

Prerequisites for Development of Individualized Instruction in Clothing Crafts for Teaching Home Economics Students in College of Education, Akwanga, Nasarawa State

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Abstract

The study determined prerequisites for developing individualized instruction for teaching textile crafts to Home Economics students in college of education Akwanga, Nasarawa State. The study answered four research questions and tested two null hypotheses at 0.05 level of significance. The design of the study was survey. The population was 120 comprising of 11 Home economics lecturers, 10 Fine and Applied Arts lecturers and 99 Home economics students. Questionnaire was used for the collection of data. It was subjected to face validation by five Home economics experts. Cronbach Alpha statistics was used to determine the internal consistency of the instrument which yielded reliability coefficient of 0.90. ANOVA was used for data analysis. Findings included; 10 objectives of knotting textiles crafts, 11 material resources, 11 step by step procedures to follow and 9 evaluation activities for assessing students performance on knotting textile crafts. Recommendations among others include; Home Economics lecturers should adopt the use of individualized instruction for teaching textile crafts to Home economics students in college of Education Akwanga, Nasarawa state. The National Commission for Colleges of Education (NCCE) should adopt the use of individualized instruction in all practical courses in Colleges of education in the country.

Keywords: Textile, Textile Craft, Individualized Instruction, Tie Dyeing Technique, Knotting Textile Crafts,

Introduction

Craft can be described as a distinctive knowledge that is intuitive and expressed through making and doing. It

is a profession that requires a particular kind of skilled work and usually attached to people occupied in small scale production of goods (Banjoko,

2010). Craft is classified into paper craft, decorative craft, fashion craft and textile crafts. Textile crafts are types of crafts where useful and decorative devices are made completely with hands using fabrics or surface design (Shailong 2010). They required special kind of skilled work where special skills are required in making articles from local materials for use. There are different types of Textile crafts. They include; patchwork, fabric printing, decorative stitches, toys making, tie dyeing techniques among others (Pluckrose, 2010).

Tie dyeing technique is a process of fabric decoration in which a piece of fabric is tied together tightly to prevent the absorption of dye in penetrating the fabric (Ajayi, 2012). Tie-dyeing textile crafts include the following; pleating, marbling, twisting, folding and knotting. Knotting textile crafts is produced by wrapping the pebbles and using twine to tie at every point of the pebbles. The dyestuff is then applied to the fabric (Uzoagba, 2010). The material needed in producing knotting textile crafts include twine, pebbles, fabric, caustic soda, hydrosulphite, dyestuff, glove, water among others. The various tasks involved in knotting textile crafts include prewashing the fabric to remove industrial starch, using pebbles to make knots, mixing of dyes in proportion using boiling water, dyeing the fabric by submerging in the dye bath. The fabric is removed for oxidation, rinsed and dried. The resulting design is moonlike (Kolade et al. 2015).

Textile craft is an integral aspect of Clothing and Textile (Shailong, 2010). In the National Curriculum for Colleges of Education (NCCE, 2012) minimum standard, Textile crafts have been included in the courses of NCE 11 and 111 students to make them acquired enough manipulative skills for self employment. A closer look at the curriculum of Home economics put in place to achieve the laudable goals of vocational and technical education for self employment seems not be achieved by Textile crafts students, hence after three years of sojourn the graduates still remain jobless. The reasons for this, is that the method used in teaching and learning of these skills do not encourage skill acquisition.

Lecturers used mostly lecture method to reach out to students, moreover, knotting textile crafts are practical intensive and the period allotted on the timetable for teaching and learning of these skills are not sufficient for any effective practical to be carried out. The researcher observed that in the present Home Economics curriculum, courses are just listed with no specific objectives, no step by step procedures to follow, no instructional materials listed among others to guide subject lecturers. Lecturers just used any type of method to reach out to students. In the view of Dagana (2010) instructional method employed by lecturers play an important role in the acquisition of skills and meaningful learning. They noted that positive changes take place when a teacher changes his teaching method towards a more students - centred approach.

Lecture method which does not give students individual attention, however contributes to more than 85% of the instruction in schools. Individualised instructional approach holds a great potential for individual learning and needs a great potential for individual learning to be promoted.

Individualized instruction refers to those classrooms practices of teaching which recognizes the uniqueness of each learner and provides for adequate tutorial guidance and other support services suitable to bring about a wholesome development in the person (Nwafor, 2010). Individualized instructions is an instructional procedure designed to the particular needs of the learner in which case, the learner works at his/her own pace The teacher acts more as a facilitator to the students and not as a provider of information or knowledge. Nwizu (2011) stressed that the teacher should also adapt new ways of instruction such as teaching through life based inquiry, Audio-Tutorial Training model, learner controlled instruction, computer assisted instruction, learning activity package among others. Usually, instructional design model shows how to organize appropriate pedagogical scenarios to achieve instructional goals (Dick & Carey, 2005). Individualized instructional model is designed to present series of activities, planned to enable the learners achieve the objectives of a model for a group of related skills with minimal assistance from the teacher.

Individualized instruction particularly is important in teaching

knotting textile crafts which involves many unique tasks and students must learn to perform through series of intricate steps and operations. Knotting textile crafts involve practical and as such training for skill acquisition obviously involves training materials such as tools, equipment and facilities. Where practical skills are learnt without the required equipment and facilities, the skill turns out to be theoretical base which cannot equip students for employability (Lemchi and Anyakoha 2006). In the present curriculum, there should be prerequisites for developing Individualised Instruction which would enhance the acquisition of skills by the students and also serves as a guide to lecturers. Presently, no such Individualized Instruction on knotting textile Crafts exist for teaching Home Economics students, hence, the present study seeks to determine prerequisites for developing individualized instruction on knotting textile crafts for teaching Home economics students.

Purpose of the Study

The main purpose of the study was to evolve prerequisites for developing Individualised instruction for teaching Home Economics students in College of Education, Akwanga, Nasarawa State. Specifically; the study is determined;

1. Specific objectives of individualised instruction in knotting textile crafts for teaching Home Economics students in College of Education Akwanga, Nasarawa state.
2. Material resources for individualised instruction on knotting textile crafts.

3. Step by step procedures to follow in individualized instruction in knotting textile crafts
4. Evaluation activities for assessing student's performance in knotting textile crafts.

Hypotheses

H₀₁: There is no significant difference on the mean responses of Home economics lecturers, Fine and Applied Arts lecturers and Students on: H₀₁, the objectives of individualised instruction in knotting textile crafts.

H₀₂: step by step procedures for individualised instruction in knotting textile crafts.

Methodology

Design of the Study: The design was survey.

Area of the Study: The study was conducted in Nasarawa State, College of education Akwanga. The choice of the study area was based on the fact that knotting textile crafts are offered by students in second and third year respectively in College of Education Akwanga.

Population of the Study: The population of the study was 120 comprising of 11 Home economics lecturers, 10 Fine and Applied Arts lecturers and 99 NCE 11 and 111 Home Economics students in school of Vocational and Technical education, College of Education Akwanga, Nasarawa State. Source: Admission office (2014- 2017, College of Education Akwanga)

Sample and Sampling Technique: No sampling was used as the population was manageable.

Instrument for data Collection: The instrument used to collect data was a structured questionnaire. The instrument was divided into two sections: Section A elicited information from the respondents while section B elicited information based on the four research questions. Research question 1 consists of ten (10) items which seek to determine the objectives of knotting textile crafts, research question 2 contains eleven (11) items on materials resources, research question 3 contains eight (8) items on step by step procedures in carrying out the task and research question 4 contains eight (8) items which sought to determine the evaluation activities for assessing students performance. For all the research questions, a Likert rating scale was adopted and was assigned the following values; very necessary (VN)=5, Necessary(N)=4, Unnecessary (UN)=3, Very unnecessary(VUN)=2, Undecided (UD)=1.

The instrument was face validated by five experts, three Home economics lecturers and two fine and applied Arts lecturers. Cronbach Alpha method was used to determine the internal consistency of the questionnaire. The entire instrument yielded a reliability coefficient of 0.90.

Method of Data Collection and Analyses: One hundred and twenty copies of the instrument were distributed. This means a 100 percent return rate. Data collected were analysed using mean, standard

deviation and the analysis of Variance (ANOVA) at 0.05 level of significance.

Findings of the Study

Table 1: Mean Scores of Responses on the Objectives of Individualized Instructions on Knotting Textile Crafts for Teaching Home Economics Students in College of Education Akwanga, Nasarawa State.

N=120				
S/No	Objectives of Knotting Textile crafts.	\bar{x}	SD	Remarks
By the end of the lesson, learners should be able to				
1.	explain the concept of knotting,	4.47	0.50	Necessary.
2.	list materials for knotting.	4.49	0.50	Necessary
3.	pre wash the fabric	4.25	0.47	Necessary
4.	lay the fabric flat on the surface	4.27	0.48	Necessary
5.	make the required number of knots using stones.	4.28	0.49	Necessary
6.	lopping rubber band over the fabric	4.22	0.46	Necessary
7.	emerge fabric inside the dye bath.	4.37	0.59	Necessary
8.	rinse the fabric	4.61	0.53	Necessary
9.	dry the fabric	4.49	0.54	Necessary
10.	press the fabric	4.58	0.53	Necessary

Table 1 shows the mean score ratings of Home Economics lecturers, Fine and Applied Arts lecturers and students on the objectives of Individualised instruction of knotting textile crafts for teaching Home economics students in college of education Akwanga, Nasarawa state. The data showed that all the 10 items have their means ranging from 4.22 - 4.61 and are greater than the cut-off point of 3.00. This indicates that the 10 items were

accepted by the respondents as necessary objectives for Individualised instruction of knotting textile crafts.

The Standard Deviation (SD) of the 10 items ranged from 0.46-059 and are less than 1.96 (95%) confidence limit; this indicates that the responses of Home Economics lecturers, Fine and Applied Arts lecturers and students are not far from the mean and response of one another.

Table 2: Mean Responses of Home Economics Lecturers, Fine and Applied Arts Lecturers and Students on Individualized Instruction on Material Resources Required in Knotting Textile Crafts for teaching Home Economics Students. N=120

S/No	Material resources for knotting crafts	\bar{x}	SD	Remarks
1	flat surface	4.78	0.42	Necessary.
2	fabric	4.89	0.32	Necessary
3	dye stuff	4.81	0.39	Necessary
4	gloves	4.81	0.39	Necessary
5	nose and mouth mask	4.85	0.36	Necessary.
6	apron	4.81	0.39	Necessary
7	stones	4.83	0.38	Necessary
8	twine	4.80	0.40	Necessary
9	measuring cups and teaspoons	4.83	0.38	Necessary
10	hydrosulphite	4.78	0.42	Necessary
11	caustic soda	4.80	0.40	Necessary

Table 2 shows the mean score ratings of Home Economics lecturers, Fine and Applied Arts lecturers and students on material resources for Individualised instruction of knotting textiles crafts for teaching Home Economics students. The data shows that all the 11 items have their means ranging from 4.78 - 4.89 and were greater than the cut-off point of 3.00. This indicates that the 11 items were necessary material resources

in knotting textile crafts for teaching Home Economics students in College of Education, Nasarawa State

The Standard Deviation (SD) of the 11 items ranged from 0.32-0.42 and are less than 1.96 (95%) confidence limit; this indicated that the responses of Home Economics lecturers, Fine and Applied Arts lecturers and students were not far from the mean and response of one another.

Table 4: Mean and Standard Deviations of Responses of Home Economics Lecturers, Fine and Applied Arts Lecturers and Students on Individualised instruction on Step by Step Procedures in Knotting Textile Crafts for teaching Home Economics students N = 120

S/No	Step by Step Procedures	\bar{x}	SD	Remarks
1	Pre-wash by soaking the fabric in water using rubbing method to remove industrial starch	4.03	.79	Necessary
2	Prepare and lay the fabric flat on the table	3.97	.83	Necessary
3	Make knot on the fabric by folding and tying tightly with pebbles to obtain moonlike shape.	4.03	.84	Necessary
4	Prepare dye bath by mixing the measured out dye stuff	3.99	.83	Necessary
5	Dye the fabric by submerging in the dye bath. Turning the knotted fabric from time to time with a stick.	4.04	.79	Necessary
6	Remove twines and pebbles from the fabric and spread for oxidation for 15 minutes	4.00	.84	Necessary
7	Wash and rinse the fabric to remove excess dyes	3.96	.83	Necessary
8	Prepare starch solution and emerge the fabric and dry	4.02	.82	Necessary

Table 3 shows the mean score ratings of Home Economics lecturers, Fine and Applied Arts lecturers and students on Individualised instruction on step by step procedures in knotting textile crafts. The table shows that all the 8 items have their means ranging from 4.96 - 4.04 and are greater than the cut-off point of 3.00. This indicates that the 8 items were accepted by the respondents as necessary step by step

procedures in knotting textile crafts for teaching Home Economics students in College of Education, Nasarawa State.

The Standard Deviation (SD) of the 8 items ranged from 0.79-0.84 and are less than 1.96 (95%) confidence limit; this indicates that the responses of Home Economics lecturers, Fine and Applied Arts lecturers and students were not far from the mean and responses of one another.

Table 5: Mean Responses of Home Economics Lecturers, Fine and Applied Arts Lecturers and Students on Individualised instruction of Evaluation Activities of Knotting Textile Crafts for teaching Home Economics Students.

N = 120

S/No	Items	\bar{X}	SD	Remarks
	The learners should;			
1	explain the concept of knotting	4.57	0.50	Necessary
2	list material for knotting.	4.40	0.49	Necessary
3	demonstrate pre-washing of fabric	4.40	0.49	Necessary
4	explain laying of fabric flat on the surface.	4.33	0.47	Necessary
5	demonstrate how to tie knots using stones.	4.43	0.50	Necessary
6	demonstrate looping rubber bands over the knots.	4.44	0.50	Necessary
7	explain how to apply dye to fabric	4.53	0.50	Necessary
8	demonstrate how to rinse and dry fabric.	4.50	0.50	Necessary

Table 5 shows the mean score ratings of Home Economics lecturers, Fine and Applied Arts lecturers, and students on Individualised instruction on evaluation activities on knotting textile crafts for teaching Home Economics students in College of Education, Nasarawa State. The table shows that all the 8 items have their means ranging from 4.33 - 4.57 and are greater than the cut-off point of 3.00. This indicates that the 8 items were necessary evaluation activities on

knotting textile crafts for teaching Home Economics students in College of Education, Nasarawa State.

The Standard Deviation (SD) of the 8 items ranged from 0.47-0.50 and are less than 1.96 (95%) confidence limit; this indicates that the responses of Home Economics lecturers, Fine and Applied Arts lecturers and students were not far from the mean and responses of one another.

Table 6: ANOVA Responses of Respondents on the Objectives of Individualised Instruction on knotting Textiles Crafts for Teaching Home Economics Students in College of Education Akwanga Nasarawa State.

N=120						
	Sum of Squares	Df	χ^2	F	P-value	Remark
Between Groups	.569	2	.285	12.816	.00	S
Within Groups	5.797	261	.022			
Total	6.366	263				

Key: N - Number of respondents df - degree of freedom, χ^2 - Mean square, F - F-ratio, S - Significant

Table 6 shows the ANOVA responses of respondents on the objectives of individualized instruction of knotting Textiles Crafts for teaching Home economics students in College of Education Akwanga, Nasarawa State, Nigeria. The results showed that the p-value of .00 is less than 0.05 level of significance. The null hypothesis is

therefore rejected as postulated that there is significant difference in the responses of Home Economics lecturers, Fine and Applied Arts lecturers and students on the objectives of individualized instruction on knotting Textiles Crafts for teaching Home Economics students in College of Education Akwanga, Nasarawa State.

Table 7: ANOVA Responses of Respondents of Individualized Instruction on Step by Step Procedures of Knotting Textiles Crafts for Teaching Home Economics Students in College of Education Akwanga States.

(N = 246)						
	Sum of Squares	Df	χ^2	F	P-value	Remark
Between Groups	.063	3	.021	1.247	.292	NS
Within Groups	6.437	384	.017			
Total	6.500	387				

Key: N - Number of respondents df - degree of freedom, χ^2 - Mean square, F - F-ratio, NS - Not significance

Table 7 ANOVA results of the mean rating responses of respondents on the individualized instruction on 9 items on step by step procedures on knotting textiles crafts for teaching Home Economics students in Colleges of Education Akwanga, Nasarawa. The results revealed that the p-value of 0.292

is greater than 0.05 level of significant. The null hypothesis is therefore accepted as postulated. Hence, there is no significant difference in the responses of Home Economics lecturers, Fine and Applied Arts lecturers and students on individualized instruction on step by step procedures of knotting

textile crafts for teaching Home Economics students in Colleges of Education Akwanga States, Nigeria.

Discussion

The discussion of findings in this study has been organized based on the research questions and the responding hypotheses that have been formulated to guide the study. Four research questions sought to determine the prerequisites for developing individualized instruction for teaching Home economics students in College of education, Akwanga, Nasarawa state. The data presented show that all the items on the objectives of knotting textile crafts are suitable and effective for Home Economics students. These objectives are in line with the general objectives of vocational and technical education as stipulated in the National policy in education (NPE, 2004) that students must be trained for self employment and prepare them for personal growth and development. Study carried out by Igbo (1979) on development and psycho-productive skill test for assessing senior secondary students which when acquired enabled them earn a living. According to Ogbuanya (2013), objectives may be short or long term for specific tasks for the overall goal of the activity or programme. The claim for this is manifested by the responses to 10 objectives which were necessary. The degree of its necessity is equally revealed by the extent to which items are close to one another in their standard deviation. Objectives provide information on what to be evaluated.

This is in line with the study by Alpha (2013) who said for objectives to be achieved teaching must be vigorously and effectively carried out. The necessary objectives of knotting textile crafts which include explain, list, prewash, lay, mix among others are in the domain of knowledge, skill and attitude. The stated objectives with their key verbs that help to express intended learning outcomes (ILO) are in consonance with the suggestions of Ukwe and Anyakoha (2008) who stipulated that specific objectives are stated using action verbs such as list, mention, defined, explain among others. The findings of the objectives showed that at the end of instruction on individualized instruction on knotting textile crafts students in College of Education Nasarawa State should be able to confidently explain defined identify and list the achievement of the intended learning outcome of knotting textile crafts tasks. The hypothesis that was formulated on the basis of this showed that the p-value of .005 is statistically significant at 0.05 level of significance. The null hypothesis was therefore upheld as postulated there is no significance difference in the responses of HCL, FAAL and students on the objectives of individualized instruction on knotting textile crafts for teaching Home Economics students. This indicates that the objectives of individualized instruction on knotting textile crafts are considered necessary.

The findings presented in respect of research questions two showed that 11 items are all accepted by the respondents to be necessary for

individualized instruction. Some of these materials resources include; pebbles, tables, fabrics, dye colours, caustic soda, sodium hydrosulphite among others. The findings of this study on material resources are also with the findings of Chukwone (2013) in a study on development of clothing merchandising programme for integration in home economics curriculum in universities in south east Nigeria where it was found out that posters fabrics magazine, computer aided instructional material among others, are necessary for teaching and learning clothing merchandising in universities. These findings are on agreement with the views of Uzoagba (2004) that instructional materials help to facilitate the acquisition of skills in individual and also make learning easier. In the same vein, Oloaesebikan (2016) stated that material resources contribute to meaningful learning and this helps to facilitate the acquisition of skills.

The findings of this study revealed eight (8) items on individualized instruction on step by step procedures of knotting textiles crafts. This include: prewashing, laying flat to dry, twisting, with pebbles, preparing dyestuff and dyeing. It was also revealed that all the 8 items were in 100 percent agreement with the respondents. Kolade *et al* (2015) also stated that step by step procedures include; pre-washing of the fabric using hand to remove industrial starch, placing the fabric on a flat surface, tying the pebbles, tying the fabric with twine, mixing the dye stuff and submerging them in the dye bath. The hypothesis

that was formulated based on this research question shows the ANOVA result of the responses of HECL, FAAL and students on individualized instruction on knotting textile crafts revealed that the p- value of .00 is statistically significant at .05 level of significance. The null hypothesis was therefore upheld.

The findings of the study based on research question 4 revealed that the respondents accepted all the identified 8 items on evaluation activities of individualized instruction on knotting Textiles Crafts for teaching Home Economics students in college of education Akwanga, Nasarawa state. Dagana (2010) pointed that the purpose of evaluation is to give feedback to both the students and the teacher. In the opinion of Alpha (2013) for evaluation to be effective in any programme, it should be sequential and access all the three educational domains which are cognitive, psychomotor and affective but the author emphasized that where the three domains cannot be represented, the content that is taught must accompanied strongly with evaluation activities that reflect the content taught. In the view of the author, evaluation activities help to bring out evidence of changes in the learners after instruction. Evaluation activities as shown in this study will help identify the extent to which the objectives of individualised instruction on knotting textiles crafts have been achieved.

Conclusion

The Nigeria educational system is expected to devise appropriate strategies for equipping individuals with skills to cope with the situations of unemployment facing individuals, families and the country at large. The situation calls for prerequisites for developing individualized instruction on knotting textile crafts for teaching Home Economics students in College of Education, Nasarawa State to fill the gap created by the teaching and learning of skills towards achieving the overall objectives.

Recommendations

Based on the findings of the study the following recommendations were made:

- ❖ Home Economics lecturers should adopt the use of individualized instruction in knotting textile crafts.
- ❖ Lecturers and students should be aware of the use of knotting textile crafts for individualized instruction in Home Economics.
- ❖ The knotting textile crafts should be incorporated into the NCCE. Home Economics curriculum.

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