

Availability and Utilization of Tools and Equipment for Teaching and Learning Garment Making Trade in the Senior Secondary Schools in Edo State

Dr. (Mrs.) Bridget E. Uwameiye

Department of Vocational and Technical Education
Ambrose Alli University, Ekpoma Edo State, Nigeria
ineose05@yahoo.com

Abstract: *This paper examines the level of availability and utilization of tools and equipment for teaching and learning garment making trade in the senior secondary schools in Edo State, Nigeria. The research was a descriptive survey. A total of 72 teachers and 345 students were utilized for this study. A structured questionnaire titled Availability and Utilization of tools and Equipment for Teaching and learning garment trade (AUTETLGT) was used to obtain data from teacher and student. The data collected were analysed using simple percentage, mean t-test. Based on the analysis, these were the findings: The tools and materials available in the teaching and learning of garment making in the senior secondary schools in Edo State are grossly inadequate; there is no significance difference in the mean ratings on the rate of utilization of tools and equipment in the teaching and learning of garment making in senior secondary schools in Edo State and there is no significance difference in the mean ratings of teachers and students of garment making on the strategies to adopt in supplying the tools and equipment into schools. Based on these findings, this study therefore recommends among others that: Government should equip secondary schools with modern equipment and tools as recommended for teaching and learning garment making by NDERC (2007).*

Keywords: *Tools, Equipment, Garment making, Availability & Utilization.*

Many factors affect the teaching and learning of practical subjects. One of such factors is the availability and utilization of tools and equipment. Tools and equipment for teaching are the educational resources that are available in schools that can be used to achieve educational goals and objective (Adeogun, 1999). These include workshops, equipment and tools. These tools and equipments influence the academic performance of students and prepare them for useful living.

It is a known fact that the need for useful living is one of the emphasis of the 6-3-3-4 system of education, in Nigeria (FRN) (2004), this led to including vocational subjects in the secondary school curriculum as a means of achieving it. The implication of this is that the secondary school educators must in addition to general knowledge, orient the student in the study of technologies and the acquisition of practical skills, technical knowhow, attitudes and understanding relating to occupations in the various sectors of economic and social life so that the product can live and contribute to the development of the society. Vocational subjects happen to provide such skills, it provides skills and competences that will make its recipients employable in industries, self employed and employers of labour and garment making is one of such subjects.

Garment making is one of the vocational trades subjects in the newly approved Senior Secondary School (SSS) curriculum structure in Nigeria. It is an aspect of Home Economics specifically Clothing and Textiles. As a skill oriented subject, garment making possesses the potential of equipping the learners with manipulative skills which enable student to be self employed thus reducing the problem of employment in the country.

As good as this policy may seem, graduates from secondary schools still seek for jobs rather than creating jobs, as it is well known fact that it is only vocational subjects that can provide its recipients with practical skill and the success of any curriculum can only be determined by the product of the system, which implies that manipulative skills are the only means to justify that meaningful learning has taken place in Vocational education.

Garment making is a skill oriented subject and skills can only be learnt when judicious teachers make use of equipment and tools for training the students. Each tools such sewing machine, measuring

tapes, long rulers, T. square, arm hole curves and large tables to mention but a few are expected to be utilized for the teaching and learning of garment making. The importance of these equipment cannot be overemphasized that was why tools and materials help the teachers to teach more effectively or acquire better skills that enable the students to learn more readily. Onyeyemezi (1985) posits that teaching aids are those material devices, and techniques that helps the teachers to make his/her job realistic. While Orebanjo (1999) explained that well trained, qualified and devoted teachers use aids to help students in various aspects of learning.

Thus the availability and utilization of tools and equipment deserve serious attention for effective teaching and learning of garment making. Ozoagulu (1998) in Eze (2005) posited that to give training that will have impact on students, require an effective utilization of tools and equipment. Nigerian Educational Research and Development Council (NERDC) (2007) stated that the successful implementation of dress making in Senior Secondary schools demands that the following must be provided in secondary schools. Well trained teachers, well equip laboratory. These basic requirement must be provided to be able to produce school leavers with garment making skills.

The objectives of teaching garment making as trade at SSS level include to:

1. develop manipulation skills that will enable the student to function effectively in the society.
2. develop creativity and aesthetic values, attitude and skills
3. develop interest in the world of work
4. appreciate the dignity of labour
5. develop interest and passion in garment making/designing that will lead to start-up of self employment ventures in garment making business upon graduation thus becoming self-reliant, and
6. Appreciate the important role of entrepreneurship/ small businesses in the economic development of the individual family and the nation at large.

In order to achieve these objectives the secondary schools are expected to have the required tools and equipment that will help learners to acquire the necessary skills. It is against this background that this study was necessitated to determine the availability and utilization of tools and equipment for teaching and learning garment making trade in Senior Secondary Schools in Edo State.

1. PURPOSE OF THE STUDY

The main purpose of this study was to find out the level of availability and utilization of equipment and tools for the effective teaching and learning of garment making in senior secondary schools in Edo State. Specifically this study sought to find out:

1. The level of availability of equipment and tools in Edo state secondary schools for the teaching and learning of garment making
2. The rate of the use of available equipment for the teaching and learning of garment making in senior secondary schools in Edo state.
3. Strategies for minimizing the challenges encountered by teachers and students in utilizing facilities for effective teaching and learning of garment making in secondary schools in Edo State.

2. RESEARCH QUESTIONS

The study sought to answers to the following questions

1. What is the level of availability of equipment and tools in the teaching and learning of garment making trade in Edo State secondary schools?
2. What is the rate the use of available equipment for the teaching and learning of garment making trade in senior secondary schools in Edo State.
3. What are the suggested strategies for improving the rate at which government supply tools and equipment to schools for effective teaching of Garment making trade in senior secondary schools in Edo State.

3. METHODOLOGY

The research design adopted for this study was a descriptive survey.

The population consisted of all Home Economics Teachers in the senior secondary schools in Edo State. Home Economics teachers were selected from the 54 senior secondary schools in the state. 2 senior secondary schools were randomly selected from each of the 18 local government areas of Edo State. From each school 2 yielding a total of 36 senior secondary school home economics teachers teaching senior secondary schools were used as respondents yielding a total of 72 teachers while a total of 345 students were selected through the stratified random sampling technique from a population of 7,642 students in the selected senior secondary schools in Edo State used for the study.

The instrument utilized for data collection was developed by the researcher titled Availability and Utilization of Tools and Equipment for Teaching and Learning Garment Trade (AUTETLGT) which was utilized for the study. It was divided into four sections.

Section A – B is data of the respondents

Section B & C – Information on the availability of tools and equipment required for teaching garment making as listed by NEDRC (2007): Section D dealt on 20 items on suggested strategies for minimizing the challenges encountered by teachers and students in utilizing equipment and tools used for teaching and learning dressmaking. The respondents responded to these items using a four point likert scale. 4 – Always used – 3 Occasionally used 2 – Undecided – 1 never used.

The instrument was face validated by three experts from the department of Vocational and Technical Education, Ambrose Alli University, Ekpoma. Their suggestions and corrections were utilized in the final draft used for this study. Split half technique and crombach alpha reliability method were used to determine the reliability of the instrument. A reliability co-efficient 0.71 was obtained. A total of 417 copies of the questionnaire were administered personally on the respondents with the help of 3 research assistants. The entire – questionnaire distributed were retrieved; this gave a 100 percent return rate.

Simple percentage was used in answering research question 1 and 2, a percentage below 500% was regarded as not available while the mean statistic was used in answering research questions 3 and 4. A mean of 2.5 was taken as the cut off point for decision such that a mean that falls below 2.5 was regarded as disagree while a mean response equal to or above 2.5 was regarded as Agree. With respect to the null hypotheses, any calculated t-test value above 1.96 at .05 level of significance ($P > .05$) was regarded as significant

4. RESEARCH QUESTION 1

What is the level of availability of equipment and tools for teaching and learning garment making trade in senior secondary schools in Edo State.

Table I. *What is the level of availability of equipment and tools for teaching and learning garment making trade in Senior Secondary Schools in Edo State*

S/N	Tools and Equipment	Minimum Nox3	Available	Not Available	% Available	% Not Available
	Sewing machine					
1.	(a) Straight machine (b) Zig zag	30 12	3 -	27 -	10 -	90 -
2.	Measuring Tapes	144	144	-	100	-
3.	Long rulers	30	-	30	-	100
4.	T. square	5	-	-	-	-
5.	Armhole/neckline curve	6	-	-	-	-
6.	Large tables	30	5	25	16.6	85
7.	Cutting shears/scissors	30	30	-	100	-
8.	Pinking shears	6	-	-	-	-
9.	Paper scissors	30	6	24	20	80
10.	Needles (hand swing)	18	18	-	100	-
11.	Machine needles	360	18	-	100	-
12.	Wardrobes/cupboards	06	-	-	-	-

13.	Hangers	92	21	51	29	71
14.	Ironing sheets/blankets	12	-	-	-	-
15.	Long mirrors	06	-	-	-	-
16.	Screen	06	-	-	-	-
17.	Ironing boards	12	2	10	17	83
18.	Pressing irons	12	3	9	25	75
19.	Tracing wheel	30	-	-	-	-
20.	Pins	18	6	13	33	67
21.	Pin cushions	30	03	27	10	90
22.	Seam Ripper	06	-	-	-	-
23.	Brooms, Brushes, Dusters	9	9	-	100	-
24.	Dust pans	12	10	2	83	17
25.	Waste Paper Bins	06	3	03	50	50
26.	Tailor chalk	36	30	-	100	-
27.	Brown paper	216	62	154	28	74

Table I indicates that items such as measuring tapes (100%) 4 cutting scissors (100%), paper scissors (80) Needles (hand sewing) 100%, machine needles (90%) brooms brushes and dusters (100%) waste paper bins (50%). While other items were not available in the teaching of garment making since they were unable to attain 50% and above for availability of the equipment in teaching and learning of dressmaking.

Table II. Mean Ratings and t-test of the Responses of Teachers and Students on the rate of Utilization of available tools and equipment

Hypothesis 2: There is no significant difference on the mean responses of Teachers and Students

S/N	Tools and Equipment	Teachers		Students		X _g	t-cal	Remarks	
		X ₁	SD ₁	X ₂	SD ₂			RQ	HO
1.	Sewing machine	3.85	1.09	3.61	1.17	3.73	0.89	Agree	NS
2.	Measuring Tapes	3.13	1.02	3.14	1.00	3.14	-0.05	Agree	NS
3.	Long rulers	3.06	0.85	3.35	1.40	3.33	0.06	Agree	NS
4.	T. square	1.92	0.58	1.87	0.89	1.90	0.88	Disagree	NS
5.	Armhole/neckline curve	1.84	0.98	2.02	1.07	1.93	1.20	Disagree	NS
6.	Large tables	3.68	0.71	3.65	0.72	3.41	0.56	Agree	NS
7.	Cutting shears/scissors	3.66	1.83	3.66	1.42	3.66	1.46	Agree	NS
8.	Pinking shears	1.90	1.20	1.80	0.88	1.88	0.81	Disagree	NS
9.	Paper scissors	1.88	0.83	1.87	0.71	1.88	0.85	Disagree	NS
10.	Needles (hand sewing)	3.13	0.93	3.18	1.06	3.16	0.21	Agree	NS
11.	Machine needles	3.91	0.46	3.86	0.81	3.50	0.76	Agree	NS
12.	Wardrobes/cupboards	2.45	0.38	2.41	0.81	2.42	0.44	Disagree	NS
13.	Hangers	2.56	0.33	2.36	0.88	2.32	0.79	Disagree	NS
14.	Ironing sheets/blankets	1.91	0.46	1.82	0.55	1.84	0.88	Disagree	NS
15.	Long mirrors	1.79	0.59	1.65	0.56	1.72	1.57	Disagree	NS
16.	Screen	1.90	1.21	1.80	0.89	1.85	0.81	Disagree	NS
17.	Ironing boards	1.76	1.21	1.68	1.11	1.58	0.78	Disagree	NS
18.	Pressing irons	3.85	1.09	3.60	1.16	3.63	0.89	Agree	NS
19.	Tracing wheel	1.54	1.77	1.61	1.61	1.58	0.50	Disagree	NS
20.	Pins	3.91	0.44	3.88	0.88	3.41	0.77	Agree	NS
21.	Pin cushions	3.99	1.25	3.72	1.40	3.81	1.22	Agree	NS
22.	Seam Ripper	1.59	0.59	1.64	0.56	1.71	0.57	Disagree	NS
23.	Brooms, Brushes, Dusters	3.91	0.55	3.22	0.87	3.22	0.55	Agree	NS
24.	Dust pans	2.01	1.32	1.84	1.09	1.92	1.47	Disagree	NS
25.	Waste Paper Bins	3.66	0.81	3.25	0.67	3.22	0.88	Agree	NS
26.	Tailor chalk	3.91	0.87	3.22	0.87	3.54	0.89	Agree	NS
27.	Brown paper	3.42	0.88	3.41	0.89	3.41	0.88	Agree	NS

Table II revealed that students and teachers agreed that they utilize the following equipment and tools for teaching and learning: sewing machines (3.85 and 3.61), measuring tapes (3.13 and 3.14), cutting scissors (3.66 and 3.66), Needles (3.13 and 3.18) machine needles (3.91 and 3.86), Pressing irons (3.85 and 3.60), Pins (3.91 and 3.88), Pin cushions (3.91 and 3.22), Broom brushes and dusters (3.91 and 3.22) waste paper bins (3.66 and 3.25), Tailors chalk (3.91 and 3.22) and Brown papers (3.42 and 3.41)

Availability and Utilization of Tools and Equipment for Teaching and Learning Garment Making Trade in the Senior Secondary Schools in Edo State

3.41). Table 2 also revealed that the calculated t-value for all the items are less than the criterion the critical t-test value of 1.96 at 0.05 level of significance. This means that there is no significant difference between responses of the teachers of garment making and students on the rate of utilization of equipment in the teaching and learning of dressmaking.

Table III. Strategies for improving the rate at which government supply tools and equipment to senior secondary schools for effective teaching of garment making.

S/N	Tools and Equipment	Teachers		Students		X_{ij}	t-cal	Remarks
		X_1	SD ₁	X_2	SD ₂			
1.	Edo State ministry of education should design an intervention programme and bring it to the awareness of the general public	3.50	0.54	3.55	0.66	3.42	0.88	Agreed
2.	The teachers of garment making should jointly bring the state of their clothing laboratories to the awareness of the state ministry of education.	3.56	0.59	3.41	0.54	3.51	0.53	Agreed
3.	Parastatals and firms in the states should be made to support education in the provision of tools and equipment in schools	3.50	0.54	3.42	0.52	3.42	1.19	Agreed
4.	Proper maintenance of the available tools and equipment should be ensured by the teachers and students	3.61	0.67	3.53	0.58	3.42	0.53	Agreed
5.	Government of Edo State should supply enough funds for school for adequate provision of tools and equipment and should be properly monitored	3.57	0.61	3.66	0.55	3.45	1.19	Agreed
6.	The inspectorate division of the state ministry of education should visit schools on regular basis and ensure that tools and equipment supplied to schools are well protected	3.65	0.56	3.32	0.58	3.44	0.88	Agreed
7.	Government should ensure that teachers of vocational programmes are sent on regular update courses so as to be aware of modern tools and equipment in the various programmes.	3.56	0.59	3.23	0.92	3.33	0.21	Agreed
8.	Experts in vocational programmes should enlighten the government on the dangers of teaching vocational programmes without tools and equipment	3.58	0.61	3.56	0.54	3.22	0.52	Agreed

Table III shows that the mean responses on suggested strategies for improving the rate at which government supply tools and equipment to senior secondary schools for effective teaching of garment making had above 3.50 for all the items in table 3. This result indicates that the respondents accepted all the items as strategies the government can adopt for the purpose of improving the supply of tools and equipment for effective teaching and learning garment making in senior secondary schools in Edo State.

Table 3 also shows that the t-calculated is less than t-critical in all the items. So the null hypothesis is accepted. It shows that there is no significant difference in the mean responses of teachers and students on strategies government should adopt for improving the supply of tools and equipment to schools for effective teaching and learning of garment making in the senior secondary school.

5. SUMMARY OF FINDINGS

The findings of this study revealed the following:

1. The tools and materials available in the teaching and learning of garment making in the senior secondary schools in Edo State are grossly inadequate.
2. There is no significance difference in the mean ratings on the rate of utilization of tools and equipment in the teaching and learning of garment making in senior secondary schools in Edo State.
3. There is no significance difference in the mean ratings of teachers and students of garment making on the strategies to adopt in supplying the tools and equipment into schools.

6. DISCUSSION OF FINDINGS

The findings of this study revealed that the tools and equipment available are grossly inadequate in the teaching and learning of garment making. This implies that schools need more tools since garment making is a vocational subject that require practical application of topics learnt without these equipment vocational subjects cannot be taught effectively as supported by Olaitan (1999) who posited that skills can only be learnt in vocational subjects when all requisite tools, equipment and materials are available for the teaching and learning process. Corroborating this finding, Fajemirokun (2000) asserted that the educational materials are not completely absent, but that the enrolment of students has outnumbered the capacity of facilities available in most of the schools. He added that additional materials should be provided in the schools so as to commensurate with school enrolment. Essien (2006) alerted that the non-practical oriented in teaching of vocational subjects in schools could have been caused by inadequate of basic educational materials such as equipment and consumable resources.

Ezeugwu (2009) in support of the efficiency of instructional materials to teaching and learning noted that there is no subject area which does not make use of instructional materials. Also Obaya (2001) pointed out that the use of tools and equipment are didactic materials which makes teaching and learning possible and more meaningful. In support of this finding, Agun (2009) referred to instructional materials as learning materials, if properly used will enable learners to learn faster and better. Similarly Ikeriowu (2000) refers to them as object or devices which help the teacher to make lesson real to the learner.

Findings from table II revealed that there is no significant difference between the mean ratings of garment making teachers and students on the rate of utilization of equipment and materials for teaching and learning of garment making in senior secondary schools in Edo State. This implies that the available tools and equipment are used for teaching and learning garment making.

Findings from table III also indicates that there is no significant difference between the mean ratings of garment making teachers and students in their responses on strategies for improving the supply of tools and equipment to senior secondary schools in the effective teaching and learning of garment making in the senior secondary schools. This findings agrees with the view of (Eriayewu, 2005) who asserted that, most educators generally and equally agree that the creative use of variety of instructional material will increase the probability that students would learn more, retain better and bring about skills they are expected to perform. The concept of instructional materials in the effective teaching and learning cannot be over emphasized since it brings about improvement in the teaching and learning process as well as permit teachers and students to interact as human beings in a climate where people control their environment for their own best purpose all these may have led to the unanimous decision making they have to make at this time. Teachers and students are equally affected since they are stake holders in the availability of tools and equipment in schools.

7. CONCLUSION AND RECOMMENDATION

In view of the findings of this study, it could be concluded that the absence of tools and equipment is a factor to the proper implementation of garment making curriculum since lack of tools and equipment could prevent students from showing interest in the subject. The availability of the tools and equipment could hinder utilization because when they are available, utilization is made possible. When tools and materials are properly utilized for teaching can prepare students for productive living. Based on the findings from the study, the following recommendations were made:

Availability and Utilization of Tools and Equipment for Teaching and Learning Garment Making Trade in the Senior Secondary Schools in Edo State

1. Government should equip secondary schools with modern equipment and tools as recommended for teaching and learning garment making by NDERC (2007).
2. Adequate grants should be given to secondary schools to help in the purchase of tools and equipment and consumables in schools.
3. Government should ensure proper monitoring and supervision of the secondary schools to ensure that tools and materials available are adequately utilized and maintained.

REFERENCES

- Adeogun A.A. (1999). Resource Provision and Utilization: A Case Study of Technical Colleges in Lagos State African Journal of Educational Management 7(1), 41 – 48.
- Agun, I. (2009). The place of instructional materials to Curriculum Development. Journal of Education and Development 2(2) 505 – 512.
- Eriayewu A.J. (2005). “Effective of Instructional Materials on Teaching and learning of Economics in secondary schools”. A journal of school of Education. College of Education Ikere-Ekiti, Vol. No. 1 pg 117.
- Eze, I.T. (2005). Analysis and Criticism of Models of Teacher Education. A paper presented at the National Conference on Teacher Education, Kaduna, held at the National Teachers Institute, Kaduna 25th – 29th September.
- Ezengwu 2009. Effect of the use of instructional materials on student Cognitive Achievement on Agricultural Science. A journal of Educational Research Vol 3, Pg 2-5.
- Essiens, E.E. (2006). Evaluation of training infrastructures necessary for the Teaching and learning of Technical courses for secondary schools in Akwa Ibom State. Nigeria Journal of Vocational Teaching (1) (1), 106-112.
- Fajemirokun, C.T.O. (2000). Curriculum Innovation for Sustainable Technical Education in Nigeria: Training and Retraining of Nigeria Technology. Nigerian Association of Teachers of Technology (NATT) Book of Proceeding.
- Federal Republic of Nigeria (2004). National Policy on Education Lagos: NERDC Press.
- Ikeriowu J.C. (2000). Importance of Aids and Resources in Classroom Teaching, in Perspective of Classroom Teaching in Oyeneyin, A.M. (ed). Abuja: Martmonic investment ltd, pg. 50 – 53.
- Nigeria Educational Research and Development Council (2007). Federal Ministry of Education Senior Secondary School Curriculum for Garment Making for SS 1-3 Abuja: NERDC Press.
- Obanya, P.A.I. (2001). Potentialities of Educational materials in Arica, in inter – learning of Educational Innovation, Dakar: UNESCO – BREDA, 55 – 64.
- Olaitan, S.O. (1999). Curriculum Development and Management in Vocational and Technical Education Onitsha: Cape Publishers International Limited.
- Orebanjo M.O. (1999). Effective Management and Utilization of Resources in Nigerian Private Primary Schools Ibadan: Powerhouse Press and Publishers.

AUTHOR’S BIOGRAPHY

Dr. (Mrs.) Bridget E. Uwameiye, is a Senior Lecturer in the Department of Vocational and Technical Education, Ambrose Alli University, Ekpoma Edo State, Nigeria.