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EXPERIENTIAL TEACHING AND LEARNING: EMPOWERING HOME ECONOMICS STUDENTS WITH ESSENTIAL CATERING CRAFT PRACTICES KNOWLEDGE AND SKILLS FOR ENTREPRENEURSHIP BUSINESS VENTURES.

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ABSTRACT

This study was carried out to determine if experiential teaching and learning of Kolb (2010) theory can empower Home Economics students with Catering Craft Practices knowledge and skills that will enable them to entrepreneurship business ventures upon graduation from Home Economics Education programme. Five research purposes and five research questions guided the study, one sample pre-test post-test quasi-experimental research design was employed. Population for the study comprised all Home Economics students (Degree and NCE). No sampling technique was applied due to limited number of the students that made up the population manageable. A structured questionnaire, made up of sixty five (65) closed-end items was used for collection of pre-data, before the commencement of the experiential teaching and learning practices (theory and practical on production of snacks nd confectionaries products). The post-test data, collected at the end of teaching and learning periods using same questionnaire. Data generated in the pre- and post-data collection was analyzed using mean statistic. Result obtained revealed mean difference gained by the students between pre-test and post-test to include: research question 1, $\bar{X}$= 61.1; research question2 $\bar{X}$=61.8; research question 3, $\bar{X}$=41.08; research question 4 $\bar{X}$=49.6 and research question 5 $\bar{X}$=46.1. This indicated that the students gained better mastery on knowledge and skills in snacks and confectionaries production practices. Based on these finding, the researchers recommended that lecturers and learners should adopt experiential teaching and learning practices to enable learners acquire saleable knowledge and skills in snacks and confectionaries production and to enable them successful entry into the world of works as an entrepreneur upon graduation or be gainfully employed in existing business venture in the society.

Keywords: Experiential, Empowering Essential, Knowledge, Skills, Entrepreneurship.

Introduction

Home economics is defined by different people in different ways, according to their own understanding of the term. All the definitions have basis and all drawn from the pool of knowledge expressed in 1909 definition of Home Economics as the study of laws, conditions, principles and ideas which are concerned on one hand with man's immediate physical environment and on the other with his nature as a social being (Adams, 2011). Anyakoha (2013) reported that Home Economics is a multi-disciplinary family oriented profession that is continuously evolving new ways of enabling families take charge of their life's, maximize their potentials and function independently and interdepedently. International Federal of Home Economics (IFHE, 2016) also opined that Home-Economics is a field of study which includes such aspects as food and nutrition, clothing and textiles, home management. From these definitions, one can say that Home Economics is a multi-disciplinary family oriented profession that is, continuously evolving new ways of enabling families take charge of their lives, among others.

This multi-disciplinary nature of Home Economics made it possible for Nigeria Educational Research and Development Council (NERDC, 2009) to create three entrepreneurship trade subject areas in Home Economics, namely; catering craft; garment making and cosmetology

The curriculum content of each of the trade subjects were created out from Home Economics subject areas and designed to meet the target of National Economic Empowerment and Development Strategies (NEEDS), which were express as value oriented and poverty eradication (NEEDS, 2012).

Catering craft practices (CCP) as one of the trade subject created out of Home Economics were structured to give students the opportunity to acquire acknowledge and skills through experiential teaching for competencies needed to enter into the world of work upon graduation.

The specific objectives of the CCP trade subject include:

i. Development of knowledge and understanding of all food commodities in terms of cost, quality and use.
ii. Understanding of hygiene practices and safety precautions in food handling.
iii. Understanding of dietary adequacies and ability to produce a dish.
iv. Understanding of the method of cooking and ability to produce a variety of dishes and drinks of various types for establishments and individuals.
v. Acquisition of the necessary skills required for production of pastries and confectioneries products.

Sources: NERDC Document (2009).

Basic catering Craft (CCP) competency skills specified by NERDC (2009), curriculum includes:

i. Ability to identify and understand culinary terms that will facilitate the use of both foreign and local recipes.
ii. Identification and effective manipulation skills of catering tools and equipment in food preparation and services

iii. Skills in sanitation and facility safety measures
iv. Skills in food production, such as

a. Cake making and decorations
b. Ability to identify types of cakes and their basic recipe
c. Ability to measure quantity of ingredients needs for expected quality of each type of cake products
d. Ability to cream cake mixture and obtain a fluffy cake products before baking
e. Ability or mastery of colour combination in cake decoration.
f. Ability to apply recent cake decoration techniques such as royal icing, butter icing and fondants icing.

Pastry production competency skills includes:

1. Identification of types of pastry and their chief ingredients
2. Ability to measure quantity of ingredients in recipe for prefect product of each type of pastry.
3. Observation of basic rules in pastry production.
4. Manipulative skills such as sieving, rubbing in and other handling techniques of batter.

Confectionaries production competency skills includes;

1. Ability to effectively apply all types of yeast in confectionery products.
2. Skills in the preparation of yeast before mixing flour to create rising defects.
3. Ability to identify basic measurements and application of principles in ingredients addition in basic recipe
4. Ability to identify common faults in confectionary products and causes among others.

Since the inception of this NERDE (2009) specification on curriculum contents to be exposed to learners, Home Economics scholars have observed very few snack products out lets in the society. Specifically, Salami (2019) remarked that Home Economics graduate lack self-confidence in show-casing the knowledge and skills learnt in school to seeking for white collar jobs upon graduation. The challenge of Home Economics graduates not being able to establish an entrepreneurship venture and become an employer of labour has reached the professional association. Many of the professionals has blamed poor teaching laboratories, lack of consumable teaching materials and limited time period for teaching practical in lecture time table among others.

Some professional has suggested for industrial training experience after graduation and others suggested adjustment of teaching-learning methods. This adjustment of teaching learning methods is in line with Imogie (2000) who opined that teaching-learning activities during exposure of learners should include experiential activities for participants to enhance their assimilation and retention of lesson outcome. Toby (2001) also stated that the three aspects of learning-outcome, namely; cognitive, affective and psychomotor domains should be properly organized for efficiency in vocational and technical subject areas.

These suggestions led the researchers to considers whether experimental learning styles theory of Kolb (2010) could help to enhance the level of students understanding and retention of learnt knowledge and skills exposed to in school, and be able to enter the world of works upon graduation.

Kolb (2010) Experiential Learning Theory and Learning Style Model

Kolb's (2010) learning theory sets out four distinct learning styles (or preferences), which are based on a four-stage learning cycle. Kolb's model offers both a way to understand individual learning styles, and also an explanation of a cycle of experiential learning that applies to all learners. Kolb (2010) proposed that an individual learner moves through a spiral of immediate experience which leads to observations and reflections of the experience. These reflections are then absorbed and linked with previous knowledge and transmitted into abstract concepts or theories; and results in new ways and actions to adjust to the experience that can be tested and explored. Kolb described the four stages in the cycle of experiential learning as:

- Concrete Experience (CE)
- Reflective Observation (RO)
- Abstract Conceptualization (AC)
- Active Experimentation (AE)

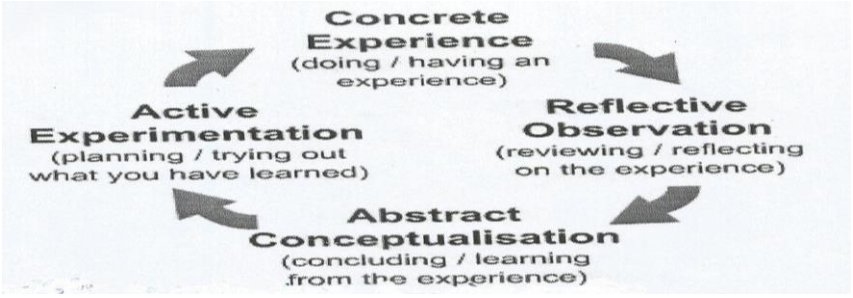
Concrete Experience (CE): In this stage of the learning cycle, emphasis is on one's personal involvement with people in everyday situation. The learner would tend to rely more on feelings than on a systematic approach to problems and situations. In a learning situation, the learner receives the ability to be open-minded and adaptable to changes. For example learners see, touch and experience learning materials for the first time.

Reflective Observation (RO): In this stage of the learning cycle, people understand ideas and situations from different points of view. In a learning situation, the learner would rely on patience, objectivity and careful judgment but would not necessarily take any action. The learners would rely on their own thoughts and feelings in form of opinions. For example at the end, the students reflect on what they did, make observations and discusses how they went with their educators.

Abstract conceptualization (AC): In this stage, learning involves using theories, logics and ideas, rather than feelings, to understand problem or situations. Typically, the learner relies on systematic planning and developed theories and ideas to solve problems. For example at this stage learner can think on what they did, reasons why it was done the way they did it etc.

Active Experimentation (AE): Learning in this stage is an active form (experimenting with changing situations). The learners would take a practical approach and be concerned with what really works, as opposed to simply watching a situation. For examples, students consider ways to improve, and tries out methods and strategies based on the previous stages of the cycles.

Fig 1: The diagram outline of Kolb's four stage learning cycle



Source : Kolb Experiential Teaching – Learning Theory (2010).

Apart from experiential teaching- learning theory, Kolb (2010) also discussed on four learning styles, namely;

- Diverging (preference for feeling and watching – CE/Ro)
- Assimilating (preference for thinking and watching – AC/RO)
- Converging (preference for thinking and doing – AC/ AE
- Accommodating (preference for feeling and doing – CE/AE)

Kolb (2010) also opined that knowing students learning style, enables learning to be oriented according to the preferred method. It is a matter of tailoring the experience to best fit with the given situation and students learning style preference.

Educational Implication of Kolb (2010) Experiential Teaching and Learning Theory

.* Learning stages and cycles could be used by lecturers/ instructors to critically evaluate the learning provisions available to students and develop more appropriate opportunities

*. Educators should ensure that activities in learning situations are designed and carried out in ways that offer each learner the chance to engage in the manner that suit them best.

* Individual can be helped to learn more effectively by the identification of their lesser preferred learning styles through application of the experiential learning cycle.

*. Ideally, activities and materials of learning should be developed in ways that draw abilities from each stage of learning experiential cycle and take students through the whole process in the sequence.

Statement of the Problem

Home Economics as a multi-disciplinary field of study, endowed with various entrepreneurship knowledge and skills that could be employed by its graduates to enter the world of works and become an employer of labour or be gainfully employed in already existing industry. Unfortunately many of the graduates are seen seeking employment in private nursery and primary schools, becoming messengers in offices and roaming in the streets as unemployed. In the recent, Home Economists as professionals has made efforts in the areas of enhancement of curriculum contents, the government has also improved infrastructures and enhancement of lecturers/instructors academic attainment and qualification through TET-fund sponsorship, yet there seems to be very few catering craft business outfits owned by Home Economics graduates in the societies. The statement of the problem therefore is could it be that, the teaching methods employed by lecturers/ instructors during teaching-learning situation is responsible for graduates lack of knowledge and skills needed to enter the world of works upon graduation? This is the major reason why the researchers wish to carry out this project titled "Experiential teaching-learning: Empowering Home Economics students with essential catering craft practices knowledge and skills for entrepreneurship business ventures.

Purpose of the Study

The main purpose of the study is to establish if experiential teaching and learning can enable students acquire catering-craft practices knowledge and skills needed to enter into the world of works as an entrepreneur upon graduation

from Home-Economics programme. Specifically the study seeks to:

1. Exposes all catering craft practices tools and equipment to the students (orientation to food laboratory)
2. Explain the functions and manipulative skills of such tools and equipment experientially to the learners.
3. Present the necessary consumable ingredients and materials used in different catering craft products.
4. Demonstrate the production of snacks (cake, meat pie, biscuit and chin chin) and confectionaries (bread, dough nuts etc).
5. Demonstrate packaging and marketing of catering products.

Research Questions

The following research questions guided the study:

1. What tools and equipment are needed in catering craft practices?
2. What are the functions of each tools and equipment identified in catering craft practices?
3. What manipulative skills are applied in handling each tools used in catering craft practices?
4. What are the basic ingredient used in confectionaries and snack products?
5. What are the characteristics of proper packaging material for confectionaries and snack products?

Significance of the Study

The findings of this study, if made available to the public through publications, seminars and workshops will be of great benefit to the students, the lecturers/instructors, Home Economics professional and the society in general. The students will benefit maximally from knowledge and skills taught in class when experiential teaching--learning methods are employed. This will enable them acquired knowledge and skills that will make then enter the world of work as an entrepreneur and become an employer's of labour. The lecturers/ instructors will gain insight on appropriate teaching method that helps them achieve the objectives of the lessons. The Home-Economics professionals will achieve one of its major aim of empowerment of family members to positively contribute to economic advancement of society. Society will benefits as there will be reduced unemployment in the society.

Research Method

Research Design

A quasi-experimental, pre-test, post-test research design will be employ for study. Pre-test data will be collected before the exposure of students to experiential teaching and learning of knowledge and skills in catering craft practices. While the post-test will be collected from same respondents after they have been taught experientially. Data generated on the two occasions will be compared to determine the impact of teaching method employed on the students' knowledge, skills and quality of products.

Population of the Study

The population of the study will comprise all students in Home-Economics Education Department 2022/2023 session in Federal College of Education (Technical) Asaba,.

Sample and Sampling Technique

A purposive sampling technique will used to include all degree and NCE , due to the fact that the population is manageable as a result of limited number.

Instrumentation

The instrument for data collection was questionnaire consisted of section A and B. Section A was made up of Five (5) biometric data and section B consisted of sixty-five (65) closed-end questions items that elicited information on the study subject matter. While post test data was

collected using same questionnaire after the exposuer of the students to experiential teaching and learning exercise.

Validity of the Instrument

The instruments for data collection was validated by:

1. (a) A professor in Food and Nutrition Department, University of Nsukka.
2. A snack and confessionary production manager of fast food/eatery outlet.

   All observed errors were properly corrected before the final copies were made and used in the study.

Reliability of the Instrument

The reliability of the instrument was established by administering the pre-test questionnaire to the student before the commencement of the teaching and learning periods, twice within two weeks internal. Data collected in both occasions was subject to Crombach alpha to determine the consistency. After collection of the pre-test data, the post test data reliability was collected from workers in fast food outlets and eateries on two different occasion within two weeks interval and data collected in two occasions were analyzed using Crombach alpha to determine its reliability; and it was found to 0.87 at 0.05 level of significance. Indicating high reliability.

Method of Data Collection

The researcher l administered the questionnaires to the students, guide the completion and retrieve the completed questionnaires on the spot. The researchers organized practical examination for the assessment of knowledge on manipulating skill and quality of product.

Method of Data Analysis

Data generated from pre-test and posttest was analyzed using mean statistic. A mean of 2.5 and above indicated acceptance of result to be of accepted standard; while mean less than 2.5 indicated rejection. The mean difference between pre and post test results were used to determine the effect of experiential teaching and learning in empowering learners with needed knowledge and skills in catering crafts business ventures.

Presentation of Results

Research Question 1: What are the mean pretest and posttest scores of students on tools and equipment needed in catering craft practices?

Table 1: ***Mean Pretest and Posttest Scores of Students on Tools and Equipment Needed in Catering Craft Practices (N = 100)***

Score	Students (N)	$\bar{x}$
Pretest	50	34.3
Posttest	50	95.4
Mean Gain		**61.1**

Field Surveyed Data (2023)

The analysis on Table 1 shows the mean pretest and posttest scores of students on tools and equipment needed in catering craft practices. The analyses further revealed that the students' mean posttest score of 95.4 is higher than their mean pretest score of 34.3. The gain in mean of the students' posttest score over the pretest score is 61.1 which mean that the students have known spatula, sieve, scale, mixer, gas cooker and others as the tools and

equipment needed in catering craft practices after they were taught.

Research Question 2: What are the mean pretest and posttest scores of students on functions of tools and equipment in catering practices?

Table 2: ***Mean Pretest and Posttest Scores of Students on Functions of Tools and Equipment Needed in Catering Craft Practices (N = 100)***

Score	Students (N)	$\bar{x}$
Pretest	50	32.8
Posttest	50	94.6
Mean Gain		**61.8**

Field Surveyed Data (2023)

Table 2 indicates the pretest and posttest scores of students on functions of tools and equipment in catering practices. The analyses further revealed that mean posttest score of 94.6 is higher than the mean pretest score of 32.8. The mean gain of the students' posttest score over the pretest score is 61.8. This reveals that the students have known various functions of tools and equipment such as blender, refrigerator, measuring scale and others that are used in catering practices after they were taught.

Research Question 3: What are the mean pretest and posttest scores of students on manipulative skills terms used in handling catering craft products?

Table 3: ***Mean Pretest and Posttest Scores of Students on Manipulative Skills Terms Used in Handling Catering Craft Products (N = 100)***

Score	Students (N)	$\bar{x}$
Pretest	50	33.6
Posttest	50	81.4
Mean Gain		**47.8**

Field Surveyed Data (2023)

The information on Table 3 reveals the mean pretest and posttest scores of students on manipulative skills terms used in handling catering craft products. The analyses also indicate that the students' mean posttest score of 81.4 is higher than their mean pretest score of 33.6. The gain in mean of the students' posttest score on their pretest score is 47.8. This indicates that the students have known creaming, kneading, puffing, sifting among others as manipulative skills terms used in handling catering craft products after they were taught.

Research Question 4: What are mean pretest and posttest scores of students on the basic ingredients used in confectionaries and snack products?

Table 4: ***Mean Pretest and Posttest Scores of Students on Basic Ingredients Used in Confectionaries and Snack Products (N = 100)***

Score	Students (N)	$\bar{x}$
Pretest	50	32.3
Posttest	50	81.9
Mean Gain		**49.6**

Field Surveyed Data (2023)

The data analyzed on Table 4 show the mean pretest and posttest scores of students on the basic ingredient used in confectionaries and snack products. The analyses further revealed that the students' mean posttest score of 81.9 is higher than that of their mean pretest score of 32.3. The mean gain of students' posttest score over the pretest score is 49.6. This implies that the students have known flour, yeast, fats, baking powder and others as basic ingredients used in confectionaries and snack products after they were taught.

Research Question 5: What are the mean pretest and posttest scores of students on the importance of proper packaging materials for confectionaries and snack products?

Table 5: ***Mean Pretest and Posttest Scores of Students on Importance of Proper Packaging Materials for Confectionaries and Snack Products (N = 100)***

Score	Students (N)	$\bar{x}$
Pretest	50	33.6
Posttest	50	79.7
Mean Gain		**46.1**

Field Surveyed Data (2023)

Analysis on Table 5 revealed mean pretest and posttest scores of students on the importance of proper packaging materials for confectionaries and snack products. In addition, the analyses indicate that the students' mean posttest score of 79.7 is higher than that of their mean pretest score of 33.6. The gain in mean of the students' posttest score over the pretest score is 46.1. This shows that the students have known various importance of proper packaging materials for confectionaries and snack products such as that it enhances products attraction, worthiness, prevent spoilage and others after they were taught.

Summary of Findings

The following findings emerged from this study;

1. Students have known spatula, sieve, scale, mixer, gas cooker and others as the tools and equipment needed in catering craft practices.
2. Students have known various functions of tools and equipment such as blender, refrigerator, measuring scale and others that are used in catering practices.
3. **S**tudents have known creaming, kneading, puffing, sifting among others as manipulative skills terms used in handling catering craft products.
4. **S**tudents have known flour, yeast, fats, baking powder and others as basic ingredients used in confectionaries and snack products.

5. **S**tudents have known various importance of proper packaging materials for confectionaries and snack products such as enhances products attraction, worthiness, and prevent spoilage among others.

Discuss of Findings

The findings that emerged from this study is a practical prove that Kolb's (2010) experiential teaching and learning theory is efficient to a bridge the gap of graduates unemployment in the society, resulting from inadequate mastery of expected job performance in the world of work. For example, in research question one, the mean gain from pretest and posttest is 61.1, which indicated that students can indentify various tools and equipment used for production of snack and confectionaries after been taught experientially. This finding, is in line with Imogie (2000) who opined that for effective teaching and learning to take place, there should be teaching aids that will enable a learner to have a concrete experience by seeing, handling the real example of learning materials to enhance understanding.

Result from research question 2 and 3 that focused on uses of tools and equipment and their manipulative skills in snacks and confessionary products also revealed mean gain between pre and posttest – 61.8.and 47.8; indicating the students exposed to experiential teaching and learning method of teaching will gain the expected competence required to be a successful entrepreneur in the world of works. This is because he/she would have gained adequate mastery of knowledge, and skills needed for success upon graduation. This finding is also in line with Toby (2004) who remarked that vocational training in the artisan era was very successful in the acquisition of knowledge and skills need in the world of work because of learning directly on the practices of their master on daily bases, therefore as the Home Economics students are involved in practical experiences will gain successful entry into work force upon graduation. Like the superiority of mean gained in the above research questions, so also research questions 4 and 5; had superior mean gained between post-test result over pretest. Indicating that the learners gained better knowledge, and skills that will enable them enter the world of works upon graduation from Home Economics Departmental programmes. This implies that adoption of experience teaching and learning theory in teaching Home Economics subject area courses will produce viable entrepreneurial graduates, who are able to plan and start up entrepreneurship ventures in the society and even become an employer of labour, instead enlisting among the unemployed in every corner of the streets.

Conclusion

From the discussion of findings in this work, the researchers concludes that experiential teaching and learning method, have the potential to empower Home Economics students to gain mastery on knowledge, and skills needs to successful enter entrepreneurship aspects of snacks and confectionaries business ventures upon graduation, especially in areas of production and sales.

Recommendations

Based on the findings of this study, the researchers recommends the following:

1. Teachers and learners in Home Economics subject areas should make up their mind by doing everything possible in the area of improvising learning materials to enable them adopt experiential teaching and learning

theory for entrepreneurship empowerment upon graduation.

2. The Federal Ministry of Education should use her good office to provide suitable infrastructures, equipment and tools to enable experiential teaching and learning situations in schools and enable learners gain mastery of knowledge and skills exposed to while on training and become employable upon graduation from academic program.
3. The Federal government through her ministry of education should provide opportunities to teachers, lectures and instructors for in service training programmes to enhance and update knowledge and skill practices in different entrepreneurship ventures so as to be able to teach learners efficient skills for successful entrepreneur ventures.

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