LABORATORY FACILITIES AND EQUIPMENT IN THE TEACHING OF CLOTHING AND TEXTILES IN POST PRIMARY INSTITUTIONS: THE CASE OF KADUNA STATE

BY

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D E C L A R A T I O N

I declare that this dissertation is my work and has not been submitted for a degree in any other University.

PATRICIA JUMMAI DANMAIDA(MRS)

D A T E

CERTIFICATION

This project titled "LABORATORY FACILTIES AND EQUIPMENT IN THE TEACHING OF CLOTHING AND TEXTILES IN POST-PRIMARY INSTITUTIONS: THE CASE OF KADUNA STATE by Patricia Jummai DANMAIDA meets the regulations governing the award of the degree of Master of Education (Home Management) of Ahmadu Bello University, Zaria and is approved for its contribution to knwoledge and literary presentation.

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D E D I C A T I O N

This study is dedicated to my beloved daughters Nasara and Afunu.

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ABSTRACT

The study sought to identify laboratory facilities and equipment in the teaching of clothing and textiles in post Primary institutions in Kaduna State, Hence the study focused on the laboratory facilities available, the adequacy and appropriateness of laboratory facilities and equipment, the supply, purchase and maintenances of these laboratory facilities and equipment.

The eight zonal structure for the operations of the Kaduna State Ministry of Education were adopted for the sampling procedure. Random sampling procedure was used to select sixteen Post Primary institutions for the study from these zonal areas.

The questioneers and observation data gathering procedure were used for the study. Frequency distribution ratio and percentages were used in the statistical analysis of the study.

Results from the study showed that some clothing and textile teachers in Post Primary institutions did not qualify to teach the subject, that is, they did not have clothing and textile training background. Some reasons for the dislike of the subject matter include difficulty in teaching the subject and time and energy consuming. Reasons for the liking the subject however, include the joy in making one clothes, the creative experience and savings benefits from doing one's clothes. Most laboratory facilities and equipment were inadequate and inappropriate, the lack of space for practicals such as fitting, cutting, free traffic and dressing mirrow

were apparant.

The foregoing, thus, have serious learning experiences implication for the 6-3-3-4; educational system. Hence, recommendations have been made to curb some of these problem situation.

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CHAPTER ONE

I N T R O D U C T I O N

For effective and efficient performance of any type of skilled and creative work, artisans need the right tools and equipment, This situation is also true for clothing construction. According to Cliffe(1958), no one can really enjoy needle-work if scissors are blunt and needles are the wrong size, while unoiled and dirty sewing machines make work a drudgery. Therefore, without the right equipment, frustration will set in, interest will wane, and very little will be achieved within a long period of time.

The wide range of market offering makes selection possible so that every woman who sews should have equipment to use more quickly and conveniently. These equipment and tools are aids which help to accelerate construction of clothing and textiles.

The poor performance in the clothing and textiles General Certificate of Education(GCE) Examination in the past years is alluded to lack of adequate tools and teaching materials of the subject in post primary institutions in Kaduna State. This situation may have had adverse impact upon the learning experiences and creativity of the pupils. Perhaps, inadequacy of teaching materials during clothing lessons may have disengaged the teachers interest in opportunities to understand and observe closely the performance of each of her pupils. Stanfield(1956), observed

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that usually students have the chance to express themselves in various ways, thus, they become very creative in their imaginations. In clothing, this creativity may become possible through the use of adequate and efficient equipment and tools. Conditions in post primary institutions, however, prevail whereby imaginations and creativity may be impaired because essential tools and materials may not be available to enable them improvise with local materials even in their locality. This observation is supported by Nigerian Education Research Council which stated that special equipment and tools are necessary for the effective performance of certain jobs(Federal Ministry of Education, 1980). These tools and equipment in clothing and textiles may vary widely by the type of jobs they may be used for. The proper use of tools and equipment improves the quality of work and rate at which the job is constructed and completed, however,

IMPORTANCE OF SKILLS

Making one's clothes emphasizes the personal uniqueness and individuality of the wearer, thus, contributing to herself awareness, and to serve as an outlet for creative ability. This factor may become more important with the advent of increasing leisure and greater awareness of the need for creative expression. Creativity involves the use of imagination to develop new ideas for making things. These

often lead to creating original garments or other articles in the home. These new ideas may be evolved after much experimentation. They often come as flashes of insight. The job of discovery is always present as one attempts increasing difficult construction problems. Success is accompanied by a feeling of pride and greater personal satisfaction.

Wrwin(1970) noted that some psychiatrists, today recognize the importance of doing work with the hands to relieve tension. It may prove a stabilizer in times of distress, a bond for knitting family ties closer together. Every creator feels a sense of self expression and satisfaction in work whether it is making a dress or painting a picture. The value to the creator lies in what he puts into the work.

WHY WE SEW

Each person needs the sense of self-confidence that comes only from seeing something take complete shape from work done with one's own hands. This probably accounts in part for the joy many people have in making skillfully made garments, thus giving the wearer a feeling of distinction. Apart from these, we sew to gain recognition and approval of skills which brings personal satisfaction, desire to have more clothes, stretch the family budget, and especially career girls sew to have more individual and eclusive design,

(Erwin 1970). Learning to sew in a group is stimulating because more problems arose, more possible solutions are discovered and presented and these makes one more aware of working procedure. Infact, all the above cannot be achieved successfully without good tools and equipment.

VALUE OF CLOTHING

The value of clothing cannot be over emphasized in meeting certain human needs, such as physical protection, modesty and decoration which have long been recognized. In great many places the clothes people wear depend on the local climate and weather condition. The cardigan is one of the most useful apparel during the cool climates. Another functional garments is the rain coat, others are makintosh, rubber boots, umbrellas, and clothes which give protection from the weather, and from unjury(Erwin, 1970).

Hygiene is very important for doctors and nurses. In the operating theatre everything must be sterile, so surgeons and nurses wear masks over their mouths. In other parts of the hospital, doctors wear clean overalls over their ordinary clothes. Nurses wear uniforms which have several purposes such as overall, worn in labour ward. Adolescents express the need to conform or belong to a peer group by choosing clothing that is being worn by the rest of the other members of the group. Adults express this need by selecting clothes that are current in fashion. Clothing can assist in defining one role or place in the society such as in identifying sex,

locality, nationality, and in reflecting social stratification and economic status(Erwin, 1970).

Opportunities for self expression, and the acquisition of a number and a variety of clothes present themselves because of availability of equipment and tools. Without sewing equipment and tools garments are fashioned by hand. This process takes a long time to complete and in the end, only very few clothes will be available for wear for all types of occasions. Moreover, without sewing equipment the clothing industry may not have been established so that workers, such as designers, fashion illustrators, retailers, buyers, researchers, and educators may not have been gainfully employed.

Each day, people use textiles and textile products and make decision about what clothes to wear and how much portion of the family budget should be used to buy household furnishing or new carpet. Judgements about the performance, durability, attractiveness and care of textiles and clothing are consciously being made to achieve personal satisfaction. The key to decision making is adequate knowledge about fibres, yarns, farics, finishers and the ways in which these are inter-related. The knowledge of chemical, physical and microbiological properties of fibres the finishing, printing and the techniques used constructing fabrics and clothing guides the consumer in making wise selection in purchasing textiles products and making different garments.

Textile products are used the year round, Products such as bedsheets, housecole, face cloth, towels, garments, brushes, upholstered seats, tyres, carpets are used every day. Other products used are curtains, physicians specialised clothing for surgery purposes, conveyor belts, filter cloth, and so on. Apparently, the need for apparel has come to surpass the other eqully important use of textile products.

PURPOSE OF THE STUDY

One primary objective of teaching clothing and textiles in Kaduna State Post Primary Institutions is to orient students to appreciate and value clothing and textiles materials and products. Also students were to become acquainted with the essentials of clothing and textile-construction and the equipment and facilities appropriate for such usage(Kaduna State Home Economics Syllabus,1986). Apparently, trends from the GCE results of Kaduna State students in clothing and textiles seem to reflect the poor performance of the student(GCE Results Ministry of Education, Kaduna 84, 85(See Appendix 1, 2, and 3). One question then arises as to whether students' poor performance may be attributed to inadequate laboratory facilities and equipment in the teaching of the subject. Hence, the purpose of the study was to investigate laboratory facilities and equipment in teaching of clothing and textiles in post primary institutions in Kaduna State.

OBJECTIVES OF THE STUDY

The objectives of the study were

a) To identify clothing and textiles equipment used in post primary institutions in Kaduna State.

b) To identify storage and laboratory facilities in the post primary institutions in Kaduna State.

c) To determine the adequacy of the clothing and textiles equipment in the post primary institutions in the State.

d) To determine whether or not the lack of equipment in clothing and textiles in Kaduna State post primary institutions has an effect on the students performance in the GCE Examination.

RESEARCH QUESTIONS

The purpose of the study was to provide answers to the following research questions:-

a) What clothing and textiles equipment are available for teaching in the post primary institutions in Kaduna State?

b) What storage facilities/laboratory do the institutions have for the teaching of clothing and textiles in post primary institutions in Kaduna State?

c) Could the poor performance of students in clothing and textiles at GCE levels in Kaduna State have resulted from the availability of poor clothing and textiles equipment and facilities available to them?

SIGNIFICANCE OF THE STUDY

The study was significant for the following reasons:-

1. It will create awareness among educational planners and policy makers of the Ministry of Education, Kaduna State on the need to adequately equip clothing and textiles laboratory in the post primary institutions in Kaduna State.

2. It will provide information about clothing and textiles equipment and tools required which would enable students acquire mastery in the use of clothing and textiles equipment and precise garment construction.

3. It will provide data to teachers to make innovations towards improving the status of clothing and textiles in the post primary institutions in Kaduna State.

4. It will form the basis upon which other states in the country may evaluate their clothing and textiles laboratories and facilities in their post primary institutions in Kaduna State.

5. It is noteworthy that this study has not been researched before in Nigeria. It may form an impetus for further studies.

LIMITATIONS

1. The fact that not all the post primary institutions in Kaduna State were used for the study was a serious limitation.

2. This situation was borne out of the fact that a study of this nature that was intended to evaluate clothing and textile facilities and equipment would require long study, personnel, material and funds to be able to determine the more accurate state of affairs in the post primary institutions in Kaduna State.

3. Another limitation of the study was the dearth of an ideal well equipped clothing and textiles laboratory in Kaduna State which would have formed the basis, for comparison among other educational institutions.

According to Adamu(1968) post primary institutions in the north perceive Home Economics differently from those of the southern part of Nigeria. For example in some schools, Home Economics is offered as food or Home Management, in others it is offered as needle-work or only involve the teaching of bits and pieces of the various Home Economics areas.

In essence, various schools offer and place emphasis on the different areas of home economics programmes, consequently; there was no uniformity on the availability of clothing equipment and facilities that would provide basis for objective evaluation among the schools.

CHAPTER TWO

REVIEW OF LITERATURE

The study focuses on evaluation of the laboratory facilities and equipment used in the teaching of clothing and textiles in post primary institutions in Kaduna State.

There are some textbooks and equipment on the technical aspects of clothing that are useful in the teaching of some basic concepts in garment construction. However, there is no evidence of any research report on the status of clothing and textiles equipment at the various level of Nigerian educational system. Therefore, most of the literature in the area of clothing is based on the findings of researches conducted in other countries. This means that such findings would be related to the Nigerian situation to the extent that clothing construction as presently understood in Nigeria has adapted a lot of foreign influence. Hence, literature based on researches and findings in foreign countries are used as reference material to evaluate equipment in our Nigerian educational institution.

CONCEPTIONAL FRAMEWORK

SKINNERS EDUCATIONAL CONCEPTS

The conceptional framework for this study includes Skinners educational concepts and concepts in clothing education.

The psychology of behaviour change and the principles and methods used to effect such changes have become very

complext indeed that recent advances have brought the scientific nature of both processes into focus.

Accordingly, recent improvements aimed at controlling behaviour in the field of learning were two types:-

(a) The law of effect by which psycho-logists have made sure that "Effect" occured under conditions which were optimal for producing the changes called "learning". The emphasis was that once a particular type of consequence called "reinforcement" had occured, techniques such as modelling student on how to pedal the threadle machines would permit the shaping of behaviour of the organism almost at will.

(b) A second important advancement in the "techniques" which permitted the maintenance of behaviour is given rates of strength for long periods of time. In other words, "reinforcement" continued to be important long after the organism had learned how to do something (Skinner, 1954).

Crow and Crow(1963) also believed that the hallmark of learning was reinforcement. This was true when the learning concerned the acquisition of skills. This view was upheld by Henretta(1980) when she asserted that reinforcement heightened the perception of skill learners and that Home Economics areas were highly reflective of actual skill learning.

CLOTHING IN EDUCATION

Clothing is one of the means of achieving social and economic mobility in a class system such as ours. Clothes can help one advance both socially and economically. It is generally accepted that dress enables one to move from one role to another and functions as a status symbol.

Clothes are an outward expression of how people feel about themselves and the world around them. They reflect the person's self concept, which is believed to be an important controlling force of behaviour.

Sometimes a person wants to tell us something about himself, so he wears clothes of particular colour, or decorated in a special way. Military clothes are an obvious example of this. Each badge gives us a piece of information about the wearer's rank. Uniforms are also worn by many school children. Other people who wear uniforms are chiefs who wear tall white hats, and waiters, who wear white coats. Policemen, postmen and lawyers all wear clothes which identify the kinds of jobs they do.

Another value for clothing including garments worn for self esteem. Teenagers wear clothes to attract the attention of the opposite sex in order to get a job for interview and to appear different from other people.

ROLE OF CLOTHING IN THE SOCIETY

One of the psychological effects of clothing is to expand and to extend the self. In changing the body size or shape, clothing may give an increased sense of power and importance to the work. This is examplified by an elegant apparel of a cape padded brass, large hair styles, wigs, "Babban riga", turban or chaped women's headgear are worn.

Moreover, clothing may convey moods and feelings contributing to the strengthening of the person's self concept or self regard. Clothes may give a joyous sense of motion, vivacity and freedom. Firmness due to tension in fabric, style of garment or fit usually affects ones bearing. Stiff and padded clothing restrain movement and dignity of manners(Erwin, 1970).

Stansfield(1956) stated that the purpose of clothing in education was self expression. Clothing helps the child to think for herself and to develop her creative abilities. Besides, the subject develops muscle control in young children and teaches them the appreciation of good workmanship and gives them pleasure.

Hill(1963) observed that clothing was an art which required much time for teaching and systematic procedure. The author suggested that the teacher should be familiar with the subject and psychology of the young child. Manipulation and finger skills could be developed and the techniques of the subject mastered. The pupil's needs are met by the teacher through his initiatives.

Clothing could give scope for originality and the expression of the individual and help to develop interest for self activity. Girls could be encouraged to develop interest in clothing. A teacher could help pupils develop a strong sense of character required in the development or acquisition of the manipulative skills needed for garment-making. Besides the fact that clothing created the opportunity for meaningful recreation, people have been understood by studying the clothing originally produced and worn in their countries of origin people have known what was still in use; how conditions and circumstances have influenced what the people wore or what they bought. Similarly Kinmond(1964) feels that no matter how good mass produced or machine made products were, there was still a special satisfaction derived in self-made articles. This is because sewing is a creative craft and gives scope for individual tastes and skills, whether in producing beautiful and unusual things for the house or in making clothes.

Fleck(1974) observed that clothing helps pupils to work together; through club projects, team work, joint reports, etc. Pupils usually do some clothing projects well. The potential in pupils can thus be realised better. A rich environment for pupils to explore could be provided. Children could be given the opportunity to experiment with many methods, fabrics, colours, tools and equipment in clothing construction. The environment for learning could include attractive surroundings, suitable materials and

appropriate equipment. Teaching could be characterised by many opportunities for initiative and adventure by recognising individual differences and taking into account students values, needs, interests and goals. She suggested that there should be "catching title" for new procedure in clothing construction to attract and encourage students, such catching titles as "how to make and keep clothes", "how to get instand help", and a number of other that could catch the eyes could be used. Students could learn a lot from this process.

The State of New Jersey Department of Education(Vocational Division),(1964) stated that clothing construction experiences might be integrated with almost every phase of the secondary and teacher training curriculum. The experiences should help to enrich and interprete what the students were learning in the regular subjects such as the following:-

HISTORY

This is related to clothing since the origin of textiles, clothes, and how these items were made with ancient technology are the things to be studied.

HEALTH SCIENCE:

Good health, good grooming, and personal appearance are studied under this area.

SCIENCE

Simple experiments are carried out on fabrics such as the burning tests, microscopic tests and other chemical and physical tests to determine the fabrics that are best for various occasions. The processds of the production of the fibre and fabrics are also learnt.

MATHEMATICS

The study of mathematics helps in the taking of measurements with tapes and rulers. It also helps in the marking of stencils and the costing of material, the production of embroidery, the counting of threads in drawn thread work, and in making geometrical shapes.

ART

The elements and principles of art could be applied in clothing construction and home furnishings in order to achieve aesthetic appreciation in articles that are produced.

MICROBIOLOGY

The effect of dampness on clothing, the reaction of enzymes on certain types of dyes, and the effect of microbes on badly kept materials are items that could be studied in this area.

GEOGRAPHY

Areas of production of fibres and fabrics and the materials used for production of these items are dealt with in this subject.

THE ACQUISITION AND RETENTION OF SKILLS

Crow, et al(1963) said essentially skill was the performance of a task. They held that the acquisition of competence in any skill was based upon the development of motor control in which all or most of the larger or smaller muscles were needed. Their perfection depended solely on frequent practice with tools and equipment.

During his life time, an individual engaged in many tasks such as various forms of locomotor activities as in riding a bicycle, driving an automobile, playing a musical instrument, cooking, typing, sewing and playing, muscular co-ordination and motor control.

Kolville(1958) contribution was that competence in skills which was achieved only through learner-activity required that the post primary institutions were equipped, in terms of the facilities recognised by Blankenship, et al,(1979), as being necessary for the achievement of prescribed skills. This is because clothing is a course that required some form of skill learning which must be taught by the use of facilities for the development of satisfactory muscle control necessary for competency on the subject(Stansfield 1956, Hill, 1963, Kinsmond,1964 Skinner, 1954, Crow and Crow, 1963).

TEXTILE TECHNOLOGY

Potter(1967) stated that textiles had an important bearing on our daily lives and that everyone needed to know about them. A study of textiles showed why fabrics were "Cool" and "Warm". A good knowledge of textiles could facilitate the choice and proper merchandising of textiles. Such knowledge would help its possessor to choose quality fabric and use fabric properly.

Rivers(1966) observed that every trade had its tricks and sewing being a trade, would not be an exception. In this connection, newer methods are constantly being developed. Professionally made clothes have a look of quality because the details are beautifully finished. Achievement of this

objective therefore requires a good knowledge of handling professional equipment and using them for maximum benefit.

Uzoka(1971) remarked that a well planned clothing curriculum should be concerned with a wide range of activities of importance for women. A responsible house wife should be able to choose suitable materials for making different garments for all seasons and occasions. A house wife should know how to make clothes and be able to maintain them. All husbands would like their torn clothes mended and socks darned. Children's clothes also need to be made and repaired.

Therefore, a combination of the knowledge of the properties and characteristics of fibres and fabrics and the ability to make clothes would help the housewife to maintain the family clothing properly. This is important because the primary purpose of clothing education is maintaining home and family living.

PROBLEMS OF TEACHING CLOTHING

Kamba(1977) investigated the teaching of ~~some subjects~~ in the primary school including domestic science and needle-work. The findings were that these subjects were rarely satisfactory, or never taught at all in spite of the fact that they were allocated time on the time-table. The study showed that teachers reported that materials, books and equipment essential for teaching of the subjects were lacking. As a result, teachers were reluctant and discouraged to teach these subjects, pupils lost interest

in the subject because there were insufficient and inadequate equipment for use in clothing classes in the scholls(Blankenship, 1979).

The benefits of Home Economics in Post Primary Institutions show that:-

> Some schools in Tanzania were forced to discontinue the teaching of home economics because of the lack of staff, space and equipment. Financing practical lessons became a difficulty and materials were never available. The panel urged the Ministry to offer a solution if home economics is to be effectively taught.
>
> The panel that investigated the purchase of home economics equipment and materials for Diploma courses at the Dares Salaam College of National Education identified some problems that had militated against the smooth running of the course. These problems were:-
>
> (a) the delay in the delivery of order for books, equipment and materials.
>
> (b) irregular and unrealistic delivery of supplies of goods and other materials for the day to day practical classes.
>
> (c) The problem were traceable to the fact that such facilities were purchased through government tenders. As a result of this, many classes had to be cancelled and others had to be changed at the last minutes.(National Committee on Education 1977).

The College, therefore, suggested that a way had to be determined where the subject teacher would acquire petty cash for purchasing small and essential items, provided that this money was accounted for in writing (Pendadi, 1978). The students felt concerned about the expenses for the course which they had to incur. They urged that money should be allocated to cover all the expenses of course work as it was too expensive for them to finance the progfamme(Pandadi, Cahmgombe, 1978).

IMPROVEMENT OF TECHNIQUES FOR THE TEACHING OF CLOTHING

The problems of teaching science and Home Economics was indicated to be inadequate in teaching facilities, equipment, books and other reading materials.

Standfield(1956) stated that during clothing lessons, the teacher could have the opportunity of knowing her students better. By being able to use local substitutes for certain items and by involving her students in the preparation of some of the teaching material she could be enriching her knowledge about her students. Teaching clothing to younger students may involve the use of certain equipment which would provide the students the ease of handling. This is because they are yet to develop full control of the muscles required for fine or intricate work clothing classes which provides opportunities in cutting paper with scissors, printing large pictures and tracing intricate patterns.

Ehrenkranz(1973), asserts that a Home Economics high school teacher should be able to teach young girls the skills necessary for the numerous openings they would be confronted with after graduating as Home Economists. Thus, a lot of responsibility has been trusted upon the high school system to carry out the task of preparing children for life. In this regard a list of the characteristics of the ideal secondary school became available. This requirement was necessary if the colleges were to discharge the responsibility of equipping girls with the required

skills. These skills, if properly acquired, would enable them fit into the modern society because their acquisition enables the people to be self-employed. Ehrenkranz(1973) identified that:-

> Skills acquired in this subject could not be adequately learnt without the requisite equipment.
>
> The equipment requirement for clothing would include sewing machines, large smooth wooden tables surface for cutting, scissors, needles(hand and machine), pins, pin cushion, tailors chalk, thumbles, tape measure, and long ruler. Others included padded ironing boards and sleeve boards, irons, dress form, pinking shears, tracing wheels, button hole scissors, tweezers, full-length mirrow, waste paper basket, sheets of cardboard, brown papers, cupboard, fitting room pieces of fabric, threads of various colours and thicknesses, wool and so on were also needed for the students to properly acquire designing technique and sewing skills.

Ehrenkranz's observation above agrees with the NERC recommendation that special equipment and tools were necessary for the performance of certain jobs.

In clothing construction one must need certain tools and equipment. Tools in clothing and textiles in Home Economics vary according to the type of job for which they are used. The right kind of tools and equipment were grouped into five areas according to their functions:-

(1) THE CLEANING EQUIPMENT

They are specified as those required for keeping the needlework room clean. They include brush with a long handle for sweeping, a broom, a dust pan, a basket. Dusters are needed for the collection of dust from furniture surface.

(2) MEASURING EQUIPMENT

These include T-square ruler, a set square gauge, tapes and measures, "6x12", rulers, meter sticks and curved ruler.

(3) CUTTING OUT EQUIPMENT

One of these include a table of a reasonable height for the worker, about 2-3 meters long and 1.5 meters wide. It should be fitted with large drawers for storing small items of equipment. A selection of scissors and chairs should be acquired. These include cutting out shears, pinking shears, thread clips, button hole, embroidery and trimming scissors.

(4) SEWING EQUIPMENT:

These are sewing machines manually or electrically operated, needles of different sizes, and thumbles. Fitting equipment include dress form, a study stoll, a shirt marker, and a full length mirrow and screen.

(5) PRESSING EQUIPMENT

These include iron which could be electric, gas, steam or the ordinary flat iron together with ironing boards, a sleeves board, or a table covered with a thick blanket or ironing sheets. Additional pressing aids are pressing cloths, a tailor, damping cloth, cloth brush and sponge.

Other small equipment required for the clothing laboratory are the stietto, a tracing wheel, magnet, tweezer, a bodkin, a thick blunt needle with a large oval eye, an emery bag containing an abrasive for cleaning pins and needles. A small brush with hard tuft and a wire handle, seam ripper pins, lace pins are also required.

Cock(1981) stated that in order to obtain a satisfactory result in the study of Home Economics, it was necessary to use the correct equipment and placement of working tools. She advised that tools should not be misused, for example; fine scissors should not be used for cutting strings, paper or thick fabrics. In addition, acquisition of more items for the clothing laboratory is suggested. These include a box or containers for storing unfinished garments during clothing construction, space for partly completed garments, cupboard or drawer, space for sewing equipment, tissue paper for care of white fabric and those which crease easily. Tissue paper is also to be used to support seams which are to be machine-stitched on very fine fabrics, such as, chiffon.

Watt(1981) observed that a dress-maker needs good tools for sewing and the best buys are cheaper in the long run. The more acceptable the equipment the better the satisfaction derived from the results obtained. The success in sewing one's clothes depends largely on one's possession and utilization of one's equipment. Invariably the best equipment is more satisfactory in use and last a longer time. However, the problem of storing sewing equipment at home required sizeable work centre. At college only a box, a bag or a carrying base was needed for the storage of these items(Craingh 1973, Parker & Seton 1960, Erwin 1970).

The essentials for clothing construction among others include money, space allotment, possible use made of them and the care they would require in the various processes of clothing construction. For example, marking, pinning, cutting, measuring and stitching required various tools, which were developed for such purpose. Pins, measuring tapes, sheers, and thimbles were necessary for all types of clothing construction. Besides, personal characteristics necessary for successful clothing construction include patience, willingness to acquire skills and desire for improved quality. (Doongaji & Deshpande 1974, Bane 1973 Ehrenkraz 1973, Butter 1973).

Bull(1976) emphasised that value is one factor that provides pleasure and satisfaction that she would experience in needle-craft.

Hence, the aims of teaching clothing to home maker according to her include:-

(1) Learning the correct ways of using the tools needed for clothing and textiles. To find out the tools needed by first looking at a variety of equipments and then make a selection, and learn how to use them. "One would not expect to hit a tennis ball if the racquet was wrongly held. The same principles applied to needles and scissors. One should take care of the tools of clothing and practice using them as much as possible."

(2) Making clothes which were smart to look at because of colour, texture and shape, and which were practical for use;

(3) Becoming sufficiently skilled to make articles which, though not necessarily perfect in workmanship did not bear the imprint "home made". This entailed some solid work in learning the craft. The learner had to study and practice methods of construction to learn the work quickly and yet not fall into ship-shod habits which were hard to eradicate and which prevented progress in the acquisition of skills(Bull 1979).

However, she points out that the secret of success in clothing lies in the craft, in careful preparation and in planning.

On tools and equipment, Okon(1966) believed that if clothing was to be taught correctly, adequate thought should be given to the choice of tools and equipment at each stage of learning. She implored school authorities to become aware of their responsibility in the provision of the inputs required for successful clothing course. Certain basic equipment for teaching clothing and textiles should be provided from funds made available by school authorities in the same way that desks and benches are provided. She observed that asking girls to pay for items that the school should supply is not fair, therefore, she advised that teachers should decide which items should be supplied by the school and which items students could bring to class.

In addition, teachers should ensure that etiquette on the use of tools and equipment by students are inculcated. For instance, the students should hold the scissors by the closed blades when passing them to someone else. Pins not in use should be kept in the pin cushion, pin boxes or tins. Needles should be kept in their cases. Pins and needles should never be put in the mouth or held between the teeth as a further precaution against injuries. The tables should

be well placed for ironing, to avoid the danger of the iron being knocked over or accidentally touched with the hand or arm.

On local textiles, Okon(1976) stressed the necessity of know something about textiles and the various groups in which they belonged. This knowledge will enable one to select materials wisely.

Locally-made fabrics fell into three main categories:-

1. Locally-woven fabrics made from imported threads.
2. Locally-spun and dyed fabrics woven clothes
3. Indigo-dyed local clothes - these are also made from imported local materials. These have specific trade names for different types of cloth such as:-

- Icate
- Petrye
- Kyipa
- Sanyan
- Ogbo
- Alali
- Wake
- Akwete
- Itagbe
- Adive
- Etu
- Canal hair cloth.

DESIGN AND ARRANGEMENT OF SEWING CENTRES

Sewing is one of the more variable tasks in families with respect to the duration and repetition of the task. When done often, the space for sewing might be set aside in the home so that a temporary set up need not be made every time the task is done. The get-ready time can mount rapidly with little payoff when a given area is arranged for sewing and required soon after for another activity.

The design of work surface, storage, and work place for the sewing machine requires attention if they are to set the stage automatically for easier work. Construction

of clothing and household items include number of tasks that can be done separately yet must be sequenced. Of the component parts of sewing layout and cutting out, fitting, machine sewing, hemming and pressing-layout may be done separately from the construction of articles.

CLOTHING ROOM

Hart(1967) observed that a few schools have special rooms designated for clothing where flat-topped desks cutting tables, chest of drawers or cupboards for sewing machines and long mirrow can be found. Also pressing equipment, a wardrobe for prepared garments, a wash basin for damping materials before ironing, to wash hands clean before handling clothes. A screen or an area could be provided as a place where the girls could change prior to fitting. Machine sewing, hemming and pressing, layout may be done separately from the construction of articles.

The length(side to side measure) of the work surface for layout and cutting of material was important because sufficient space lessened the amount of handling of material and permitted the laying of the longest piece of pattern. A liberal amount of space allowed more expermentation in layout. The minimum length of 142cm is "adequate" length of 195cm were determined by Johnston et al(1957). Bland, et al(1959) indicated 48cm as limiting and 195cm as liberal, however,

Sufficient depth(from to back measure) of the work surface was needed to avoid extra handling of materials, but too great a depth caused difficulty in reaching the material

A depth of 91cm was adequate for most materials and permitted an easy reach of materials(Bland et al, 1959). The maximum feasible depth was 91cm, when enclosed on one side, and 165cm when free standing(Johnston et al(1957). Space and height requirements for the worker must be kept in mind when placing the table or the ironing board in a room. Bland, et al(1959) found that 30 to 35cm of space was needed beyond the edge of the material for the worker to position the scissors and bend the arm to cut. Johnstons, et al(1957) found that a minimum clearance for the worker to about 48cm on the open sides of the cutting area, and preferably 61cm, was needed for free movement.

STORAGE

Personal tools and equipment for sewing vary widely among home makers. Frequency and occasions for use of each item also vary. Steildl and Bratton(1968) pointed out that some items were used during construction of garments and needed to be accessible during machine stitching; some of the same items are used in mending and sewing by hand. Many of the tools and supplies were stored in small shallow compartments with divisions. Such designed requirement permitted ease in location, grasping and replacing items.

Various designs for the storage of sewing supplies, tools and larger items have been developed and space requirements determined. Bevaqua, Gerhold, and Ruef,(1960), Bland et al(1959), (1961), Johnston, et al(1952), Mc Cullough(1952) and Salughter(1954), suggested approximate dimension and the variety of forms that the storage space could assume.

The basic ideas of flexibility in dividing space and provision of sufficient space for keeping together used items were determined.

PRINCIPLES OF STORAGE

Steildl and Bratten(1968) outlined principles of storage thus:

1. Store frequently used items at the place of first use.
2. Place items so they are easy to see, reach, grasp and replace.
3. Determine the worker's limits of reach.

STORAGE GUI ES

Steildl et al(1968) stated that for proper storage, certain rules such as these should be followed:

(1) Sort items to be stored according to the function of the centre, for instant, packaged goods, utensils, and small tools should be distributed at various centres rather than kept together.

(2) Store unlike items one row deep and one layer deep e.g. unlike items must be stored singly if they are to be visible and accessible without moving other items.

(3) Stock only those items having the same dimensions.

(4) Provide sufficient clearance for grasping and replacing items.

(5) Place frequently used, heavy items within normal reach. This is to permit the physical input of the worker to be kept lower when frequently used items and heavy items are within the normal work curve. The worker in that case would less chance of strain in lightning when objects are close to elbor level.

(6) Organize items within the storage space to reduce the search and facilitate the flow of motions. For example, the arrangement of items within a centre can facilitate work beyond the advantages

gained from having them available at the place of work, easily accessible, and visible. Group items serving a similar purpose.

SEWING MACHINE

Johnston, et al(1956) studied the effect of design of equipment on the working position of a woman operating the sewing machine. They determined that in order to prevent back and neck aches from sitting with a curved spine, and for clear vision the operator should sit directly in front of the needle of the sewing machine. The needle should be 8 inches from the front table edge to permit good vision in sewing. Though many home makers liked to remain seated at their sewing machine for a substantial period of time, correct alignment of the needle in front of the worker would eliminate fatigue from maintaining a strained position.

ARRANGEMENT FOR SEWING

Promimity of sewing machine, ironing board, pressing equipment, and storage of supplies and tools were of concern for the task of sewing.

Bland et al(1959), and Johnson et al(1957), suggested guidelines for the arrangement of the sewing area, thus:

(1) Provide an auxiliary surface near the sewing machine for temporary placement of supplies, tools, direction and parts of the articles being constructed.

(2) Provide some storage space near the sewing machine for supplies and tools.

(3) Place the ironing board and pressing equipment near the sewing machine.

(4) A U-shaped arrangement, with the sewing machine in the base of the U-appears to have more advantages than other shapes of arrangements.

IRONING CENTRE

Ironing board and iron facilities are needed for stocking and handling ironed items and a storage area for supplies as accessories such as spray starches dampening equipment and pressing clothes.

The height of the ironing board is a critical design factor since the worker to work surface relationship are continuing throughout most of the task. Ironing boards which could be adjusted were desirable since small differences in body proportions must be accommodated on an individual basis. Whether the worker stood, sat, or perched on a stoll to iron, the level of the board must be sufficiently low to permit at least a 90-degree angle between the forearm and the upper arm. Allowance must be made between elbow height and ironing-board level for the height of iron.

Just as the home maker must avoid too high a level for an ironing board, she must also avoid too low a level. The level must permit an erect posture during work as well as the proper arm and shoulder position.

SELECTED STORAGE AREA

Functionally designed storage facilities would expedite the work of getting and replacing cleaning supplies tools, and equipment as well as clothing and household linens. The location of the storage areas near the place of use of items would help the work to flow more smoothly.

A number of investigations provided suggestions for space dimensions and design features for storage of cleaning supplies, tools and equipment(Devlequa, Gerhold, Ruef; 1960 Hinson and Mize; 1963 and Mc Cullough; 1952, 1953). Adequate space for cleaning activities also eases the work.

CHAPTER THREE

RESEARCH METHODOLOGY

This study focuses on the evaluation of equipment and laboratory facilities used in the teaching of clothing and textiles in the post primary institutions in Kaduna State. The specific objectives of the study were: to identify storage and facilities in the post primary institutions in Kaduna State; to determine the adequacy of the clothing and textiles equipment in post primary institutions of Kaduna State and to evaluate the performance of students in clothing and textiles in the West African School Examination(WASC) in the light of the adequacy of clothing and textiles equipment and laboratory facilities in post primary institutions in Kaduna State.

RESEARCH QUESTIONS

The study sought to answer the following research questions:-

(a) What laboratory facilities do schools have for the teaching of clothing and textiles as a subject?

(b) What clothing and textiles equipment are used in teaching in the post primary institutions in Kaduna State?

(c) Are these equipment and facilities adequate and appropriate for teaching of clothing and textiles?

(d) What effect does lack of equipment and facilities have on the performance of students in the WASC Examinations?

DATA COLLECTION PROCEDURES

Two instruments were used for the study:

1. Questionnaire was used to collect information about clothing and textiles equipment and laboratory facilities available in post primary institutions in Kaduna State.

2. Observatory technique was used specifically to examine records and to confirm the data on the questionnaire on clothing and textiles equipment, facilities and, material available for the teaching of clothing and textiles in post primary institutions in Kaduna State. In additions,

3. WASC examinations results for academic years(1983, 1984 and 1985) were used to compare the performance of students of clothing and textiles. These comprisons were used as criteria to relate to the performance of students and availability of clothing and textiles equipment and facilities.

SAMPLING PROCEDURE

When Zonal Structure for the operations of the Kaduna State Ministry of Education was adopted for sampling procedure. The institutions used for the study were chosen from these zones for the study. The Ministry mapped out eight zones. Two institutions were selected from each zone by ballot out of which sixteen schools were sampled and used for the study.

BALLOTING PROCEDURE

The researcher collected the list of schools from Zonal Education Officers and wrote out the names of individual schools on sheet of paper crumpled them and, then placed them in a large envelope. The researcher invited an acquiantance who hand picked two schools from each zone.

At the end of the exercise the following educational institutions covering the eight zones were chosen:

S/No	Zone	Selected Schools
1	Katsina Zone	W.T.C. Katsina G.D.S.S. Katsina
2.	Zaria Zone	G.D.S.S. Kofar Gaya W.T.C. Zaria
3.	Zonkwa Zone	G.D.S.S. Zonkwa W.T.C. Zonkwa
4.	Kaduna Zone	G.D.S.S. Kawo W.T.C. Kaduna
5.	Malumfashi Zone	G.D.S.S. Malumfashi W.T.C. Kabomo
6.	Dutsen-Ma Zone	G.D.S.S. Dutsen-Ma G.D.S.S. Kankia
7.	Daura Zone	G.D.S.S. Daura W.T.C. Daura
8.	Anchau Zone	G.D.S.S. Saminaka G.D.S.S. Ikara

THE QUESTIONNAIRE

The questionnaire was designed for the study. It was tested. The researcher personally administered the questionnaire to the teachers who taught clothing and textiles in all the schools chosen for the study. The researcher collected the completed questionnaires herself on appointment(See Appendix 42).

PILOT STUDY

The instrument was pretested in order to update ideas, determine reliability and the usability of the questionnaire upon analysis of the data, it showed that the questionnaire were appropriate and the respondents had no difficulty in answering the questions.

OBSERVATION PROCEDURE

The purpose of the observation technique was to confirm the information provided by the respondents given on questionnaire.

The researcher visited each of the sixteen schools. Permission was sought from the Head of the Department or class teacher in charge of clothing and textiles laboratory before the investigation was conducted. Instruction were provided to respondents on how to answer the questions correctly.

DATA COLLECTION

Questionnaires were administered to the sixteen respondents who were selected from some post primary institutions in Kaduna State by random sampling.

DATA ANALYSIS

The questions were collected and tabulated. The statistical analysis procedures include the following:-

Ratio: The ratio was used to determine the number of students who would be using one type of equipment as a way of assessing whether the number was adequate or not.

Percentages: Simple percentages were used to determine the percentages of the responses from the data.

CHAPTER FOUR

ANALYSIS OF DATA

INTRODUCTION

The thrust of this study was to identify laboratory facilities and equipment in the teaching of clothing and textiles in post primary institutions in Kaduna State. Therefore, the questions sought to be answered included: What laboratory facilities do the schools have for the teaching of clothing and textiles as a subject? What clothing and textiles equipment are used in teaching in the post primary institutions in Kaduna State? Whether these laboratory facilities and equipment are adequate and appropriate for the teaching of clothing and textiles, and who provides, purchases and furnishes clothing and textiles laboratories in post primary institutions in Kaduna State?

Questionnaire and Observatory procedures for data collection were used in gathering information for this study. Following, are the reports of the study in the order: Personal characteristic of the teachers(respondents) who teach clothing and textiles; in the schools; laboratory facilities for clothing and textiles; equipment for the teaching of clothing and textiles in the post primary schools in Kaduna State. The source from which laboratory facilities, equipment and teaching material were obtained for the teaching of clothing and textiles and; the adequacy of the laboratories and equipment for the teaching of clothing and textiles in our post primary institutions.

PERSONAL CHARACTERISTICS OF TEACHERS

TABLE 4

OVERALL DISTRIBUTION OF THE YEARS OF EXPERIENCE OF TEACHERS IN THE TEACHING OF CLOTHING AND TEXTILES IN THE POST PRIMARY INSTITUTIONS IN KADUNA STATE

Number of Years	No. of Teachers	Percentage
1 year	1	6.25
2 years	2	12.5
3 years	1	6.25
4 "	2	12.5
5 "	7	43.75
6 "	3	18.75
Total	16	100%

Table 4 shows the frequency distribution of years of experience of teachers in the various schools studied. Most teacher, 43.75% had 5 years experience in the teaching of clothing and textiles, three teachers had six and two had four years, while others have two and one year teaching experience(for details see Appendix 4).

TABLE 5

OVERALL DISTRIBUTION OF TEACHERS WHO STUDIED CLOTHING AND TEXTILES DURING THEIR TRAINING

Responses	Frequency	Percentage
Yes	13	81%
No	3	19%
Total	16	100%

Table 5, shows that clothing and textiles are taught in all the post primary institutions studied. Data indicate that qualified teachers in all special subject area of clothing and textiles account for 81% and the remainder 19%(3 number) who were teaching clothing and textiles are not specific training in the subject(See Appendix 5 for details).

OVERALL DISTRIBUTION OF LEVEL OF QUALIFICATIONS OF TEACHERS IN POST PRIMARY INSTITUTIONS IN KADUNA STATE

TABLE 6

Level of Qualification	Frequency	Percentage
OND	1	6.25
NCE	8	50
NCE & B.Ed	5	31.25
B.Ed	2	12.5
Ph.D	0	0
M.Ed	0	0
Total	16	100%

Table 6 shows that out of the total number of certified teachers in clothing and textiles, 50%(8 number) were NCE (Nigerian Certificate in Education) graduates and 31.25% obtained both NCE and B.Ed degrees while only 12.5% and 6.25% were B.Ed and OND(Ordinary National Diploma) Bachelor degree holders respectively. There were no teachers with M.Ed and Ph.D qualifications teaching in any of these schools studied(See Appendix 6 for details).

TABLE 7

OVERALL DISTRIBUTION OF TEACHERS WHO LIKE AND DISLIKE TEACHING CLOTHING AND TEXTILES IN POST PRIMARY INSTITUTIONS IN KADUNA STATE.

Like/Dislike	Frequency	Percentage
Likeness	13	81.25
Dislike	3	18.75
Total	16	100%

Table 7 indicates teachers who have likeness and or dislikeness for the teaching of clothing and textiles as a subject in the schools studied. The data reveal that 81.25% of teachers like teaching clothing and textiles while 18.75% of them dislike teaching the subject(See Appendix 7 for details).

TABLE 8

DISTRIBUTION OF REASONS TEACHERS OF CLOTHING AND TEXTILES LIKE TO TEACH THE SUBJECT

Reasons	Frequency	Percentage
It costs less to make clothes	0	0
It is creative	1	6.25
It is interesting	0	0
All of the above	13	81.25
No response	2	12.5
Total	16	100%

Table 8 highlights reasons for the likeness of the teaching of clothing and textiles in post primary institutions by teachers. The teachers that like teaching the subject like it simply because it is very creative 6.25%. It is interesting, creative and cost less to make clothes 81.25%. Other respondents 12.5% had no comments(See Appendix 8 for details).

TABLE 9

DISTRIBUTION OF REASONS CLOTHING AND TEXTILES TEACHERS DISLIKE TO TEACH THE SUBJECT IN POST PRIMARY INSTITUTIONS IN KADUNA STATE

Reasons	Frequency	Percentage
It is a difficulty subject	0	0
It is time and energy consuming	2	12.5
It is frustrating	0	0
No equipment for the teaching of subject	0	0
No response	14	87.5%
Total	16	100%

Table 9 only 12.5% of the teachers dislike the subject and they do so because it is both time and energy consuming. But 87.5% of the teachers did not respond to the question. This could be interpreted to mean that they did not like teaching the subject.

CLOTHING LABORATORY

TABLE 10

DISTRIBUTION OF POST PRIMARY SCHOOLS IN KADUNA STATE WHO HAVE AND DO NOT HAVE CLOTHING AND TEXTILES LABORATORY FACILITIES

Response	Frequency	Percentage
With	11	68.7
Without	5	31.3
Total	16	100%

In table 10 the data indicate that 68.7%(11 number) of post primary institutions, have clothing and textiles laboratories. The remainder 31.3(5 number) do not have any laboratory.(See Appendix 10 for details).

TABLE 11

DISTRIBUTION OF POST PRIMARY INSTITUTIONS IN KADUNA STATE WHO HAVE ADEQUATE AND THOSE WHO DO NOT HAVE ADEQUATE LABORATORY WORKING SPACE FOR STUDENTS.

Adequate or Inadequate works	Frequency	Percentage
H ve adequate working space	9	56.25
Do not have adequate working space	7	43.75
Total	16	100%

Laboratories with adequate working space for students as indicated in Table 11 revealed 56.25%(9 number) while those without adequate working space for students show 43.75% (Seven number) (See Appendix 11 for details).

TABLE 12

DISTRIBUTION ALTERNATIVE LEARNING SPACE FOR CLOTHING AND TEXTILES IN THE ABSENCE OF LABORATORY FACILITIES IN POST PRIMARY INSTITUTIONS IN KADUNA STATE.

Space	Frequency	Percentage
Classrooms	7	43.75
Under the tree	-	
Fine Art room	-	
No response	9	56.25
Total	16	100%

Table 12 reveals the alternative learning experience space situations for the teaching of clothing and textiles in the absence of clothing and textiles laboratory facilities in the post-primary institutions in Kaduna State. Approximately 44% of schools use classroom space for the purpose of clothing laboratory and learning experiences(See Appendix 12 for details).

TABLE 13

Distribution of Number of students who offered clothing and textiles in the post primary institutions in Kaduna in 1986.

No of School	No of Students
16	980

Among the 16 schools studied, 980 students registered and sat for the GCE Examinations in Clothing and textiles in the 1986 School Certificate Examinations or General Certificate of Education(GCE) (See Appendix 13 for details).

TABLE 14

DISTRIBUTION OF CLOTHING LABORATORIES WITH/WITHOUT FITTING ROOMS

School	Frequency	Percentage
Lab with fitting rooms	0	0
Without fitting rooms	0	0
Total School	16	0%

Table 14 indicates that in all the post primary institutions studied, none had fitting rooms in their laboratories. (See Appendix 14 for details).

TABLE 15

DISTRIBUTION AND LABORATORIES WITH/WITHOUT LONG DRESSING MIRROW

No of Schools	Lab with long mirrow	Percentage
16	0	0

No school indicated she has a long dressing mirrow in her clothing laboratory.(See Appendix 15 for details).

TABLE 16

DISTRIBUTION LABORATORIES WITH/WITHOUT STORAGE FACILITIES FOR STUDENTS WORK

Storage Facility	No of Labs	Percentage
Labs with storage facilities	5	31.25
Labs without storage facilities	11	68.75
Total	16	100%

Table 16 above shows 5(or 31.25%) laboratories have storage facilities for students work while 11 or 68.75% have none.(See Appendix 16 for details).

TABLE 17

DISTRIBUTION OF LABORATORIES WITH/WITHOUT GOOD LIGHTING SYSTEM

Schools	No of Laboratories	Percentage
Schools with good lighting system	8	50
Schools without good lighting system	8	50
Total	16	100%

Table 17 indicates that 8(or 50%) have good lighting system while 8 or 50% have no good lighting system(See Appendix 17 for details).

EQUIPMENT

TABLE 18

DISTRIBUTION OF SEWING MACHINES AVAILABLE TO STUDENTS IN VARIOUS SCHOOLS STUDIO

Sewing Machines	Number	Percentage	Ratio
Automatic machine	-	-	-
Electric machines	12	8.7	1.82
Treadle machines	30	21.7	1.32
Hand machine	96	69.6	1.10
Total	138	100	

Table 18 indicates the distribution of the various types of sewing machines available in all the schools. No school had any automatic sewing machine. There were 8.7% electric sewing machines among the schools who had them, hence, a ratio of one electric machine to eighty two students. On the overall the data show that there is one sewing machine to seven students.(See Appendix 18 for details).

TABLE 19

OVERALL DISTRIBUTION OF MEASURING EQUIPMENT AMONG ALL THE POST PRIMARY INSTITUTIONS IN THE STATE

Measuring	Frequency	Percentage	Ratio
Dress makers Guide	7	1.9	1:140
Measuring tape	165	46.8	1:6
Hem maker	5	1.4	1:196
T. Square	-	-	-
L. Square	-	-	-
Ruler	245	41.7	1:7
See through ruler	-	-	-
Six inch ruler	29	8.2	1:34
Skirt marker	-	-	-
Yard stick	-	-	-
Total	453	100	

In table 19, the distribution of various measuring equipment available to students for laboratory learning experiences in all the schools is shown. There were no schools with T.Square, L. Square skirt marker and see through(transparent) ruler. There were a total numbering 165 measuring tapes recorded from all the schools thus giving a ratio of one measuring tape to six students. Five hem maker and seven dress markers guide gave a ratio of 1 to 196 and 1 to 140 respectively, while there was one six inch ruler to thirty four students(See Appendix 19 for details.

TABLE 20

OVERALL DISTRIBUTION OF TOOLS FOR MARKING FABRIC AMONG STUDENTS IN ALL THE POST PRIMARY INSTITUTIONS

Tools for marking	Frequency	Percentage	Ratio
Tracing wheel	15	4.6	1:65
Carbon paper	78	23.9	1:12
Tailors chalk	92	28.2	1:10
Dress marker pencil	22	6.7	1:44
Paper pattern	199	36.5	1:8

Table 20 shows distribution of tools for marking fabric in all the schools. Tracing wheels account for 4.6% while dress makers pencil accounts for 6.7% This data shows that there is the ratio of one tracing wheel to sixty five students, one dress maker pencil to forty four students, one carbon paper to twelve students and one tailor chalk to ten students. While there is one paper pattern among eighty students(See Appendix 20 for details).

TABLE 21

OVERALL DISTRIBUTION OF PINS AND PIN CUSHION AVAILABLE TO STUDENTS IN THE VARIOUS SCHOOLS STUDIED

Pin and Pin cushion	Frequency	Percentage	Ratio
Dress makers pins	209	93.3	1:5
Ball pint pins	-	-	-
Silk pins	-	-	-
Pin cushion	13	5.8	1:75
Emary bag	2	.9	1:490
Total	224	100	

Table 21, specifies the overall number of pins and pin cushion in all schools. There were no ball point pins and silk pins available in any of the schools, There were 5.8% and .9% of pin cushion and emary bag respectively recorded from the schools. In sum, there is one pin cushion to seventy

five students and one emery bag to four hundred and ninety students(See Appendix 21 for details).

TABLE 22

OVERALL DISTRIBUTION OF TOTAL NUMBER OF SEWING THREADS IN ALL POST PRIMARY INSTITUTIONS IN KADUNA STATE

Sewing Threads	Frequency	Percentage	Ratio
Silk threads	-	-	-
Cotton threads	157	16	1:6
Nylon threads	-	-	-
Embroidery threads	-	-	-
Wool	-	-	-
Polyester	-	-	-
Total	157	16%	

Data on table 22 show the distribution of sewing threads among the schools. Cotton threads alone accounted for 16% and this implies that there is one cotton thread to six students. No school indicated she had silk nylon, Embroidery threads, wool and polyester threads(See Appendix 22 for details).

TABLE 23

OVERALL DISTRIBUTION OF TOTAL NUMBER OF NEEDLES FOR HAND SEWING AVAILABLE TO STUDENTS IN ALL THE SCHOOLS

Needles for hand sewing	Frequency	Percentage	Ratio
Sharp	235	-	1:84
Crewel	-	-	-
Between	-	-	-
Beading	-	-	-
Darning	-	-	-
Upholstery	-	-	-
Tapestry	-	-	-
Total	235	43.9	

Table 23 reveals that needles for hand sewing made available to students account for sharp needles 43.9% at the ratio of one sharp needle to eighty four students. Between, Beading, Darning, Upholstery and Tapestry needles were not

found in any of the schools. (See Appendix 23 for details).

TABLE 24

OVERALL DISTRIBUTION OF THE TOTAL SUM OF MACHINE NEEDLES AVAILABLE TO STUDENTS AMONG THE POST PRIMARY INSTITUTIONS IN KADUNA STATE

Item: Machine Needles	Frequency	Percentage	Ratio
General purpose size 11	63	70	1:15
General purpose size 14	27	30	1:36
Total	90	100	

Table 24 shows distribution of machine needles available to students among all the schools. There were 63(70%) of general purpose needles size 11 and 30% of general purpose needle size 14. Invariably there is among all Kaduna State post primary institutions one size eleven needle to fifteen students and one size fourteen to thirty six students(See Appendix 24 for details).

TABLE 25

OVERALL DISTRIBUTION OF PRESSING EQUIPMENT BETWEEN THE STUDENTS IN ALL THE POST PRIMARY INSTITUTIONS

Pressing Equipment	Frequency	Percentage	Ratio
Iron	118	36.5	1:8
Ironing board	46	14.2	1:21
Sleeve board	14	4.3	1:70
Point pressor	-	-	-
Tailors ham	-	-	-
Pressing cloth	2	.6	1:490
Ironing table	51	15.7	1:19
Blanket	44	13.6	1:22
Ironing sheet	34	10.5	1:29
Clothes hanger	12	3.7	1:81
Ironing brush	2	.6	1:49
Water sprinkler	-	-	-
Needle point board	-	-	-
forvelvet	-	-	-
Total	323	100	

In table 25 it shows total number of pressing equipment for use of students in all the schools. Data shows that

pressing equipment, such as point presser, tailors hem, water sprinkler, needle board for velvet were not indicated in any of the schools. However, pressing cloth, ironing brush and sleeve board accounted for 0.6% and 4.3% resepctively. This shows that one pressing cloth, ironing brush, and sleeve board is shared between four hundred and ninety one between fourty nine and one between seventy students respectively(See Appendix 25 for details).

TABLE 26

OVERALL DISTRIBUTION OF SOME MISCELLANEOUS SEWING AIDS AVAILABLE TO STUDENTS IN ALL THE FCST PRIMARY SCHOOLS

Miscellaneous Sewing	Frequency	Percentage	Ratio
Seam rippers	-	33	1:5
Thimble	198	33%	1:5
Sewing boxes	-	-	-
Scotch magic	-	-	-
Transparent tape	-	-	-
Bodkin	-	-	-
Magnet	-	-	-
Stillet	-	-	-
Crochet hooks	109	18.1	1:9
Knitting pins	293	48.8	1:3
Total	233	100	

Some miscellaneous sewing aids as shown in table 26 reveal that there were no seam tippers sewing boxes, scotch magic transparent tape bodkin magnet and stillets available in any of the schools. There were overall one hundred and ninety eight thimbles which account for approximately 33%, thus, the ratio of one thimble between five students. Crochet hooks 18.1% and knitting pins 48:8%, were at the ratio of one between nine and three students respectively(See Appendix 26 for details).

TABLE 27

OVERALL DISTRIBUTION OF FASTENINGS AVAILABLE TO STUDENTS IN ALL THE POST PRIMARY INSTITUTIONS IN THE STATE

Fastenings	Frequency	Percentage	Ratio
Hooks & eyes	57	26.2	1:17
Press studs	67	30.8	1:15
Zips	21	9.6	1:466
Buttons	46	21.1	1:21
Velcro	-	-	-
Tape	26	11.9	1:38
Total	217	100	

In table 27, the sum of fastenings recorded in all the post primary institutions show that there were 9.6% (21 number) zippers and 11.9%(26) tapes at the ratio of 1 student to 46 zips and one between 38 tapes respectively. (See Appendix 27 for details).

TABLE 28

OVERALL DISTRIBUTION OF TRIMMINGS AVAILABLE TO STUDENTS IN THE POST PRIMARY INSTITUTIONS IN KADUNA STATE

Trimmings	Frequency	Percentage	Ratio
Lace trimmings	-	-	-
Ribbon	-	-	-
Braid	-	-	-
Ric Rac	-	-	-
Elastic	-	-	-
Embroided Motif	-	-	-
Total	0	0	-

Table 28 indicates the distribution of trimmings available in all the post primary schools studied. The data reveals that there were no lace trimmings, ribbon, braid, ric rac, elastic, embroidery motify found in any of the schools(See Appendix 28 for details).

TABLE 29

OVERALL DISTRIBUTION OF SCISSORS AVAILABLE TO STUDENTS IN ALL THE POST PRIMARY INSTITUTIONS IN KADUNA STATE

Scissors	Frequency	Percentage	Ratio
Cutting scissors	124	10.0	1:8
Trimming scissors	-	-	-
Pinking scissors	-	-	-
Embroidery scissors	-	-	-
Button hole scissors	-	-	-
Paper scissors	-	-	-
Total	124	10.0	1:8

Table 29 shows the quality of scissors available to students in all the post primary schools studied. There were no trimming scissors, pinking shear, embroidery. Button hole and paper scissors in any of the schools. 10% cutting scissors was reported and this reveals that there was one pair of scissors to eight students(See Appendix 29 for details).

TABLE 30

OVERALL DISTRIBUTION OF TEXTILES EQUIPMENT AVAILABLE FROM THE VARIOUS POST PRIMARY SCHOOLS STUDIED IN KADUNA STATE

Textiles Equipment	Frequency	Percentage	Ratio
Microscopes	-	-	-
Slides	-	-	-
Chemicals	-	-	-
Soap detergents	-	-	-
Dyes	-	-	-
Loam for weaving	-	-	-
Burners	-	-	-
Paints	-	-	-
Overalls	-	-	-
Yarns	-	-	-
Fibres	-	-	-
Total	0	0	

Table 30 shows overall sum of textiles equipment available in all the post primary schools studied. There were no textiles equipment recorded in any of the schools studied(See Appendix 30 for details).

TABLE 52

OVERALL DISTRIBUTION OF SOURCES OF CLOTHING AND TEXTILES TEXT BOOKS IN THE POST PRIMARY INSTITUTIONS IN KADUNA STATE STATE

Textbooks	No of Schools	%
Clothing & Textiles(Teachers & Pupils' Text) by CESAC 1980	16	100%
Dress making simplified by Valerie I. Cock	-	-
Senior & Junior Needle Craft by D.M. Hart	-	-
Modern dress making by C. Walt	-	-
Total	16	100%

In Table 31, data shows that in all the post primary institutions in Kaduna State the text book "Clothing and Textiles"(1980), Teachers & Pupils Text, CESAC, was popular among all the schools.

TABLE 32

OVERALL DISTRIBUTION OF SOURCES FROM WHICH STUDENTS ARE PROVIDED WITH CLOTHING AND TEXTILES EQUIPMENT IN THE VARIOUS SCHOOLS STUDIED

No of Equipment	Supplier	Percentage
21	State Ministry of Education, Kaduna	70%
9	Parents/Guardians	30%
		100%

The Ministry of Education being the primary suppliers of clothing and textiles equipments to students in the schools account for 70% while 30% clothing and textiles equipments were supplied by parent or guardians of students(Appendix 31).

TABLE 33

OVERALL DISTRIBUTION OF CLOTHING AND TEXTILES EQUIPMENT STORAGE SPACE

Possible Places	No of Schools	Percentage
Students workbags	5	31%
Clothing laboratory store	11	69%
Total	16	100%

Among all the schools studied 31%(5 number) allowed students to carry home their clothing and textiles articles, while the others 69%(11 number) store all their students articles in the clothing laboratory store.(See Appendix 32).

TABLE 34

OVERALL DISTRIBUTION OF FREQUENCY OF SEWING MACHINE SERVICE IN POST PRIMARY INSTITUTIONS

Timely	Frequency	Percentage
Quarterly	1	6.25
Once in a year	10	62.5
Never serviced	5	31.25
Total	16	100

Table 34 shows how often the sewing machines were serviced. Some schools 62.5%, serviced their sewing machines once in a year. Another service them on quarterly basis while other school never serviced their sewing machines at all(Appendix 33).

TABLE 35

OVERALL DISTRIBUTION OF BODIES WHO REPAIR BROKEN DOWN CLOTHING AND TEXTILES EQUIPMENT

Possible Bodies	Frequency	Percentage
State Ministry of Education Eqaucation	10	62.5
Singer company	3	18.8
Repair by students	2	12.5
Send to Estate Department	1	6.2
Total	16	100

Data on table 35 shows that major repairs of clothing and textiles equipment in all the post primary schools studied, were made by State Ministry of Education, 62.5% , Singer Company, 18.8%, repairs made by students themselves, 12.5% and by the Estate Department of the schools, 6.2%

TABLE 36

OVERALL DISTRIBUTION OF WHO REPLACES LOST EQUIPMENTS IN POST PRIMARY INSTITUTIONS IN KADUNA STATE

Replacers	Frequency	Percentage
Students only	9	56.25
Parents	7	43.75
Total	16	100

Table 36 shows who replaces lost clothing tools and equipment. Parents only account for 43.75%, students only 56.25%(See Appendix 34).

TABLE 37

OVERALL DISTRIBUTION OF SCHOOLS WITH/WITHOUT TEACHING AIDS IN THE POST PRIMARY INSTITUTIONS

Item: Teaching Aids	Frequency	Percentage
With Teaching aids	12	75%
Without teaching aids	4	25%
Total	16	100

Table 37, shows that 75% schools were equipped with teaching aid in clothing and textiles while 25% of the schools were without teaching aids(Appendix 35).

TABLE 38

OVERALL DISTRIBUTION OF CLOTHING AND TEXTILES SOURCES OF TEACHING AIDS

Possible bodies	No of Schools	Percentage
Ministry supplies	-	-
Teachers	15	93.8%
Students	1	6.2%
Total	16	100%

93.8% of teachers in the school studied prepare their teaching aids(See Appendix 36 for details).

TABLE 39

OVERALL DISTRIBUTION OF SCHOOLS WHO HAVE OR HAVE NOT COMFORTABLE SEATS IN POST PRIMARY INSTITUTIONS IN KADUNA STATE

Item	Frequency	Percentage
With	12	75%
Without	4	25%
Total	16	100

75% of the post primary institutions have got comfortable seats. Only 25% have not got comfortable seats(See Appendix 37 for the details).

TABLE 40

OVERALL DISTRIBUTION OF THE HEIGHT MEASUREMENT OF EQUIPMENT USED BY STUDENTS IN POST PRIMARY INSTITUTIONS IN KOGUNA STATE

Equipment	Height	Percentage
Cutting out tables	90cm	27.2
Tables	90cm	27.2
Threadles sewing machine	75cm	22.7
Desk	75cm	22.7
Total	330cm	100

Table 40 shows the height measurement of tables and desks used for cutting and sewing. One major essential of clothing and textiles equipment is the height of tables and desks on which they work. Cutting out tables and desks common for use by students recorded heights of 90cm for tables and 75cm for threadle sewing machines.

CHAPTER FIVE

INTERPRETATIONS, DISCUSSIONS AND RECOMMENDATIONS

In this chapter, interpretations, discussions and conclusions were drawn about the data and findings of the study on clothing and textiles and clothing laboratories in the post-primary institutions in Kaduna State. Recommendations for professional use, policy and, for further research were made.

SUMMARY

The researcher set out to investigate what equipment were available for the teaching of clothing and textiles and what laboratory facilities existed in the post primary institutions. The objectives of the study were:-

- to identify clothing and textiles equipment used in post primary institutions in Kaduna State,
- to identify storage and laboratory facilities in the post primary institutions in Kaduna State, thus
- to determine the adequacy of the clothing and textiles equipment in the post primary institutions in the state and, to determine whether or not the lack of equipment in clothing and textiles in Kaduna State post primary institutions may be implied to effect the performance of students in the GCE Examinations.

Eight zonal structure for the operations of the Kaduna State Ministry of Education were used in the sampling process. The post primary schools used for the study were selected from these zones by ballot. Sixteen schools were identified for the study, that is, two schools from each zone.

The instrument used was an open-ended questionnaire. It was pilot tested in two of the sixteen schools used in the study. A final instrument was administered in all six-

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teen schools to teachers of clothing and textiles. The data collected were analysed using percentages and ratios.

INTERPRETATION AND DISCUSSION

The findings of the study revealed that most teachers seemed to have one kind of learning experience or the other in clothing and textiles. Some of them were found to posses good mastery of the subject. The majority of the teachers were discovered to have had five years of experience in the researcher, is considered positive because a teacher with adequate experience is likely going to be more knowledgeable about the subject matter. Therefore, it is assumed that the teacher can diseminate knowledge, information and skills to the learners more effectively. This fact is supported by Miller's(1975), statement in a comparative analysis of teaching resources in which he said "without instructors fully competent in the art of teaching, no educational programme can be completely successful."

Although there were 81 percent qualified teachers of clothing and textiles in all the post primary institutions studied, it is disheartening to note that not all of them are trainees of the subject. Perhaps, non-specialist who were found teaching clothing and textiles did so out of necessity rathr than professional because they were compelled to teach the course. Although there were 81 percent specialised teachers of clothing and textiles, it does not,

however, elude the fact that there were not enough teachers of the subject with sufficient years of teaching experience in clothing and textiles.

On the preference of clothing and textiles by the teachers, the data revealed that the reasons for the dislike for the subject include difficulty in teaching the subject; and also time and energy consuming. While the likeness for the teaching the subject stem from the reasons that there is joy in making one's clothes, it costs less to make one's clothes and; it is a creative experience.

LABORATORY FACILITIES

There were 68.7 percent of the schools had laboratories for clothing and textiles, while 31.3 percent of them had none. In respect of those who had laboratories, data showed that they were not adequately equipped. Lack of adequately equipped laboratories may impair learning. Okon(1968) suggested that in Home Economics, adequate laboratories are required for the teaching of the subject, hence, teaching without laboratories would seriously hamper learning and the transfer of skills. By implication, the data which showed that most institutions had laboratories but without necessary equipment for learning and teaching of clothing and textiles would be hampered.

In institutions without laboratory facilities, it was stated that an alternative learning space for clothing and textiles is the normal classroom situation. This situation is crowdy and is not conducive for teaching of clothing and textiles. This is because there were no facilities, such as fitting room, dressing mirrow, and adequate space for free traffic.

EQUIPMENT USED IN THE TEACHING OF CLOTHING AND TEXTILES IN POST PRIMARY INSTITUTIONS IN KADUNA STATE.

Data showed that those institutions used for the study did not have adequate supplies of equipment. Many of the schools lacked basic materials for the teaching of the subject.

This situation has serious implication for the new educational system, the 6-3-3-4, which has begun in Nigeria, thus, no meaningful transfer of skill or learning could take place without adequate materials appropriately used(Piaget, 1958), Waltermier, 1970, Stanislans 1963). For instance, the result showed that the sixteen post primary institutions used for the study had a sum total of one hundred and thirty-eight(138) sewing machines. Out of these, ninety six of them, 69.6 percent, were hand sewing machines, thirty of them, 21.7 percent, were threadle machines, 12 of them, 8.7 percent, were electric machines. The students, nine hundred and eighty(980) who indicated interest in the study of clothing and textiles in all the schools used for the study, clearly showed that one hundred and thirty-eight machines were grossly inadequate to be shared among the students. This was supported

by the unanimous response of all teachers used in the study that the equipment for effective learning were inadequate. Okon(1966), suggested that at least a class of thirty students should have ten sewing machines. That is to say that for the nine hundred and eighty students there would be available to them, at least, three hundred and twenty sewing machines rather than one hundred and thirty-eight shared among the students in a normal classroom situation.

MEASURING EQUIPMENT

There were nine hundred and eighty students who sat for GCE in clothing from the sixteen schools sampled in the year, 1986. Results from the anslysis of data showed that there were four hundred and fifty-three assorted measuring equipment available for all the students who sat for the examinations. However, this was considered inadequate because when Okon's recommendation of one measuring equipment for three students is strictly applied, three hundred and twenty measuring equipment would be required for use by the nine hundred and eighty students.

Like the measuring equipment, it was disheartening to discover that tools for marking fabric were also grossly inadequate. Results from the analysis indicated that the ratio of tracing wheel was 1:65, carbon paper 1:12 tailors chalk 1:10, dressmaker 1:44, paper pattern 1:18. This also showed that from the recommendation of Okon(1966), one equipment to three students, the tools available to the schools were most inadequate.

SEWING THREADS

Data showed that for all the institutions used in the study there were a total of one hundred and fifty-seven (157) ordinary cotton thread. There were no silk, nylon, and embroidery threads found in any of the schools. Okon(1966) pointed out that, for any meaningful educational experiences the students or pupils should be made to work with a variety of sewing materials and since the post primary institution used only cotton sewing threads, students did not have experience with other varieties of security threads. Thus, acquisition of skills in the use of variety of sewing thread was minimal.

NEEDLES FOR HAND SEWING

The institutions used for the study had only sharps, one variety of needles, for hand sewing. Data indicated that there were two hundred and thirty-five(235), for these needles out of which 72.9 percent of the needle were found in Government Girls Secondary School, Kankiya, 19 percent were found in Women Teachers' College, Kobomo, and 14.5 percent were found in Women Teachers' College, Katsina. Threes institutions out of the sixteen schools used for the study represented about 60.3 percent of the total needles recorded in the study. While about 39.7 percent of the needles were shared among thirteen institutions. Hence, two hundred and thirty-five needles are grossly inadequate for students use. Okon(1966) suggested that at least three hundred and twenty needles for the nine hundred and eighty students would have been most appropriate.

PRESSING(IRONING) EQUIPMENT

Three hundred and twenty-three pressing equipment were recorded for all the schools studied. This situation again is viewed as unfortunate because pieces of ironing equipment are necessary for all clothing construction as rightly observed by Okon(1966).

All the institutions had no point presser, ironing brush water sprinkler, and needle board. All the schools except Women Teachers College, Daura had irons. There were a total of 118 irons with Government Girls Secondary School, Malumfashi possessing the highest percentage, 21.1 percent, Government Girls Secondary School, Kankiya, Women Teachers College, Zaria, Government Girls, Secondary School, Kawo, Kaduna had 15, 14, and 12 pressing irons respectively. The rest of the schools shared the remaining 45.2 percent. The importance of pressing equipment in clothing construction cannot be over emphasized. The data above obviously showed that these tools were quite inadequate.

MISCELLANEOUS SEWING AIDS

The researcher discovered that there were no any type of miscellaneous equipment in the schools. Such miscellaneous aids included seam ripper, thimble, sewing boxes, scotch magic transparent type, bodkin, magnet, stilket, crotchet hooks and knitting pins.

It was discovered that the institutions used for the study had a total of 190 thimbles, 103 crochet hooks and 293 knitting pins. The institutions had no seam ripper, sewing boxes, scotch magic transparent tape, bodkin, magnet, and skilkets. Apparently, the teaching of clothing and textiles would be hampered without the proper equipment.

SCISSORS

Among the institutions used for the study, the data revealed that only cutting scissors were available. The total number of this type of scissors recorded were 119. Women Teachers College(WTC) Kabomo had 35 scissors, 29.4 percent, and Government Girls Secondary School, Kawo had 10. These two institutions that is W.T.C. Kabomo and G.G.S.S. Kawo had the highest number of scissors. The two institutions all combined had a total of 45 scissors or 37.8 percent. While the remaining 14 institutions shared the remaining 74 or 62.2 percent. Again, this is grossly inadequate.

FASTENINGS

Amongst the sixteen institutions, the fastenings found were hooks and eyes(57), press studs(67), Zip (21), buttons(46), tapes(26) for the sixteen institutions. None of the institutions had Velcro fastenings. None again had any form of trimming for aestetias clothing constructions both fasteners and trimmings

are vital in clothing construction. From the data most of these were not found in any of the schools studied. Learning therefore would be hampered as a result of the lack of these essential tools.

TEXTILE EQUIPMENT AND BOOKS

Findings from the study revealed that none of the institutions had any textiles equipment. Some of the textiles equipment investigated included microscopes, slides, chemicals, soaps and detergents, dyes, looms for weaving, burrers, paints, overall yarns, fibres and swatches of fabrics. Similarly, on clothing and textiles literature, most teachers said they used "Clothing and textiles: pupils and teachers" text by CEASAC (1980), and "Senior and Junior needle craft" by Hart, D.M. (1960). Most school libraries did not have clothing and textiles texts for teachers and students use. Many depended on the notes given to students by their teachers. Lack of up-to-date text books would certainly hamper learning as most of the literature material on these books used at the moment to teach would be out date and perhaps not meant for the African child, because most writers are foreign writers.

Based on Okon(1966) recommendation that at least thirty students should share ten equipment in the classroom, the schools under study hypothetically may need three hundred and twenty(320) of each of the textiles equipment stated above. From the foregoing, it may be inferred, therefore, that textiles equipment are grossly inadequate in the schools.

By implications, also, the mass failure of clothing and textiles candidates, 75 percent, in 1985 West African School Certificate Examination may be attributed to the poor availability of textiles equipment and literature material in these schools.

SOURCES OF CLOTHING AND TEXTILES EQUIPMENT

Results from the study showed that 70% of equipment supply to post i primary instititions in Kaduna State came from the State Ministry of Education while 30 percent were provided by either parents or guardians of the students.

According to the respondents, in the past, the State Ministry of Education provided the none pershable items such as the sewing machines, work tables, full length mirrow, ironing boards, cupboards, chest of drawers, dummy, tables, tailors chalk, stiletto, tracing wheel, carbon paper, scissors(of all kinds), ruler, tweezers, seam ripper and magnet for her various post primary institutions. However, the lack of fund slowed efforts by the Ministry of Education to continue to provide the school with clothing and textiles equipments. Hence, items such as needles, threads, irons, wool; thimbles, pin cushion, tape measure, work apron, knitting pins, crochets, pins, fabric were provided by either the parents or guardians of the students.

Apparently, schools which had laboratories for clothing and textiles had no equipment. Some schools like Government Girls Secondary School, Malumfashi, Women Teachers College, Kabomo, Government Girls Secondary School, Kankia, had a

number of the large equipment such as the sewing machines, tables, cabinet, ironing boards thought most of them were broken down, and/or were laying waste in the schools' main store. The study discovered that most schools did not service sewing machines regularly. The sewing machines supplied by the Ministry of Education broke down as a result of lack of service. While few schools, serviced theirs once a year, others never serviced their machines at all. Where machines could not be repaired they were left to rust away in the needle work store or in the schools' main store. It was the responsibility of the Ministry of Education to repair broken equipment but a few schools, about 10.0% of them, made personal efforts by sending the machines to Singer Company for repairs. In cases where students were responsible for the damage of the equipment, they were obliged to pay or repair them. Needlework required, that both the machine and needle should be in perfect condition in order to provide for good performance and efficient work. Cliffe(1959) expressed that no one can really enjoy needle work if scissors are blunt, while unoiled and dirty machines make work a drudgery.

Clothing and textiles pieces of equipment especially machines require prompt and regular servicing as this would not just improve performance and efficiency but would also allow for pleasure in handling the various pieces of equipment and as well as helping them to normally last a bit longer.

Data showed that a few schools, 25 percent, had no teaching aids on the subject. However,it was discovered that 75 percent of the schools had adequate teaching aids which were often made by the teachers themselves. This innovative approach by some of the teachers indicated that they were resourceful in their field. This innovation approach factor is encouraging and economical as well as considers inflationary progression and the continued naira devaluation.

It was generally observed that in most schools there were inadequate sitting facilities. In most cases the students enrollment were usually higher than the number of seats available in the classrooms. Some schools however, improvised long benches, while students in some schools wrote on their laps and others sat on the floor while they used the benches to write on.

The heights of the tables and desks were either too high or too low for cutting and sewing. About 70 percent of the desks had an average height of 3.09cm. This situation is not conducive to learning. This situation, also, can cause frustration, unhappiness and uneasiness among the students. It is obvious that in a situation like this one, the students cannot be attentive and this inevitably can interfere with their learning process.

In order to achieve excellence in learning, there was need for appropriate furniture in the classrooms and other working surfaces. It was observed generally, however, that some schools, 75 percent had comfortable seats.

RECOMMENDATIONS

Although this study is limited to only sixteen post primary institutions in Kaduna State, the findings of this study are clear indications of the inadequate equipment in our institutions. In view of these inadequacies, it is strongly viewed by the researcher that actions or prompt moves need to be taken to alleviate most of the problems highlighted in this study. In the light of the foregoing, findings, and discussions the researcher wishes to make the following recommendations:

(1) Where clothing and textiles is taught as a subject such schools should be adequately equipped in order to provide for good quality education in the discipline.

(2) The Ministry of Education and all staff teaching the subject should explore all internal resources for effective implementation in the discipline as in the case of Tanzania.

(3) All schools teaching clothing and textiles as a subject should be provided with adequate demonstration equipment to enable the teachers to teach the most basic skills in the discipline.

(4) Students studying clothing and textiles should be given adequate experience(on the spot) by taking them to well established clothing and textiles establishments.

(5) Facilities for servicing and maintaining clothing and textiles equipment should be provided in all the schools offering the subject.

(6) There is the need to activate the stock clothing and textiles laboratories.

(7) The schools should be allowed to make their own purchases of clothing and textiles equipment rather than assigning contractors with less experience in the field to buy the equipment.

(8) Local people with adequate experience in the area of clothing and textiles should be recruited to teach the students as well as to enriching the teachers teaching the subjects with such knowledge.

(9) The Ministry of Education should endeavour to encourage teachers who have interest in the area of clothing and textiles to come up with text books using Nigerian background.

(10) Vocational schools should be established in the State for placement of students studying clothing and textiles in order to acquire more practical skills.

(11) Government should provide more funds for equipping and running of clothing and textiles laboratories in the post-primary institutions in the State.

(12) The Ministry of Education should employ competent teachers whose areas of specialization is clothing and textiles to teach the subject.

(13) In schools with no clothing and textiles laboratories, the school should provide a conducive environment for the teaching of the subject,

RECOMMENDATION FOR FURTHER RESEARCH

(1) The area of clothing and textiles is only a portion that this study has treated, it is highly recommended that further study should be undertaken in the areas of Food and Nutrition, Home Management, Family and Child Development so as to ascertain the availability of the facilities in our institutions.

(2) A research should be conducted on the proper measurement or heights of equipment and working surfaces for conviniency at work in the home and at school.

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APPENDIX I

RESULTS OF THE GENERAL CERTIFICATE OF EDUCATION(GCE) 1983 FOR THE SCHOOLS UNDER STUDY

S/No	School	No.of students who sat exams	No. of passes	No. of failures	% passes	% failures
1.	GDSS Daura	-	-	-	-	-
2.	WTC Daura	-	-	-	-	-
3.	WTC Katsina	110	14	96	13%	87%
4.	GDSS Katsina	-	-	-	-	-
5.	GDSS D/ma	50	4	46	8%	92%
6.	GGSS Kankiya	102	10	92	10%	90%
7.	GDSS S/Naka	-	-	-	-	-
8.	GDSS Ikara	-	-	-	-	-
9.	WTC Kabomo	96	13	83	14%	86%
10.	GGSS M/Fashi	112	2	110	2%	98%
11.	WTC Zaria	20	5	15	25%	75%
12.	GDSS K/Gaya	-	-	-	-	-
13.	WTC Kaduna	40	7	33	18%	92%
14.	GGSS Kawo	104	14	90	13%	87%
15.	WTC Zonkwa	95	13	82	14%	86%
16.	GGSS Zonkwa	-	-	-	-	-

APPENDIX 2

RESULTS OF THE GENERAL CERTIFICATE OF EDUCATION(GCE) 1984 FOR THE SCHOOLS UNDER STUDY

S/No	School	No.of students who sat exams	No. of passes	No.of Failures	% Passes	% Failures
1.	GDSS Daura	96	7	89	7%	93%
2.	WTC Daura	-	-	-	-	-
3.	WTC Katsina	30	5	25	17%	83%
4.	GDSS Katsina	48	7	41	15%	85%
5.	GDSS D/Ma	20	4	16	20%	80%
6.	GGSS Kankiya	97	7	90	7%	93%
7.	GDSS S/Naka	30	5	25	17%	83%
8.	GDSS Ikara	60	9	51	15%	85%
9.	WTC Kabomo	104	20	84	19%	81%
10.	GGSS M/Fashi	20	6	14	30%	70%
11.	WTC Zaria	-	-	-	-	-
12.	GDSS K/Gaya	-	-	-	-	-
13.	WTC Kaduna	35	6	29	17%	83%
14.	GGSS Kawo	97	6	91	6%	94%
15.	WTC Zonkwa	151	20	131	13%	87%
16.	GGSS Zonkwa	132	40	92	30%	70%

APPENDIX 3

RESULTS OF GENERAL CERTIFICATE OF EDUCATION(GCE) 1985 FOR THE SCHOOLS UNDER STUDY

S/No	School	No. of students who sat exams	No. of passes	No. of Failures	% Passes	% Failures
1.	GDSS Daura	102	5	97	4.9%	95.1%
2.	WTC Daura	56	7	49	12.5%	87.5%
3.	WTC Katsina	120	8	112	6.6%	93.4%
4.	GDSS Katsina	70	10	60	14.2%	85.8%
5.	GDSS D/Ma	72	7	65	9.7%	90.3%
6.	GGSS Kankiya	122	11	111	9.0%	91%
7.	GDSS S/Nake	-	-	-	-	-
8.	GDSS Ikara	56	7	49	12.5%	87.5%
9.	WTC Kabomo	76	16	60	21.0%	79%
10.	GGSS M/Fashi	136	30	106	22%	80%
11.	WTC Zaria	46	9	37	19.5%	80.5%
12.	GDSS K/Gaya	54	10	44	18.5%	81.5%
13.	WTC Kaduna	76	13	63	17.1%	82.9%
14.	GGSS Kawo	-	-	-	-	-
15.	WTC Zonkwa	101	7	94	6.9%	93.1%
16.	GGSS Zonkwa	98	18	80	18.3%	81.7%

APPENDIX 4

DISTRIBUTION OF YEARS OF EXPERIENCE OF TEACHERS IN THE TEACHING OF CLOTHING AND TEXTILES IN THE POST PRIMARY INSTITUTIONS IN KADUNA STATE.

S/No	School	No of Years of Experience
1.	GDSS Daura	2 yrs
2.	WTC Daura	1 yr
3.	WTC Katsina	5 yrs
4.	GDSS Katsina	4 yrs
5.	GDSS D/Ma	4 yrs
6.	GGSS Kankia	5 yrs
7.	GDSS S/Naka	3 yrs
8.	GDSS Ikara	2 yrs
9.	WTC Kabomo	5 yrs
10.	GGSS M/Fashi	6 yrs
11.	WTC Zaria	5 yrs
12.	GDSS K/Gaya	5 yrs
13.	WTC Kaduna	5 yrs
14.	GGSS Kawo	6 yrs
15.	WTC Zonkwa	6 yrs
16.	GGSS Zonkwa	5 yrs

APPENDIX 5

DISTRIBUTION OF TEACHERS WHO STUDIED CLOTHING AND TEXTILES DURING THEIR TRAINING

S/No	School	Yes	No
1.	GDSS Daura	"	"
2.	WTC Daura	"	"
3.	WTC Katsina	Yes	"
4.	GDSS Katsina	"	"
5.	GDSS D/Ma	"	"
6.	GGSS Kankia	-	No
7.	GDSS S/Naka	Yes	-
8.	GDSS Ikara	"	-
9.	WTC Kabomo	"	-
10.	GGSS M/Fashi	"	-
11.	WTC Zaria	"	-
12.	GDSS K/Gaya	"	-
13.	WTC Kaduna	"	-
14.	GGSS Kawo	"	-
15.	WTC Zonkwa	"	-
16.	GGSS Zonkwa	"	-

APPENDIX

DISTRIBUTION OF LEVEL OF QUALIFICATIONS OF TEACHERS IN POST PRIMARY INSTITUTIONS IN KADUNA STATE

S/No	School	Qualifications
1.	GDSS Daura	OND in Catering
2.	WTC Daura	NCE in Home Economics
3.	WTC Katsina	NCE, B.Ed Home Economics
4.	GDSS Katsina	NCE in Home Economics
5.	GDSS D/Ma	NCE, B.Ed in Home Economics
6.	GDSS Kankia	NCE in Home Economics
7.	GDSS S/Naka	NCE " "
8.	GDSS Ikara	NCE " "
9.	WTC Kabomo	B.Ed " "
10.	GDSS M/Fashi	NCE " "
11.	WTC Zaria	NCE " "
12.	GDSS K/Gaya	NCE, B.Ed In Home Economics
13.	WTC Kaduna	NCE, in Home Economics
14.	GGSS Kawo	NCE, B.Ed in Home Economics
15.	WTC Zonkwa	NCE in Home Economics
16.	GGSS Zonkwa	NCE in Home Economics

APPENDIX 7

DISTRIBUTION OF TEACHERS WHO LIKE AND DISLIKE TEACHING CLOTHING AS A SUBJECT IN POST PRIMARY INSTITUTIONS IN KADUNA STATE.

S/No	School	Like	Dislike
1.	GDSS Daura	Yes	-
2.	WTC Daura	-	No
3.	WTC Katsina	Yes	-
4.	GDSS Katsina	"	-
5.	GDSS D/Ma	"	-
6.	GGSS Kankia	"	-
7.	GDSS S/Naka	"	-
8.	GDSS Ikara	"	-
9.	WTC Kabomo	"	-
10.	GGSS M/Fashi	"	-
11.	WTC Zaria	"	-
12.	GDSS K/Gaya	"	-
13.	WTC Kaduna	-	No
14.	GGSS Kawo	-	No
15.	WTC Zonkwa	Yes	-
16.	GGSS Zonkwa	"	-

APPENDIX 8

DISTRIBUTION OF REASONS TEACHERS OF CLOTHING AND TEXTILES LIKE TO TEACH THE SUBJECT

	Reason	Number of Teachers	Percentage
a.	Because it costs less to make one's own clothes	0	0
b.	Because it's very creative	1	6.25%
c.	Because it's an interesting subject to teach	0	0
d.	All of the above	13	81.25
e.	No response	2	12.5
		16	100%

APPENDIX 9

DISTRIBUTION OF REASONS CLOTHING AND TEXTILES DISLIKE TO TEACH THE SUBJECT IN THE POST PRIMARY INSTITUTIONS IN KADUNA STATE.

	Reason	Number of Teachers	Percentage
a.	Because it's a difficult subject		
b.	Because it is time and energy consuming.	2	12.5%
c.	Because there are no equipment.		
d.	Because students are not interested.		
e.	Because the students lack good background.		
f.	Because it is frustrating		
g.	Because there is no cost supply of material		
f.	All of the above	14	87.5
	Total	16	100%

APPENDIX 10

DISTRIBUTION OF POST PRIMARY SCHOOLS IN KADUNA STATE WHICH HAVE AND DO NOT HAVE CLOTHING AND TEXTILES LABORATORIES FACILITIES.

S/No	School	Yes	No
1.	GDSS Daura	Yes	-
2.	VTC Daura	-	No
3.	VTC Katsina	Yes	-
4.	GDSS Katsina	"	-
5.	GDSS D/Ma	-	No
6.	GGSS Kankiya	Yes	-
7.	GDSS S/Naka	"	-
8.	GDSS Ikara	-	No
9.	VTC Kabomo	Yes	-
10.	GGSS M/Fashi	"	-
11.	VTC Zaria	-	No
12.	GDSS K/Gaya	Yes	-
13.	VTC Kaduna	"	-
14.	GGSS Kawo	-	No
15.	VTC Zonkwa	Yes	-
16.	GGSS Zonkwa	"	-
	16	11	5

% Yes = 68.7

% No = 31.3

APPENDIX 11

DISTRIBUTION OF POST PRIMARY INSTITUTIONS IN KADUNA STATE WHO HAVE ADEQUATE AND THOSE WHO DO NOT HAVE ADEQUATE LABORATORY WORKING SPACE FOR STUDENTS.

S/No	School	With Lab.	Enough working Space	
			Yes	No
1.	GDSS Daura		"	"
2.	WTC Daura		-	No
3.	WTC Katsina		Yes	-
4.	GDSS Katsina		-	No
5.	GDSS D/Ma		-	No
6.	G SS Kankia		Yes	-
7.	GDSS S/Naka		Yes	-
8.	GDSS Ikara		-	No
9.	WTC Kabomo		-	No
10.	GGSS M/Fashi		Yes	-
11.	WTC Zaria		-	No
12.	GDSS K/Gaya		Yes	-
13.	WTC Kaduna		"	-
14.	GGSS Kawo		-	No
15.	WTC Zonkwa		Yes	-
16.	GGSS Zonkwa		"	-
	Total		9	7
			56.25	43.75

APPENDIX 12

DISTRIBUTION OF ALTERNATIVE LEARNING SPACE FOR CLOTHING AND TEXTILES IN THE ABSENCE OF LABORATORY FACILITIES IN POST PRIMARY INSTITUTIONS IN KADUNA STATE.

Place	Number of schools	Percentage
a. In the classroom	7	43.75
b. Under the tree	-	
c. In the fine art lab.	-	
d. Specify	-	
e. No Response	9	56.25
	16	100%

APPENDIX 13

DISTRIBUTION OF NUMBER OF STUDENTS WHO OFFERED CLOTHING AND TEXTILES IN POST PRIMARY INSTITUTIONS IN KADUNA STATE IN 1986

S/No	School	No. of Students
1.	GDSS Daura	40
2.	WTC Daura	-
3.	WTC Katsina	50
4.	GDSS Katsina	30
5.	GDSS D/Ma	30
6.	GGSS Kankia	50
7.	GDSS S/Naka	30
8.	GDSS Ikara	40
9.	WTC Kabomo	55
10.	GGSS M/Fashi	55
11.	WTC Zaria	200
12.	GDSS K/Gaya	30
13.	WTC Kaduna	40
14.	GGSS Kawo	50
15.	WTC Zonkwa	200
16.	GGSS Zonkwa	50
	16	980

APPENDIX 14

DISTRIBUTION OF CLOTHING LABORATORIES WITH/WITHOUT FITTING ROOMS

S/No	School	Yes	No
1.	GDSS Daura		No
2.	WTC Daura		No
3.	WTC Katsina		No
4.	GDSS Katsina		No
5.	GDSS D/Ma		No
6.	GGSS Kankia		No
7.	GDSS S/Naka		No
8.	GDSS Ikara		No
9.	WTC Kabomo		No
10.	GGSS M/Fashi		No
11.	WTC Zaria		No
12.	GDSS K/Gaya		No
13.	WTC Kaduna		No
14.	GGSS Kawo		No
15.	WTC Zonkwa		No
16.	GGSS Zonkwa		No
	Total	0	16 100%

APPENDIX 15

DISTRIBUTION OF LABORATORY WITH/WITHOUT LONG DRESSING MIRROW.

S/No	School	Lab. with long dressing mirrow	
		Yes	No
1.	GDSS Daura	-	No
2.	WTC Daura	-	"
3.	WTC Katsina	-	"
4.	GDSS Katsina	-	"
5.	GDSS D/Ma	-	"
6.	GGSS Kankia	-	"
7.	GDSS S/Naka	-	"
8.	GDSS Ikara	-	"
9.	WTC Kabomo	-	"
10.	GGSS M/Fashi	-	"
11.	WTC Zaria	-	"
12.	GDSS K/Gaya	-	"
13.	WTC Kaduna	-	"
14.	GGSS Kawo	-	"
15.	WTC Zonkwa	-	"
16.	GGSS Zonkwa	-	"

APPENDIX 16

DISTRIBUTION OF LABORATORIES WITH/WITHOUT STORAGE FACILITIES FOR STUDENTS WORK

S/No	School	Storage Facilities	Yes/No
		Yes	No
1.	GDSS Daura	-	No
2.	WTC Daura	-	No
3.	WTC Katsina	Yes	-
4.	GDSS Katsina	-	No
5.	GDSS D/Ma	-	No
6.	GGSS Kankia	Yes	-
7.	GDSS S/Naka	-	No
8.	GDSS Ikara	-	No
9.	WTC Kabomo	Yes	-
10.	GGSS M/Fashi	Yes	-
11.	WTC Zaria	Yes	-
12.	GDSS K/Gaya	-	No
13.	WTC Kaduna	-	No
14.	GGSS Kawo	-	No
15.	WTC Zonkwa	-	No
16.	GGSS Zonkwa	-	No
		5	11
		35.3%	68.75%

APPENDIX 17

DISTRIBUTION OF LABORATORIES WITH/WITHOUT GOOD LIGHTING SYSTEM

S/No	School	Yes	No
1.	GDSS Daura	Y	-
2.	WTC Daura	-	No
3.	WTC Katsina	Yes	-
4.	GDSS Katsina	-	No
5.	GDSS D/Ma	-	No
6.	GGSS Kankia	Yes	-
7.	GDSS S/Naka	"	-
8.	GDSS Ikara	-	No
9.	WTC Kabomo	Yes	-
10.	GGSS M/Fushi	"	-
11.	WTC Zaria	"	-
12.	GDSS K/Gaya	-	-
13.	WTC Kaduna	-	No
14.	GGSS Kawo	-	"
15.	WTC Zonkwa	-	"
16.	GGSS Zonkwa	-	No
	16	8	8

8 or 50% Yes

8 or 50% No

APPENDIX 1

DISTRIBUTION OF SEWING MACHINES AVAILABLE TO STUDENTS IN THE VARIOUS SCHOOLS STUDIED

S/No	Name of School	No of Automatic machine	No of Electmachine	No of Treadmachine	No of Handmachine	Adequate	Inadequate
1.	GDSS Daura	-	-	-	7	-	Inadequate
2.	WTC Daura	-	-	-	-		"
3.	WTC Katsina	-	-	-	10		"
4.	GDSS Katsina	-	-	-	8		"
5.	GDSS D/Ma	-	-	-	5		"
6.	GGSS Kankia	-	-	3	5		"
7.	GDSS S/Naka	-	-	-	2		"
8.	GDSS Ikara	-	-	-	5		"
9.	WTC Kabomo	-	6	-	2		"
10.	GGSS M/Fashi	-	1	8	8		"
11.	WTC Zaria	-	1	4	5		"
12.	GDSS K/Gaya	-	-	-	10		"
13.	WTC Kaduna	-	-	4	6		"
14.	GDSS Kawo	-	1	3	7		"
15.	WTC Zonkwa	-	2	6	11		"
16.	GGSS Zonkwa	-	1	2	5		"
	Total 16	-	12	30	96		"

APPENDIX 19

DISTRIBUTION OF CLOTHING AND TEXTILES MEASURING EQUIPMENT BY SCHOOL

Name of School	Dress maker guide	Tape Meas-ure	Heir mak er	Skirt mak er	Ruler	See rul er	Ruler
GDSS S/Naka	-	4	-	-	1	-	1 -
GDSS Ikara	-	-	-	-	1	-	- -
WTC Katsina	-	10	-	-	10	-	- -
GDSS Katsina	-	4	-	-	13	-	- -
GDSS D/Ma	-	6	-	-	-	-	- -
GGSS Kankia	-	10	-	-	40	-	- -
WTC Zonkwa	2	4	-	-	-	-	- -
GGSS Zonkwa	1	-	-	-	-	-	- -
WTC Zaria	-	-	-	-	-	-	- -
GDSS K/Gaya	-	10	-	-	6	-	- -
WTC Kaduna	1	4	-	-	6	-	- -
GGSS Kawo	-	16	1	-	72	-	24 -
GDSS Daura	-	6	-	-	8	-	4 -
WTC Daura	-	-	-	-	-	-	- -
GGSS M/Fashi	3	16	4	-	82	-	- -
WTC Kabomo	-	50	-	-	6	-	- -
Total	7	165	5	-	245	-	29

Grand Total of measuring equipment = 453

APPENDIX 2C

DISTRIBUTION OF TOOLS FOR MARKING FABRIC BY SCHOOL

S/No	School	No of Tracing wheels	No of Carbon paper	No of Tailor chalk	No of Dress makers pencil	No of Paper pattern terms	Adequate/ Inadequate
1.	GDSS Daura	-	-	-	-	-	Inadequate
2.	WTC Daura	-	-	-	-	-	"
3.	WTC Katsina	-	-	-	-	-	"
4.	GDSS Katsina	2	4	16	-	-	"
5.	GDSS D/Ma	-	-	-	-	-	"
6.	GGSS Kankia	-	10	12	10	-	"
7.	GDSS S/Naka	-	12	-	-	-	"
8.	GDSS Ikara	-	-	-	-	-	"
9.	WTC Kabemo	-	6	-	-	-	"
10.	GGSS M/Fashi	5	36	12	12	117	Adequate
11.	WTC Zaria	-	-	-	-	-	Inadequate
12.	GDSS K/Gaya	1	4	-	-	-	"
13.	WTC Kaduna	1	6	10	-	2	"
14.	GGSS Kawo	6	-	50	-	-	"
15.	WTC Zonkwa	-	-	-	-	-	"
16.	GGSS Zonkwa	-	-	-	-	-	"
	Total	15	78	92	22	119	

APPENDIX 21

DISTRIBUTION OF PINS AND PUNCHION BY SCHOOL

S/No	School	No of dress makers pins	No of ball point pins	No of silk pins	No of pin vishion	No of emery bags	Adequate/ Inadequate
1.	GDSS Daura	-	-	-	-	-	"
2.	WTC Daura	-	-	-	-	-	"
3.	WTC Katsina	20	-	-	-	-	"
4.	GDSS Katsina	10	-	-	-	-	"
5.	GDSS D/Ma	10	-	-	-	-	"
6.	GGSS Kankia	12	-	-	-	-	"
7.	GDSS S/Naka	-	-	-	-	-	"
8.	GDSS IKara	-	-	-	-	-	"
9.	WTC Kabomo	25	-	-	-	-	"
10.	GGSS M/Fashi	30	-	-	13	13	2
11.	WTC Zaria	10	-	-	-	-	"
12.	GDSS K/Gaya	25	-	-	-	-	"
13.	WTC Kaduna	20	-	-	-	-	"
14.	GGSS Kawo	15	-	-	-	-	"
15.	WTC Zonkwa	17	-	-	-	-	"
16.	GGSS Zonkwa	15	-		-	-	"
	Total	209	-	-	13	2	

APPENDIX 22

DISTRIBUTION OF SEWING THREADS AVAILABLE BY SCHOOL

S/No	School	No of cotton sewing thread	No of silk threaders	No of nylon threads	No of polyester thread	No of embroidery	Adequate/ Inadequate
1.	GDSS Daura	-	-	-	-	-	"
2.	WTC Daura	-	-	-	-	-	"
3.	WTC Katsina	12	-	-	-	-	"
4.	GDSS Katsina	10	-	-	-	-	"
5.	GDSS D/Ma	5	-	-	-	-	"
6.	GGSS Kankia	20	-	-	-	-	"
7.	GDSS S/Naka	10	-	-	-	-	"
8.	GDSS Ikara	10	-	-	-	-	"
9.	WTC Kabomo	15	-	-	-	-	"
10.	GGSS M/Fashi	30	-	-	-	-	"
11.	WTC Zaria	6	-	-	-	-	"
12.	GDSS K/Gaya	8	-	-	-	-	"
13.	WTC Kaduna	10	-	-	-	-	"
14.	GGSS Kawo	6	-	-	-	-	"
15.	WTC Zonkwa	6	-	-	-	-	"
16.	GGSS Zonkwa	9	-	-	-	-	
	TOTAL	157	-	-	-	-	"

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APPENDIX 23

DISTRIBUTION OF NEEDLES FOR HAND SEWING BY SCHOOL

S/No.	School	No of sharp	No of	No of betw-een	No of dean-ing	No of uphols try	No of tapes	No of bean-try	Ade quate Inade-quate
1.	GDSS Dawra	-	-	-	-	-	-	-	Inade-quate
2.	WTC Dawra	-	-	-	-	-	-	-	"
3.	WTC Katsina	19	-	-	-	-	-	-	"
4.	GDSS Katsina	4	-	-	-	-	-	-	"
5.	GDSS D/Ma	6	-	-	-	-	-	-	"
6.	GGSS Kankia	30	-	-	-	-	-	-	"
7.	GDSS Saraka	5	-	-	-	-	-	-	"
8.	GDSS Ikara	3	-	-	-	-	-	-	"
9.	WTC Kabomo	30	-	-	-	-	-	-	"
10.	GGSS M/Fashi	70	-	-	-	-	-	-	"
11.	WTC Zaria	10	-	-	-	-	-	-	"
12.	GGSS K/Gaya	6	-	-	-	-	-	-	"
13.	WTC Kaduna	12	-	-	-	-	-	-	"
14.	GGSS Kawo	24	-	-	-	-	-	-	"
15.	WTC Zonkwa	6	-	-	-	-	-	-	"
16.	GGSS Zonkwa	10	-	-	-	-	-	-	"
	TOTAL	235	-	-	-	-	-	-	"

APPENDIX 24

DISTRIBUTION OF MACHINE NEEDLES BY SCHOOL

(SEE APPENDIX V)

S/No.	School	NEEDLE SIZE 11	NEEDLE SIZE 14	ADEQUATE/ INADEQUATE
1.	GDSS Daura	-	-	"
2.	WTC Daura	-	-	"
3.	WTC Katsina	6	4	"
4.	GDSS Katsina	4	-	"
5.	GDSS D/Ma	1	1	"
6.	GGSS Kankia	6	2	"
7.	GDSS S/Naka	2	-	"
8.	GDSS Ikara	-	-	"
9.	WTC Kabomo	6	2	"
10.	GGSS M/Fashi	12	6	"
11.	WTC Zaria	2	2	"
12.	GDSS K/Gaya	2	2	"
13.	WTC Kaduna	6	2	"
14.	GGSS Kawo	4	2	"
15.	WTC Zonkwa	6	4	"
16.	GGSS Zonkwa	6	-	"
	TOTAL	63	27	

APPENDIX 25

DISTRIBUTION OF PRESSING EQUIPMENT AVAILABLE BY SCHOOL

Name of School	Iron	Ironing	Sleave board	Point presser	Pressing cloth	Ironing table	Blanket	Ironing sheet	Cloth-hanger	Ironing brush	Water sticter	Needle board
GDSS S/Naka	2	1	-	-	-	1	1	1	-	-	-	-
GDSS Ikawa	2	-	-	-	-	1	1	1	-	-	-	-
WTC Katsina	1	4	-	-	-	2	2	2	1	-	-	-
GDSS Katsina	1	-	-	-	-	1	1	2	-	-	-	-
GDSS I/Ma	4	-	-	-	-	2	2	2	-	-	-	-
GGSS Kankia	15	6	-	-	-	6	2	6	-	-	-	-
WTC Zonkwa	12	4	-	-	-	2	2	2	-	-	-	-
GGSS Zonkwa	8	5	2	-	-	-	-	-	-	2	-	-
WTC Zaria	14	6	-	-	-	1	6	-	-	-	-	-
GDSS K/Gaya	1	-	-	-	-	3	3	3	-	-	-	-
WTC Kaduna	5	2	-	-	-	2	2	1	-	-	-	-
GGSS Kawo	12	6	12	-	-	20	12	1	2	-	-	-
GDSS Bauchi	3	3	-	-	-	2	2	1	-	-	-	-
WTC Laura	-	-	-	-	-	-	-	-	-	-	-	-
GGSS M/Fashi	25	9	-	-	2	8	8	3	-	-	-	-
WPC Kabomo	4	-	-	-	-	-	-	-	-	-	-	-
TOTAL	118	46	14	-	2	51	44	34	12	2	-	-

TOTAL 323

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APPENDIX 26

DISTRIBUTION OF MISCELLANEOUS SEWING AIDS BY SCHOOL

Name of School	Seam Ripper	Thimble	Sewing Box	Bodkin	Magnet	Stillets	Croche Hook	Knitting Pins	Scotch magic Trans-parent	Adequate/Inadequate
GDSS Daura	-	-	-	-	-	-	-	-	-	"
WTC Daura	-	-	-	-	-	-	-	-	-	"
WTC Katsina	-	15	-	-	-	-	20	15	-	"
GDSS Katsina	-	10	-	-	-	-	6	4	-	"
GDSS D/Ma	-	10	-	-	-	-	-	-	-	"
GGSS Kankia	-	20	-	-	-	-	-	10	-	"
GDSS S/Maka	-	-	-	-	-	-	6	10	-	"
GDS~ Ikara	-	-	-	-	-	-	5	6	-	"
WTC Kabomo	-	48	-	-	-	-	-	19	-	"
GGSS M/Sabi	-	30	-	-	-	-	20	100	-	"
WTC Zaria	-	10	-	-	-	-	-	-	-	"
GDSS K/Gaya	-	4	-	-	-	-	10	15	-	"
WTC Kaduna	-	15	-	-	-	-	6	-	-	"
GGSS Kaw•	-	24	-	-	-	-	-	48	-	"
WTC Zonkwa	-	12	-	-	-	-	24	48	-	"
GGSS Zonkwa	-	-	-	-	-	-	12	18	-	"
TOTAL	-	198	-	-	-	-	1[illegible]	293	-	"

APPENDIX 27

DISTRIBUTION OF FASTENINGS BY SCHOOL IN THE VARIOUS SCHOOLS

Name of School	Hook and eyes	Press studs	Zips	Buttons	Velco	Tape	Adequate Inadequate
GDSS Daura	–	–	–	–	–	–	Inadequate
WTC Daura	–	–	–	–	–	–	"
WTC Katsina	–	–	2	10	–	–	"
GDSS Katsina	–	–	–	3	–	–	"
GDSS D/Ma	–	–	–	–	–	–	"
GGSS Kankia	–	–	4	10	–	2	"
GDSS S/Naka	–	–	–	–	–	2	"
GDSS Ikara	–	–	–	–	–	–	"
WTC Kabomo	17	24	8	8	–	–	"
GGSS M/Fashi	20	30	4	10	–	–	"
WTC Zaria	–	–	–	–	–	–	"
GDSS K/Gaya	–	–	–	–	–	–	"
WTC Kaduna	–	–	–	–	–	–	"
GGSS Kawo	–	–	–	–	–	20	"
WTC Zonkwa	15	10	2	–	–	2	"
GGSS Zonkwa	5	3	1	–	–	–	"
					–		
TOTAL	57	67	21	46	–	26	

APPENDIX 28

DISTRIBUTION OF TRIMMINGS AVAILABLE BY SCHOOL IN THE VARIOUS SCHOOLS

Name of School	Lace	Ribon	Braid	Rib-Rac	Elastic	Embroidered Motit	Adequate Inadequate
GDSS Daura	-	-	-	-	-	-	
WTC Daura	-	-	-	-	-	-	
WTC Katsina	-	-	-	-	-	-	
GDSS Katsina	-	-	-	-	-	-	
GDSS D/Ma	-	-	-	-	-	-	
GGSS Kankia	-	-	-	-	-	-	
GDSS S/Naka	-	-	-	-	-	-	
GDSS Ikara	-	-	-	-	-	-	
WTC Kabomo	-	-	-	-	-	-	
GGSS M/Fashi	-	-	-	-	-	-	
WTC Zaria	-	-	-	-	-	-	
GDSS K/Gaya	-	-	-	-	-	-	
WGC Kaduna	-	-	-	-	-	-	
GGSS Kawo	-	-	-	-	-	-	
WTC Zonkwa	-	-	-	-	-	-	
GGSS Zonkwa	-	-	-	-	-	-	
	-	-	-	-	-	-	

APPENDIX 29

DISTRIBUTION OF SCISSORS BY SCHOOL

S/No	Name of School	Cutting scissors	Trimming scissors	Pinking shear	Embroidery scissors	Button hole scissors	Paper scissors	Adequate/Inadequate
1.	GDSS Daura	-	-	-	-	-	-	"
2.	WTC Daura	-	-	-	-	-	-	"
3.	WTC Katsina	-	-	-	-	-	-	"
4.	GDSS Katsina	-	-	-	-	-	-	"
5.	GDSS D/Ma	-	-	-	-	-	-	"
6.	GDSS S/Naka	-	-	-	-	-	-	"
7.	GGSS Kankia	-	-	-	-	-		"
8.	GDSS Ikara	-	-	-	-	-	-	"
9.	WTC Kaboma	-	-	-	-	-	-	"
10.	GGSS M/Pashi	-	-	-	-	-	-	"
11.	WTC Zaria	-	-	-	-	-	-	"
12.	GDSS K/Gaya	-	-	-	-	-	-	"
13.	WTC Kaduna	-	-	-	-	-	-	"
14.	GGSS Kawo	-	-	-	-	-	-	"
15.	WTX Zonkwa	-	-	-	-	-	-	"
16.	GGSS Zonkwa	-	-	-	-	-	-	"

APPENDIX 32

DISTRIBUTION OF TEXTILES EQUIPMENT AVAILABLE BY SCHOOL

Name of	Micro-scope	Slides	Chemi-cal	Baps deler tox	Dyes	Geom ter wear	Buro-lers	Paints	Overall	Yarns	Fibres
GDSS S/Naka		-	-	-	-	-	-	-	-	-	-
GDSS Ikara		-	-	-	-	-	-	-	-	-	-
WTC Katsina		-	-	-	-	-	-	-	-	-	-
GDSS Katsina		-	-	-	-	-	-	-	-	-	-
GDSS D/Ma	-	-	-	-	-	-	-	-	-	-	-
GGSS Funtua	-	-	-	-	-	-	-	-	-	-	-
WTC Zonkwa	-	-	-	-	-	-	-	-	-	-	-
GGSS Zonkwa	-	-	-	-	0	-	-	-	-	-	-
WTC Zaria	-	-	-	-	-	-	-	-	-	-	-
GTSS K/Geya	-	-	-	-	-	-	-	-	-	-	-
WTC Kaduna	-	-	-	-	-	-	-	-	-	-	-
GGSS Kaduna	-	-	-	-	-	-	-	-	-	-	-
GSS Daura	-	-	-	-	-	-	-	-	-	-	-
WTC Daura			-	-	-	-	-	-	-	-	-
GGSS M/Fashi	-	-	-	-	-	-	-	-	-	-	-
WTC Kabomo	-	-	-	-	-	-	-	-	-	-	-

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APPENDIX 31

DISTRIBUTION OF SOURCES OF THE PROVISIONS OF CLOTHING AND TEXTILES EQUIPMENT IN THE VARIOUS SCHOOLS STUDIED IN KADUNA STATE

Equipment	State Min. of Educ.	Federal Min. of Educ.	Parents/ Guardians
Sewing machines			
Work Tables			
Full length			
Mirrow			
Ironing boards			
Cupboards			
Chest of drawers			
Dummy			
Tables			
Tailors chalk			
Stiletto			
Tracing wheel			
Carbon paper			
Button-hole			
Scissors			
Embroidery Scissors			
Pinking sheers			
Skirt marker			
Yard ruler			
Tweenzers			
Seam ripper			
Magnet			
Iron			
Needles			
Wool			
Thimbles			
Bincushions			
Tape measure			
Work apron			
Knitting pins			
Cocket			
Fabrics			

APPENDIX 32

DISTRIBUTION OF STORAGE SPACE FOR CLOTHING AND TEXTILES EQUIPMENT ARE STORED.

Possible Places	Number of Schools
Principal's office	-
Teachers house	-
Students carry their work home in bags	5
In the school main store	-
In clothing laboratory store	11
In another classroom	
Total	16

31% Students carry work in bags

69 in clothing lab.

APPENDIX 33

DISTRIBUTION OF FREQUENCY OF SEWING MACHINES ARE SERVICE IN POST PRIMARY INSTITUTIONS

	Time	No of Schools
1	Quarterly	(1) 6.2%
2.	Twice a year	
3.	Once a year	(10) 65.5
4.	Never serviced	(5) 31.3%
5.	Once a year	
		(16) 100%

APPENDIX 34

OVERALL DISTRIBUTION OF WHO REPLACES LOST CLOTHING TOOLS AND EQUIPMENT

S/No	School	College	Students	Parents
1.	GDSS Daura		"	"
2.	WTC Daura		"	"
3.	WTC Katsina		-	"
4.	GDSS Katsina		"	-
5.	GDSS D/Ma		-	-
6.	GGSS Kankia		-	"
7.	GDSS S/Naka		-	"
8.	GDSS Ikara		"	-
9.	WTC Kaboma		-	"
10.	GGSS M/Fashi		"	-
11.	WTC Zaria		-	"
12.	GDSS K/Gaya		"	-
13.	WTC Kaduna		"	-
14.	GGSS Kawo		"	-
15.	WTC Zonkwa		"	-
16.	GGSS Zonkwa		"	-
			9	7

APPENDIX 35

OVERALL DISTRIBUTION OF SCHOOLS WITH/WITHOUT CLOTHING AND TEXTILES TEACHING AIDS IN POST PRIMARY INSTITUTIONS

S/No	School	Yes	No
1.	GDSS Daura	-	No
2.	WTC Daura	-	No
3.	WTC Katsina	Yes	-
4.	GDSS Katsina	Yes	-
5.	GDSS D/Ma	Yes	-
6.	GGSS Kankia	Yes	-
7.	GDSS S/Naka		No
8.	GDSS Ikara	Yes	-
9.	WTC Kabomo	Yes	-
10.	GGSS M/Fashi	Yes	-
11.	WTC Zaria	Yes	-
12.	GDSS K/Gaya	Yes	-
13.	WTC Kaduna	Yes	
14.	GGSS Kawo		No
15.	WTC Zonkwa	Yes	-
16.	GGSS Zonkwa	Yes	-
		12	4
		75%	25%

APPENDIX 36

DISTRIBUTION OF SOURCES OF CLOTHING AND TEXTILES TEACHING AIDS

Possible Bodies	No of Schools	
- Various companies/Parastatals Firms	-	
- The Art Department	-	
- Prepared by Teachers	(15)	(93.8%)
- Prepared by Students	(1)	(6.2%)
	16	100%

APPENDIX 37

OVERALL DISTRIBUTION OF SCHOOLS WITH/WITHOUT COMFORTABLE SEATS IN THEIR CLOTHING AND TEXTILES LABORATORIES

S/No	School	Yes	No
1.	GDSS Daura	Yes	-
2.	WTC Daura	-	No
3.	WTC Katsina	Yes	-
4.	GDSS Katsina	Yes	-
5.	GDSS D/Ma	-	No
6.	GDSS Kankia	Yes	-
7.	GDSS S/Naka	-	No
8.	GDSS Ikara	Yes	-
9.	WTC Kabomo	Yes	-
10.	GGSS M/Fashi	Yes	-
11.	WTC Zaria	Yes	-
12.	GDSS K/Gaya	Yes	-
13.	WTC Kaduna	Yes	-
14.	GGSS Kawo	Yes	-
15.	WTC Zonkwa	Yes	-
16.	GGSS Zonkwa		No
		12	4
		75%	25%

APPENDIX 38

Department of Vocational & Tech. Education,
Faculty of Education
Ahmadu Bello University,
Samaru, Zaria.

Dear Colleague,

QUESTIONNAIRE FOR TEACHERS OF CLOTHING AND TEXTILES

I am a Home Economics teacher by profession, and have taught the subject at Secondary School and NCE levels for several years. I am currently pursuing postgraduate studies in Education at Ahmadu Bello University, Zaria. I am evaluating clothing and textiles equipment in Kaduna State Post Primary Institutions.

The main aims of carrying out the research are firstly, to find out the clothing and textiles equipment used in post-primary institutions in the State. Secondly, to find out other facilities used in the post primary institutions for the teaching of this subject. Thirdly, to assess the adequacy of these equipment used; fourthly to find out sources of equipping the clothing and textiles laboratories and lastly(but not least) to suggest added equipment.

Recommendations will be given at the end of this research, which will help the educational planners and Ministry Education officials to have a true picture of what the situation is like in the schools regarding the clothing and textiles equipment in our post-primary schools. As such they will be in a better position to take necessary

measures to improve the teaching of clothing and textiles. Your ideas and suggestions will be of great help in making the results of this worthwhile. Co-operate with me fully on this.

Many thanks in anticipation of your co-operation.

Yours follow teacher,

Patricia Danmaida(Mrs)

APPENDIX 39

QUESTIONNAIRE FOR TEACHERS OF CLOTHING AND TEXTILES

A. Personal Information/Academic Background

1. Name of School _____

2. Sex: Male _____ Female _____

3. Length of teaching experience:-

1 yr ☐

2 yrs ☐

3 yrs ☐

4 yrs ☐

4. Did you study clothing and textiles during your training?

Yes ☐ No ☐

5. Tick in the appropriate box the level(s) at which you studied clothing and textiles:-

(a) Nigerian Certificate in Education ☐

(b) Diploma in Home Economics ☐

(c) B.A. in Home Economics ☐

(d) B.Ed in Home Economics ☐

(e) M.Ed in Home Economics in Clothing and Textiles ☐

6. Do you teach clothing as a subject?

Yes ☐ No ☐

7. Do you like teaching clothing and textiles?

Yes ☐ No ☐

8. If your answer to question(6) is Yes; why do you like teaching clothing and textiles?

(a) Because it costs less to make one's own clothes ☐

(b) Because its very creative ☐

(c) Because it's an interesting subject to teach ☐

(d) All of the above ☐

10. If your answer to question(8) is 'No', why do you dislike teaching clothing and textiles?

(a) Because it is a difficult subject ☐

(b) Because it is time and energy consuming ☐

(c) Because there are no equipment for teaching the subject ☐

(d) Because the students are not interested ☐

(e) Because of poor background in clothing and textiles ☐

(f) Because it is frustrating ☐

(g) Because there is no constant supply of materials ☐

(h) Specify others: _____

_____

B. LABORATORY

11. Do you have a laboratory for the teaching of clothing and textiles in the school?

Yes ☐ No ☐

12. If your anwer to question(11) is 'Yes', does this laboratory have enough working space for each student?

Yes ☐ No ☐

13. If your answer to question(11) is 'No', where do you conduct clothing and textiles practicals?

(a) In the classroom ☐

(b) Under the tree ☐

(c) In the Fine Art Laboratory ☐

(d) Specify _____

_____

14. What is the number of students in the school offering clothing and textiles?

5 ☐ 30 ☐
10 ☐ 40 ☐
20 ☐
Specify the number if more than the above.

15. Does your clothing laboratory have a fitting room?

Yes ☐ No ☐

16. Is there a long dressing mirrow in the laboratory?

Yes ☐ No ☐

17. Does the clothing and textiles laboratory have (a) storage space for(keeping) all the clothing equipment and student work?

Yes ☐ No ☐

18. Do you have good lighting in this laboratory?

Yes ☐ No ☐

C. EQUIPMENT

19. Sewing Machines.

S/No	Equipment	Available		Number	Adequate	Inadequate
		Yes	No			
(a)	Automatic machine					
(b)	Electric machine					
(c)	Treadle machine					
(d)	Hand					

20. MEASURING EQUIPMENT

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Dress makers guide					
(b)	Hem Guage					
(c)	T. Square					
(d)	L. Square					
(e)	Yard stick					
(f)	Meter stick					
(g)	Tape Measure					
(h)	Hem maker					
(i)	Skirt maker					
(j)	Ruler					
(k)	See through ruler					
(l)	Six inch ruler					

21. Tools for Marking Fabric

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Tracing wheel					
(b)	Carbon paper					
(c)	Tailors chalks					
(d)	Dress maker pencil					
(e)	Paper patterns					

22. Pins and Pincushions

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Dressmakers pins					
(b)	Bell point pins					
(c)	Silk pins					
(d)	Pin cushion					
(e)	Emery bags					

23. Sewing Threads

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Silk threads					
(b)	Nylon threads					
(c)	cotton threads					
(d)	Embroidery threads					
(e)	Wool					
(f)	Polyester threads					

24. Needles for Hand Sewing

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Sharps					
(b)	Crewel					
(c)	Between					
(d)	Beading					
(e)	Darning					
(f)	Upholstery					
(g)	Tapestry					

25. Machine Needles

Equipment	Available Yes	Available No	Number	Adequate	Inadequate
General purpose Needle – Size 14 Size 11					

26. Pressing Equipment

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Iron					
(b)	Ironing board					
(c)	Sleeve board					
(d)	Point Presser					
(e)	Tailors Hem					
(f)	Pressing cloth					
(g)	Ironing table					
(h)	Blanket					
(i)	Ironing sheets					
(j)	Clothes hanger					
(k)	Ironing brush					
(l)	Water sprinkler					
(m)	Needle board					
	(for velvet)					

27. Miscellaneous Sewing Aids

S/No	Equipment	Available		Number	Adequate	Inadequate
		Yes	No			
(a)	Seam ripper					
(b)	Thimble					
(c)	Sewing boxes					
(d)	Scotch magic transparent tape					
(e)	Bodkin					
(f)	Magnet					
(g)	Stillets					
(h)	Crochet hooks					
(i)	Knitting pins					

28. Tick the crafts that are being done in the school:-

(a) Embroidery ☐
(b) Crochet ☐
(c) Knitting ☐
(d) Macraine ☐
(e) Any other ☐

29. Fastenings

S/No	Equipment	Available		Number	Adequate	Inadequate
		Yes	No			
(a)	Hooks and eyes					
(b)	Press studs					
(c)	Zips					
(d)	Buttons					
(e)	Velcro					
(f)	Tape					

30. Trimmings

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Lace					
(b)	Ribbon					
(c)	Braid					
(d)	Rick-rack					
(e)	Elastic					
(f)	Embroidered Motifs					

31. Scissors

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Cutting scissors					
(b)	Trimming scissors					
(c)	Pinking shears					
(d)	Embroidery scissors					
(e)	Button-hole scissors					
(f)	Paper scissors					

32. Textiles Equipment

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Microscopes					
(b)	Slides					
(c)	Chemicals					
(d)	Soaps(Deter-gents)					
(e)	Dyes					
(f)	Loom for weaving					
(g)	Burners					
(h)	Paints					
(i)	Overall					
(j)	Yarns					
(k)	Fibres					

33. Books

What text books do you have for the teaching of clothing and textiles? Please tick the ones you have.

(a) Clothing and Textiles(Pupils & Teachers Text) by CESAC(1980) ☐

(b) Dress making simplified by Valerie 1 Cock ☐

(c) Senior & Junior Needle Craft by D.M. Hart ☐

(d) Modern Dressmaking By G. Walts ☐

List the books being used other than the above

(e) _____

(f) _____

34. Who is responsible for buying the text books?

(a) State Ministry of Education ☐

(b) Federal Ministry of Education ☐

(c) Students, Parents/Guardians ☐

(d) UNICEF ☐

(e) Any other, specify: _____

_____

Equipment	State Ministry of Education	Federal Ministry of Education	Parents/ Guardians
Sewing machines			
Needles			
Threads			
Irons			
Wool			
Work table			
Full length mirrow			
Ironing boards			
Cupboards			
Chest of drawers			
Dummy			

Equipment	State Ministry of Education	Federal Ministry of Education	Parents/ Guardians
Thimbles			
Pincushion			
Tape measure			
Tables			
Tailors chalks			
Stiletto			
Tracing wheel			
Carbon paper			
Button-hole Scissors			
Embroidery Scissors			
Pinking shears			
Yard ruler			
Skirt marker			
Work apron			
Knitting pins			
Crocket			
Fabrics			
Tweezers			
Seam ripper			
Magnet			
Any additional item not stated			

36. Where are clothing and textiles equipment stored?

(a) Principal's office ☐

(b) Teacher's house ☐

(c) Students carry their work home in bags ☐

(d) In the school's Main Store ☐

(e) In another classroom ☐

(f) In the clothing laboratory ☐

37. Do you have a dressmakers dummy? Yes ☐

No ☐

38. Do you have big cupboards and drawers for students' work?

Yes ☐

No ☐

39. Maintenance

How often are sewing machines serviced?

(a) Quarterly ☐

(b) Twice a year ☐

(c) Once a year ☐

(d) Never serviced ☐

(e) Any other time(Specify) _____

40. Who does the major repairs of Equipment?

(a) Equipment are sent to Singer Company for repairs ☐

(b) Equipment are sent to the Estate Department ☐

(c) Students replace them ☐

(d) State Ministry of Education ☐

(e) The teacher ☐

41. What happens to equipment that cannot be repaired?

_____

_____

42. Who replaces lost clothing tools and equipment?

(a) Students ☐

(b) College ☐

(c) Parents ☐

43. Teaching Aids

Do you make use of teaching aids? Yes ☐

No ☐

44. What are the major sources of obtaining clothing and textiles for teaching aids?

(a) Various Companies/Parastatals/Firms ☐

(b) The Art Department ☐

(c) Prepared by teachers ☐

(d) Prepared by students ☐

45. Height of Equipment

Are the students comfortable on their seats during clothing practical lessons?

Yes ☐ No ☐

46. What is the height of tables and desks used for cutting and sewing?

	Heights		
Tables	2'	2½'	3'
Tables	☐	☐	☐
Desks	☐	☐	☐
Sewing machines	☐	☐	☐
Cutting tables	☐	☐	☐

APPENDIX 40

OBSERVATION SCHEDULE

PART A

Tick the materials available in the schools by ticking the items you have as shown:-

School: _____

EQUIPMENT:

Sewing Machines

S/No	Equipment	Available		Number	Adequate	Inadequate
		Yes	No			
(a)	Automatic Machine					
(b)	Electric machine					
(c)	Treadle machine					
(d)	Hand					

2. Measuring Equipment

S/No	Equipment	Available		Number	Adequate	Inadequate
		Yes	No			
(a)	Dress makers guide					
(b)	Hem Guage					
(c)	T.Square					
(d)	L.Square					
(e)	Yard stick					
(f)	Tape measure					
(g)	Hem maker					
(h)	Skirt maker					
(i)	Ruler					
(j)	Transparent ruler					

3. Tools for marking Fabric

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Tracing wheel					
(b)	Carbon paper					
(c)	Tailore chalks					
(d)	Dress-makers pencil					
(e)	Paper patterns					

4. Pins and Pincushions

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Dress makers pins					
(b)	Ball point pins					
(c)	Silk pins					
(d)	Pin cushion					
(e)	Emery bags					

5. Sewing Threads

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Sewing threads					
(b)	Silk threads					
(c)	Nylon threads					

6. Needles for Hand Sewing

S/No	Equipment	Available		Number	Adequate	Inadequate
		Yes	No			
(a)	Sharps					
(b)	Crewel					
(c)	Between					
(d)	Beading					
(e)	Damming					
(f)	Upholstery					
(g)	Tapestry					

7. Machine Needles

Equipment	Available		Number	Adequate	Inadequate
	Yes	No			
General purpose needle size 14 size 11					

8. Pressing Equipment:

S/No	Equipment	Available		Number	Adequate	Inadequate
		Yes	No			
(a)	Iron					
(b)	Ironing bo board					
(c)	Sleeve board					
(d)	Point presser					
(e)	Tailors hem					
(f)	Pressing cloth					
(g)	Ironing table					
(h)	Blanket					
(i)	Ironing sheet					
(j)	Clothes hanger					

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(k)	Ironing brush					
(l)	Water sprinkler					
(m)	Needle board					

9. Miscellaneous Sewing Aids

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Seam ripper					
(b)	Thimble					
(c)	Sewing boxes					
(d)	Scotch magic transparent tape					
(e)	Bodkin					
(f)	Magnet					
(g)	Stillets					
(h)	Crochet hooks					
(i)	Knitting pins					

10. Tick the crafts that are being done in the school:-

(a) Embroidery ☐

(b) Crochet ☐

(c) Knitting ☐

(d) Macraine ☐

(e) Any other ☐

11. Fastenings:

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Hooks and eyes					
(b)	Press studs					
(c)	Zips					
(d)	Buttons					
(e)	Velcro					
(f)	Tape					

12. Trimmings:

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate

13. Scissors:

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Cutting scissors					
(b)	Trimming scissors					
(c)	Pinking shears					
(d)	Embroidery scissors					

14. Textiles Equipment

S/No	Equipment	Available Yes	Available No	Number	Adequate	Inadequate
(a)	Microscopes					
(b)	Slides					
(c)	Chemicals					
(d)	Soaps(Detergents)					
(e)	Dyes					
(f)	Loom for weaving					
(g)	Burners					
(h)	Paints					
(i)	Overall					
(j)	Yarns					
(k)	Fibres					

15. Books:

What text books do you have for the teaching of clothing and textiles?

Please tick the ones you have.

(a) Clothing and Textiles(Pupils & Teachers Text) by CESAC(1980) ☐

(b) Dress making simplified by Valerie I Cook ☐

(c) Senior & Junior Needle Craft by D.M. Hart ☐

(d) Senior Modern dressmaking by G. Walts ☐

List the books being used other than the above

16. Who is responsible for buying the text books?

(a) State Ministry of Education ☐

(b) Federal Ministry of Education ☐

(c) Student, Parents/Guardians ☐

(d) UNICEF ☐

(e) Any other(Specify) _____

_____

17. Who is responsible for providing funds or the purchase of clothing equipment?

(a) The State Ministry of Education ☐

(b) The Federal Ministry of Education ☐

(c) The Parents

(d) Any other(Specify): _____

_____

PART B

(1) Does the teacher mention the name of the equipment Yes ☐ No ☐

(2) Does she show the equipment to the students?
Yes ☐ No ☐

(3) Does she allow students to manipulate or touch the equipment? Yes ☐ No ☐

(4) Does she know how to operate it
Yes ☐ No ☐

(5) Does she make constant reference to its correct use during teaching? Yes ☐
No ☐

(6) Do students show evidence of mastery Yes ☐
No ☐