

**IMPACT OF OBSERVATIONAL TECHNIQUES ON THE
ACADEMIC PERFORMANCE OF HOME ECONOMICS
STUDENTS IN FEDERAL COLLEGES OF EDUCATION
NORTH-WEST GEO-POLITICAL DISTRICT, NIGERIA**

BY

Hadiza Tambaya YAHAYA
MED/EDUC/15045/2007-08

**A THESIS PRESENTED TO THE SCHOOL OF POST
GRADUATE STUDIES IN PARTIAL FULFILMENT FOR
THE AWARD OF MASTERS DEGREE IN HOME
ECONOMICS AT THE FACULTY OF EDUCATION,
AHMADU BELLO UNIVERSITY, ZARIA**

MARCH, 2014

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**DEPARTMENT OF VOCATIONAL AND TECHNICAL
EDUCATION, HOME ECONOMIC SECTION
FACULTY OF EDUCATION, AHMADU BELLO
UNIVERSITY, ZARIA**

SUPERVISORS
PROF. (MRS) AISHA .Z. MOHD
DR. (MRS) ESTHER .E. ADAMU

MARCH, 2014

DECLARATION

I declared that this thesis titled “Impact of Observational Techniques on the Academic Performance of Home Economics Students in Federal Colleges of Education North-West Geo-Political District, Nigeria” which was written by me in the department of Vocational and Technical education, Faculty of Education, Ahmadu Bello University, Zaria under the supervision of Prof. (Mrs.) Aisha Zakari Mohammed and Dr. (Mrs.) Esther E. Adamu.

Hadiza Tambaya Yahaya

Date

CERTIFICATION

The thesis titled “Impact of Observational Techniques on the Academic Performance of Home Economics Students in Federal Colleges of Education North-West Geo-Political District, Nigeria” by Hadiza Tambaya Yahaya meets the regulation for the award of masters’ Degree in Home Economics Education (M.Ed) of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literacy presentation.

Prof. (Mrs.) Aisha Z. Mohammed
Chairperson, Supervisory Committee

Date

Dr. (Mrs.) Esther E. Adamu
Member, Supervisory Committee

Date

Dr. I. M. Haruna
Head of Department
Vocational and Technical Education

Date

Prof. A. A. Joshua
Dean, School of Postgraduate Studies

Date

DEDICATION

This research work is dedicated to my husband Rev. Tambaya Yahaya, My children Jamila, Maryam, Yahaya and Yunusa and my grandson, Ibrahim.

ACKNOWLEDGEMENTS

I am indeed grateful to God Almighty the maker of Heaven and Earth who granted me the privileged and opportunity to undergo this academic pursuit from beginning to the end.

I wish to express my sincere gratitude and appreciation to my supervisor Prof. (Mrs.) Aisha Z. Mohammed and Dr. (Mrs.) Esther E. Adamu for their guidance, patience, understanding, useful suggestions and criticisms which helped tremendously in shaping this work. I cannot thank you enough, may God reward you abundantly.

I am also grateful to all my lecturers in the Department of Vocational and Technical Education. Dr. I. M. Haruna the Head of Department, Dr. S. Ibrahim, the Departmental Post Graduate Coordinator, Prof (Mrs.) T. O. Ojo, Prof. M. M. Aliyu, Prof. (Mrs.) E. Ike, Dr. (Mrs.) S. L. Ajayi, Dr. (Mrs.) P. E. Onuigbo, Dr. (Mrs.) M. F. Ahuwan, Dr. D. O. Oni, Dr. A. A. Udoh, Dr. B. I. Okeh, and Dr. (Mrs.) M. Khaleel for the acknowledge you imparted on me which lead me and make me reach this stage in life. Thank you very much and may God reward you abundantly.

I am highly indebted to my beloved husband Rev. Tambaya Yahaya for the chance he gave me to undergo this study and for his moral and financial support throughout the period of my study. I also express my sincere gratitude to my children for their prayers, support and even taking care of the house while I am in school, thank you very much and may God bless you.

My appreciation also goes to the management of Federal College of Education, Kano for support and sponsorship. I also wish to express my appreciation to the entire staff of Home Economics Department, Federal

College of Education, Kano for their support and prayers all through my study period.

I acknowledge with gratitude the efforts of my research assistants in Federal College of Education Katsina, Gusau, Zaria and Bichi whose dedication and support lead to the success of this work. Thank you very much my typist Michael Abejide who tirelessly and patiently type and re-type this work with all dedication and humility. Same appreciation goes to my statistician Mr. Umoru O. Ismaila. Thank you Dr. Sunny Nkonu and Engr. Nalado, for your contribution towards the success of this study.

My sincere appreciation also goes to all my classmate in Home Economics 2007/2008 especially Regina Ma'aji, Fatima Shem, Christiana Zadding, Inno Ibrahim, Zainab Abbas for their encouragement and cooperation, to all my respondents both lecturers and students and all who in one way or the other contributed to make my study a reality, may God bless and reward you abundantly.

Abstract

The study was on the impact of observational techniques on the academic performance of Home Economics students in Federal Colleges of Education North-West Geo-Political District, Nigeria. A danger was perceived in the evaluation of students' academic performance due to over-dependence on examination result as a true measure of students' achievement which in most cases led to producing graduates that could not depend the quality of their results. Six specific objectives were formulated for the study some of which are; to examine the evaluation methods used by Home Economics lecturers to determine the academic performance of their students, to examine the relationship among Home Economics lecturers educational qualification, years of teaching experience and ranks and their opinion on effect of observational technique on students academic performance. Six (6) research questions and six (6) hypotheses were also formulated, and the population for the study were two hundred and eighty two (282). Fifty one (51) lecturers and one hundred and ninety (190) 300 level Home Economics students from five Federal Colleges of Education were sampled for the study. The instrument used for data collection were the mean academic performance of students in the control and experimental groups as well as a designed questionnaire for the lecturers. Analysis of variance and independent t-test were the statistical tools used to test the null hypotheses. Four null hypotheses were accepted and two were rejected at 0.05 alpha level of significance. The major findings of the study revealed that: (i) Lecturers mostly use tests and examination to determine the academic performance of the students (ii) lecturers educational qualification, years of teaching experience and ranks does not affect their opinion on effect of observational techniques on academic performance of students (iii) Students academic performance was higher in the experimental group and less for the control group. Based on the findings in the study, it was recommended that: (i) Home Economics lecturers should in addition to tests and examinations, include observational technique in their evaluation procedures as it would enable them and their students to be more involved, thereby producing more responsible students. (ii) Refresher courses should be given to Home Economics lecturers within each educational qualification stage in order to make them more conversant and up-to-date with evaluation procedures as well as evaluation methods. This can be done through seminars and workshop by experts in measurement and evaluation (iii) Students should be exposed to observational techniques as an evaluation device which can motivates and challenge students to be more concerned about their own learning and help them to perform better academically.

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DEFINITION OF TERMS USED

Devices – The ways and format lecturers used in giving judgment on the students' academic performance.

Teaching: All the instructions a lecturer gives to the students in an attempt to creating or influencing desirable change in behaviour.

Learning - The ability of the learner to show skill, knowledge and ability after receiving an instruction.

Formal Evaluation: the type of assessment given to students without liberty or freedom of choice and under strict surveillance.

Informal evaluation – the type of assessment given to students under natural condition without strict surveillance with freedom of choice.

Technique: A tool, item or format used to find how the extent to which learning has taken place.

Observational Technique: Giving judgment about students' performance by watching, recording the students' activities and involving the students in the evaluation procedures.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The task of the teacher is to create or influence desirable changes of behaviour in learners. This is done through the teaching-learning processes. Teaching is an attempt to help an individual to acquire knowledge, skills, ideas and attitude desirable for survival in the real world. Teaching is a process of interaction between the teacher and students in which the students are guided and directed to learn. Weiner (1990) stated that teaching is a complex and personal activity that is best assessed and evaluated using multiple techniques and broadly-based criteria. Weiner further added that, the purpose of assessment is for instructors to find out what changes they might make in teaching method or style, course organization or content, evaluation and grading procedures in order to improve student learning.

Evaluation of the teaching and learning activities is one of the major task of the teacher. For any proper and meaningful decision making as well as judgement of student performance in a given course content to take place, adequate and different evaluation devices or methods need to be employed. This is important in order to make useful and meaningful assessments of the progress being made by the students as well as the efforts of the teacher in the teaching processes. Gullickson (2000) opined that sound student evaluation is an essential ingredient to strong educational programmes.

Cook (2002) explained that good teaching could be characterized by assessments that motivate and engage students in ways that are consistent with the philosophies of teaching and with the theories of development, learning and motivation. Also Kadiri (2004) observed that evaluation enables the teacher to determine the quality of instruction. The efficiency or otherwise of any instruction is determined by its ability to affect learning amongst the students or pupils. The National Policy on Education (2004) explained that assessment and evaluation is an integral part of the teaching and learning process. The assessment procedure recommended must take into account the progress of the learner through the entire period of schooling. Teachers are expected to be flexible and innovative in their assessment procedures to get the best out of learners.

Informal evaluation techniques on the other hand are evaluation techniques which provide evidence and information about learners natural behavioral patterns. They are done without the learner being aware, or conscious, of what is happening. Ellis (1995) stated that these evaluation devices are essentially unobstructive, because they are design not to interrupt or interfere with the flow of teaching and learning activities when they expose learners to relatively open-ended exercise that can be completed successfully by learners who have mastered the relevant content. Informal evaluation techniques include: interviews, questionnaire, observation, peer and self-reports, portfolio, attitude and rating scales (Saka, Sam, and Yusuf, 2002, Kadiri, 2004 and Child, 2004).

Observational technique according to Jorgensen (1989) is a form of naturalistic inquiry which allows investigation of phenomena in their naturally occurring settings. Observational technique provides detailed rich insights into the effect of the intervention and influence of context, which is sensitive to the viewpoint of the key actors and the beneficiaries. Jorgensen further added that, observational technique is a generic method that involves the collection, interpretation and comparison of data. It is therefore well suited to the analysis of the effects of an intervention that is innovative or unfamiliar, especially the clarification of confounding factors that influence the apparent success or failure of the interventions evaluated. Onwuka (1996) stated that, observation in natural situations is one form of evaluation which has not been effectively used by evaluators. There are certain behaviours which can be best evaluated through observation rather than through paper and pencil tests. Onwuka, further added that the most dependable source of valid information in evaluating the character of the individual is observation under natural conditions. Yusuf (2002) explained that, the measurement of performance represents all abilities that can be evaluated only on the basis of observing the individual as he performs the tasks involved, such as ability to perform laboratory operations, speed and accuracy in typing course, manipulation of keyboards and use of mouse in a computer lesson and so on.

The academic performance of a child could be defined as the learning outcomes of the child. This include the knowledge, skills and ideas acquired and retained through their course of study within and outside the classroom situation

(Anene, 2005). Performance within the context of ongoing student activities refers to assessing student learning progress in tasks that require students to be actively engaged in some activity such as manipulating materials, demonstrating skills, solving a multistage problem, or participating in a debate (Stufflebeam, 2000). Learning is supposed to lead learners to see relationships in learned materials and to be able to apply learned facts to solve problems of living in society. Carew and Tukur (2001) queried evaluation procedures of not being sensitive to how and why students are not learning. Carew and Tukur questioned the type of learning outcomes evaluated that have little bearing on survival in the real world, in addition evaluation of learning outcomes, in most institutions of higher learning in Nigeria, they opined, is strictly knowledge based. Abba (2000), Adeoti (2001) and Okam (2002) called attention to the dangers in the continued dependence on the over-used formal assessment procedures of tests and semester examinations in measuring and judging the academic performance of students. They stated that, using this old assessment procedures not only negated the principles of continuous evaluation but other principles like comprehensiveness, cooperation and focus of objectives in the process of evaluation. Therefore, the use of observational techniques by teachers can be an effective way of evaluating the academic performance of students since it give room for their involvement in the evaluation process. Based on these assumptions, it is necessary for teachers to use different evaluative methods, especially the informal evaluation devices in order to determine the performance of their students effectively.

1.2 Statement of the Problem

It has been a lifelong practice in the history of the school system that examination grades are the main and almost the only true determinant of a student's academic achievement and performance. Most of these assessment procedures focus on the low levels of the cognitive domain where learners are made to recall and reproduce simple facts and principles without proper understanding and application of such facts. In most cases, teachers assess only the quality of the learners' product without bothering about their input in the process of making the product.

The practice have led students into various acts of examination malpractice in an attempt to obtaining high grade in an examination result which they cannot depend in real life situation; hence the practice of producing graduates that are half-bake, an issue that poses threats to the educational system. Adeoti (2001) explained that, although the acquisition of certain amount of knowledge about concepts under study is necessary, the higher levels of understanding and the ability to use learned materials should receive greater attention.

The researcher learned from interaction with students and discussion with some lecturers of Federal College of Education, Kano, that students find it difficult to express themselves and even perform some academic activities as teachers-in training. This is very common during class presentations, teaching practice and industrial attachment, as well as other teaching/learning activities. This is challenging to the teachers who are at a lost as to what type of learning or

instructions these students were getting in the course of their lectures. This was what prompted the researcher into conducting a study to examine the effect of observational technique for determining academic performance of Home Economics students in Federal Colleges of Education, in an attempt to find ways of improving the assessment modalities that teachers follow in assessing their students' academic performance and also encourage students to be more involved in their learning activities.

1.3 Objectives of the Study

The main objective of the study is to assess the Impact of Observational Techniques on the Academic Performance of Home Economics Students in Federal Colleges of Education North-West Geo-Political District, Nigeria.

The specific objectives are to:

- 1) Examine the evaluative methods used by Home Economics lecturers in determining the academic performance of Home Economics students.
- 2) Examine the relationship among Home Economical lecturers' qualification and their opinion on the effect of observational technique on academic performance of students.
- 3) Examine the relationship among Home Economics lecturers' years of teaching experience and their opinion on the effect of observational technique on academic performance of students.

- 4) Examine the relationship among Home Economics lecturers' rank and their opinion on the effect of observational technique on the academic performance of students
- 5) Assess the difference among Home Economics students' academic performance in the control and experimental (treatment) groups.
- 6) Determine the difference among Home Economics students academic performance from the sampled colleges of education treated with observational technique

1.4 Research Questions

The study will attempt to provide answers to the following research questions:

- 1) What evaluative methods do Home Economics lecturers use to determine the academic performance of their students in federal colleges of education?
- 2) To what extent does Home Economics lecturers' qualification affect their opinion on the effect of observational technique on academic performance of students?
- 3) To what extent does the Home Economics lecturers' years of teaching experience affect their opinion on effect of observational technique on academic performance of students?

- 4) To what extent does the Home Economics lecturers' rank affect their opinion on the effect of observational technique on academic performance of students?
- 5) What is the difference among Home Economics students' academic performance in the control and experimental (treatment) groups using observational technique?
- 6) What is the difference among the Home Economics students academic performance based on their college?

1.5 Research Hypotheses

The following Null hypotheses for the study are formulated to be tested.

HO₁ There is no significant difference that exist among Home Economics lecturers in the use of evaluative methods to determine Home Economics students' academic performance in Federal College of Education

HO₂ There is no significant relationship among Home Economics lecturers' qualification and their opinion on the effect of observational technique on students' academic performance.

HO₃ There is no significant relationship among Home Economics lecturers' years of teaching experience and their opinion on the effect of observational technique on students' academic performance.

HO₄ There is no significant relationship among Home Economics lecturers' rank and their opinion on the effect of observational technique on students' academic performance.

HO₅ There is no significant difference among Home Economics students' in their academic performance in the control and experimental groups using observational technique.

HO₆ There is no significant difference among Home Economics students in their academic performance from different colleges of education.

1.6 Significance of the Study

The findings of this study if adequately disseminated will be of immense benefits to **teachers, students and curriculum planners.**

For the teachers, the findings will hopefully, create awareness on the need for flexibility and diversification in the use of evaluative technique to determine the students' academic performances across all academic disciplines. The findings of the study will help teachers at all educational levels to understand that the greater the number of procedures used in assessing a student's academic performance, the greater the likelihood that they will yield a clearer picture of that student and what the student is capable of doing in real life situation. Teachers will, hopefully be influence and challenged to use multiple evaluative methods such as observational techniques in addition to test and examinations when making important decisions about a student's academic life and achievement. It is therefore the desire of the researcher that the result of the finding in this study would help encourage and influence teachers of all levels of education to buy the idea of using observational technique in addition to other evaluation methods in an attempt towards giving true information about the students' academic

achievement. The use of observational techniques will also help teachers towards providing responsible students who would be knowledgeable enough to be able to apply what is learnt in real life situation.

For the students, the findings of the study will help to inculcate effective study habits, interest and the need to work hard at understanding subject matter and applying such in real life situation. It will also alert them on the essence of learning, which is a positive change in behaviour by adequately focusing on tasks involved in the learning processes. Thereby, making them responsible students that would become more practical and relevant in the world of work enriched with the ability to apply learned facts to solve problems of living in the society.

For the curriculum planners, the findings of the study will help improving evaluation processes that will give room for true and accurate judgment of learners performance across all academic discipline. The Nigerian educational system had been clouded with repeated cases of examination malpractices both in internally and externally organized tests and examination, (Lassa and Agentia 2001 and Suara 2007). The findings of this study will, hopefully, provide the curriculum planners with an assessment procedure of learners' progress in an anxiety and tension-free atmosphere that will go a long way to reducing cases of examination malpractice and other negative behaviour tendencies among students.

1.7 Basic Assumptions of the Study

The assumptions of this study are that:-

1. Teachers can give a more accurate and valid information about their students performance if they are more flexible and innovative in the selection and use of evaluation devices.
2. Students will experience an effective motivation towards learning and better academic performance if they are fully involved in the evaluation procedures which will make them more relevant, effective and practical in the world of work.

1.8 Delimitation of the study

The study focused on the Impact of Observational Techniques on the Academic Performance of Home Economics Students in Federal Colleges of Education North-West Geo-Political District, Nigeria. The study was delimited to all the Home Economics lecturers and 300 level students of the five Federal Colleges of Education in the Zone.

The study was delimited to Colleges of Education because, at the NCE level, all aspects of Home Economics subjects are being taught, also the teachers are the sole providers and implementers of their own evaluation procedures that are appropriate for them to assess their students' academic performance. The study was also delimited to the use of observational technique as an evaluation device with specific reference to checklist, anecdotal records and rating scale. The study was also delimited to HEC 313 Principles of Nutrition II because it is a core course for all NCE III home economics students.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter is on review of related literature and will be discussed under the following sub-headings.

2.1 Theoretical Framework of Evaluation of Academic Performance

2.2 Concept of Evaluation

2.3 Classroom Evaluation

2.3.1 Uses of Evaluation

2.3.2 Roles of Evaluation

2.4 Students Evaluation

2.4.1 The student evaluation standards

2.4.2 Guiding Principles in Planning Students' Evaluation

2.5 Evaluation Devices or Techniques

2.5.1 Formal Evaluation Devices

2.5.2 Informal Evaluation Devices

2.5.3 Observational Technique

2.6 Evaluation in Home Economics

2.7 Implication of Evaluation of Student Performance in the Teaching and Learning

2.8 Current Issues on Evaluation Practice

2.9 Teaching and Learning

2.9.1 Importance of Teaching

2.10 Student Academic Performance

2.11 Empirical Studies

2.12 Summary of Related Literature

2.1 Theoretical Framework of Evaluation of Academic Performance

Theories are constructed in order to explain, predict and master a phenomenon (example-relationship, events, or behaviour). In many instances theory is used in constructing models of reality. A theory makes generalizations about observations and consists of an interrelated, coherent set of ideas and models.

The study focused on the effects of observational technique on the academic performance of home economics students thus the theoretical framework is based on theories of evaluation, since evaluation is the assessment and measurement of learning out comes after an instructional period. Afe (1995) pointed out that evaluation involve the teachers collecting information about the learners in order to assess, judge and grade their performance in all aspect of learning.

This study is based on four theories. Fetterman's (1996) Empowerment Evaluation theory, King's (1998) Interactive Evaluation Practice theory, and Preskill's (2001) Transformational Learning theory.

The theory of Fetterman is on empowerment evaluation. Fetterman (1996) describe empowerment evaluation as a process that encourage self-determination among recipients of the program, often including "training, facilitation, advocacy,

illumination and liberation”. Pursuing the empowerment evaluation goal, which is to foster self-determination rather than dependency, program participants including clients essentially conduct their own evaluations. The outside evaluator often serves as a coach or additional facilitator, providing clients with the knowledge and tools for continuous self-assessment and accountability. Fetterman feels that training participants to evaluate their own programs and coaching them through the design of an evaluation is an effective form of empowerment.

King’s (1998) interactive evaluation theory is also significant to this study. King defines interactive evaluation practice as “the intentional act of engaging people in making decisions, taking action and reflecting while conducting an evaluation study”. King advocates efforts of engagement in communication and discussion to create shared meaning amongst participants. She maintains that this process can lead to interest in formulating methods of inquiry, collecting and interpreting data. King also argues that for participatory evaluation to succeed, there must be (a) an accepting power structure (b) shared meaning of experience amongst participants (c) volunteers and leaders (d) enough time (e) enough resources and (f) a great degree of inter-personal and organizational trust.

Preskill (2001) theory is on transformational learning. Preskill theory is concerned with creating transformational learning within an organization through the evaluation process. Transformational learning refers to a process where individuals, teams and even organizations are identifying, examining, and understanding information needed to meet their goals. Transformational learning

is most likely to occur when “the purpose is to understand what others mean and to make ourselves understood”.

Based on these theoretical positions, this study lays more emphasis on diversification, flexibility and involvement of learners in the evaluation processes, in an attempt towards giving valid and meaningful information about student’s academic performance in all institutions of higher learning.

Fetterman’s (1996) empowerment evaluation theory is relevant and suit this study because it encourages self determination among participants. Kings (1998) interactive evaluation theory suit this study also as it focus on the intentional act of engaging people in making decisions through communication and discussion amongst participants in an attempt to create shared meaning on what is learned. Also, Preskill (2001) theory of transformational learning is relevant to this study as it focus on identifying, examining and understanding information needed to meet goals.

2.2 Concept of Evaluation

Evaluation is a process of collecting information that could guide proper decision making. Bello and Okafor (1999) defined evaluation as the process that attempts to determine as systematically and objectively as possible the relevance, effectiveness and impact of activities in the light of stated objectives. Wakjissa et al., (2001) added that evaluation is a systematic process of determining the extent to which instructional objectives are achieved by pupils. They further stated that evaluation may include either quantitative or qualitative descriptions of pupils or

both. It also include value judgement concerning worth of the obtained result. Child (2004) stated that, evaluation is what follows once an assessment has been made. It involves judgment about the effectiveness and worth of something for which the assessment has already been made, usually a teaching objective.

One would assess the level of performance of a child in a given topic but the result would be used to examine the suitability of the material for which that child is evaluated. Kadiri (2004) reported that evaluation involve a comprehensive process of collecting, interpreting and reporting evidence of learner's growth which occurs as a consequence of the school programme. These include not only the subject matter achievement but also attitudes, feelings, interest, ideals, ways of thinking, work habits and personal social responsibility.

2.3 Classroom Evaluation

Classroom evaluation focused mainly on the improvement of teaching processes. Davis (1993) stated that, classroom evaluation is both a teaching approach and a set of techniques. The approach is that the more you know about what and how students are learning, the better you can plan learning activities to structure your teaching. The techniques are mostly simple, non-graded, anonymous, in-class activities that give both you and your students useful feedback on the teaching-learning process. Angelo and Cross (1993) added that classroom evaluation is the observation of students in the process of learning, the collection of frequent feedback on students' learning, and the design of modest classroom experiments that provide information on how students learn and how

students respond to particular teaching approaches. Classroom evaluation helps individual college teachers obtain useful feedback on what, how much, and how well their students are learning. Faculty can then use this information to refocus their teaching to help students make their learning more efficient and more effective.

Classroom evaluation is the method of inquiry into the effects of teaching on learning. It involves the use of techniques and instruments designed to give instructors ongoing feedback about the effect their teaching is having on the level and quality of student learning, this feedback then inform their subsequent instructional decisions (York University, 2002). Eya, Maduewesi, Aboho and Zaria (2006), opined that, classroom evaluation is a process of passing value judgement and taking guided decisions on specified learning outcomes. This fundamental aspect of the education process aims at obtaining information, through some means, to assess learners' progress towards some pre-determined goals or objectives of instruction.

The above quoted further added that, classroom evaluation is usually conducted by the teacher. In doing this, the teacher in a variety of ways, tries to find out how far or to what extent he has been successful (or has been succeeding) in guiding the learners to achieve the stated objectives of instruction. This qualitative measure of learning outcomes has proved to be useful not only to the teacher but also to the student and his sponsors.

Based on these, it is clearly stated that adequate use of classroom evaluation helps the teachers to decide the next line of constructive action to be taken as regards to the teaching/learning process he and his students are involved in.

2.3.1 Uses of Evaluation

Evaluation is mostly and primarily concerned with the purpose, progress and outcomes of the teaching and learning process. Olaitan and Agusiobo (1981) stated that, evaluation tends to give psychological security to teachers, parents and students; it can also provide means of strengthening a schools public image. Angelo and Cross (1993) stated that evaluation methods are used to measure and judge student learning and understanding of the material for the purposes of grading and reporting.

Wakjissa et al (2001) summarized the uses of evaluation as follows.

1. It contributes directly to the teaching/learning process used in classroom instruction, and is useful for assigning marks and reporting pupils progress to parents
2. Evaluation aid in decision-making. Decision regardless of their magnitude, must be based on a certain amount of information. Most rational decisions are obtained from evaluation. Intuition alone as a basis of decision making leads to undesirable consequences.
3. It determines the extent to which objectives are being achieved. Teachers often believe that their objectives are geared towards students development,

when in reality their evaluation is geared to facts or emphases that are unrelated to the objectives

4. To improve programmes for students. Evaluation of programmes will always contribute to the better services of students. Evaluation prepares students for certification, world of work and for other institution of learning.
5. To upgrade programme personnel. A comprehensive evaluation system is capable of identifying deficiencies and strength of personnel performance, thus helping to improve their teaching.
6. To secure sufficient information about students to permit effective guidance.
7. It aids the selection of the appropriate instructional materials, strategies and procedure. Evaluation takes place at all levels of teaching and when this is neglected, it means that formative and diagnostic evaluation has not taken place. Learners are then reduced to mere passive listeners in the teaching and learning processes.
8. Teachers who want to evaluate their students' achievement fairly and honestly provide a broad base on which to determine final grades.

A variety of evaluative method is fairer because different students do well on different types of measures. Ben-Yunusa (2005) reported that through evaluation teachers got to know their own performances in the classroom. Teachers engaged in evaluation sometimes to ascertain, the availability and workability of teaching

materials, or gadgets. Evaluation when undertaken by the school authority will enable the authority to know the competence of both teachers and school administrators. Therefore, evaluation guides both the teachers and the school authority to give accurate information about their students' academic abilities as well as their performance and achievement.

The uses of evaluation highlighted made it clear that adequate evaluation of students' performance is of utmost importance for all persons that are involved in the teaching and learning processes in order to produce graduates that are both socially and academically competent and efficient in the world of work.

2.3.2 Roles of Evaluation

The role of evaluation may be enormously various. Scriven in Onwuka (1996) reported that, evaluation may form part of the teachers' training activity, of the process of curriculum development, of a field experience connected with the improvement of learning theory, of an investigation preliminary to decision about purchase or rejection of materials, it may be a data-gathering activity for supporting a request for tax increase or research support, or a preliminary to the reward or punishment of people as in executive training programme, a prison or a classroom.

Kissok in Okechukwu (2002) opined that, evaluation is a primary component of almost every instructional situation. It is the process through which all participants receive feedback on their progress in achieving programme objectives. Evaluation is used to judge students performance and determine

readiness for higher level of study. It is used to determine the effectiveness of the programme and to monitor the teachers' performance.

Saka, Sam and Khairat (2002) summarized the roles of evaluation in the teaching and learning process as follows:

1. Identifying and defining instructional objectives in terms of desired learning outcome. This will guide the teacher in the teaching process and clearly determine the expected learning outcome to be evaluated.
2. Planning and directing learning experiences in harmony with learners' needs. The instructional materials planned by the teacher will be in relation to pupils' abilities and skills needed to proceed with instruction.
3. Evaluation of learning outcome; the focus will be to what extent are the instructional objectives of the school and the individual classroom teacher being achieved through the various instructional process and methods employed.

2.4 Students Evaluation

Educational best practice dictates that teachers know how to assess their student's academic growth throughout the instructional process. Ogunniyi (1984) stated that, testing forms an integral part of students' evaluation. The purpose of this type of evaluation is to determine how well a student is performing in a programme. Through series of oral questions, paper-pencil tests, manipulative tests, discussions, tutorials, ,individualized instructions, assignments, projects and so on, the student is gradually guided towards a desired goal. Gullickson (2000),

while stressing the significant role of students' evaluation, reported that, sound students' evaluation is an essential ingredient to strong educational programmes. He further stated that, evaluation is probably the most common and pervasive aspect of student instruction. It is the primary tool for guiding students' development, crossing all academic discipline in all classrooms and regularly confronts students and educators in a wide variety of decision-situations that affect their educational development.

Evaluation influences student's motivation and learning. Wilde and Sockey (2002) have used the term educative evaluation to describe techniques and issues that educators should consider when they design and use evaluative methods. Their message is that the nature of evaluation influences what is learned and the degree of meaningful engagement by students in the learning process. Also Paris and Robert (2003) reported that, teachers frequently evaluate students by testing. Learners also need self-evaluation skills in order to make wise decisions in an environment characterized by other choices and a work place where knowing how to collaborate is essential. Adamu (2010) stressed that student evaluation is an important component of the teaching/learning processes. The main purposes are to facilitate student learning and to improve instruction. The information about student progress will assist the teacher in planning or modifying his/her teaching methods as to help the students in identifying personal learning goals.

2.4.1 The student evaluation standards

Teachers in the teaching and learning process made use of evaluation throughout the teaching exercise. Evaluation helps students and teachers to forge ahead on the right educational path. Dele (2003) stated that the evaluation enables teachers compare the actual outcome with the expected outcomes and arrive at conclusions about this comparison with a view to future action

The joint committee on standards for educational evaluation (2003) published three sets of standards for educational evaluation. Each of the standards has been placed in one of four fundamental categories; to promote evaluations that are proper, useful, feasible and accurate. The committee summarized the standard thus:

1. The propriety Standard help ensure that student evaluations are conducted lawfully, ethically, and with regards to the rights of students and other persons affected by students evaluation.
2. The feasibility Standard helps ensure that student evaluations are practical; viable; cost-effective; and culturally, socially and politically appropriate.
3. The Accuracy Standards help ensure that student evaluations will provide sound, accurate and credible information about students' learning and performance.

2.4.2 Guiding Principles in Planning Students' Evaluation

Educational evaluation is a professional activity that individual educators need to undertake if they intent to continuously review and enhance the learning

they are endeavoring to facilitate. Adequate evaluation procedures give the students the chance to practice the skills that will be required of them as adults.

The following are credible evaluation procedures:

- a) Evaluation should help students. It should provide positive feedback and encourage students to actively participate in their own learning.
- b) Evaluation should be planned, continuous activity that is closely linked to both curriculum and instruction.
- c) Evaluation should be guided by the learning objectives of the curriculum and a variety of assessment strategies should be used.
- d) Evaluation plans should be communicated in advance.
- e) Evaluation must be fair and equitable. It should be sensitive to family, classroom, school and community situations. It should be free of bias. Students should be given opportunities to demonstrate what they do know as opposed to demonstrating what they do not know (Preskill and Torres, 2001).

2.5 Evaluation Devices or Techniques

Teachers use evaluation to compare anticipated outcome with actual results of instruction in an attempt to ascertain the progress made by the learner. Okechukwu (2002), with focus on social and science education programmes stated that there are two major types of evaluation techniques involved in the assessment of teaching and learning. These are formal evaluation technique (test) and informal

evaluation techniques which consist of self-reporting and observational techniques. Child (2004) proposed that there has been a market growth in alternatives to conventional written examination over the years. The most important of these has been objective type test of which the now familiar multiple choice item is an example. Other forms in use according to child, are continuous (or more accurately, intermittent) assessment, orals, practical, portfolio and performance. The most recent innovations are rating scales and checklist. For the purpose of this study, focus will be given to the informal evaluation technique with reference to observational technique.

2.5.1 Formal Evaluation Devices

Formal Evaluation techniques are structured testing procedures. Armstrong and Savage (1996) opined that, formal evaluation devices are means of evaluation used with learners' full knowledge that they are being tested. Saka et al., (2002) stated that the most common formal instrument for measurement in education is a test. A test is defined as generally any instrument for assessing individual differences along a given dimension of behaviour. Kadiri (2004) asserted that formal evaluation devices include teacher prepared and standard tests. Kadiri further added that unlike the informal evaluation, pupils or students in this type of evaluation techniques are almost aware that they are being tested. The formal evaluation techniques require the teacher to demonstrate care and diligence in their construction. The evidence or information gathered in this type of evaluation

techniques are mainly from the point of views of the learners. It is important to note that the test is the major devices used to evaluate performance formally.

Saka et al (2002) and Kadiri (2004) classified formal test into the following:

- i. Achievement-aptitude tests
- ii. Standardized – teacher-made test
- iii. Norm-referential-criterion-referenced test.

1.(i) **Achievement Test:-** Is designed to indicate the degree of success in some past learning activity. Achievement test are the most commonly used in the classroom to measure the effectiveness of the instruction.

(ii) **Aptitude Test:** An aptitude test is primarily designed to predict success in some further learning activity.

2. (i) **Standardized Test:** This could be achievement or aptitude, but generally it is one in which the procedure and scoring method have been fixed, so that precisely the same testing procedures can be followed at different times and places.

(ii). **Teacher-Made-Test:** Are mostly achievement tests, they are essentially designed to test a specific group of pupils or students at a given time and place.

3. (i). **Criterion-Referenced Test;** is being defined as one that is deliberately constructed to yield measurements that is directly interpretable in terms of a specified domain of “instructional relevant tasks”. The objective of the criterion-referenced test is to find out the extent to which a students behaviour

correspondents with the stated objectives, without reference to the performance of others.

(ii). **Norm-referential test:** the objective of this test is to determine how an individual's performance can be compared to that of other members of the group. Selection of items will be based on difficulty level, so that performance in the test will provide most reliable ranking of students from the highest achiever to the lowest achiever.

Having examined the various types of formal evaluation techniques or devices, it can easily be concluded that formal evaluation devices raised to a higher degree learner's anxiety level and require great care and diligence in their construction and use to derive accurate data that truly reflect the achievement of objectives. But that notwithstanding the use of formal evaluation devices have left much to be desired in terms of assessing the acquisition of the full range of learners' academic achievement or performance.

2.5.2 Informal Evaluation Devices

Informal Evaluation techniques are evaluation devices that provide evidence and information about learner's natural behavioural patterns. Armstrong and Savage (1996) explained that informal evaluation devices are non-threatening because much of it is used without the learner being conscious or aware that they are being evaluated. Saka et al., (2002) stressed that, informal evaluation devices domain are used to measure the area of affective social behaviour which cannot be measured directly through formal instruments. Kadiri (2004) asserted that, an

informal evaluation device is a type of evaluation procedure that provides information about pupils or students “natural behaviour patterns.” Similarly the nature of this evaluation procedure helps to furnish us with data about the true nature of students or pupils because most of these evaluations take place without students or pupil being aware of what is happening.

Neukrug and Fawcett (2006) stated that informal evaluations are often developed by the user and are specific to the testing situation. The evaluation technique can be used to assess broad areas of ability and personality attributes in a variety of settings.

Types of Informal Evaluation Devices

Saka et al (2002) identified three types of informal evaluation devices, which include:

- Self reporting
- Observational techniques
- Peer-reporting or socio-metric technique

1. **Self reporting technique:** - assumes that individuals are both willing and able to report accurately about self. There are four kinds of self-reporting (Saka et al., 2002).

(i) **The interview:** this involves a face to face relationship between the interviewer and another person. The major interest of the interviewer is to secure information concerning the individuals’ attitudes, opinion, interest and the like. An interview is a conversation between two or more people (the

interviewer and the interviewee) where questions are asked by the interviewer to obtain information from the interviewee. Interviews can be divided into two basic types, interview for assessment and interview for information. (Eguzoikpe, 2008).

- (ii) **The questionnaire:** is a method of obtaining information from individual in a systematic attempt to measure the interest, attitudes and other aspects of personal and social adjustments.
- (iii) **Inventories:** Some self-reporting methods are referred to as inventories; for example personality inventory, or interest inventory. Due to the similarity in its formation with questionnaires, some personality inventories are called personality questionnaire.
- (iv) **Likert Scale:** It is one of the simplest and widely used self-report methods of measuring attitudes. The information can be obtained by listing or clearing favorable attitude statements and asking students/pupils to respond to each statement on a certain point scale that the evaluator may decide. For instance; strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

2. Peer-Reporting or Socio-metric Technique:

Saka et al. (2002) explained that, peer-reporting or socio-metric technique is a method for evaluating the social relationship existing in a group. Each group member is asked to indicate those individuals they would prefer as associates for some group activity or situation. Analysis of socio-metric results will provide

information concerning leadership potentials, social adjustment and personality characteristics.

Peer-assessment refers to student assessment of other students. Peer-assessment can be conducted either individually or collaboratively in groups. Peer-assessment occurs when a student's work is evaluated by some or all of the other students. In peer-evaluation, the student is learning about other students. Peer-evaluation can, add a further dimension to a student's growth in self-knowledge (Enerson and Johnson, 2007).

2.5.3 Observational Technique

Teachers are expected to experiment with alternatives evaluation procedures to traditional tests. Jorgensen (1989) stated that observational techniques can be used to collect in-depth information on a few typical situations in the implementation of an intervention. The method provides detailed, rich insights into the effects of the intervention and the influence of the context. Rotheiser and Ross (1998) suggested the use of performance assessment, portfolio collections, classroom observation, peer assessment and self-evaluation. Rotheiser and Ross added that, while teacher-made tests and standardized tests give us information about student learning, they do not provide all the information. Alternate forms of assessment can generate that other information.

Razaq and Bello (2000) defined an observational technique as a process whereby individual or group of people are commissioned to watch and record the

happenings of events or even study behavioural patterns in settings of interest. Saka et al., (2002) added that, information about typical behaviour can only be obtained through observation. The various observational techniques are merely systematic methods of recoding observation for the purpose of evaluation either at the moment or at a later date. Neukrug and Fawcett (2006) defined observational technique as a process of observing behaviours of an individual in order to develop a deeper understanding of one or more specific behaviours. (example, observing a student's acting-out behavior in class or assessing a client's ability to perform eye-hand coordination tasks to determine potential vocational placements).

Forms of Observational Techniques

The forms of observational techniques include:

- Anecdotal records
- Checklist
- Rating scale

a. Anecdotal Record: -

Anecdotal records are factual, nonjudgmental notes of student's activity. They are most useful for recording spontaneous events and should be cumulative (Pett, 1990). Onwuka (1996) stated that anecdotal records are accurate descriptions of the meaningful incidents and events which are observed in the lives of the subjects, the learners. The observation can be made by the teacher or someone else whom he delegates. Saka et al. (2002) defined anecdotal records as a

brief description of some observed behaviour which appeared significant for evaluation purpose. It is useful for evaluating outcomes in the area of personal and social adjustment. Also Child (2004) asserted that, when we observe children in class or at play, it is deceptively easy to draw conclusions based on isolated incidents and to make generalizations about all children from these incidents. This is called anecdotal evidence. It is sometimes helpful as a starting point for more systematic observations or as confirmation of a general principle, but anecdotes cannot serve as the sole criterion for making decisions about children education.

Anecdotal records refer to written descriptions of students' progress that a teacher keeps on a day-to-day basis. A teacher may decide to keep anecdotal records on students' ability to manipulate materials at assessment stations; to work in a group, to work in a test-taking situation or to complete a project or a written report. There are situations where a teacher will keep the anecdotal comments on the development of specific related to instructional objectives on the behaviour of a student, or on the attitude expressed or demonstrated by a student. Anecdotal records are as flexible as a teacher wishes to make them (Enerson and Johnson, 2007)

b. Checklist:

The checklist or inventory is one of the easiest tools for recording a student's progress. It should be based on instructional objectives and the development associated with the acquisition of skills being monitored (Pett, 1990).

Onwuka (1996) stated that, checklist call for simple yes or no judgments. It is a method of recording whether a particular characteristics is present or not. Saka et al. (2002) mentioned that a checklist is a prepared set of statements relating to behavioral traits, performance in some areas or product of some performance. Child (2004) opined that a checklist is a list of activities, steps in a problem, which attempts to give a systematic progression. A child can (yes) or no (no) carry out a particular step in the list. Checklists' are list of criteria a teacher determines are important to observe in students at a particular times. Besides each of the criteria, a notation is made as to whether that particular criterion was observed. Checklists can be used to record the presence or the absence of knowledge, particular skills, learning processes, or attitudes. They may be used to record such information in relation to written assignment, presentations, classroom performance, test-taking behaviours, individual or group work, fulfillment of the requirement of work, or completion of an assessment station

(Neukrug and Fawcett, 2006)

c. Rating Scale:

Pett (1990) reported that rating scales are appropriately used when the behavior to be observed has several aspects or components, such as a student's success at following directions in different situations. Rating scales consist of a set of characteristics or qualities to be judged and some type of scales indicating the degree to which an attribute is present. The rating is done by observers who judge

what they observe and on that basis rate the individual concerned (Onwuka, 1996). Saka et al. (2002) defined rating scale as a device for a systematic recording of judgments by observers concerning the degree to which the quality or trait is present in an individual.

Child (2004) stressed that, rating scales are slightly more sophisticated than the checklist. Ratings are generally classified in graduations from one extreme to another, e.g. very good, very poor, easy-hard, and so on. Rating scales are measuring instruments that allow representations of the extent to which specific concepts, skills, processes or attitudes exist in students and their work. Rating scales enable the teacher to record students' performance on a wide range of skills and attitudes. They are particularly useful in situations where the student performance can be described along a continuum such as participation in a debate or skill in preparing a microscope slide (Neukrug and Fawcett, 2006).

2.6 Evaluation in Home Economics

Home Economics has the mission and vision of developing skills, knowledge and attitude in the individual. Agwasim and Agwasim (1993) stated that, learning is an accretive process and for each new 'layer' of skills, facts, attitudes and knowledge, the learner must be properly prepared. It is precisely in judging the degree of preparation which exists that the teacher would accomplish one of her more important functions. This diagnosis should be accomplished with

skill and insight. Thus in the teaching and learning in home economics, every aspect of the subject matter need to be evaluated in order to fully prepare the learner for acquisition of skills. Wakjissa et al (2001) stated that, evaluation of the progress being made by students is very likely to be one of the most difficult but rewarding experiences one had as a home economics teacher. The challenge of evaluation rests in planning suitable ways for collecting evidence of students learning and using the finding to promote optimum growth of the students towards all of the objects of the educational programme.

Evaluating may be difficult, but it is rewarding if done effectively and consistently by the home economics teacher because the overall aspect of the subject hinges on development of the total person through skills acquisition in various areas of the subject. It is therefore, important to note that, evaluation is necessary and a must in the field of Home economics. This is because as a vocational course, it is purely concerned with skill acquisition, which is why it is necessary for the teacher to evaluate the teaching/learning processes constantly in order to assess whether the students are performing effectively or not. To make an effective evaluation of students teaching/learning situations, there is need for the teacher to use various evaluation devices in order to encourage each student to perform better occasionally.

2.7 Implication of Evaluation of Student Performance in the Teaching and Learning

Evaluation of the academic performance of students is one of the major tasks of the teacher. Argungu (1995) stated that, by and large, evaluation in the teaching/learning process is a planned and continuous process of checking the outcomes of instruction with a view to determining the extent to which objective of educational undertakings are being realized. Argungu further added that evaluation plays an important role in the teaching/learning process. It provides the teacher with data on how far he has gone towards achieving the desired objectives and to the students, it provides data for them on the extent they are catching up with what is going on in the classroom.

Fleischman and Williams (1996) asserted that although the evaluation of performance or products may be relatively costly, the gains to teacher professional development, local assessing, student learning, and parent participation are many. For example, parents and community members are immediately provided with directly observable products and clear evidence of a student's progress, teachers are more involved with evaluation development and its relation to the curriculum, and students are more active in their own evaluation. Thus it appears that alternative evaluation have great potentials to benefit students and the larger community.

York University (2002) explained that, teaching is a complex and personal activity that is best assessed and evaluated using multiple techniques and broadly

based criteria. Assessment for formative purposes is designed to stimulate growth, change and improvement in teaching through reflective practice. Evaluation in contrast, is used for summative purposes to give an overview of a particular instructor's teaching in a particular course and setting.

Students do not feel in control of their academic outcomes when the criteria for evaluation are vague. Rubrics are often helpful in addition to clarifying the criteria and standards for evaluation rubrics help students make independent judgments of their work and determine on their own when they need to make corrections or revisions. When students are therefore given diverse opportunities to demonstrate their understanding, teachers gain a more complete picture of their skills and students have more chances to demonstrate competence. (Committee on Standards for Educational Evaluation, 2003)

Eya et al., (2006) stressed that the implication of any effective evaluation is that, it must take cognizance of the three domains. But until recently instructional evaluation has been limited to paper and pencil. This means, instructional evaluation has been limited to the cognitive domain with little or no emphasis on the affective and psychomotor aspects. Frowning at this, the National Policy on Education (2004) added that attitudes, values, physical skills and abilities are important for students as well as cognitive skills.

2.8 Current Issues on Evaluation Practice

Evaluation is not only inevitable, but a continuous process. It requires the use of value judgment and proper decision making. Onwuka (1996) reported that evaluation is not, as many people think, merely synonymous with the giving of paper and pencil tests. Admittedly, these tests are sometimes necessary, for instance, in finding out what knowledge pupils have; they may be required to express their ideas and knowledge on paper. Besides, paper and pencil tests are useful devices to get at the ability of students to analyze and deal effectively with various types of verbal problems with vocabulary, with reading, and a number of other types of skills and abilities easily expressed in verbal form.

Fleischman and Williams (1996) reported that, traditionally, most assessments of students in the United States of America have been accomplished through the use of formalized tests. This practice has been called into question in recent years because such tests may not be accurate indicators of what the student has learned (e.g. a student may simply guess correctly on a multiple-choice item), or even if so, students may not be learning in ways that will help them participate more fully in the “real world.” Further, alternative approaches which more fully involve the student in the evaluation process have been praised for increasing student interest and motivation.

Wilde and Sockey (2000) opined that the nature of evaluation influences what is learned and the degree of meaningful engagements by students in the learning process. They further added that evaluation tool should be authentic, with

feedback and opportunities for revision to improve rather than simple audit learning. That was why Wakjissa et al., (2001) explained that evaluation does not mean tests and measurement, nor is it a mystical operation designed to frighten and confuse students, it is not a terminal process, not the end of a unit, six weeks report cards, or a display of students work. It is rather an on-going attempt to answer the questions, how well am I doing, what am I trying to do?

Badmus (2001) observed that, presently, undue emphasis has been placed on marks and grades obtained from tests and examination. In fact evaluation practices were mainly directed at acquisition of certificates. The procedures were generally insensitive to improvement of teaching and learning and competencies. Education which is considered as an instrument, of excellence for the total development of the individual for national development purposes, need to be handled in such a way that the aim and objectives will be fully realized. Thus Badmus (2001) suggested that to keep pace with the changing conception and purpose of education, there is need for a re-definition of educational evaluation in schools. According to him, evaluation procedures must move from the paradigm of test and examinations which sampled too narrow a range of what learners know to an evaluation culture that call for recognition of the characteristics of learners and the curriculum of the educational system.

The National Policy on Education (2004) considered assessment and evaluation as integral part of the teaching/learning process. The assessment procedure recommended is to take into account the progress of the learner through

the entire period of schooling. Teachers are expected to be flexible and innovative in their evaluation procedures to get the best out of the learners. Government contends that, it is no longer tenable to restrict evaluation of students learning to one aspect of behaviour using one technique of evaluation. Thus, the use of a variety of evaluatory techniques should be adopted to collect evidence of growth in all aspects of learners' behaviour.

Adamu (2010) stressed that, although examination are not the only instrument for assessing and evaluating knowledge, it has emerged as the major established yardstick and the most practical way of assessment. This over dependence on certificate as the key to employment has, however, led to a crazy rush by most people to try and acquire certificates either legitimately or illegitimately. Adamu, further explained that, student evaluation is an important component of the teaching/learning processes. The main purposes are to facilitate student learning and to improve instruction. The information about student progress will assist teachers in planning or modifying instructional programs and this will also assist students in identifying personal learning goals. Therefore, a variety of instruments and techniques are required by the classroom teacher to evaluate especially, the psychomotor behavior of the student. Evaluation of psychomotor domain is a skilled assessment and it requires one form of testing under a controlled condition. The instruments and techniques to be used include; project assignment, interview, rating scale, observation, questionnaire and anecdotal records.

2.9 Teaching and Learning

Teaching is a process of imparting knowledge. Maduewesi and Eya (2006) explained that teaching entails filling in the mind of the learner with skills, knowledge, facts, and information needed for immediate or future use. It is a process of interaction between the teacher and students in which the students are guided and directed to learn. While Akpotu and Nwaharn (2008) stressed that, teaching is an activity in which a teacher is involved. It is the process of assisting and guiding the learner to acquire knowledge, skills and information. Onwuka (1996) defined learning as a conditioning process by which the learner acquires a new response to new stimuli or motivation. This urge to act, which is called motivation, results from stimuli from the environment. Learning can be considered as the process by which knowledge concepts, skills and attitudes are acquired, understood, applied and extended. Children also discover their feelings towards themselves, towards each other and towards learning itself (Pollard 2002).

Akpotu and Nwahum (2008) opined learning as a process of adapting to and improving the environment. Learning is continuous and it builds on experience and practice. Akpotu and Nwaharn further stressed the relationship between teaching and learning thus:

- i. Teaching is suppose to promote learning
- ii. Even incidentally, learning helps the tasks of the teacher and the learner; it provides a necessary foundation experience for the learner and eases the work of the teacher.

- iii. Teaching in itself involves a considerable amount of learning. The man engaged in teaching has to learn about the society, about the learner and about the school system etc. he also has to draw appropriate lessons from his present teaching activities for future practice.
- iv. Both teaching and learning are processes, which are continuous in nature, the learner can sometimes be a teacher since he also influences the behavior of his teacher. They tend to re-enforce each other.

2.9.1 Importance of Teaching

Akpotu and Nwaharn (2008) stressed the importance of teaching as inevitable in the educational system. The teacher through the art of teaching leads the learner to discover knowledge and skills. Therefore -the quality of teachers determines the quality of any educational system. Akpotu and Nwaharn further summarized the importance of teaching as follows:

- a. Educational programmes are translated into action at the classroom level.
- b. The quality of teaching exhibited by teachers determined the extent of national development in Nigeria and even world wide. The quality of teaching influences the quality of graduates produced. Thus, quality teaching brings about functional nation.
- c. Through teaching, the teacher transfer his attitude manners and conduct to the learner, this is because students are good imitators and emulators.

The teacher through the art of teaching, facilitate the normal upbringing of the learners. The teacher is involved in all round development of the child. Hence the saying that no educational system can grow above the quality of its teachers.

2.10 Student Academic Performance

Building an improved quality of life and creating economic vitality stem from the development of well-educated students and a strong educational system. That is why we will continue to support efforts that improve access to quality education as well as efforts that increase academic performance (Oishei, 2008). Sicat and Panganiban (2009) reported that one measure of human capital formation of education, is the academic grade that the student obtain at the end of a course. The grade could be used as a proxy for effectiveness, or the quality of the students' performance. If grades are the output of the educational process, then the quality of the inputs matter. In this production function for educational output various factors are important. The nature and quality of instruction is of course a major input. So is the effectiveness of the teaching materials used or the teachers own effectiveness in explaining the subject. Taking these factors as given, the nature of the inputs in the educational process becomes important.

Performance within the context of ongoing student activities refers to assessing student learning progress in tasks that require students to be actively engaged in some activity such as manipulating materials, demonstrating skill, solving a multistage problem, or participating in a debate (Child, 2004). Anene (2005) opined that, the academic performance of a child could be defined as the

learning outcomes of the child. This includes the knowledge skills and ideas acquired and retained through their course of study within and outside the classroom situations.

2.11 Empirical Studies

Oyedeji (1998) conducted a study to find out whether or not school records keeping affect students academic performance, in Ilorin West Local Government Secondary Schools, in Kwara State. Descriptive survey was used and the instrument used for data collection was questionnaire. Special format for the collection of student grades in senior school certificate examinations for three years was also used. The population of the respondents was made up of two thousand five hundred (2500) students and one thousand five hundred (1500) teachers, in ten (10) schools. Stratified random sampling technique was used to select the schools and the teachers while simple random sampling was used to select the students. Percentage score was used to analyze data collected. Also, t-test was used to test the significant difference between the scores of student under schools with adequate records and inadequate record keeping in selected subjects. The main finding of the study shows that school records does not affect the students' academic performance. The mean performance for the students where adequate records are kept is 35, while that of those with inadequate records is 33.3. The standard deviations are 51 and 42 for adequately and inadequate kept records respectively. This is because there was no significant deference in the mean grade of students who obtained five (5) credits and above in senior

certificate examination in schools where adequate records are kept and schools where they were not. Though the study was on whether or not school records keeping affects students academic performance, it has some relationship with the present study which deals with how evaluation techniques affect academic performance. The sample size is large enough to be a true representation of the entire population for both students and teachers, which compares favourably with the population used for the present study. It has contributed to the present study by stressing a major variable that can encourage or discourage academic performance. However, the differences exist where the past study uses descriptive survey while the present study will be using experimental research design.

Birnbaum (1998) conducted a research on Survey of lecturers' opinion concerning student Evaluation of teaching in California State University, Fullerton. The objective of the study was to find out what changes teachers believe improve or hurt their ratings by students. The population of the study was two hundred and eight (208) faculty members and one hundred and forty two (142) students. Descriptive survey was the research method used while the instrument used for data collection was questionnaire which was sent to the respondents (Via internet) by Email. Simple percentages were used to analyze the data collected. Split-half, two-tailed and binomial sign test were the statically tools use in testing the hypothesis with a 0.5 significant difference. The main findings of the study indicates that, many lecturers members believed that the incentive system (using student evaluation for promotion and tenure decisions) puts them in a conflict of

interest between making changes that would improve student learning and making changes that would improve students. Also many students are inaccurate in describing what the teacher said in class when they are motivated to be as accurate as possible (when taking exams); therefore, is it reasonable to assume that these same students are accurate when they give evaluative descriptions of the class on an anonymous form when there is no incentive to be accurate and no penalty for libel? Another finding of this study indicate that those who do no care about students may have higher morale in this system because it is easier to teach less content and give underserved high grades than it is to uphold high standards and teach students. Those who can adopt faith in the doctrine that “the student is always right” will also be able to retain high morale, since they can say that what they are doing is consistent with their faith. The findings of this research is very beneficial and related to the present study because it revealed some variables that can prevent accurate evaluation of students academic performance and effective teaching/learning processes. Where the students are asked to evaluate their teachers’ performance in the teaching/learning activities, one of the major findings of the study revealed that, those who do not care about the students may have higher morale because it is easier to teach less content and give underserved high grades than it is to uphold high standards and teach students. The study has contributed towards enriching knowledge base of educators towards diverse challenges facing the accuracy of evaluating students performance in the teaching/learning activities.

Sawar (2004) conducted a study on the relationship of study attitude and academic performance of students and secondary school level, in Punjab. The major objectives of the study were to correlate the study-attitude and academic-performance of students and to compare the study-attitudes of low and high achievers. Twenty four (24) schools were randomly selected as population for the study. A study attitude scale (SAS) consisting of 36 items was used as instrument for data collection. The academic-performance scores were correlated with study-attitude scores and it was found that study attitude was positively related to the academic performance. The study attitude scores of females were more closely related with academic performance as compared to males; similarly study attitude scores of rural students are more closely related with academic performance as compared to urban students. Furthermore, mean scores of low and high academic-achievers were compared and it was found that high achievers and low achievers differ in their study attitude and female, male and rural, urban students also differ in their study attitude. The study is related to the present study because it highlighted the motivating factor which contributed to high academic performance which is study-attitude. This is to say that, students have a greater role to play in their academic pursuit. Also the study has greatly contributed to knowledge on factors motivating student.

A study was conducted by Ibraheem (2008) on biology teachers' perception of the causes of problems of poor performance of students in practical biology in Kogi State. The objective of the study was to investigate the perception of biology

teachers on laboratory activities which is used to determine the academic performance of the learners. The second objective was the influence of gender on teachers' perception in teaching biology students. Two research questions and two null hypotheses were formulated for the study. The instrument used for data collection was structured questionnaire and the population for the study was one hundred and eighteen (118) biology teachers. However, the research design used for the study was not stated. The findings of the study indicated that, there is great difference between trained and untrained biology teachers on the difficulties encountered by their students in the teaching of laboratory practical lessons. The result of the findings also revealed that biology teachers concentrated more in theory work in the classroom. The data agreed that most teachers usually invested much time to cover the syllabus and eventually abandon practical lessons. The study is related to the present study by highlighting the problems that led to poor performance of students which in most cases is a teacher factor of not being able to conduct practical lessons with the students which will enable them to apply the knowledge received in real life situation, instead, emphasis was made on theory.

Another study was conducted by Oguntoye et al (2010) on the effect of participation in co-curricular activities on academic performance of students in colleges of education. The main objective of the study was to investigate the involvement of students in co-curricula activities as determinants of their performance as well as to sought the impact of gender of participating students on their academic performance. Two hypotheses were generated for the study, and

questionnaire was the instrument used to elicit information from the respondent. The research design was ex-post facto. Four hundred (400) students were drawn as the population for the study through stratified sampling technique from two colleges of education owned by Lagos state. The result of the findings indicated that, no significant difference exists between the academic performance of students who get involved in co-curricular activities and their counterparts that recorded no involvement. The study is related to the present study as it indicated students' willingness to study and their involvement in other activities did not temper with their academic performance, this may have a bearing with self-determination to study harder.

Auta (2011) conducted a study on comparison of the assessment of male and female academic achievement in physics practical in Federal College of Education Pankshin Plateau state. The main objective of the study was to determine the difference, if any, in the achievement of female and male students in physics practical. One research question and one hypothesis was raised for the study. The research design was experimental and the population for the study were fifty (50) physics students randomly selected from NCE 1, 2 and 3. The instrument for data collection was a researcher designed instrument called Test of Physics Practical Skills (TOPPS). The finding of the study revealed that there was no significant difference between the performance of the male and female students in practical activities when exposed to activity based mode of teaching physics. The study is relevant and related to the present study. It has exposed the significance of

involving students in the teaching and learning activities towards high academic achievement. Also using an activity mode of teaching enhanced students academic performance, like it is applicable to the present study, teacher are expected to be flexible and innovate in the teaching and evaluative method they employ in order to give value judgment about their students' academic performance.

Looking at the related studies, it is revealed that research work on uses of observational techniques to determine academic performance of students have not been carried out. Focus was mostly made on other factors that affect performance of students such as study attitude, extra-curricular activities, gender, school record and the rest. Therefore, the present study focus on the use of observational techniques for determining academic performance of students.

2.12 Summary of Related Literature

Evaluation of students' academic performance is a process that involves a comprehensive process of collecting, interpreting and reporting evidence of a learners growth which occur as a consequence of the school program. Student evaluation is an integral component of the teaching and learning processes and as such, must be conducted in an atmosphere that is less stressful. It was revealed in the literature that teachers who want to evaluate their students honestly and fairly, must provide a broad base on which to determine final grades. It was revealed in the literature that the use of informal evaluation, especially observational techniques would help teachers in giving a true information about the students' performance. It also lead to an assessment of the overall behavior of the learner.

It is important to note that so many researchers has been conducted on factors affecting academic performance of students such as, co curricular activities, gender, school records, students evaluation of lecturers study attitude and laboratory activities. There seems to be no research conducted on the impact of observational technique as an evaluation method for determining the academic performance of students in North-West Geo-political District, Nigeria. This study intends to fill that gap.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter presented the research design and methodology under the following sub-headings:

3.1 Research Design

3.2 Population for the study

3.3 Sample size and sampling techniques

3.4 Instrument for data collection

3.4.1 Validity of the Instrument

3.4.2 Pilot Study

3.4.3 Reliability of the Instrument

3.5 Procedure for Data Collection

3.6 Procedure for Data Analysis

3.1 The Research Design

The research design used for the study was experimental and survey design. Bello and Ajayi (2000) stated that, experimental research is the most precise and most systematically planned, controlled observation used in research. It is concerned with cause-effect relationships so as to investigate whether variable X the independent variable has an effect on variable Y called dependent variable. Singh (2006) opined that, when certain variables can be controlled or manipulated directly in a research problem, the research procedure is described as an experiment.

3.2 Population for the Study

The population for this study consist of fifty one (51) Home Economics lecturers and all two hundred and eighty two (282) NCE III students as at 2011/2012 academic session offering home economics as double major in all the Federal Colleges of Education in the North-West Geo-Political Zone in Nigeria. The researcher decided to involve all the lecturers teaching Home Economics because they are the major evaluators of their own students. The reason for using the NCE III students was because they have spent two years in the programme and conversant with most of the methods being used by the lecturers to evaluate their performance in the programme. The total number of home economics lecturers in the five Federal Colleges of Education in the North-West were fifty one (51) and the total number of NCE III students were two hundred and eighty two (282). The breakdown of this is presented in Table 3.1

Table 3.1: Population for the Study

Name of institution	No of Students	No. of Lecturers	Total Students and lecturers
Federal College of Education (Technical) Bichi	28	10	38
Federal College of Education, Kano	23	08	31
Federal College of Education, Zaria	187	15	202
Federal College of Education, (Technical) Gusau	23	09	32
Federal College of Education, Katsina	21	09	30
Total	282	51	333

Source: Office of the Head of Department of Home Economics FCE (T) Bichi, FCE Kano, FCE Zaria, FCE(T) Gusau, and FCE Katsina (2011/2012).

3.3 Sample Size and Sampling Technique

The sample size for the study was all the students and lecturers of Home Economics department of the five institutions involved in the study. Though Gay and Diehl (1992) suggested a small sample size of thirty (30) subjects per group for an experimental design, Olayiwola (2007) reported that, in real life, particularly in institutional or educational settings, randomization and getting control group may be difficult or impossible. The school authority may not allow randomization because it can disrupt or divide the class. The school may not

encourage treatment for one group and the same treatment withheld from another group. In view of this, the researcher decided to use all the five (5) institutions as samples for the study. Four (4) institutions was used as experimental group and the other one with the larger number of students was used as control group. However, the students in FCE Zaria were randomly selected using hat-drawn-method to get 95 students, which were placed in the control group. This was done to make the two groups that is control and experimental, to have similar characteristics. The breakdown of this is presented in Table 3.2.

Table 3.2: Sample size for the Study

School	Group	Total Number of Sampled Students	Total Number of Lecturers
FCE (T) Bichi	Treatment	28	10
FCE, Kano	Treatment	23	08
FCE, Katsina	Treatment	21	09
FCE(T) Gusau	Treatment	23	09
FCE, Zaria	Control	95	15
Total		190	51

3.4 Instrument for Data Collection

Two instruments were used to generate the relevant data in this study. The first instrument was a cognitive evaluation test comprising of forty (40) multiple choice items based on the course content of HEC 313 principles of Nutrition II which is a core course for all NCE III Home Economics Students. This instrument

was administered as pre-test and post-test to both the control group and experimental groups. The course content of HEC 313 are thus:

HEC 313 Principles of Nutrition II Course Content

- Study of nutritional needs of different groups in the family such as infants, children, adolescents, adults with special needs e.g. vegetarian, pregnant and lactating mothers, elderly, invalids and convalescent and nutritional diseases.
- Methods of nutritional status assessment such as:
 - Dietary analysis
 - Physical/anthropometrics assessment
 - Biochemical test.

Items 1 to 40 in appendix III was used to answer research question five and six.

The second instrument was a structured questionnaire (see appendix II) which was also used to collect information from lecturers about their opinion on the use of observational technique to determine the academic performance of students. The items consists of two parts; part A contains bio-data of respondents and part B consist six (6) items. The item was designed to collect data from Home Economic lecturers on:-

- a) Evaluation methods used to determine academic performance of students in Home Economic-(item 1) – Research Question one

- b) Opinion of Home Economic lecturers on most useful and efficient method of evaluating academic performance of students – (item 2) – Research Question two
- c) Opinion of Home Economic lecturers on the effect of observational technique on academic performance of students according to their educational qualification, years of teaching experience and ranks. (item 3-6) Research Questions 3-6

The respondents were asked to tick (√) against the appropriate answer to indicate their opinion based educational qualification, years of teaching experience and rank.

3.4.1 Validity of the Instrument

The original draft of the research instruments were given to three (3) experts in Home Economics, measurement and evaluation to check its content validity. The items were checked against adequacy of the questions, readability and language use. The criticisms and comments made by the experts led to the removal and improvement of the items structure and format to ensure that only those related to the objectives of the study are included.

3.4.2 Pilot Study

In order to find out the reliability coefficient of the validated instruments, the items were administered to eleven (11) lecturers and forty four (44) NCE III Home Economics Students of the Federal College of Education (T) Gombe. The college was chosen because it is not involved in the main study but have similar

characteristics with the colleges for the study. The sample selected from the population for the study was divided into two experimental and control groups.

To conduct the pilot study, the researcher visited the college, sought and obtained the necessary permission from the relevant authorities (see Appendix I). These were the Dean, School of Vocational Education and the Head of Home Economics Department. With the help of the course lecturer at the department, the sampled subjects were randomly assigned to two groups using the hat drawn method that is the experimental and control groups. Each group consisted of twenty two (22) students. The experimental group was handled by the researcher and the control group was handled by the researcher assistant who was the course lecturer at the college. Two weeks were used for the pilot study. The experimental group was exposed to the treatment condition through the use of checklist, anecdotal records and rating scales (Appendices IV, V, and VI). The control group had the normal lecture-test procedure.

At the beginning of the study both groups were given the pre-test using the validated instruments (Appendix III). At the end of two weeks, the groups also had the post test administered to them using the same validated instrument. The scores obtained from the pre-test and post test from the groups were computed and analyzed to ascertain if there were observed statistical significant difference in the academic performance of the two groups.

3.4.3 Reliability of the Instrument

The data collected were analyzed using chi-square for the lecturers' questionnaire and Pearson Product Moment Correlation Coefficient (r) method to get the reliability of the instrument used for the students.

The test-retest reliability coefficient for the lecturers questionnaire and the student's pre and post-test was found to be 0.765 and 0.869 respectively. This reliability coefficient is near to one (1) thus, the instrument is considered reliable. According to Mukherjee (1980), the average value of correlation coefficient must be around 0.80 for an instrument to be considered reliable while Zimbardo in Bello and Ajayi (2000) added that, in general, coefficients between 0.70 and 0.90 are considered good indications of reliability.

3.5 Procedure for Data Collection

The data was collected through the administration of lecturers' questionnaire and students' achievement test. The achievement test was administered as pre-test to both the control and experimental groups, that were used for the study. One hour was given as the duration of the test. Lecturers on the other hand were given questionnaire to fill. Time duration of one week was given for this.

The researcher will engaged the services of four (4) research assistants for this study, one from each of the institution used for the study. The four (4) research assistants were lecturers handling HEC 313 Principles of Nutrition II in each of the institutions selected for the study. Two hours training was given to the

research assistants in order to prepare and equip them with the processes required to evaluate students using observational techniques. The evaluation forms was thoroughly explained and also when and how to use it. The research assistants were involved in handling the experimental (treatment) groups, while for the control groups the research assistants were utilized in the administration of the pre and post tests as well as the lecturers questionnaire. Six weeks were used to complete the exercise

3.6 Procedure for Data Analysis

Data collected were analyzed using descriptive and inferential statistics. The result collected from the control and experimental (treatment) groups, as well as the lecturers' questionnaire were analyzed using mean and standard deviation (descriptive statistics). The same applied to the research questions. Hypothesis one to four was tested using analysis of variance (ANOVA) at 0.05 alpha level of significance. This was because ANOVA is used for testing hypothesis of relationship between one independent and dependent variable or between cause and effect (Olayiwola 2007). Hypotheses five and six were tested using independent t-test statistics.

Analysis of variance (ANOVA) was used because it is a statistical instrument that is used to test data obtained from more than two groups. T-test on the other hand is used to test the difference between two independent sample (means). These are samples that were randomly formed to two groups. Thus the t-

test for independent samples was used to determine whether there is probably a significant difference between the means of two samples (Bella and Razaq 2000).

The null hypothesis is accepted if the critical t-value is greater than calculated t-value e.g. calculated t-value= 0.3303 and critical t-value= 1.943. The null hypotheses are accepted. The null hypothesis is rejected if the critical t-value is less than the calculated t-value, example:- calculated t-value= 4.2368 and critical t-value is 1.833. Also, a hypothesis would be accepted if the calculated P-value is greater than the 0.005 alpha level of significance, while if the calculated P-value is less than the 0.05 alpha level of significance, the hypotheses is rejected.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

The chapter was presented on the following subheadings: -

- 4.1 Analysis of Demographic Data
- 4.2 Answers to research Questions
- 4.3 Testing of Hypotheses
- 4.4 Discussion of the Findings

This research work is on Effect of Observational Techniques on Academic Performance of Home Economics Students' in Federal Colleges of Education in the North-West Geo-Political Zone of Nigeria. This chapter report the research findings based on data collected from both Lecturers and Students. The study sampled Fifty one (51) Lecturers' opinion and the performance of one hundred and ninety (190) students in the control group and experimental group numbering ninety five (95) students.

The first sets of data were presented in Tables of frequencies and percentages as they concern demographic characteristics of the sample. The second set of data present an analysis of the research questions and the third section has the result of research hypotheses tested at 0.05 level of significance. Descriptive statistics was used to calculate the mean responses of the lecturers while independent t-test was used to determine the outcome of Home Economics Students Academic Performance in both the control and experimental groups.

4.1 Analysis of the Demographic Data

Analysis of the demographic Data of respondents was done in frequencies and percentages. Results were presented in Tables 4.1.1 – 4.1.5

Table 4.1.1. Distribution of Lecturer Respondents by College.

College Zaria	Frequency	Percentage (%)
FCE Zaria	15	29.3
FCE Bichi	10	19.6
FCE Katsina	9	17.7
FCE Kano	8	15.7
FCE Gusau	9	17.7
Total	51	100

The result in Table 4.1.1 showed that 15 lecturers representing 29.3% were from FCE Zaria, 10 lecturers presenting 19.6% were from FCE (T) Bichi, 9 lecturers representing 17.7% each were from FCE Katsina and FCE (T) Gusau respectively, while the remaining 8 lecturers representing 15.7% were from FCE Kano. This showed that majority of the lecturers were from FCE Zaria.

Table 4.1.2. Distribution of Students Respondents by college.

Name of college	Frequency	Percentage (%)
FCE Zaria	95	50.3
FCE (T) Bichi	28	14.8
FCE Katsina	21	11.1
FCE Kano	23	11.6
FCE (T) Gusau	23	12.2
Total	190	100

Table 4.1.2 showed the students' respondents by their college. FCE Zaria had the highest number of respondents with 95 representing 50%, FCE (T) Bichi have 28 respondents representing 14.7%, FCE (T) Gusau and FCE Kano have 23 representing 12.1% each and FCE Katsina have 21 respondents representing 11.1%. Thus, majority of the students respondents were from FCE Zaria, who were used as the control group, while remaining schools with fewer number of students were used as the experimental groups.

Table 4.1.3 Distribution of Lecturer Respondents by Educational Qualification

Educational Qualification	Frequency	Percentage (%)
HND	6	12
B.ED/BA.ED	16	31
M.ED/M.SC	29	57
Ph.d	Nil	Nil
Total	51	100

Table 4.1.3 showed the distribution of lecturer respondents by their educational qualification. 29 lecturers representing 57% had M.Ed/M.Sc, 16 lecturers representing 31% had B.Ed/B.A.Ed/B.Sc and 16 lecturers representing 12% had HND certificates. In conclusion, majority of the lecturers respondents were M.Ed/M.Sc holders.

Table 4.1.4 Distribution of Lecturer Respondents by Working Experience.

Experience in Years	Frequency	Percentage (%)
1-5	4	8
6-10	7	14
11-15	15	29
16-20	8	16
21 and above	17	33
Total	51	100

Table 4.1.4 shows the years of teaching experience acquired by the lecturers. Out of the 51 lecturer respondents 17(33%) were those with 21 years and above teaching experience, 15(29%) were those with 11 – 15years of teaching experience, 8(16%) were within 16-20years of teaching experience. 7(14%) were those with 6-10 years of teaching experience and 4(8%) were lecturers with 1-5years of teaching experience. This means that, majority of the lecturers used as respondents for the study were lecturers with above 21years of teaching experience.

Table 4.1.5. Distribution of Lecturer Respondents by Rank.

Rank	Frequency	Percentage (%)
Assistant Lecturer	8	15.7
Lecturer III	4	7.8
Lecturer II	11	21.6
Lecturer I	14	27.5
Senior Lecturer	4	7.8
Principal Lecturer	4	7.8
Chief Lecturer	6	11.8
Total	51	100

Table 4.1.5 showed the distribution of lecturers respondents by their ranks. 14 lecturers representing 27.5% were lecturer I, 11 lecturers representing 21.6% were lecturer II, 8 lecturers representing 15.7% were assistant lecturers, 6 lecturers representing 11.8% were lecturers with the rank of chief lecturer, and 4 lecturers each representing 7.8% were lecturers with ranks of lecturer III, senior lecturers and principal lecturer respectively. Thus majority of the lecturers used as respondents for the study were lecturers within the rank of lecturer I.

4.2 Answers to Research Questions

Six research questions were raised to enable the researcher to gather relevant information for the study. Tables 4.2.1 showed the responses of lecturers on evaluative methods used to determine students' academic performance in home economics, Tables 4.2.2 to Table 4.2.4 showed the opinions of lecturers on effect of observational techniques according to their years of teaching experience,

academic qualification and ranks. Tables 4.2.5 to 4.2.6 showed the academic performance of home economics students in both the control and experimental groups.

Research Question One: What evaluation methods do Home Economics lecturers use to determine the academic performance of their students in colleges of education?

Table 4.2.1 showed the evaluation methods commonly used by Home Economics lecturers to determine the academic performance of their students in Federal Colleges of Education.

Table 4.2.1 Evaluation methods used by Home Economics lecturers

S/N	Evaluative Method	Category of response		Mean of evaluation method	Sd	Se
		Yes (frequency)	No (frequency)			
1	Observational Technique	9	42	.1765	.3850	.0539
2	Test and examinations	42	9	.8235	.3850	.0539
3	Students Projects	9	42	.1765	.3850	.0539
4	Assignment	10	41	.1961	.4009	.0561

Table 4.2.1 showed that 42 with mean score of .8235 used tests and examinations, 10 with mean score of .1961 used assignments while 9 of the respondents with mean score of .1765 each, used observational techniques and

students' projects respectively. Thus majority of the lecturers use tests and examinations to determine the academic performance of their students.

Research Question Two: To what extent does Home Economics lecturers' qualification affect their opinion on the effect of observational technique on academic performance of Home Economics students?

Table 4.2.2 revealed the mean responses of Home Economics lecturers' opinion on the effect of observational technique on academic performance of students according to their qualifications.

Table 4.2.2 Home Economics lecturers qualification and their opinion on effect of observational technique.

Lecturers' educational Qualification	N	Mean	Std Dev	Std Error
HND	6	6.5000	0.8366	.3415
B.ED/BA/BSC	16	7.3125	2.6762	.6690
M.ED/M.SC	29	5.7241	2.9142	.5411
Total	51	6.3137	2.7385	.3834

The details in table 4.2.2 showed the mean responses in opinion of Home Economics lecturers on effect of observational technique on academic performance of students based on their academic qualification. Home Economics lecturers with B.Ed, B.A and B.Sc had the highest mean of 7.3125, followed by the lecturers with HND who had a mean response of 6.5000 and then lecturers with M.Ed/M.Sc who had a mean response of 5.7241. The mean responses in opinion of the Home Economics lecturers does not however, show significant different being that the means were closely related. In conclusion, educational

qualification of lecturers does not affect their opinion of the effect of observational technique on academic performance of students.

Research Question Three: To what extent does the Home Economics lecturer’s year of teaching experience affect their opinion on effect of observational technique on academic performance of students?

Table 4.2.3 showed the mean responses in opinion of Home Economics lecturers on the effect of observational technique on students’ academic performance by the lecturers’ years of teaching experience.

Table 4.2.3: Years of teaching experience and opinions of lecturers on effect of observational Techniques

					95% confidence interval for mean			
Years of teaching experience	N	Mean	Std Deviation	Std. Error	Lower bound	Upper Bound	Minimum	Maximum
1 – 5yrs	4	7.2500	1.25831	.62915	5.2478	9.2522	6.00	9.00
6 – 10yrs	7	6.0000	2.88675	1.09109	3.3302	8.6698	3.00	11.00
11 – 15yrs	15	4.8000	2.90812	.75087	3.1895	6.4105	2.00	12.00
16 – 20yrs	8	7.8750	2.74838	.97170	5.5773	10.1727	4.00	11.00
21 yrs and above	17	6.8235	2.32474	.56383	5.6283	8.0188	1.00	10.00
Total	51	6.3137	2.73854	.38347	5.5435	7.0840	1.00	12.00

Table 4.2.3 showed that, lecturers with 16-20 years of teaching experience with a mean score of 7.8750 had the highest level of use of observational techniques, followed by those with 1-5 years who had a mean score of 7.2500. Lecturers with teaching experience of 21 years and above had a mean score of

6.8235, those with 6-10 years teaching experience had a mean score of 6.000 and those with 11-15 years of teaching experience had a mean score of 4.8000. Years of teaching experience does not significantly determine the opinion of lecturers on the effect of observational technique on students' academic performance, being that the mean scores are closely related without much difference. It is therefore concluded that years of teaching experience has no relationship with the opinion of lecturers on the effect of observational technique on students' academic performance.

Research Question Four: To what extent does Home Economics' lecturers' rank affect their opinion on effect of observational technique on students' academic performance?

Table 4.2.4 showed the mean responses of lecturers' opinion on effect of observational technique on students' academic performance based on the lecturers' ranks.

Table 4.2.4 Rank of Lecturers and their opinion on effects of observational techniques.

	N	Mean	Std Deviation	Std Error	95% Confidence Interval for mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Ast. Lect	8	7.5000	2.39046	.84515	5.5015	9.4985	5.00	12.00
Lect III	4	6.0000	4.69042	2.34521	-1.4635	13.4635	2.00	11.00
Lect II	11	7.0000	2.64575	.79772	5.2226	8.7774	3.00	10.00
Lect I	14	4.8571	1.87523	.50118	3.7744	5.9399	2.00	7.00
Sen. Lect.	4	4.2500	2.50000	1.25000	.2719	8.2281	1.00	7.00
Prin. Lect	4	6.7500	.50000	.25000	5.9544	7.5456	6.00	7.00
Chief Lect	6	8.1667	3.12517	1.27584	4.8870	11.4463	3.00	11.00
Total	51	6.3137	2.73854	.38347	5.5435	7.0840	1.00	12.00

Table 4.2.4 revealed that chief lecturers had the highest mean score of 8.1667, followed by assistant lecturers who had mean score of 7.5000, then lecturer II had a mean score of 7.0000. Lecturers with rank of principal lecturer had a mean score of 6.7500, those with a rank of lecturer II had a mean score of 4.8571 and senior lecturers had a mean score of 4.2500.

The overall result showed that, there was no significant relationship among lecturers of different ranks in their opinion on effect of observational technique on students' academic performance due to the fact that the mean scores obtained kept changing and are also very closely related. It is therefore concluded that the ranks of the lecturers does not determine the opinion on effect of observational technique on students academic performance.

Research Question Five: What is the difference among Home Economics students academic performance in the control and experimental (treatment) groups using observational technique?

Table 4.2.5 showed the differences in academic performance among Home Economics students in the control and experimental groups who are treated with observational technique.

Table 4.2.5 Difference among mean performance of control and experimental groups

Students Groups	N	Mean Performance	Standard Deviation	Standard Error	Remarks
Experimental (Treatment) group	95	79.05	23.16	2.38	Significance difference at 0.05 alpha level
Control group	95	53.26	19.73	2.02	

Table 4.2.5 revealed the mean academic performance of students in the experimental groups was 76.05 and that of students in the control group was 53.26 indicating a difference of 25.71. The result showed that students in the experimental group who were treated with observational technique had a better and higher mean performance, when compared with students in the control group who were not exposed to the same treatment. It is therefore, concluded that the use of observational techniques had a positive effect on students' academic performance as it help them to obtain better and higher performance.

Research Question six: What is the difference between the academic performances of students by their colleges?

Table 4.2.6 descriptive statistics in Table 4.2.6 revealed the mean academic performance of students in home economics of the 5 sample colleges of education.

Table 4.2.6 Descriptive statistics of the mean of the sampled COE students in their Home Economics performance.

Schools	N	Mean	Std Dev	Std Error
FCE Zaria (control groups)	95	53.26	19.731	2.024
FCE(T) Bichi (Experimental group)	28	72.19	26.406	5.762
FCE Katsina (experimental group)	21	72.82	32.054	6.058
FCE Kano (Experimental group)	23	92.23	5.999	1.229
FCE (T) Gusua (Experimental group)	23	80.30	8.358	1.743
Total	190	66.09	25.046	1.822

The result in table 4.2.6 showed that FCE Kano had the highest mean performance of 92.23, followed by FCE(T) Gusau with 80.30, FCE Katsina is third with 72.82, followed by FCE(T) Bichi who had 72.19. FCE Zaria had the least mean of 52.26. This means that significant difference exist among the schools in their academic performance especially in FCE Zaria who were used as the control group and was not given the treatment. Also significant difference was seen even among the

experimental groups, this may be as a result of the extent to which the treatment was given.

4.3 Testing of Null Hypotheses

Six null hypotheses were raised to give statistical validation to the solutions obtained in the research questions. Analysis of variance (ANOVA) and t-test statistics were used to test the hypotheses. The results were presented in Tables 4.3.1 – 4.3.6.

HO₁: There is no significant difference among Home Economics lecturers in the use of evaluation methods to determine Home Economics Students performance in Federal Colleges of Education

Data collected in respect of hypothesis 1 was summarized in Table 4.3.1. showed the analysis of variance (ANOVA) on the Home Economics lecturers use of evaluation method to determine their students’ academic performance in Federal Colleges of Education.

Table 4.3.1 Analysis of variance (ANOVA) Statistics on the use of evaluation methods

Variations	Summary	df	Mean square	F Ratio	F Critical	P value
Between Groups	11.432	5	2.888	.645	2.60	.633
Within groups	203.744	46	4.429			
Total	215.176	51				

The result of the Analysis of variance (ANOVA) statistics Table 4.3.1, on the use of evaluative methods by the lecturers from the different colleges of education is not significantly different. This is because the calculated P value of .633 is greater than the 0.05 alpha level of significance while the calculated F-ratio value of .645 is less than the 2.60 F-critical value. Consequently, the null hypothesis which stated that there is no significant difference among the lecturers from different colleges of education in the use of evaluation method to determine the student's academic performance in Home Economics is hereby accepted. This means that the common and prominent evaluation method used by the lecturers to determine students' academic performance was tests and examinations.

HO₂ There is no significant relationship among Home Economics lecturers' educational qualification and their opinion on effect of observational technique on students' academic performance.

Data collected in respect of hypothesis two were summarized in Table 4.3.2 which showed the analysis of variance (ANOVA) statistics on the opinion of Home Economics lecturers on effect of observational technique on students' academic performance, based on their qualification.

Table 4.3.2 Analysis of variance (ANOVA) statistic on opinion of lecturers on effect of observational technique based on qualification

Variations	Sum of squares	Df	Mean square	F ratio	F critical	P
Between groups	26.250	3	13.125	1.807	2.60	.175
Within groups	348.731	48	7.265			
Total	374.980	51				

According to the analysis of variance (ANOVA) statistics in Table 4.3.2, there is no significant relationship among Home Economics lecturers' qualification and their opinion on effect of observational technique on students' academic performance. Reasons being that, the calculated F ratio value of 1.807 is less than the 2.60 F critical value and that calculated P value of .175 is greater than the 0.05 level of significance. Hence significant relationship among Home Economics lecturers educational qualification and their opinion on effect of observational technique on students' academic performance is hereby retained. Thus educational qualification does not affect the opinion of lecturers on effect of observational technique on students' academic performance.

HO₃ There is no significant relationship among Home Economics lecturers' years of teaching experience and their opinion on the effect of observational techniques on students' academic performance.

Table 4.3.3 showed the analysis of variance (ANOVA) statistics on the significant relationship of Home Economics years of teaching experience and their opinion on effect of observational technique on academic performance of students.

Table 4.3.3 Home Economics lecturers' years of teaching experience and their opinion on observational technique

Variations	Sum of squares	Df	Mean square	F ratio	Sig df at 0.05 level
Between groups	62.485	5	15.621	2.299	.073
Within groups	312.496	46	6.793		
Total	374.980	51			

The result of analysis of variance (ANOVA) statistics in Table 4.3.3(a) revealed that, there is no significant relationship among Home Economics lecturers' years of teaching experience and their opinion on effect of observational technique on academic performance of students. Reason being that the calculated p value of .073 is greater than the 0.05 alpha level of significance. Thus, the null hypothesis which stated that there is no significant relationship among Home Economics lecturers' years of teaching experience and their opinion on effect of observational technique on student academic performance is hereby accepted and retained. This means that, years of teaching experience of Home Economics lecturers does not

influence their opinion on the effect of observational technique on academic performance of students in home economics.

Table 4.3.3(b): Post Hoc multiple comparison using LSD on the differences in the use of observational techniques for determining students academic performance by lecturers by their years of teaching experience.

					95% Confidence Interval	
(I) Years of teaching experience	(j) years of teaching experience	Mean Difference (I-J)	Std. Error	Sig. df	Lower Bound	Upper Bound
1-5yrs	6 - 10yrs	1.25000	1.63366	.448	-2.0384	4.5384
	11 – 15yrs	2.45000	1.46671	.102	-.5023	5.4023
	16 – 20yrs	-.62500	1.59609	.697	-3.8378	2.5878
	21yrs & above	.42647	1.44843	.770	-2.4891	3.3420
6-10yrs	1 - 5yrs	-1.25000	1.63366	.448	-4.5384	2.0384
	11 – 15yrs	1.2000	1.19305	.320	-1.2015	3.6015
	16 – 20yrs	-1.87500	1.34895	.171	-4.5903	.8403
	21yrs & above	-.82353	1.17051	.485	-3.1796	1.5326
11-15yrs	1 - 5yrs	-2.45000	1.46671	.102	-5.4023	.5023
	6 – 10yrs	-1.20000	1.19305	.320	-3.6015	1.2015
	16 – 20yrs	-3.07500*	1.14108	.010	-5.3719	-.7781
	21yrs & above	-2.02353*	.92331	.034	-3.8821	-.1650
16-20yrs	1 - 5yrs	.62500	1.59609	.697	-2.5878	3.8378
	6 – 10yrs	1.87500	1.34895	.171	-.8403	4.5903
	11 – 15yrs	3.07500*	1.14108	.010	.7781	5.3719
	21yrs & above	1.05147	1.11749	.352	-1.1979	3.3009
21yrs & above	1 - 5yrs	-.42647	1.44843	.770	-3.3420	2.4891
	6 – 10yrs	.82353	1.17051	.485	-1.5326	3.1796
	11 – 15yrs	2.02353*	.92331	.034	.1650	3.8821
	16 - 20yrs	-1.05147	1.11749	.352	-3.3009	1.1979

* the mean difference is significant at the .05 level

The post Hoc multiple comparison pair wise using LSD method above revealed that in most pair wise comparisons, there was no significant differences among the teachers by their years of experience in the use of observational techniques to assess students academic performances. Significant difference was only notice between teachers with 11 – 15 years compared with either 16 – 20 years or 21 years and above in their use of the observational techniques as the calculated p values in this instance is less than the 0.05 alpha level of significance. In all the rest pair wise comparison, using LSD (Least Significant Difference), there were no significance differences observed because in each of these pair wise

comparison, the calculated p values were greater than the 0.05 alpha level of significance.

HO₄ There is no significant relationship among Home Economics lecturers' ranks and their opinion on effect of observational technique on students' academic performance.

The summary of data collected for hypothesis four presented in Table 4.3.4 showed the analysis of variance (ANOVA) statistics about the relationship among Home Economics lecturers ranks and their opinion on effect of observational technique on students academic performance.

Table 4.3.4 Home Economics lecturers' ranks and their opinion on effect of observational technique.

	Sum of squares	Df	Mean square	F	Sig. df
Between groups	84.933	7	14.155	2.147	.067
Within groups	290.043	44	6.592		
Total	3.74.980	51			

Details of the above ANOVA statistics in Table 4.3.4(a) revealed that there is no significant relationship among lecturers ranks and their opinion on effect of observational technique on academic performance of students. Reason being that the calculated p value of .067 is greater than the 0.05 alpha level of significance. Hence the null hypothesis which stated that there is no significant relationship among lecturers of different ranks and their opinion on effect of observational technique on academic performance of students is hereby accepted and retained.

This means that, ranks of lecturers does not influence their opinion on effect of observational technique on students’ academic performance.

HO₅ There is no significant difference among Home Economics students in their academic performance in the control and experimental groups using observational technique.

The summary of data collected for hypothesis five revealed the result of the t-test statistical analysis in Table 4.3.5 showed the significant difference among performance of Home Economics students in the control group and their counterpart in the experimental groups who were treated with observational technique.

Table 4.3.5: Performance of students in the control and experimental groups.

Students groups	N	Mean	S.D	S.E	df	t cal	t crit	P value
Control group	95	53.26	19.73	2.02				
Home economics scores					187	8.24	1.96	0.00
Experimental group	95	79.05	23.16	2.38				

t-calculated > 1.96, p-calculated < 1.96

Table 4.3.5 showed the independent t-test statistics on the difference between students exposed to observational techniques (experimental group) and those that are not (control group) in their Home Economics performance. Outcome of the t-test revealed that significant differences exist in the Home Economics academic performance of students exposed to observational technique (experimental group)

and their counterpart not exposed to (control group). Experimental group had mean performance of 79.05 and the control group had 53.26 mean performance. The calculated p value of 0.000 is less than the 0.05 alpha level of significance and the calculated t-value of 8.24 is greater than the 1.96 t-critical at df 187. Hence the null hypothesis which state that there is no significant difference on the effect of observational technique between control and experimental groups of Home Economics students academic performance is hereby rejected. This means that, the use of observational techniques encourages better academic performance among students.

HO₆ There is no significant difference among Home Economics students in their academic performance from different colleges of education.

The summary of data collected for hypothesis six revealed the result of the t-test statistical analysis in Table 4.3.6 on the difference in academic performance of Home Economics students from the five sampled colleges of Education

Table 4.3.6 (A) The difference in academic performance of Home Economics students from the five sampled schools.

Variations	Sum of squares	Df	Mean square	F ratio	F critical	P value
Between groups	37356.971	4	9339.243	21.327	2.60	0.00
Within groups	80574.499	184	437.905			
Total	117931.5	188				

Table 4.3.6 showed the outcome of the analysis of variance (ANOVA) statistics which revealed significant difference among the 5 sample Federal Colleges of Education students in their Home Economics academic performance. This is because the calculated p-value of 0.000 is less than the 0.05 alpha level of significance while the calculated f ratio value of 21.327 is greater than the 2.60 f-critical value at df 4 and 184. Consequently, the null hypothesis which state that there is no significant difference among the students by their Federal colleges of Education's in their Home Economics academic performance is hereby rejected.

Table 4.3.6 (B) Post HOC LSD Multiple comparisons (Pair Wise) of the academic performance of the five selected schools

Schools	(J) School Code	Mean difference (I-J)	Std error	Sig df
FCE Zaria	FCE(T) Bichi	-19.558*	4.500	.000
	FCE Katsina	-18.927*	5.046	.000
	FCE Kano	-38.964*	4.951	.000
	FCE (T) Gusau	-27.041*	4.863	.000
FCE (T) Bichi	FCE(T) Bichi	19.558*	4.500	0.00
	FCE Katsina	.631	6.041	.917
	FCE Kano	-19.406*	5.962	.001
	FCE (T) Gusau	-7.483	5.889	.205
FCE Katsina	FCE(T) Bichi	18.927*	5.046	.000
	FCE Katsina	- .631	6.041	.917
	FCE Kano	-20.037*	6.384	.002
	FCE (T) Gusau	-8.114	6.316	.201
FCE Kano	FCE(T) Bichi	38.964*	4.951	.000
	FCE Katsina	19.406*	5.962	.001
	FCE Kano	20.037*	6.384	.002
	FCE (T) Gusau	11.923	6.241	.058
FCE Gusua	FCE(T) Bichi	27.041*	4.863	.000
	FCE Katsina	7.483	5.889	.205
	FCE Kano	8.114	6.316	.201
	FCE (T) Gusau	-11.923	6.241	.058

** The mean difference is significant at the 0.05 level*

Result of the post HOC LSD multiple comparison (pair wise) in Table 4.2.6 (B) revealed significant difference in the mean performance of Federal College of Education, Zaria (control group) compared with each of the mean of the four experimental groups schools in their mean academic performance because in each comparison, the calculated significant values are each less than the 0.05 level of tolerance.

4.4 Discussion of the Findings

Research question one and null hypothesis one as shown in Tables 4.2.1 and 4.3.1 revealed that, no significant difference exist among lecturers from the different colleges of education in the type of evaluation methods they use to determine their students' academic performance. The evaluation methods mostly utilized by the lecturers are test and examinations. This finding is in line with Badmus (2001) who reported that, presently undue emphasis had been placed on marks and grades obtained from tests and examinations and evaluation practices were mainly directed at acquisition of certificates. Adamu (2010) added that, although examination is not the only instrument for assessing and evaluating knowledge, it has emerged as the major established yardstick and the most practical way of assessment. Abba (2000), Adeoti (2001) and Okam (2002) however called attention to the over-used formal assessment of test and semester examinations in measuring and judging the academic performance of students. They opined that using this old assessment procedures not only negated the

principles of continuous evaluation but other principles like comprehensiveness, cooperation and focus of objectives in the process of evaluation.

The findings of research questions two to four and null hypotheses two to four as shown in Tables 4.2.2 to 4.3.4 revealed that, there is no significant relationship among lecturers in their opinion on effect of observational techniques on students' academic performance on account of their educational qualification, years of teaching experience and ranks. This is an indication that the use of observational technique for determining the academic performance of students is not a common practice among lecturers regardless of their positions. The findings agree with Onwuka (1996) who stated that, observation in natural situations is one form of evaluation which has not been effectively used by evaluators. Armstrong and Saverge (1996) commented that traditional testing procedures have very little emphasis on the assessment and measurement of the full range of cognitive and affective behaviours. The finding also confirmed what Badmus (2001) observed, that presently, undue emphasis had been placed on marks and grades obtained from tests and examination, thus, evaluation practice were mainly directed at the acquisition of certificates. However, Wakjissa et al (2001) suggested that teachers who want to evaluate their students fairly and honestly, must provide a broad base on which to determine final grades. To do this, different evaluative methods are fairer because different students do well on different types of measures.

The findings of research question five and six and null hypotheses five and six as shown in Tables 4.2.5 to 4.3.6 revealed a significant difference in the mean

academic performance of respondents in the experimental and control group and between the sample colleges of education with a significant difference of 25.71 in favour of the experimental group. This findings agree with Fleischman and Williams (1996) who reported that, when students are given diverse opportunities to demonstrate their understanding, teachers gain more complete picture of their skills and students have more chances to demonstrate competence. It is also in line with Sternberg (2000) who proposes that the aim of observational technique is to help students acquire self-evaluation skills by monitoring their own progress, recognize accomplishments and detect skills where they must work harder or seek tutorial help.

Wilder and Sockey (2000) added that the nature of evaluation influences what is learned and the degree of meaningful engagement by students in the learning process. Also Wakjissa et al (2001) opined that different evaluative methods are fairer because different students do well on different types of measures, therefore the need to providing a broad base on which to determine final grade. The findings in research question five and six and null hypotheses five and six are also relevant to Jean King (1998) interactive Evaluation practice theory who advocated a participatory environment throughout the evaluation process. To King efforts of engagement in communication and discussion is done to create shared meaning amongst participants. David Fetterman's empowerment evaluation theory is also of significance to this finding. Fetterman (1996) describes empowerment evaluation as a process that encourages self-determination rather

than dependency. Fetterman feels that training participant to evaluate their own program and coaching them through the design of an evaluation is an effective form of empowerment.

In summary, students whose academic performance was determined by the use of observational technique has better mean academic performance of 79.05, while their counterpart who were not treated with observational techniques had mean academic performance of 53.26, presenting a significant difference between the two groups.

Majority of the lecturers, numbering 42 used tests and examinations to determine the academic performance of students, and there was no significant difference among lecturers in the use of observational techniques on account of their educational qualification, years of teaching experience and ranks. Thus, it means that lecturers' position does not determine the methods used to determine students' academic performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS.

This chapter presents summary, conclusion and recommendations of the study based on results of the findings under the following subheadings.

5.1 Summary

5.2 Conclusion

5.3 Recommendation

5.4 Limitations of the Study

5.5 Suggestions for further studies

5.1 Summary

The study was carried out to assess the effect of observational techniques on academic performance of home economics students in the North-West Geo-Political Zone of Nigeria. Five Federal Colleges of Education were sampled for the study. Six specific objectives were formulated for the study. Six research questions and six hypotheses were raised to enable the researcher gather relevant information for the study.

The review of related literature highlighted the importance of adequate evaluation procedures that would enhance better academic performance of students. The literature reviewed revealed that teachers need to be flexible and innovative in their evaluation activities in order to be able to give accurate and valid judgement about students learning.

Experimental and survey design was adopted for the study. The population for the study was 241 comprising of 51 lecturers and 190 students. Being an experimental study, all the lecturers and students of the four sample schools were used as sample size since the number is few, except for the fifth school used as the control group where simple random sampling was used to select a sample size that will be equal to the sample size of the experimental groups.

The major findings of the study revealed that: -

1. home Economic lecturers use tests and examinations mostly, to evaluate the academic performance of their students;
2. educational qualification of Home Economics lecturers does not affect their opinion on the effect of observational techniques on academic performance of students;
3. the years of teaching experience of Home Economics does not influence their opinion on the effect of observational technique on academic performance of students;
4. the ranks of Home Economics lecturers, does not influence their opinion on the effect of observational technique on academic performance of students;
5. students performed better when treated with observational techniques; and
6. home Economics students in the experimental group treated with observational technique have better academic performance than students in the control group who were not given the same treatment.

5.2. Conclusion

Using observational techniques to determine students' academic performance can make students to perform better than when evaluated with other measures as shown in the performance of experimental and control groups. Observational techniques is not commonly used by lecturers to determine students academic performance despite its role in giving accurate and true information about learner's behaviour in real life situation.

5.3 Recommendations.

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

1. Home Economics lecturers should in addition to tests and examinations, include observational technique in their evaluation procedures as it will them and their students to be more involved, thereby producing more responsible students.
2. Refresher courses should be given to Home Economics lecturers within each educational qualification stage in order to make them more conversant and up-to-date with evaluation procedures as well as evaluation methods. This can be done through seminars and workshop by experts in measurement and evaluation.
3. Home economics lecturers should use their years of teaching experience to experiment on the use of observational techniques since it have a significant effect on academic performance of students. Also the use of

- observational techniques would guide teachers towards producing graduates that would be skillful, hard working, practical and relevant in the world of work.
4. Home economics lecturers of higher ranks should embrace the use of observational techniques as an evaluation devices as it would help towards producing graduates that would be capable of handling the teaching job effectively at lower levels and in essence drastically reduce the menace of examination malpractice.
 5. Home economics students at each level, should be exposed to observational techniques as an evaluation device that motivate and challenge students to be more concerned about their own learning and help them to perform better academically.
 6. Curriculum developers should place emphasis on the use of observational techniques as an evaluation device which could make teachers to give more accurate and true information about the students' learning and on the part of the students, better performance and the ability to apply what is learned in real life situation.

5.4 Limitations of the Study

One of the limitations in the study was the lecturers' attitude towards the use of observational technique as an evaluation device. Most of the lecturers view it as an additional burden to use some other means of evaluation apart from the usual test and examination. This made it difficult for them to accept the additional

evaluation method. However, through series of explanation, the misconception about the use of observational technique was erased, and the lecturers accepted to experiment on it.

The attitude of the students was also a limitation to the study being that they are always in a hurry to write and go so they are not willing to do something that will require much of their time. But the researcher took time to explain the need and importance of this evaluation devices to the students and these help to make them see reasons as to what benefit they will get if they are involved in their own evaluation.

5.5 Suggestions for Further Studies

There is need for further studies on: -

- 1 effect of classroom assessment techniques on academic performance of students;
- 2 perception of teachers on the use of alternative assessment procedures for determining the academic performance of students;
- 3 perception of teachers on classroom evaluation and its effect on teaching and learning; and
- 4 effect of students population on the utilization of effective classroom assessment techniques.

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APPENDIX I

APPENDIX II

Home Economics Section
Department of Vocational and
Technical Education
Faculty of Education
Ahmadu Bello University, Zaria

Dear Respondent,

REQUEST TO FILL QUESTIONNAIRE

I am a student of the above mentioned school conducting a research on “Effects of observational techniques for determining Home Economics Students’ academic performance in Federal Colleges of Education in North West Geo-Political Zone of Nigeria.

Your cooperation and honest response will be a valuable contribution to the findings and result of this research work. All information provided will be treated as confidential and will be used for academic purpose only.

Thanks for your cooperation.

Yours faithfully,

Hadiza, T. Yahaya

QUESTIONNAIRE FOR LECTURERS

PART A

Instruction: Please indicate what is appropriate in the available space provided for the following:

Personal Data

1. Name of College: _____

2. Department: _____

3. Educational Qualification

a. HND

b. B.ED/BA.ED

c. M.ED/M.SC

d. PHD

e. Others, please specify _____

4. Present Rank

a. Assistant lecturer

b. Lecturer III

c. Lecturer II

d. Lecturer I

e. Senior Lecturer

f. Principal lecturer

g. Chief lecturer

5. Years of teaching experience

a. 1 – 5

b. 6 – 10

c. 11 – 15

d. 16 – 20

e. 21 and above

PART B

Tick the appropriate Answer please

Types of Evaluation Devices Used to evaluate students (Research Question one)

1. Evaluation of academic performance in the teaching/learning in Home Economics include (you can tick more than one)

- (a) Tests and Examinations
- (b) Project
- (c) Assignment
- (d) Observational techniques (**Checklist, Anecdotal records, Rating scales**)
- (e) Interview
- (f) Questionnaire
- (g) Peer-reporting

Research Question two - four

2. Based on your qualification, rank and years of teaching experience, what in your opinion is the most accurate and efficient method of evaluating students' academic performance?

- a) Observational techniques
- b) Tests and examinations
- c) Students' projects
- d) Assignments

3. Lecturers' opinion on the use of observational techniques for determining academic performance of students, is dependent on their:

- a) Educational qualification
- b) Years of teaching experience
- c) Rank

4. Which of the following category of lecturers in your opinion should use observational techniques to determine their students' academic performance?

- a) Those with HND certificates
- b) Those with B.ed/B.sc degree
- c) Those with M.ed/M.sc degree
- d) Those with P.hd degree

5. Years of teaching experience affect the knowledge of teachers on the use of evaluation methods. What number of years in your opinion would determine lecturers' the use of observational technique to determine students' academic performance?

- a) 1-5 years
- b) 6-10 years
- c) 11-15 years
- d) 16-20 years
- e) 21 years and above

6. What rank of lecturers in your opinion should determine their use of observational technique to determine the academic performance of students?

- a) Assistant lecturer
- b) Lecturer III
- c) Lecture II
- d) Lecturer I
- e) Senior lecturer
- f) Principal lecturer
- g) Chief lecturer

APPENDIX III

PRE/POST-TEST QUESTIONS

Research Question 4 and 5 (Item 1 – 40)

You are required to answer all the following questions by ticking the appropriate answer.

Time allowed 1 hour

School: _____

1. In addition to protein, a pregnant woman requires extra energy giving food to be able to
 - a Grow strong and healthy
 - b Visit antenatal clinic regularly
 - c Move the increased weight and perform some other activities.
 - d Prepare for her delivery time.
2. Biochemical assessment involves
 - a Laboratory test of body fluid like blood and urine to determine nutritional status.
 - b Measurement of height and weight of a child to determine nutritional status.
 - c An analysis of a person's dietary intake.
 - d Body ex-ray of an invalid
3. Nutritional requirements of the elderly is the same with that of young adults except that
 - a Elderly people needed more energy to work
 - b Elderly people need protein for growth and repair of worn out tissues.
 - c Calories and thiamine needs of the elderly are reduced due to decreased activities.
 - d The elderly are in the stage of growth
4. Due to the onset of the menstrual cycle, adolescent girls require
 - a Plenty of protein and calcium
 - b Sufficient amount of fats and oils
 - c Generous amount of vitamins
 - d An adequate intake of iron
5. Which of the following vitamins prevent excessive bleeding in childbirth?
 - a. Vitamin C
 - b. Vitamin D
 - c. Vitamin E
 - d. Vitamin K
6. Adults require protein for
 - a. Promotion of growth
 - b. Repair of worn out tissue
 - c. Provision of energy
 - d. Maintenance of body fluid
7. Protein-energy malnutrition results in
 - a. Goitre and Rickets
 - b. Marasmus and Osteomalacia
 - c. Kwashiorkor and Marasmus

d. Diabetics and Ulcer

8. Night blindness is caused by
 - a. Insufficient vitamin A in the diet
 - b. Lack of carotene
 - c. lack of retinol
 - d. Insufficient vitamins and minerals
9. The difference between lacto and lacto-ovo vegetarians is
 - a. The intake of fish and eggs
 - b. Intake of eggs and vegetables
 - c. Intake of milk and eggs
 - d. Intake of milk and animal products
10. Fruit juice and clear soups are example of a
 - a. Main dish
 - b. Third course
 - c. Appetizers
 - d. Snacks
11. Ulcer is a situation where
 - a. A wound develops in the stomach
 - b. The body secrets more hydrochloric acid than necessary
 - c. A person has severe chest pain
 - d. A person has sudden dislike of sour food
12. Vegetarian diets are difficult to plan because
 - a. They require more animal protein
 - b. They do not eat all animal protein and fish
 - c. They consume only vegetables and protein
 - d. They have a sudden dislike of meat
13. Nutritional status refers to:
 - a. Amount of nutrients taken by individual
 - b. Adequate diet being prepared
 - c. The health of an individual as influenced by the quality of food eaten
 - d. The absence of diseases and infections
14. The diet of the elderly should contain protein for:
 - a. They need to grow properly
 - b. Repair of worn out tissues
 - c. Strong bones and teeth
 - d. Prevention of rickets in old age
15. When children eat adequate diet, it influences their
 - a. Relationship with others
 - b. Intellectual development
 - c. The type of work they do
 - d. Energy requirements
16. Nutritional needs refer to
 - a. Dietary need of family members
 - b. Nutrients required at different stage in life
 - c. Proteins and vitamins required by children

- d. Nutrition during pregnancy
- 17. Adolescents require meals that are rich in
 - a. Fats, proteins and vitamins
 - b. Calories, calcium and iron
 - c. Proteins, fats and carbohydrates
 - d. Vitamins and minerals
- 18. The most important nutrients required by a lactating mother are:
 - a. Carbohydrate and fats
 - b. Vitamins and minerals
 - c. Carbohydrates and iron
 - d. Calcium and iodine
- 19. Nutrition is
 - a. The study of food and how it can be prepared
 - b. The study of how to prepare adequate diet
 - c. The study of nutrients and their relationship to the health of the body
 - d. The study of nutrients and deficiency disease
- 20. Special diet means
 - a. Diet that consist of all the nutrients
 - b. Diet that is rich in proteins and vitamins
 - c. Diet that consist of a lot of vegetables
 - d. Diet that is different from the normal family meals.
- 21. Nutritional diseases are
 - a. Diseases that can be transferred from one person to another
 - b. Diseases that affect only children
 - c. Disease that occur as a result of inadequate in take of the nutrients.
 - d. Disease that affects both children and adults
- 22. Pregnant women require more protein
 - a. Due to increase in body weight
 - b. Due to an increase in protein demand and formation of new tissues
 - c. Due to her own protein needs as well as to promote the growth of the foetus and its health
 - d. For body building and repair
- 23. Diabetes mellitus is a nutritional disease that affects
 - a. Adults only
 - b. Both adults and children
 - c. Children only
 - d. Pregnant and lactating mothers
- 24. Hypertension is a condition in which
 - a. An individual's blood sugar rises above normal.
 - b. Someone's blood pressure is too high
 - c. An individual's body cannot utilize sugar.
 - d. Someone's blood pressure is to low
- 25. Growth in human beings is highest during
 - a. Infancy stage
 - b. Adult stage
 - c. Nursery school age

- d. Toddler stage
- 26. Desserts are mostly
 - a. Salty dishes
 - b. Sweet dishes
 - c. Liquid dishes
 - d. Semi-solid foods
- 27. Invalid diet should be
 - a. Only liquid
 - b. More of vegetables
 - c. More of carbohydrates
 - d. Simple and easily digestible
- 28. People who are just recovering from illness require
 - a. More fats, proteins and carbohydrates
 - b. More proteins, more energy and more vitamin C
 - c. More iron, more calcium and energy
 - d. More carbohydrates
- 29. Courses in a meal consist of
 - a. Appetizers, main course and dessert
 - b. Second and third course
 - c. First and last course
 - d. First and second course
- 30. Clinical observation of children help to:
 - a. Identify nutritional problems
 - b. Identify eating problems
 - c. Identify infectious diseases
 - d. Identify deficiency diseases
- 31. Nutrients that are rich in blood and bone formation include:
 - a. Iron, protein and vitamin C
 - b. calcium, iodine and iron
 - c. Phosphorus, carbohydrates and fats
 - d. Vitamins, minerals and fats
- 32. Toddler stage is characterized by
 - a. Growth and energy expenditure
 - b. Children ability to walk and play
 - c. Ability of children to stop growing
 - d. Mother's ability to wean the child
- 33. Nutritional position of an individual can easily be determined by
 - a. Taking the person to the hospital
 - b. Touching the hands and head of the person
 - c. Looking at the appearance and behaviour of an individual
 - d. Inspecting the food a person eats.
- 34. Rickets and Osteomalacia results from
 - a. Lack of sufficient calcium and vitamin D
 - b. Lack of sufficient vitamins and minerals
 - c. Lack of sufficient phosphorus and calcium
 - d. Lack of sufficient iron and iodine

35. Insufficient iodine in the diet leads to
 - a. Rickets
 - b. Scurvy
 - c. Goitre
 - d. Beriberi
36. Recommended dietary allowance refers to
 - a. The amount of each nutrient that is considered adequate to maintain health.
 - b. The amount of each nutrient that is added to the family meal.
 - c. The amount of each nutrient that is needed by infants and children.
 - d. The amount of each nutrient needed for growth.
37. Assessment of the health of body parts like the eyes, skin, hair, tongue, thyroid gland is known as
 - a. Dietary assessment
 - b. Clinical observation
 - c. Biochemical assessment
 - d. Anthropometric assessment
38. Kitchen and personal hygiene are essential when
 - a. Preparing infants and invalid meals
 - b. Cooking for adults
 - c. Cooking for occasions
 - d. Cooking for pregnant and lactating mothers
39. Maintaining family health involve
 - a. Feeding family members three times a day
 - b. Living in a sanitary and safe environment
 - c. Observing the day of environmental sanitation
 - d. Making proper family budget
40. One of the most critical nutrient for adolescent is
 - a. Calcium which provides materials for the teeth and other physiological functions.
 - b. Fats and oils for the development of body fats.
 - c. Vitamins C for the quick healing of wounds.
 - d. Vitamin K for the prevention of hemorrhage.

MARKING SCHEME (2½ Marks for Each Questions)

1. C	11. B	21. C	31. B
2. A	12. B	22. C	32. A
3. C	13. C	23. B	33. C
4. D	14. B	24. B	34. A
5. D	15. B	25. A	35. C
6. B	16. B	26. B	36. A
7. B	17. B	27. D	37. B
8. A	18. C	28. B	38. A
9. C	19. C	29. A	39. B
10. C	20. D	30. A	40. A

**APPENDIX IV
HOME ECONOMICS RATING SCALE FORM**

GUIDELINE

Note: You are expected to rate the stated skill under the appropriate number to show the students' performance

INSTRUCTIONS: Each skill is divided into three categories: Excellent/Very good, Average and Poor/very poor

- A. Rate excellent and very good performance - 5,4**
- B. Rate Average performance - 3**
- C. Rate poor and very poor performance - 2,1**
- D. Collate all marks accordingly to be able to rate the students' academic performance.**

RATING OF _____

RATED BY _____

TIME OF RATING _____ **SCORE** _____

INSTRUCTIONS: You are expected to rate the stated skill by ticking under the appropriate box or number that explains the student's behaviour or activity

Skill	Excellent/Very Good		Average	Poor/very poor	
	5	4	3	2	1
Grooming	Reasonably well groomed, clean dress and apron		Dress sustainable, apron soiled or wrinkled	Untidy hands, dress soiled or no apron	
	5	4	3	2	1
NEATNESS OF WORKING SPACE	Working space always available clean, and orderly, minimum number of dishes used, dishes and utensils properly cared for.		Not very orderly but space made available when needed dishes and utensils fairly well cared for as used	No space to work food spilled, table clustered with dishes and utensils are not put to soak or washed.	

	5	4	3	2	1
EFFICIENCY IN USE OF TIME AND EFFORT	Staples supplies in desks, work schedule shows division of labor sustainable equipment used, efficient methods, work finished on time.	A few food supplies in individual desks, plans sketchy, unnecessary steps, taken or too many utensils used, is rushed at the end of the period.	Few if any food supplies in desk, no plan for work or poor sequence wrong equipment or utensils used work not finished on time		
	5	4	3	2	1
USE OF FUEL AND SUPPLIES	Burners on too long or too high, little food spilled or burned supplies handler carefully	Burners and oven well regulated, no food spilled or burned, amount prepared sustainable for the occasion.	Burners over or improperly regulated, oven door opened often. Food burned, spilled or thrown away		
	5	4	3	2	1
ABILITY TO FOLLOW DIRECTIONS	Directions followed carefully and without supervision, no mistakes made.	Directions followed if explicit and stressed, few mistakes made.	Direction not followed, many questions asked or many mistakes made.		
	5	4	3	2	1
SKILL IN WORKING	Expert even in difficult operation	Skillful except in difficult operations	Awkward and slow or noisy		
	5	4	3	2	1
SANITARY HABITS	Hands washed frequently, dried on towel, fingers do not touch food used for testing.	Hands washed before starting to work, wiped on towel, pans greased with fingers, spoons rinsed between testing.	Hands not washed before work is begun, wiped on apron, fingers dipped in food or soiled spoon used in testing		

	5	4	3	2	1
SAFETY HABITS	Appropriate holder used when needed, burner turned on after lighting match, cutting tools properly used.	Pot holder not always used slight explosion when is lighted cutting tools handled awkwardly.	Apron or towel used for pot holder, gas turned before matches is lighted, cutting tools handled carefully.		
	5	4	3	2	1
CARE OF SUPPLIES AND EQUIPMENTS AFTER USE	All equipments and utensils clean, shinning and returned to proper places; towels clean and hung straight	Counter, stove, sink and table cleaned and in reasonable order, towels not clean and hung carelessly.	No system, things not washed, cleaned handled carelessly, misplaced or not put away.		
	5	4	3	2	1
SETTING OF TABLE	Dishes, silver, table cover suitable and correctly arranged; decorations attractive.	Dishes, silver and table cover suitable and arranged correctly, center piece lacking or inappropriate	Wrong dishes silver or table cover used or arranged incorrectly, table looks crowded.		

APPENDIX V

HOME ECONOMICS STUDENTS CHECKLIST FORM

GUIDELINE

Note: Students are expected to be helped and guided to analyse their activities and determine their needs from three (3) standpoints that is: OPPORTUNITY, INTEREST AND INFORMATION

INSTRUCTION

- A. Answer each question according to your degree of opportunity, interest or information.
- B. Place the number only on your answer sheet
- C. Finish all three answers to each question before proceeding to the next one
- D. Collate all marks to determine where you have more or less knowledge of the subject matter.
- E. Result obtained will guide you towards adjustments in your academic activities.

Students Name: _____

Admission Number: _____

Course Undertaken: _____

Instructions: *Place only number on your answer sheet. Finish all three answers to each question before proceeding to the next one.*

ALTERNATIVE CHOICES

Opportunity

- 3 – I have much
- 2 – I have some
- 1 – I have little
- 0 – I have no

Interest

- 3 – I have Much
- 2 – I have some
- 1 – I have little
- 0 – I have no

Information

- 3 – I have Much
- 2 – I have some
- 1 – I have little
- 0 – I have no

Questions

Opportunity Interest Information

- | | | | |
|--|-------|-------|-------|
| 1. Knowledge of nutritional needs of family members? | _____ | _____ | _____ |
| 2. Sanitary practices? | _____ | _____ | _____ |
| 3. Healthy lifestyle? | _____ | _____ | _____ |
| 4. Nutritional diseases? | _____ | _____ | _____ |
| 5. Special diets | _____ | _____ | _____ |
| 6. Assessment of nutritional status? | _____ | _____ | _____ |
| 7. Preparation of diets according to nutritional needs | _____ | _____ | _____ |
| 8. Observed children's nutritional status? | | _____ | _____ |
| 9. Read about the relationship between nutrition and health? | _____ | _____ | _____ |
| 10. Practice taking care of my family members according to their nutritional status? | | _____ | _____ |

APPENDIX VI

HOME ECONOMICS STUDENT ANECDOTAL RECORDS FORM

NOTE: This form can be filled or recorded by the teacher or other persons the teacher may wish to involve in the evaluation process.

INSTRUCTION:

- A. Fill all the information concerning the students
- B. State the time and the activity or skill the student is able to accomplished
- C. Assess the number of times the student perform the expected task effectively to determine his/her academic achievement as well as where the student need more guidance or assistance.

Students Name: _____

Admission Number: _____

Course Undertaken: _____

Place of observation: _____

Date _____

Time: _____

Instruction: Indicate the activity and behaviour of the students being observed. Time and event that occur, should be recorded

Time	Activity/Behaviour Observed