



Assessment of clothing and textile instructional methods in teaching senior secondary schools for skill acquisition in Delta State, Nigeria

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Abstract

This study assessed the instructional methods used in teaching Clothing and Textile in teaching secondary schools for skill acquisition in Delta State, Nigeria. The study specifically examined the instructional methods used, the effectiveness of teaching methods employed and adequacy of the Clothing and textiles teachers in the schools in Delta state. A descriptive survey research design was adopted for the study. The population comprised all Clothing and Textile teachers and students in public secondary schools within the study area. Four local government areas comprising; Aniocha South, Ika South, Ethiope East and Ughelli North were selected, and 108 students were purposively selected. A structured questionnaire was used as the main instrument for data collection. Data collected were analyzed using mean and standard deviation, while the hypothesis was tested using t-test at 0.05 level of significance. Findings showed that lecture, demonstration, collaborative and individualized instructional methods are utilized, while inquiry, project, gamified and blended methods are not used. These influence students' understanding, aids acquisition of skills, enhance students' interests, improve level of skill mastery improve level of skill mastery and competency, among others, but lecture method alone limits skill acquisition. There is no enough trained clothing and textiles teachers in the schools, Also Clothing and textiles teachers are not professionally competent, while a teacher handles too many students during practical lessons. Collaborative method significantly differs in teaching clothing and textiles from lecture methods. The study concluded that practical methods are effective teaching of Clothing and textiles for skill mastery and acquisition. Recommendations were made that qualified teacher be engaged in teaching and in -service teacher training be encouraged in secondary schools.

Keywords: Assessment, clothing and textiles, instructional methods, secondary schools, skill acquisition.



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Introduction

The impact of Clothing and textiles in learning can be determined by the assessment of critical factors in instruction and if the objectives have been attained. Assessment involves the process of observing, describing, collecting, recording, scoring and interpreting information on a subject matter. In teaching and learning Clothing and textiles in schools the instructional methods are crucial in

determining student's learning. This can be carried out using objective tests, projects, assignments and written reports to determine the effectiveness or quality of a program or performance and the extent to which the purposes of the program are being achieved. Assessment helps to judge the adequacy of knowledge and skills acquired by students in teaching and learning process.

Clothing and textile (C&T) education is essential in equipping secondary school students with practical skills, creative knowledge, and employability competencies. However, students' performance in this subject has often been attributed not just to learners' abilities but largely to the instructional methods and resources available for effective teaching and learning. Pedagogical approaches that emphasize active participation, practical engagement, and student-centredness have been shown to significantly influence learning outcomes across vocational and technical subjects globally (Abamba, et al, 2025). Educational research underscores that the choice of teaching method impacts both student engagement and performance (Barrech & Kiazai, 2022). Abiamuwe, et al (2017) opined that secondary school students are supposed to learn practical skills which would be useful to them in higher education or enable them get jobs in industries or other formal sectors of the economy. Hence, it important that in teaching and learning Clothing and textiles adequate instructional methods are employed to acquire skills for self-reliance and income generation activities. Abamba, et al (2024) noted that the teacher play crucial role to motivate and impart knowledge in Clothing and textiles to learners through the use of right instructional methods.

Instructional methods refer to pedagogical strategies adopted by teachers in delivering course content. Traditional methods such as the lecture method are teacher-centered and often involve passive student learning where students receive information without significant interaction (lecture as passive learning). Similarly, technical and vocational subjects have shown that while lecture methods can efficiently transmit theoretical knowledge, they may not support practical skill acquisition as effectively as student-centered or hands-on strategies. The method of teaching used by the teachers of clothing and textile has been found out to be a contributing factor to the falling standard of clothing and textile as a subject in senior secondary schools. A teacher is one who has learning to pass along and interest to impact to someone with a need or desire to know and engaged in the activity of information or instructing, providing guidance, suggestions and supplying materials to stimulate learning (Abamba et al 2025). Hence, facilitates the acquisition of knowledge, skills and instilled societal values. Barrech and Kiazai (2022) analyze effective methods of teaching in secondary school include; collaborating, learning by teaching, cooperative learning, teaching, case method, active learning, integrating technology, distance learning and experimental methods which can be carried out in a well equipped laboratory for practical courses like clothing and textiles for skill training and acquisition (Olowookere & Fadoju, 2025).

Skill acquisition entails the process of acquiring knowledge, practical abilities and mastering of competencies required to carry out activities and tasks through training, practice and experience for employability and self reliance. It helps to equip learner with vocational, technical or occupational skills that the learners should possess to perform specific tasks and function in specific occupations (Kassah, 2019). Clothing and textiles skills include garment construction, fashion design, creative craft, Art and design and renovation have been identified as viable entrepreneurs for self-reliance, employment and personal development (Olowookere & Fadoju, 2025).

This great concern for assessment of manipulative skills is to meet up with the requirements of the curriculum of such courses in order to achieve the national objective of skill acquisition for self-reliance. The manipulative activities that the students acquired in the production processes are ascertained through workshop-based process skill test (WBPST). The workshop-based process skill test involves presenting step- by-step practical activities where the learners are to respond to the tasks in a typical workshop environments setting. Process skill test is then an instrument for determining the extent to which students can demonstrate the practical competencies while the examiner is observing the students perform the operations involved. It has been observed in some schools that Clothing and textiles education are often teacher-centered instruction such as the use of lecture method and whole class discussion which are more frequently used by the teachers than practical and hands-on methods like demonstrations, project work, and field trips. This may be due to lack of

teaching facilities and inadequate manpower for right instructional delivery. In Nigeria, especially in secondary schools, clothing and textiles are taught peripherally without serious effects on the part of the teachers to make the students proficient in the course (Abiamuwe, 2017). This could be due to lack of competent teachers who can teach the subject. Abamba, et al (2025) pointed out that lack of equipment in the clothing and textile laboratories is a major problem. This makes the teachers and students to concentrate on the theoretical aspect of the course as a result of these students lose interest in the course, or not take the course very serious

Most times the teachers that are teaching clothing and textile do not use the best effective teaching methods when teaching the course, making the class uninteresting for the student. By their training they ought to know and use the best teaching methods and strategies to teach Clothing and textiles in the classroom. Evidence from secondary school populations internationally shows that teaching methods significantly affect students' skill mastery. A study in Pakistan found that teaching methods, combined with adequate instructional resources, positively impact student achievement in secondary schools (Barrech & Kiazai, 2022). The use of blended instructional techniques that match learners' levels and interests to improve outcomes are crucial. The use of different teaching strategies including practical demonstration and lecture enhance skill acquisition and influence how well students understand and apply what they learn for world of work and global relevance (Azonuche, et al, 2025). Therefore, the study identified the instructional methods used, the effectiveness and if there are enough trained Clothing and textiles teachers in the schools in Delta state.

Research Questions

The study examined the following:

1. What are the methods used in teaching Clothing and textile to the students in the class?
2. How effective are the teaching methods in teaching Clothing and textiles?
3. Are there enough trained Clothing and textiles teachers teaching in secondary school?

Research Hypothesis

1. There is *no significant difference* between the use of the collaborative and the lecture methods of teaching in secondary schools.

Methodology

The study adopted a descriptive survey research design. This design was considered appropriate because it enabled the researcher to collect data from a representative sample of respondents and describe existing conditions relating to instructional methods used in teaching Clothing and textiles in secondary schools. The population of the study consisted of all Clothing and textiles/Garment making teachers which are in number 23 and 85 Senior Secondary School students offering Clothing and textiles/garment making in public secondary schools. The study used multistage sampling to first select two senatorial zones randomly selected namely Delta North and Delta South. Then secondly, random sampling was used to select from Delta North (Aniocha South, Ika South) and from Delta Central (Ethiope East and Ughelli North) Local Government Areas of Delta, Nigeria. Furthermore, twelve schools that offer clothing and textiles at senior secondary school were purposively selected. The entire population was small and all 108 subjects were used for the study. The instrument for data collection was a structured questionnaire titled; Instructional Methods in Clothing and Textile Questionnaire (IMCTQ) based on the purpose of the study. It has two parts; Part A is for respondents' demographic information. Part has with 19 items on four point rating of Strongly agree (SA) =4, Agree (A)=3. Disagree (D) =2 and Strongly disagree (SD)=1, which the respondents were expected to indicate their opinions.

The instrument was given to three experts, two in Clothing and textiles/garment making and one in Measurement and evaluation for face and content validity to ascertain its appropriateness. To test the reliability of the instrument, it was administered to 20 teachers and students who were not part of the main study in Aniocha North local government area and analysed using Cronbach alpha,

a coefficient index of 0.74 was obtained. The 108 copies of questionnaire with the help of the four research assistants were administered to the teachers and students in their various schools. Questionnaire was responded to by the respondents all the copies were filled and returned at the spot. The data were analyzed with mean and standard deviation for the research questions. Strongly agreed for mean of 2.50 and above, strongly disagreed for 2.50 and below. Null hypothesis was tested using t-test to determine if there was significant difference at 0.05 level of significance. Data collected were analysed using Statistical Package of Social Science (SPSS) version 26.0

Results

Research question 1: What are the methods used in teaching Clothing and textiles to the students in the class?

Table 1: Instructional Methods used in teaching Clothing and Textiles

S/N	Items	Mean	SD	Decision
1.	Lecture method is commonly used in teaching Clothing and textiles	3.44	0.65	SA
2.	Demonstration method is frequently used in teaching	2.62	0.78	SA
3.	Collaborative learning is used in teaching	2.76	0.76	SA
4.	Inquiry method is utilized in teaching	2.03	0.64	SD
5.	Project-based method is used in teaching	2.00	0.69	SD
6.	Gamified method is utilized in teaching	2.00	0.80	SD
7.	Blended / technology-enhanced method is used in teaching	1.96	0.69	SD
8.	Individualized method is actively used during lessons	2.59	0.70	SA

Key: SD = Standard deviation, SA = Strongly agreed

Result in Table 1 showed that four items 1,2,3 and 8 had mean responses above the cut off 2.50, that is lecture method had mean 3.44, demonstration has mean 2.62, Collaborative learning has 2.76 and individualized method is 2.59. While items 4,5,6 and 7 had mean below 2.50, meaning respondents disagreed on inquiry with mean 2.03, project with mean 2.00, gamified had mean 2.00 and blended methods used for teaching had mean 1.96. Indication is that lecture, demonstration, collaborative and individualized are instructional methods that are utilized, while inquiry, project, gamified and blended methods are not used in teaching clothing and textiles in secondary schools.

Research question 2: How effective are the teaching methods in teaching Clothing and textiles?

Table 2: Effectiveness of Teaching Methods in teaching Clothing and Textiles

S/N	Items	Mean	SD	Decision
9.	Teaching methods influence students' understanding	3.25	0.70	SA
10.	Collaborative teaching aids acquisition of skills	3.10	0.72	SA
11.	Lecture method alone limits skill acquisition	3.00	0.80	SA
12.	Practical demonstration lessons enhance students' interest	3.35	0.68	SA
13.	The instructional methods help to improve level of skill mastery	3.04	0.68	SA
14.	Teaching methods give opportunity for the production of clothing articles	3.00	0.73	SA
15.	Teaching methods allow for competency in clothing and textiles	2.86	0.70	SA

Key: SD = Standard deviation, SA = Strongly agreed

Result in Table 2 showed that all the items had mean ranged between 2.86 to 3.35 which means the items were strongly agreed showing the effectiveness of the teaching methods in teaching clothing and textiles. The teaching methods utilized in clothing and textiles influence students' understanding had mean 3.25, collaborative teaching aids acquisition of skills had mean 3.10, lecture method alone limits skill acquisition had mean 3.00, practical demonstration lessons enhance students' interests had mean 3.35, help to improve level of skill mastery mean is 3.04, give opportunity for the production of clothing articles mean is 3.00 and allow competency in clothing and

textiles mean is 2.86. Indication is that teaching methods utilized in clothing and textiles influence students' understanding, collaborative teaching aids acquisition of skills, lecture method alone limits skill acquisition, practical demonstration lessons enhance students' interests, help to improve level of skill mastery, give opportunity for the production of clothing articles and allow competency in clothing textiles.

Research question 3: Are there enough trained Clothing and textiles teachers teaching in senior secondary schools?

Table 3: Teacher-Related Factors in Teaching Clothing and Textiles

S/N	Items	Mean	SD	Decision
16.	There are enough trained Clothing and textiles teachers in my school	2.10	0.85	SD
17.	Clothing and textiles teachers are professionally competent	2.45	0.90	SD
18.	Teachers attend regular training workshops	2.00	0.88	SD
19.	A teacher handles too many students during practical lessons	3.10	0.70	SA

Key: SD = Standard deviation, SA = Strongly agreed, SD = Strongly disagreed

Result in Table 3 showed if there are enough trained clothing and textiles in the senior secondary schools; three items (1, 2 and 3) had mean ranged between 2.00 to 2.45 below the cut off mean of 2.50 which means the respondents strongly disagreed. Enough trained clothing and textiles in the schools had mean of 2.10, Clothing and textiles teachers are professionally competent had mean of 2.45 and teachers attend regular training workshops had mean of 2.00, while strongly agreed that a teacher handles too many students during practical lessons with mean of 3.10. This indicates that there is no enough trained clothing and textiles teachers in the schools, Clothing and textiles teachers are not professionally competent and teachers do not attend regular training workshops, while a teacher handles too many students during practical lessons

Hypothesis: There is no significant difference between the use of the collaborative and the lecture methods of teaching in secondary schools.

Table 4: t-test analysis on the use of collaborative and lecture methods of teaching

Method	N	Mean	SD
Lecture Method	54	2.45	0.75
Collaborative Method	54	3.10	0.70
Df	t-cal	p-value	Decision
106	1.64	0.04	Reject Ho

Key: N=number of respondents, SD= standard deviation, df= degree of freedom, t-cal= t calculated, alpha=0.05

Result in Table 4 showed t-test analysis on the use of collaborative and lecture methods of teaching. The result of t-test indicates that the calculated t-calculated of 1.64 and p-value of 0.04 testing at alpha level of 0.05. The ($P < 0.05$), that is 0.04 is less than the alpha level the null hypothesis is therefore rejected. Thus it implies that there is a significant difference between collaborative and lecture methods in teaching clothing and textiles.

Discussion of findings

Findings showed that lecture, demonstration, collaborative and individualized are instructional methods that are utilized, while inquiry, project, gamified and blended methods are not used in teaching clothing and textiles in secondary schools. Instructional approaches that involve student participation and practical engagement tend to result in better skill learning, acquisition and performance (Azonuche, et al, 2025). Interactive and learner-centered strategies allow students to apply theories in real contexts, enhance understanding and retention. This is in consonance with Azonuche and Abamba (2023) who reported that students taught using practical, interactive methods often perform those taught using traditional lecture approaches. Teaching strategies that emphasize active participation in task-based learning and practical workshops do not only increase skill mastery

but also built student's confidence, interest and readiness for independent work (Azonuche, et al, 2023). Eze and Onuigbo (2021) pointed that practical engagement in clothing and textiles helps students develop essential psychomotor skills that cannot be fully acquired through theory alone, thereby enhancing overall academic outcomes.

Finding showed that teaching methods utilized in clothing and textiles influence students' understanding, collaborative teaching aids acquisition of skills, lecture method alone limits skill acquisition, practical demonstration lessons enhance students' interests, help to improve level of skill mastery, give opportunity for the production of clothing articles and allow competency in clothing textiles. Effective teaching methods equip learners with understanding of both theoretical knowledge and practical skills. Lecture method alone is less effective in skills-based subjects because they do not allow learners to practice and engage with the practical demonstration actively. Finding supports Isa, et al, (2020) and Quarcoo (2024) who noted that practical and hands-on techniques, such as demonstration, project-based learning and collaborative group work, have consistently been associated with higher level skill mastery and practice among students for competency in clothing and textiles design and production (Adilo, et al, 2023; Mpofu, et al, 2023). A teacher has many options in choosing the method with which to teach and impart skills, since students also learn in different ways to absorb information and demonstrate their knowledge ability (Abamba, et al, 2025).

Further finding showed that there are no enough trained clothing and textiles teachers teaching in the schools, the clothing and textiles teachers are not professionally competent and teachers do not attend regular training workshops, while a teacher handles too many students during practical lessons. This is in agreement with Obielodan, et al, (2021) who emphasized that lack of competent teachers can effectively impact on the teaching of a subject hence become a contributing factor to the peripheral nature of the teaching of clothing and textiles. Teacher's preparedness, competence and availability are critical in implementing effective instructional methods as well as proficient personnel instructional delivery (Chanachi, et al, 2024). Teachers who are professionally trained and able to use a variety of methods often achieve better students' engagement and learning outcomes than those relying strictly on traditional lectures. Hence, Abamba,et al (2024) advocated for a strategic focus on periodic training and retraining programs for clothing and textiles teachers, stressing the need for these teachers to constantly enhance their practical skills. Also Mpofu et al (2023) highlighted the unfortunate reality of insufficient supply of qualified and experienced clothing and textiles teachers, as this scarcity of well-qualified teachers in the field is compounded by a declining interest in the study of clothing and textiles at all levels of education.

Finding also showed that there is a significant difference between collaborative and lecture methods in teaching clothing and textiles. This is not surprising because it evident as Barrech and Kiazai (2022) stressed that collaborative and cooperative learning promote skill training and acquisition in practical courses like clothing and textiles especially when carried out in the right environment such as a well equipped laboratory. Collaborative method enhances students' participation and active involvement in teaching and learning as they generate ideas, acquire skills and exhibit creativity in clothing and textiles areas for empowerment and self reliance (Azonuche, et al, 2025). Lecture method is teacher- centred, limits students participation and exposure to practical learning and on the long run impair skill mastery and acquisition in clothing and textiles. This may be due to inadequate teaching and learning instructional materials and may constrain teachers' ability to implement right teaching strategies effectively.

Conclusion

It is of note that instructional methods play significant roles in the teaching and learning of Clothing and textiles at all times. Traditional methods, such as lectures, are dominant in many contexts but may not adequately support the development, mastery and acquisition of practical skills. Instructional approaches and student-centered strategies such as lecture, demonstration, collaborative and individualized are utilized than inquiry, project, gamified methods, among others .Though the methods influence students' understanding, aids acquisition of skills, enhance students' interests and help to improve level of skill mastery in the production of clothing articles but the use of lecture

method alone limits skill acquisition. Also there are no enough trained and professionally competent so a teacher handles more students during practical lessons. The collaborative method significantly differs from lecture method in teaching clothing and textiles in schools for skill acquisition.

Recommendations

Based on the findings, the following recommendations are made:

1. The government and school authorities should employ more professionally trained Clothing and textile teachers.
2. Regular workshops, seminars, and in-service training should be organized to update teachers' knowledge and instructional skills in clothing and textiles areas
3. Teachers should adopt the right teaching methods such as collaborative, demonstration, and project-based methods for skill mastery and acquisition instead of relying solely on lecture method.

Educational implications of the study

1. Improved instructional methods will enhance students' practical skills and creativity.
2. Availability of trained teachers will lead to better curriculum implementation and attainment of educational goals for national development
3. Utilization of adequate teaching method will encourage hands-on learning and entrepreneurship development.
4. Effective Clothing and Textile education boost skill acquisition and reduce unemployment by promoting self-reliance

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