armed with skill and knowledge to enable them secure employment.

Garment making was reviewed and it was discovered that there are two methods involved, free hand cutting and pattern. To get a standardized garment, a pattern must be produced starting from the basic pattern to the styled pattern which needs some specific procedures to be followed.

Children wears as reviewed it was discovered that in designing children clothes, function and design must meet at the right proportion in children's clothing for it to be popular and accepted. Fabric choices, openings and fastenings, fit, ease and trimmings used are all major consideration when designing children's wears. It was discovered that sewing skill is the ability to put to use the basic principles required to sew, like design concept, selecting and preparing patterns, taking body measurement, basic hand and machine stitches, pattern layout, fabric estimation, cutting, tailoring and finishing. There are different areas of training skill, skill in finishing, skill in application of features, skills in stitches, skill in machine application, sewing skill is very vast and wide. It has been discovered that much work has not been done in the area of assessing a product in clothing in line with clothing construction skills to ascertain the student ability in sewing skill. This study intends to fill this gap.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter presents the research design and methodology used in the research work under the following sub-headings:

3.1 Research Design

3.2 Population of the Study

3.3 Sample and Sampling Technique

3.4 Instrument for data collection

3.8 Procedure of Data Collection

3.9 Method of Data Analysis

3.1 Research Design

Descriptive survey research design was adopted for this study, it's a type of method that describe situations. It aims at collecting data and describing in a systematic manner the characteristics features or facts about a given population. Usually hypothesis is not tested since descriptive survey is concerned with a description of events as they are. The main objective of descriptive survey is to identify present condition and point to the present needs, to study the immediate status of a phenomenon and facts findings (Oche, 2013) There are three main types of descriptive method, of which observational method is one. Testing method and laboratory method are branches of the observational method it was found most appropriate for the study because the work assessed home economics students in Colleges of Education skills in sewing practically in a clothing laboratory, while the researcher observed carefully and later assessed the product with the use of score card. The study used mean and

standard deviation to analyze the data to determine if the students sewing skills were in line with the quality standard check list.

3.2 Population of the Study

The study had a total population of 364 students which comprise of all N C E III Home Economics students from 12 Colleges of Education in North Central of Nigeria. This population is considered suitable for the study because NCE III Home Economics students should have been adequately exposed to different sewing skills and various applications on children's wears to match clothing construction standards. The distribution of the population according to the respective institutions or Colleges is shown in table 3.1

Table 3.1: Population of the Study

S/N	Institution	Location	Number of NCE III Students
1.	College of Education	Ankpa , Kogi State	38
2.	Federal College of Education	Okene , Kogi State	33
3.	College of Education	Ilorin, Kwara State	9
4.	College of Education	Lafiagi , Kwara State	0
5.	College of Education Oro	Kwara state	0
6.	College of Education	Gindiri, Plateau State	3
7.	Federal College of Education	Panshin , Plateau State	29
8.	College of Education	Minna, Niger State	18
9.	Federal College of Education	Kontagora ,Niger State	18
10.	College of Education	Akwanga, Nasarawa State	150
11.	College of Education	Katsina Ala, Benue State	13
12.	College of Education	Oju, Benue State	53
	Total		364

Source; personal contact.

3.3 Sample and Sampling Technique

Purposive sampling technique also known as judgmental sampling technique, was used to select two out of the twelve colleges in North Central zone. Because it was an experimental study that does not need large group. It is a non-probability sampling technique that gives the opportunity to select a sample that appears to the researcher as being representative of the population (Alamu & Olukosi, 2010). While systematic sampling technique was used to select an intact class of 30 students from each of the colleges sampled for the study were used. Also Nwana (1991) in Uzoagulu (2011), said that no fixed number and no fixed percentage is ideal, rather it is the circumstances of the study situation that determines what number or what percentage of the population should be studied. This method afforded every student in the target population an equal chance to participate.

Table 3.2 Sample of the Study

S/N	Institution	Location	Number of NCE III Students	Sample Size
1.	College of Education	Akwanga	150	30
2.	College of Education	Oju, Benue State	53	30
	Total			

3.4 Instrument for Data Collection

Score card: appendix 11

The instrument for data collection was a score card based on 4-point rating scale adapted from quality standard check list. And was modified to suit the objectives of this study

This score cards describe the characteristics of some garment features that are of interest to the study. The Quality Standard Checklist (QSC) approach was developed by

Hendrickson, Hiller and Mordhorst (2000) with 29 sections that specify the essential elements in evaluating the quality of construction of any sewn item that gives it a good finish and professional look. The score card contains 4 main parts of children dress that requires special sewing skills and 16 sewing features. There are four parts A- Making French Seam B- construction and attaching puff sleeve C- construction and Attachment of peter pan collar D- construction of Gathers. (Appendix 11 pp,86)

Panel of judges: there were five panel of judges chosen for their experience in clothing and textile, they have been working as teachers of clothing and textile in tertiary institutions for between ten to twenty years, their qualifications were above first degree in home economics and none of them was below 35 years of age. They carefully assessed the product and scored. A four-point rating scale was used to collect relevant data from the specimen produced.

The score card described some skills on a finished garment in some selected areas like

- French seam-securely stitch straight, stitch length is appropriate for the fabric, rough edge properly enclosed in a fell, the fell not more than 8cm or 5/8 inch.
- Puff sleeve – gathers evenly distributed, sleeve band neatly fixed, center sleeve and peak of Shoulder matched, under arm seam for sleeve and armhole seam match.
- Peter pan collar - left and right sides are uniform in shape (symmetrical), position in relation to center front or center back, rolls smoothly or lays flat according to design,
- Fixing according to correct method bias that hide the raw edge at neck line is neatly attached flat.
- Gathers—uniform and evenly distributed, full and attractive, drapes and flows well, over all neatness.

3.5 Procedure for Data Collection

The researcher got an approval letter of introduction from the Heads of Department of Home Economics Ahmadu Bello University, Zaria. Letters presented helped the researcher obtain permission from the head of Department of Home Economics of the institution selected to administer the data collection procedures

To carry out the study, the participants in their classroom settings were given the appropriate materials needed to sew specified designs of children's wears:

i. The pattern of design was drafted as samples for the student.

ii. The various fabric for the practical were assigned to the students

iii. The patterns were carefully placed on the fabrics and the design carefully cut out and sowed by the students

iv. Assessment of the final product was done using the score cards.

v. Experience teachers/panel of judges were asked to assess the students work in order to check the attributes of the four parts given for sewing. These parts included the making of French seam, Construction and attaching puff sleeve, construction and attachment of Peter Pan collar and construction of gathers.

This took about 4 weeks to accomplish in the two schools after which the product was collected for assessment. panel of judges used score cards with four rating scale to score.

3.6 Procedure for Data Analysis

The data for this study were analyzed using mean and standard deviation. Research questions were answered using the cumulative mean and standard deviation values of the variables. This study adopted a 4-point rating scale on a score card which was scored by panel of judges. The benchmark was calculated on the 4-point rating scale as (Adequate =4;

moderately adequate =3; unsatisfactory =2; Very unsatisfactory =1); 4+3+2+1= 10; 10/4 = 2.5. Each level on the scale is assigned a numeric value or coding, usually starting at 1 and incremented by one for each level. The average mean score of 2.5 was used as the benchmark for determining acceptance and rejection. One sample t-test was used to determine the significance of the students sewing skills as rated by the judges.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

This chapter consists of data presentation and analysis. Descriptive statistics such as mean and standard deviation were used in analyzing the data obtained. The sampled of both colleges of educations students were given material to carry out the specified task while the researcher observed. At the end the researcher collected the student's works and submitted them to a panel of five judges who are experts in clothing and textile. The panel members used the score card to assess the student's works and rated the specific variables of interest namely the required standard for Peter Pan collar, puff sleeves, gathers and seam. The results

Data of the assessment are presented under the following subheadings.

4.1 Answering Research Questions

4.2 Hypothesis testing

4.3 Summary of Findings

4.4 Discussion of Findings

4.1 Answering Research Questions

The research questions were meant to elicit the degree of ability of the skills as observed by the judges.

Research Question 1: What is the extent of College of Education Home Economics student's ability in the application of seams on the constructed children's wear in line with clothing construction skill?

Table 4.1: Judge's agreement on the ability in constructing French seam on children's wear by the colleges of education students in north central. As in line with clothing construction skill.

S/No.	Code	Making French Seam	N	$\bar{X}$	SD	DECISION
1.	FS1	Securely stitch, straight, with a professional look	300	2.58	.864	Satisfactory
2.	FS2	Stitch length is appropriate for fabric and even except where shortened for reinforcement	300	2.66	.837	Satisfactory
3.	FS3	Rough edge properly enclosed in a fell	300	2.71	.987	Satisfactory
4.	FS4	The fell not more than 8cm or 5/8 inch	300	2.21	.983	Not Satisfactory
		Cumulative Mean		**2.54**	**0.92**	**Satisfactory**

Source: Field survey, 2019 bench mark 2.5

The analysis of result in Table 4.1 shows construction of French seam on children's wear. The result revealed the average mean score of 2.58 for securely stitch, with a professional look, and stitch length is appropriate for fabric and even except where shortened for reinforcement at 2.66, Rough edge properly enclosed in a fell at 2.71 were rated satisfactory, except for the 'fell not more than 8cm or 5/8 inch' which is 2.21 and below the benchmark of 2.5 which

indicates that students lack the skill in making this aspect of French seam. However, on the cumulative mean for the ability in the application of seams on the constructed children's wear in line with clothing construction skill was accepted as satisfactory at mean value of 2.54 and standard deviation of 0.92.

Research Question 2. To what extent is the ability of College of Education Home Economics students in the construction of Peter Pan collars on children's wear in line with clothing construction skill?

Table 4.2: Judge's agreement on the ability in the construction of Peter Pan collar by the colleges of education Home Economics students in north central Nigeria. As in line with clothing construction skill.

S/No.	Code	Construction and Attachment of Peter Pan Collar	N	$\bar{X}$	SD	DECISION
1.	PPC1	Left and right sides are uniform in shape (symmetrical)	300	2.85	.812	Satisfactory
2.	PPC2	Position in relation to center front or center back	300	2.87	.793	Satisfactory
3.	PPC3	Rolls smoothly or lays flat according to design	300	2.66	.891	Satisfactory
4.	PPC4	Fix according to correct method bias that hide the raw edge at neck line is neatly attached flat.	300	2.38	1.006	Not Satisfactory
		Cumulative Mean		**2.69**	**0.88**	**Satisfactory**

Source: Field survey, 2019 bench mark 2.5

The analysis of results in Table 4. 3 shows the construction of peter pan collar in line with clothing construction skill. The results revealed mean score of 2.85 for left and right sides are uniform in shape(symmetrical), position in relation to center front or center back had

mean score of 2.87 and Rolls smoothly or lays flat according to design scored 2.66 mean. three out of four factors for the ability of College of Education Home Economics students in the making of Peter Pan collars on children's wear in line with clothing construction skill were acknowledged to be satisfactory with the exception of fixing according to correct method bias that hide the raw edge at neck line is neatly attached flat, which is 2.38 and below the benchmark of 2.5. which implies that the students are yet to master the particular skill that was scored below the bench mark. However, Cumulative mean, in the making of Peter Pan collars on children's wear in line with clothing construction skill were accepted as satisfactory at mean value of 2.69 and standard deviation of 0.88.

Research Question 3. To what extent is the College of Education Home Economics student's ability in the making of gathers on children wear in line with clothing construction skills?

Table 4.3: Judge's agreement on the extent of ability in the construction of gathers by the colleges of education Home Economics students in north central Nigeria as in line with clothing construction skill.

S/No.	Code	Construction of Gathers	N	$\bar{X}$	SD	DECISION
1.	GTH1	Uniform and evenly distributed	300	2.75	.823	Satisfactory
2.	GTH2	Full and attractive	300	2.62	.811	Satisfactory
3.	GTH3	Drapes and flows well	300	2.61	.804	Satisfactory
4.	GTH4	Over all neatness	300	2.63	.900	Satisfactory
		Cumulative Mean		**2.65**	**0.83**	**Satisfactory**

Source: Field survey, 2019 bench mark 2.5

The analysis of results in Table 4.4 shows construction of gathers on children's wear in line with clothing construction skill. The results revealed average mean score of 2.75 for uniform and evenly distributed, full and attractive 2.6 mean score and drapes and flows well scored 2.61 mean, while overall neatness had the mean score 2.63 all four factors tested were found to be satisfactory which implies that the students have had the skill of making gathers. gathers being uniform and evenly distributed at the highest mean score of 2.75. with cumulative mean score of 2.65 and standard deviation of 0.83.

Research Question 4: what is the extent of College of Education Home Economics student's ability in the construction of puffs sleeves on children's wear in line with clothing construction skills?

Table 4.4: Judge's agreement on extent of ability in the construction of puff sleeve by college of education Home Economics students in North central Nigeria. As in line with clothing construction skills.

S/No.	Code	Construction and attaching Puff Sleeve	N	$\bar{X}$	SD	DECISION
1.	PS1	Gathers evenly distributed	300	2.55	.818	Satisfactory
2.	PS2	Sleeve band neatly fixed	300	2.64	.879	Satisfactory
3.	PS3	Center sleeve an peak of shoulder matched	300	2.62	.832	Satisfactory
4.	PS4	Under arm seam for sleeve and armhole seam match	300	2.35	1.009	Not Satisfactory
				2.54	**0.88**	**Satisfactory**

Source: Field survey, 2019 bench mark 2.5

The analysis of results in Table 4.2 shows the construction and attaching puff sleeve in children wear. The result revealed average mean score of 2.55, for gathers evenly distributed,

sleeve band neatly fixed had the mean score of 2.64 and center sleeve and peak of shoulder matched at the mean score 2.62. with the exception of making under arm seam for sleeve and armhole seam match which is 2.35 and below the benchmark of 2.5. which indicate that students lack the skill to construct and attaching puff sleeve in that particular aspect that was scored low. However, the cumulative mean for the ability in the constructed puff sleeves in line with clothing construction skill were accepted as satisfactory at mean value of 2.54 and standard deviation of 0.88.

4.2 Test of Hypotheses

Hypothesis One: There is no significant accuracy in the-application of seams on the children's wear by Colleges of Education Home Economics students in line with clothing construction skill is not significant

Table 4.5: **One Sample t test on the extent of ability in the-application of seams on the children's wear by Colleges of Education Home Economics students in line with clothing construction skill**

	Mean	Std. Deviation	t-value	Df	P-value	Verdict
Aggregate mean	2.54	0.92	2.291	107	0.00	Rejected
Constant mean	2.50					

$t = 1.972, P < 0.05$

Table 4.5 revealed that there is significant accuracy in the-application of seams on the children's wear by Colleges of Education Home Economics students in line with clothing construction skill. This is because the one-sample t-test calculated value is 2.291 greater than the t-critical of 1.972 at degree of freedom 107 with probability value 0.00 which is less than

0.05 level of significance. Thus, this result showed that the hypothesis which states that "There is no significant accuracy in the-application of seams on the children's wear by Colleges of Education Home Economics students in line with clothing construction skill is not significant" is therefore rejected.

Hypothesis Two: Peter Pan collars constructed by College of Education Home Economics students on children's wear in line with clothing construction skill is not significantly accurate

Table 4.6: **One Sample t test on the extent of ability in the-application of Peter Pan collars constructed by College of Education Home Economics students on children's wear in line with clothing construction skill.**

	Mean	Std. Deviation	t-value	Df	P-value	Verdict
Aggregate mean	2.54	0.442	2.13	107	0.01	Rejected
Constant mean	2.50					

$t = 1.972$, $P < 0.05$

Table 4.6 revealed that there is accuracy in the-application of Peter Pan collars constructed by College of Education Home Economics students on children's wear in line with clothing construction skill. This is because the one-sample t-test calculated value is 2.13 greater than the t-critical of 1.972 at degree of freedom 107 with probability value 0.01 which is less than 0.05 level of significance. Thus, this result shows that the hypothesis which states that "Peter Pan collars constructed by College of Education Home Economics students on children's wear in line with clothing construction skill is not significantly accurate" is therefore rejected.

Hypothesis Three: Making of gathers on children's wear in line with clothing construction skills among College of Education Home Economics students is not significantly accurate.

Table 4.7: **One Sample t-test on the extent of ability in the application of gathers on children's wear in line with clothing construction skills among College of Education Home Economics students.**

	Mean	Std. Deviation	t-value	Df	P-value	Verdict
Aggregate mean	2.69	0.88	2.69	107	0.00	Rejected
Constant mean	2.50					

$t = 1.972, P < 0.05$

Table 4.7 revealed that the accuracy in the application of gathers on children's wear in line with clothing construction skills among College of Education Home Economics students is significant. This is because the one-sample t-test calculated value is 2.291 greater than the t-critical of 1.972 at degree of freedom 107 with probability value 0.00 which is less than 0.05 level of significance. Thus, this result shows that the hypothesis which states that “Making of gathers on children's wear in line with clothing construction skills among College of Education Home Economics students is not significantly accurate” is therefore rejected.

Hypothesis Four: Puff sleeves constructed by Colleges of Education Home Economics students on children wear in line with clothing construction skill is not significantly accurate

Table 4.8: **One Sample t-test on the extent of ability in the application of gathers on children's wear in line with clothing construction skills among College of Education Home Economics students.**

	Mean	Std. Deviation	t-value	Df	P-value	Verdict
Aggregate mean	2.65	0.83	2.32	107	0.00	Rejected
Constant mean	2.50					

$t = 1.972, P < 0.05$

Table 4.8 revealed that the accuracy in the application of gathers on children's wear in line with clothing construction skills among College of Education Home Economics students is significant. This is because the one-sample t-test calculated value is 2.232 greater than the t-critical of 1.972 at degree of freedom 107 with probability value 0.00 which is less than 0.05 level of significance. Thus, this result shown that the hypothesis which states that "Puff sleeves constructed by Colleges of Education Home Economics students on children wear in line with clothing construction skill is not significantly accurate" is therefore rejected.

4.3 Summary of Findings

Findings showed that;

i. The result of research question one revealed that the ability in the application of seams on the constructed children's wear of Home Economics students in line with clothing construction skill were accepted as Satisfactory at mean value of 2.54 and standard deviation of 0.92 with p-value= (0.01<0.05)

ii. The result of the research question two showed that the ability in the construction of puff sleeves by Colleges of Education Home Economics students on children's wear in line with clothing construction skill were accepted as satisfactory at mean value of 2.54 and standard deviation of 0.88 with p-value= (0.00<0.05)

iii. The result of research three revealed that the ability of College of Education Home Economics students in the making of Peter Pan collars on children's wear in line with clothing construction skill were accepted as satisfactory at mean value of 2.69 and standard deviation of 0.88 with p-value= (0.00<0.05)

iv. The result of research question four showed the extent of ability of gathers constructed by College of Education Home Economics students on children's wear in line with clothing construction skill were accepted as satisfactory at mean value of 2.65 and standard deviation of 0.83. However, there were some areas that were consistently rated unsatisfactory that needed improvement. p-value= (0.00<0.05)

4.4 Discussion of Findings

The performance of College of Education Home Economics students sewing skills on children's wear were rated satisfactory. On the overall. This is in accordance to usual (2006), skills are to put into use acquired competencies, attitudes and behavior. After an exposure to theories and practices inherent in a field of study. Sewing skill is this acquired competences in clothing construction that has to do with making of an item like garment which is of different features like sleeves, collars, cuffs, pockets, decorative details zippers, bias among other. It gives them opportunities for developing manipulative skills that will enable them to function effectively within the limits of their capacity (Ohworieole and ochonoger,2008)

On the ability in the application of seams on the children's wear of Colleges of Education Home Economics students in line with clothing construction skill. the result of the research questions one showed that performance in three out of the four factors for the extent of ability in the application of seams on the constructed children's wear l were accepted as Satisfactory at mean value of 2.58, 2.66 and 2.71 except for the application of the' fell not more than 8cm or 5/8 inch' which is 2.21 and below the benchmark of 2.5. The application of seams for effective sewing skills had a significant effect on the children's wear and the clothing construction skill. This is in accordance to the observation by Lapere (2006) who said that seams are the basic elements that form the structure of any apparel and are the most important parameter to maintain product integrity. According to Crawford (2011), the type of seam selected should be appropriate for the fabric type and location of the seam in the garment am and According to Seetharam and Nagarajan (2014) that French seam is a self-neatened seam that over comes the problem of showing the neatening through the structure of

the garment, that the seam is performed by trapping the raw edges in between the two rows of stitching, the raw edges of the fabric are enclosed within a seam. More so, the accuracy of sewing skills as it affects the seam in children dresses cannot be overemphasized as it is very important.

On puff sleeves constructed by College of Education Home Economics students on children's wear in line with clothing construction skill, the research question 2 showed that three out of four factors for puff sleeves constructed by Home Economics students were acknowledged to be Satisfactory with the mean value of 2.55, 264, 2.62 2.35 with the exception of ‘making under arm seam for sleeve and armhole seam match that was rated inappropriate. with the mean score 2.35 which means students do not have the skill required in making this very aspect, Sleeves are both functional and decorative and come in variety of styles and length. (Osai 2003). Sleeves are one of the details and features in a garment, it is a part of garment which cover the arm. According to Osai (2003), puff sleeve has fullness added between the front and the back arm lines which is gathered into the armhole. Inflated puffy effect is created, when adopted basic sleeve is gathered at crown and hem. While Armstrong, (2000) pointed out that puff sleeve can be of any length, and fullness can more or less.

On the ability of College of Education Home Economics students in the making of Peter Pan collars on children's wear in line with clothing construction skill. The research question 3 indicated that three out of four factors for the ability in the making of Peter Pan collars on children's wear were acknowledged to be satisfactory with the mean score of 2.85, 2.87, 266, respectively. with the exception of “fixing according to correct method bias that hide the raw edge at neck line is neatly attached flat”, which is 2.38 and below the benchmark

of 2.5. There is significant difference between the ability of College of Education Home Economics students to the making of Peter Pan collar on children's wear in line with the clothing construction skill. Collar is a design feature that frames the face and draws attention to it. A collar is an extra piece of fabric attached to apparel at the neckline (Diamond and Diamond 2002). Their importance in dress making must not be over looked. According to Cock (2003) the Peter Pan collar is either one complete collar with a center front opening or in two half collars with a center back opening. Both collar and under collar are cut from the same pattern piece. The width may be quite narrow or it may extend to the width of the shoulder.

On the extent of ability of gathers constructed by College of Education Home Economics students on children wear in line with clothing construction skill. The study indicates that all four factors for the extent of accuracy regarding the gathers constructed were acknowledged to be satisfactory to some extent with the highest mean of 2.75 in "making uniform and evenly distributed" and are all above the benchmark of 2.5. There is no significant difference between the ability in the sewing skills of Home Economics students in the construction of gather on children's wear and in line with the clothing construction skill. Gathering is a process of drawing up fabric fullness along the stitch line and distributing the fullness where desired (Crawford 2011) gathers are used in variety of places on a garment to achieve fullness, like skirt, blouses, puff sleeve dresses or anything with a ruffle and

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter consists of a brief summary of the study that was obtained. It also presents the deduced conclusions and offers recommendations. Section 5.1 is the summary of the study, section 5.2 gives the conclusion and section 5.3 recommendations, 5.4. The chapter is presented as follows:

5.1 Summary

5.2 Conclusion

5.3 Recommendation

5.4 Suggestions for further studies

5.5 Contribution to knowledge

5.1 Summary

In summary, the study assessed college of education home economics students selected sewing skills on children's wears in North Central Nigeria. These include the making of French seam, construction and attaching puff sleeve, construction and attachment of Peter Pan collar and construction of gathers and other sewing skills. Four corresponding research questions were raised and tested. Related literature was reviewed on major variables in the study. Descriptive research design was adopted for the study and four rating scale score cards was used as an instrument for data collection. The population of the study consisted of NCE 111 home economics students in College of Education in North Central Nigeria, with two Colleges of Education that were purposively drawn from the population: 60 NCE 111 students were used as intact class. The data collected with the use of score cards to assess the students

work was statistically analyzed using mean and standard deviation and to also answer the study questions.

The result of research question one showed that the ability in the application of seams on the constructed children's wear of College of Education Home Economics students in line with clothing construction skill were accepted as satisfactory. Exception of the fell not more than 8cm or 5/8 inch for French seam that was rated not satisfactory. $p= (0.01<0.05)$

The result of research question two on the level of ability in the construction of puff sleeves by College of Education Home Economics students on children's wear in line with clothing construction skill were accepted as satisfactory. Exception of under arm seam for sleeve and armhole seam match that was rated inappropriate. $p= (0.00<0.05)$

The result of research question three on the ability of College of Education Home Economics students in the making of Peter Pan collars on children's wear in line with clothing construction skill were accepted as satisfactory. Exception of fix according to correct method bias that hide the raw edge at neck line is neatly attached flat that was rated poor. $p= (0.00<0.05)$

The extent of ability of gathers constructed by College of Education Home Economics students on children's wear in line with clothing construction skill as showed by research question four were also accepted. Furthermore, the result showed consistency and significant positive relationship between factors tested on the extent of sewing skills by college of education Home Economics students on children wear in line with clothing construction skill. $p= (0.00<0.05)$

5.2 Conclusion

The findings emanating from this study with reference to the four research questions revealed that the ability in the sewing skills of College of Education Home Economics students on children's wear in North Central Nigeria are relatively fair compared to what is obtainable in the clothing construction skill. However, there are other areas of the sewing skills that were rated low which the students would need to put more effort to become perfect in sewing features of garment in line with clothing construction skill for optimum productivity.

5.3 Contribution to Knowledge

This study has established that garment features produced in line with clothing construction skill would always result into perfect garment for acceptable quality and standard, the study has contributed to knowledge in the area of detecting of student's deficiency in some selected sewing skill as reflected in the assessment for the subsequent adjustment to the sewing needs. The study has also shown areas of the sewing skills students are good at.

5.4 Recommendations

Based on the findings of this study, the following recommendations were given;

I. skills towards application of the fell not more than 8cm or 5/8 inch for French Findings showed that student's seam was inappropriate and unsatisfactory. It is therefore recommended that students should be taught by their teachers the making of French seam in stages using all the construction principles to enable them extensively make the fell width appropriate while constructing the French seam.

ii. The findings observed that the making under arm seam for sleeve and armhole seam match were not properly done by most students. It is therefore important for teachers to explore methods and techniques in the teaching of this aspect until it is mastered especially when teaching unit method of construction in clothing class.

iii. All the determined and affecting parameters related to the construction of Peter Pan collar like fixing according to correct method bias that hide the raw edge at neck line to be neatly attached flat was not done well. Therefore, the researcher recommend that students should be given a close attention in the attachment of collars most especially Peter Pan collar with emphases on fixing according to correct method.

vii. The inclusion of more practical and sewing skills into the Nigerian curriculum of teacher education is necessary. Home economics teachers should be encouraged to teach the sewing skill in line with clothing construction skill to enable students produce quality product in a competitive market so that students after school can become job creators rather than job seekers.

5.5 Suggestions for Further Studies

The following further research is suggested in this study;

i. Assessment of University Home Economics students on selected sewing skills on children's wears in north central Nigeria.

ii. Assessment of University Home Economics students on selected sewing skills on children's wears in North West Nigeria.

iii. Assessment of Colleges of Education Home Economics students sewing skills on children's wear in North Central Nigeria using two methods of teaching.

iv Assessment of sewing machine manipulation skill on the structural and aesthetic nature of a garment

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Appendix I

LETTER OF INTRODUCTION

DEPARTMENT OF HOME ECONOMICS
AHMADU BELLO UNIVERSITY, ZARIA - NIGERIA.
FACULTY OF EDUCATION
Telephone: 069-51755, 50692

VICE CHANCELLOR: Professor Ibrahim Garba, B.Sc., M.Sc., (ABU); Ph.D. (London); D.I.C.
HEAD OF DEPARTMENT: Professor E. E. Adamu, B.Sc. (Hons) ISU (USA); PGDE (ABU); M.ED (ABU) Ph.D. (ABU)

28th March, 2018

TO WHOM IT MAY CONCERN

LETTER OF INTRODUCTION

I certify that **Grace .O. Uloko** with Registration Number: **P14EDVE8037** is a Master Degree student of the Department of Home Economics, Faculty of Education, Ahmadu Bello University, Zaria.

She is undertaking a research on the **Assessment of College of Education, Home Economics Students Selected Sewing Skills on Children's Wear in North Central Nigeria.**

Please, kindly permit her to have access to data relevant to this case.

Thank You.

Mrs. R.C. Nwaebi
For: Head of Department

HEAD
Dept. of Home Economics Educ.
Faculty of Education
A.B.U., Zaria.

Appendix II

SCORE CARD (instrument for the panelist)

Regardless of the method used in constructing a garment there are some specific characteristics that can be expected in high-quality construction in a sewn garment. This score cards describe these characteristics of some garment features that are of interest to the study. Rate the finished garment accordingly based on the skills listed.

S/No. A	**Making French Seam**	**4 Adequate**	**3 Moderately adequate**	**2 Unsatisfied**	**1 Very unsatisfied**
1.	Securely stitch, straight, with a professional look				
2.	Stitch length is appropriate for fabric and even except where shortened for reinforcement				
3.	Rough edge properly enclosed in a fell				
4.	The fell not more than 8cm or 5/8 inch				
S/No. B	**Construction and attaching Puff Sleeve**	**4 Adequate**	**3 Moderately adequate**	**2 Unsatisfied**	**1 Very unsatisfied**
1.	Gathers evenly distributed				
2.	Sleeve band neatly fixed				
3.	Center sleeve an peak of shoulder				

	matched				
4.	Under arm seam for sleeve and armhole seam match				
S/No. C	**Construction and Attachment of Peter Pan Collar**	**4 Adequate**	**3 Moderately adequate**	**2 Unsatisfied**	**1 Very unsatisfied**
1.	Left and right sides are uniform in shape (symmetrical)				
2.	Position in relation to center front or center back				
3.	Rolls smoothly or lays flat according to design				
4.	Fix according to correct method bias that hide the raw edge at neck line is neatly attached flat.				
S/No. D	Construction of Gathers	4 Adequate	3 Moderately adequate	2 Unsatisfied	1 Very unsatisfied
1.	Uniform and evenly distributed				
2.	Full and attractive				
3.	Drapes and flows well				
4.	Over all neatness				

APPENDIX III

BABY DRESS WITH SELECTED FEATURES FOR ASSESSING SKILLS



APPENDIX IV

Course Description of Home Economics

Clothing Construction

Year One

HEC 113 Introduction to Clothing (2 credit)

Definition of terms e.g. garment, clothing, dress, costumes, etc.:

i. Theories of clothing

ii. Social, cultural, economic and psychological aspects of clothing,

iii. History of Nigerians costumes

iv. Selection and care of clothing tools and equipment,

v. Basic and decorative stitches on apron, oven mitt (gloves), place mats, etc. vi. Effect of social change in fashion trends,

vii. Clothes for different occasions

viii. Sewing tools and equipment's

ix. Use of sewing machine (manipulation, threading, etc.).

x. Making albums of sewing techniques such as stitches, seams finishes, edge finishes and techniques such as, disposal of fullness for clothing construction.

HEC 121 Pattern Drafting and Development (2 Credits)

i. Definitions of paper pattern drafting concepts.

ii. Tools and equipment for pattern drafting

iii. Measurement of body parts

iv. Principles involve in taking accurate body measurements,

v. Development of pattern through modeling on a stand,

vi. Developing patterns using draping methods,

vii. Understanding pattern markings and layout,

viii Development of basic patterns for adult and children's clothing,

ix. Developing patterns using dropping methods,

x. Manipulation of darts

xi. Making of album of different patterns constructed. **Year Two**

HEC Clothing Construction and Alteration (2 Credits)

i. Adaptation of basic patterns to develop fashion style.

ii. Alteration of paper patterns to fit body shapes.

iii. Use of commercial patterns

iv. Practicing pattern layouts and cutting

v. Free - handing cutting techniques: principles, advantages and disadvantages,

vi. Sewing techniques and processes on fastenings, openings, and manipulation of Darts.

vii. Figure types

viii. Development of styles through dropping techniques,

ix. Preparation for cutting and sewing.

x. Disposes of fullness,

xi. Unit methods of construction.

xii. Construction and modeling of personal apparel and

xiii. Making a baby dress (boys and girls).

Year Three

HEC 321 Advanced Clothing Construction (2 Credits)

i. Advanced techniques in clothing design based on elements of design and figure types,

ii. Advanced techniques in construction; different collars, sleeves, cuffs lining, interfacing, gathering, sharing, etc.

iii. Construction of garments with difficult fabrics.

iv. Construction of special garments; wedding gowns, children's (boys and girls partly wear, clothing for the vulnerable groups e.g. clothes in pregnancy, toddlers, physically disabled.

v. Construction of one way designed fabrics, checks and lines.

vi. Construction of embroidered garments,

vii. Machine embroidery and applique work,

viii. Beading use of sequins, etc.

Appendix V

Data Outputs

Descriptive Oju

[DataSet1]

Descriptive Statistics

	N	Mean	Std. Deviation
FS1	150	2.49	.809
FS2	150	2.55	.816
FS3	150	2.57	.979
FS4	150	2.14	.875
PS1	150	2.43	.789
PS2	150	2.51	.895
PS3	150	2.50	.880
PS4	150	2.27	1.079
PPC1	150	2.69	.778
PPC2	150	2.87	.766
PPC3	150	2.63	.886
PPC4	150	2.43	.999
GTH1	150	2.62	.774
GTH2	150	2.52	.730
GTH3	150	2.51	.730
GTH4	150	2.49	.903
Valid N (listwise)	150		

Descriptives Akwanga

[DataSet2]

Descriptive Statistics

	N	Mean	Std. Deviation
FS1	150	2.67	.910
FS2	150	2.77	.847
FS3	149	2.84	.980
FS4	150	2.29	1.079
PS1	150	2.67	.831
PS2	150	2.77	.845
PS3	150	2.73	.766
PS4	150	2.43	.930
PPC1	150	3.01	.815
PPC2	150	2.87	.822
PPC3	150	2.69	.897
PPC4	150	2.33	1.013
GTH1	150	2.87	.854
GTH2	150	2.73	.874
GTH3	150	2.71	.862
GTH4	150	2.77	.878
Valid N (listwise)	149		

Descriptive Oju and Akwanga

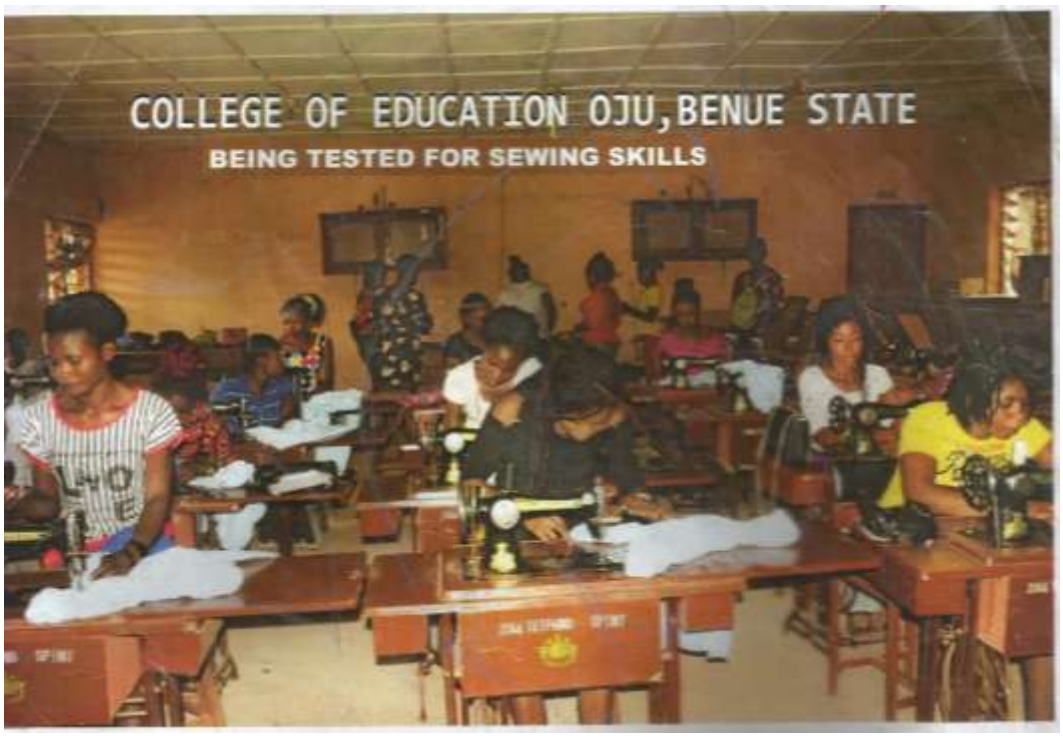
Descriptive Statistics

	N	Mean	Std. Deviation
FS1	300	2.58	.864
FS2	300	2.66	.837
FS3	299	2.71	.987
FS4	300	2.21	.983
PS1	300	2.55	.818
PS2	300	2.64	.879
PS3	300	2.62	.832
PS4	300	2.35	1.009
PPC1	300	2.85	.812
PPC2	300	2.87	.793
PPC3	300	2.66	.891
PPC4	300	2.38	1.006

GTH1	300	2.75	.823
GTH2	300	2.62	.811
GTH3	300	2.61	.804
GTH4	300	2.63	.900
Valid N (listwise)	299		

Appendix VI

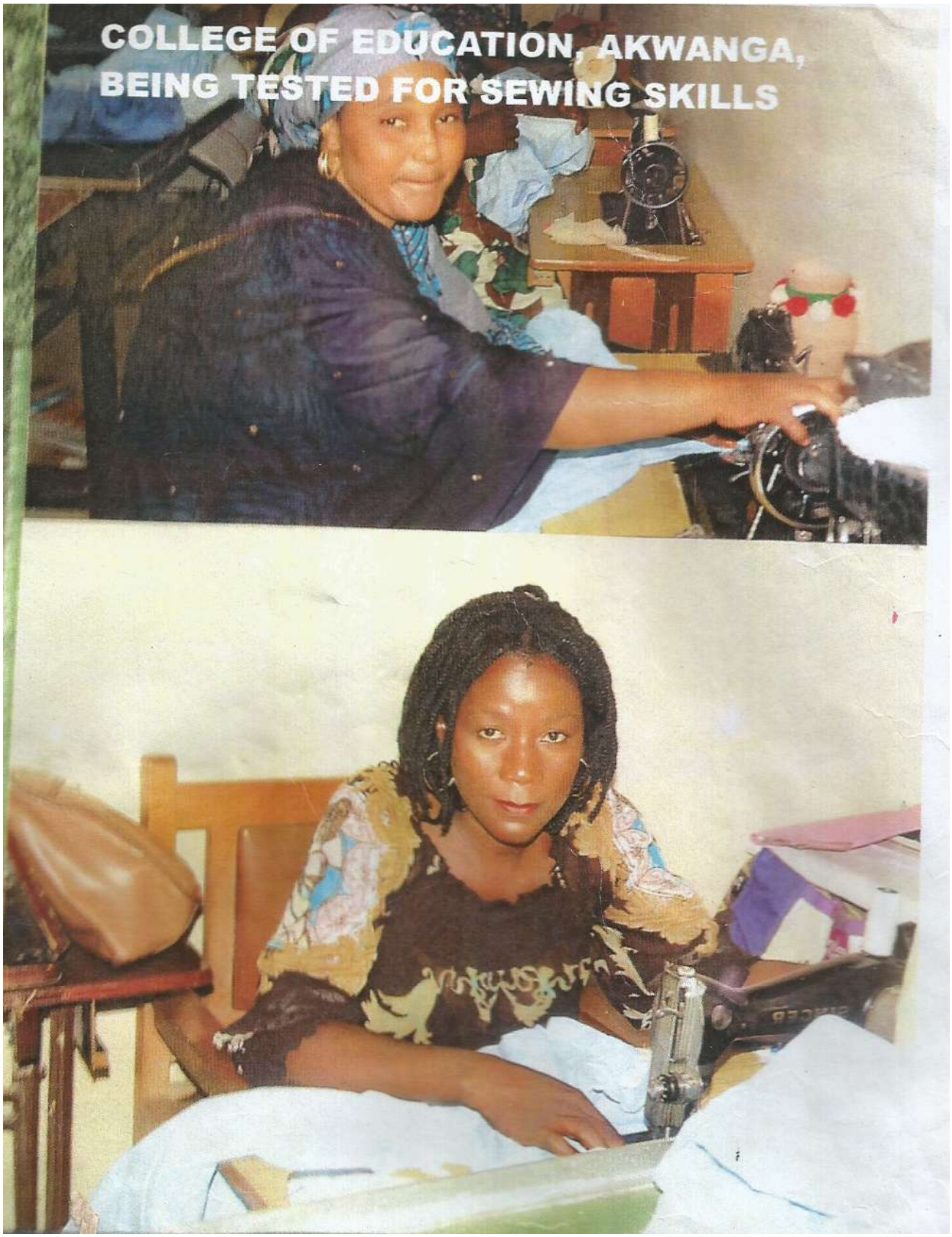
Students on Sewing Skill Testing







Baby dress produced by student for assessment


COLLEGE OF EDUCATION, AKWANGA,
BEING TESTED FOR SEWING SKILLS