

**UTILIZATION OF AVAILABLE RESOURCES FOR THE IMPROVEMENT
OF NIGERIA CERTIFICATE IN EDUCATION PROGRAMME OF
THE NATIONAL TEACHERS' INSTITUTE (BY DISTANCE
LEARNING SYSTEM) IN SOUTH-SOUTH,
NIGERIA**

BY

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**DEPARTMENT OF ADULT EDUCATION AND
EXTRA-MURAL STUDIES,
UNIVERSITY OF NIGERIA, NSUKKA**

FEBRUARY, 2019

TITLE PAGE

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DOCTOR OF PHILOSOPHY (Ph.D) IN ADULT EDUCATION (EXTENSION
AND DISTANCE EDUCATION)

SUPERVISOR: PROF. (MRS.) S. C. NWIZU

FEBRUARY, 2019

APPROVAL PAGE

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DEDICATION

This work is dedicated to my beloved husband, Dr. B. O. Emeka.

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Abstract

The study was aimed at assessing the utilization of available resources for the improvement of Nigeria Certificate in Education programme of the National Teachers' Institute (by Distance Learning System) in South-South, Nigeria. Four research questions guided the study. Four null hypotheses were formulated for the study and were tested at the probability of 0.05 level of significance. The study adopted descriptive survey research design and was carried out in the 18 NCE study centres of National Teachers' Institute in South-South States. The population of the study was 7,118; made up of 6, 806 distance learning students and 312 course tutors of National Teachers' Institute in South-South States. The sample of the study was 1, 125 respondents, drawn by using proportionate stratified random sampling technique. The instrument for data collection was a structured questionnaire titled "Utilization of Available Resources for the Improvement of NCE Programme of National Teachers' Institute Questionnaire" (UARINCEPNTIQ). The instrument was face validated by three experts and its reliability was determined using Cronbach alpha estimate with an overall reliability co-efficient of 0.89. Weighted mean and standard deviation were used to answer the four research questions while Student t-test was used to test the four null hypotheses. Copies of the instrument were administered to the respondents through direct delivery technique. Findings of the study revealed that the utilization of staff development programmes, physical facilities, media facilities, and student-support services improved the NCE programme of National Teachers' Institute by distance learning system to a high extent. All the four null hypotheses tested revealed that there were significant differences between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of staff development programmes, physical and media facilities, and student-support services in the NCE programme of the National Teachers' Institute by distance learning system in South-South States. Based on the findings of the study, it was recommended that the National Teachers' Institute should mount various staff development programmes for to the development, upgrading and certification of NTI academic staff (course tutors or facilitators); and that National Teachers' Institute should accept the innovation in teaching approaches (methods) through the use of ICT media to enhance academic performance of distance learning students.

CHAPTER ONE

INTRODUCTION

Background of the Study

The National Teachers' Institute (NTI) was established in 1976 as a single mode distance learning institution with the support of United Nations Education, Scientific and Cultural Organization (UNESCO). The institute was "charged with the duty of providing courses of instruction leading to the development, upgrading and certification of teachers as specified in the relevant syllabuses using distance education techniques" (National Teachers' Institute, NTI, 2016). The institute has its headquarters in Kaduna with study centres located all over the country. As a distance learning institute, the NTI in line with Federal Republic of Nigeria, FRN (2014) provides equal learning opportunities for those who could not go through full time studies in conventional face-to-face institutions. The institute therefore, provides part-time and on-the-job training for people engaged in various forms of employment.

The NTI runs programmes to retain and upgrade teachers and refresher courses that seek to update the knowledge and skills of teachers. The institute started by training Grade II teachers for the award of Teachers' Grade II (TCII). In 1990, the TCII gradually gave way to the Nigeria Certificate in Education programme (Okenwa, 2006) which today is the most popular programme provided by the institute through distance education technique. The replacement of the TCII with the Nigeria Certificate in Education through Distance Learning System (NCE (DLS)) began as a response to the National Policy on Education prescribing NCE as the minimum qualification for all teachers in Nigerian schools. The NCE (DLS) mode of NTI made it possible for unqualified teachers to retain their jobs while furthering their studies to remedy their deficiencies.

NTI runs various programmes which include Postgraduate Diploma in Education (PGDE), Bachelors Degree Programme (BDP), Nigeria Certificate in Education (NCE), Advanced Diploma in Education (ADE), Pivotal Teachers' Training Programme (PTTP) and Continuing Professional Development (CPD). However, the NCE programme happens to be the most prominent of all the programmes because of the dire need of the educational system to train, retrain and up-grade the teeming unqualified teachers flooding the Nigerian schools (mostly, primary and secondary schools).

Distance learning is gaining ground in Nigeria educational system because of its ability to provide knowledge and skills in a cost-effective manner. California Distance Learning Project, CDLP (2011) defined distance learning as any educational or learning process or system in which the teacher and instructor are separated geographically or in time from his or her students; or in which students are separated from other students or educational resources. It increases access to educational opportunities for those who are unable to go through the conventional programmes. According to NTI (2016), the objectives of the NCE (DLS) programme are:

- i. to train and up-grade all qualified Grade II teachers to NCE level;
- ii. to provide the basic background for those of them who may later wish to pursue their studies at higher levels, and
- iii. to help produce the number of teachers required for the successful implementation of the National Policy on Education.

To achieve the above noble objectives, the NTI which has its headquarters in Kaduna also has the following structures in place; six zonal offices located in Abuja, Bauchi, Benin, Enugu, Ibadan and Kano; 345 NCE (DLS) field and study centres located in various states of the

federation and Abuja (NTI, 2015). To qualify for the award of NCE, candidates admitted into the programme must go through four years of training organized in cycles (one cycle represents one year) and are permitted to undertake a maximum of 80hours tutorial contact per subject.

With the above structure in place, NTI has recorded significant success in fulfilling its mandate on teacher up-grade and production. Sharehu (2011) stated that the institution has produced 172,902 NCE teachers, and 59,378 are currently on the programme. Hot School News (2018) also reported that the NTI Centre for Strengthening Mathematics and Science Education (SMASE) has trained 438 teachers in science and Mathematics nationwide. It also noted that NTI has successfully trained 749,158 teachers through MDGs from 2006 – 2015.

In spite of the above laudable achievements, NTI is currently faced with the issues of quality. Generally, distance education institutions have low image and has been faced with the perception of low quality products when compared with products of conventional programmes. It seems that distance education institutions lack quality as a result of the mode of delivery of instruction and examination. NTI NCE (DLS) programme cannot be an exception. The quality of NTI NCE (DLS) graduates is in question. Ogbiji, Ategwu and Ogbiji (2016) reported that NCE teachers produced by the NTI are not significantly competent in respect of thorough knowledge of learners and factors of learners' response. The teachers' emotional techniques and application of knowledge are also low. Akinwumi (2018) emphasizing the issues of quality noted that teachers' training programmes continue to attract low quality as students mainly due to poor remuneration and lack of clearly defined career growth patterns thus affecting the quality of instruction and products of these programmes.

The above low image and quality question about NTI NCE (DLS) specifically and distance education programmes generally are responsible for the discrimination experienced by graduates of these programmes in the labour market. Employers of labour prefer to employ graduates from conventional programmes rather than graduates from distance learning programmes. This certificate discrimination has negatively impacted on the employment of distance learning graduates.

Addressing the above perception of low quality of NTI NCE (DLS) programme and its products, Sharehu (2010) observed that the first item on his five-point agenda as the Director-General of NTI is to enhance the quality of the programme. To address the problem, a number of additional monitoring and assessment measures have been instituted and the services of Quality Assurance Assessors have been engaged. Contrary to the assertions of Ogbiji et al. (2016) and Akinwumi (2018), Azare (2016) expressed the institute's determination to boost the quality of teachers so as to improve the standard of education in the country. Proffering solution from the angle of examination, Sharehu (2010) promised that the management of the institute would do everything to address the examination challenges facing its students across the country to enhance the quality of the programme and products.

The above scenario of varied opinion of authors necessitates a thorough assessment of NTI NCE (DLS) programme to determine the actual position and condition of the programme. Assessment, according to Emaikwu (2014), is the process of data-gathering strategies, analysis and reporting processes that provide information, which can be used to determine whether or not intended outcomes are being achieved. Assessment uses information to support decisions on maintaining, changing, or discarding intended practices or programmes. Assessment is a process of measuring behaviours and using the result obtained in taking relevant decisions

about a programme. It involves the collection of information about a programme performance as well as judgment, interpretation and actions taken. Assessment is also a process of developing images, making decisions, and checking hypotheses about other person's behaviours in interaction with the environment.

One of the useful functions of assessment in education and social sciences include identifying the strengths and weakness of programme performance so that the implementers of such programmes can provide a special support for its development (Shephard, 2000). Also, educators use a diverse array of assessment tools and methods to measure everything from a four-year-old's readiness for kindergarten to a twelfth-grade student's comprehension of advanced physics. Assessments are typically designed to measure specific elements of learning or programme development- for example, a student's perceived ability or readiness to learn; the successful acquisition of skills and knowledge; the understanding and recall of facts; or the ability to analyze and comprehend various types of texts and reading. Formative assessments are in-process evaluations of performance that are typically carried out several times during a unit, course or development programme. The general purpose of formative assessment is to give educators or administrators real-time feedback about the positive or negative performance of the programme so that instructional materials, equipment and approaches and support can be modified accordingly. Finally, summative assessments are used to determine whether programmes have achieved the purpose for which they were set-up.

Proper assessment of the NTI NCE (DLS) involves the assessment of the staff development programmes, utilization of physical and media facilities, and student-support services. It is important to note that provision of adequate staff development programme forms the bench-mark of standard in distance learning programme. The extent to which staff

members are developed through training and retraining programmes, determines the success of the distance learning programme. Successful distance education programmes are assured when physical facilities are available. There is need that learners have access to facilities such as library with related books, lecture hall, charts, computer room, resource room, laboratories, furniture, and good study centres among others. Provision of fund and facilities will reduce the high incidence of teaching in isolation, accommodate confidence and promote effective distance education. Integrating media facilities into distance learning programme will help in improving teaching/learning process. The provision and use of study centres installed with functional computer/ICT such as television, slides, radio, instrument aids/materials, over-head projector, tape recorders, video recorders and audio tapes will help to improve the standard and ensure quality of the distance learning programme.

Another area which is inevitable in NTI NCE (DLS) is the student-support services. The student-support services need proper attention both in the NTI Administrative office and study centres. Distance learners face a lot of problems (which may be emotional and academic) but with the provision of good student-support services such as counselling services, feedback, security, and assignments among others, the needs of the students will be met.

In South-South States of Nigeria, there are six states namely; Akwa-Ibom, Bayelsa, Cross-River, Delta, Edo and River States. These states have 57 National Teachers' Institute study centres that offer Nigeria Certificate in Education (NCE) programme. The study centres are located both in urban and rural areas of the states with an enrollment of 10, 659 students in 2013 (Mijah, 2014). This showed that educational development (improvement in knowledge) is needed in both areas. Hence, Mabogunje (1999) emphasized that development is essentially a human issue as it is concerned with the capacity of individuals to realize their inherent

potentials and effectively cope with the change in circumstances of their lives. NTI (2010) stated that the rationale for the programme is to provide on-the-job training for the teachers thereby eliminating the inherent problems caused by teachers having to leave the schools for further training. Distance learning system (DLS) programme is not only cost-effective (Berge, 2001), but is also an enabler, opening access to many who for one reason or the other are unable to study full time.

The staff (both centre managers and facilitators) and students (learners) are at the forefront in the implementation process of NCE programme of NTI (DLS). This is because they are conversant with the various staff development programmes, and the extent of utilization of physical facilities, media facilities, and the student-support services. It is therefore important that for the successful implementation of NTI NCE (DLS) in the South-South States of Nigeria, the provision of various staff development programmes, proper utilization of physical facilities, media facilities, and the student-support services should not be neglected.

In Mid-western Nigeria (comprising Delta and Edo States), there are instances where the NTI NCE (DLS) provides staff development programmes, proper utilization of physical facilities, media facilities, and the student-support services. There are study centres located in some secondary schools in the area. It seems many teachers are encouraged to upgrade and update their skills. In Delta State for instance, there are provisions and utilization of blocks of classrooms, laboratories, workshops, libraries, equipment, consumables, electricity, water, visual and audio-visual aids, tables, desks, chairs, playground, storage space and toilets in some of the study centres of NTI NCE (DLS).

However, there are still cases of inadequate provision and utilization of both physical and media facilities in the various study centres and few available ones are being over-utilized

due to the astronomical increase in school enrolment within the South-South States. It is against the fore-going background of numerous unverified claims and opinions on the NTI NCE (DLS) programme quality and resource utilization that the researcher deciphered the need to assess the level of utilization of available resources on the delivery of NCE (DLS) programme of the NTI with a view to providing suggestions for improvement.

Statement of the Problem

Since the inception of the Nigeria Certificate in Education (NCE) programme of NTI by distance learning system (DLS) programme in 1990, many study centres of the institute have evidence of innovation going on. Such innovations include staff members participating in workshops, seminars and conferences; carrying out research; and initiating programmes that would lead to the improvement in the quality and content of NCE programmes in the country (staff development programme). There is also evidence that students utilize libraries with related books, lecture halls, computer rooms, resource rooms, laboratories, furniture, and study centres among others (physical facilities), functional computers, television sets, slides, radio, instrument aids/materials, over-head projectors, tape recorders, video recorders and audio tapes (media facilities), study centres, and counselling services, among others (student-support services).

Despite the provision for staff development programmes, and the utilization of physical, media facilities, and students' support services, some problems still exist. There are cases of high rate of learners' drop-out due to lack of personal interaction which makes most of them feel detached and lonely in various study centres within the South-South States. There are also cases of NTI NCE (DLS) learners abandoning the programme completely due to frustration caused by a failure to comprehend distance learning subject matter. The poor performance of

school children in public examinations within the South-South States is an evidence that such innovation has not yielded acceptable dividends. The situation is worsened as there is no evidence of periodic assessment of the NTI NCE (DLS). Therefore, the extent of achievement of the set goals and objectives of NTI NCE (DLS) has not been ascertained. The researcher also noted that some earlier studies on assessment were carried out on the NTI NCE (DLS) without relating them to the extent of provision of development programmes for staff, the utilization of physical and media facilities as well as the extent of utilization of student-support services in the improvement of NCE programmes in South-South States. This research is an attempt to fill that gap created by the afore-mentioned through the assessment of the extent to which utilization of staff development programmes, physical and media facilities, and student-support services have improved the NTI NCE (DLS) programmes in South-South States, Nigeria.

Purpose of the Study

The main purpose of the study is to assess the utilization of available resources for the improvement of Nigeria Certificate in Education programme of the National Teachers' Institute (by Distance Learning System) in South-South, Nigeria. Specifically, the objectives of the study are to:

1. determine the extent to which utilization of staff development programmes has improved the NCE programme of NTI by DLS in South-South States,
2. determine the extent to which utilization of physical facilities has improved the NCE programme of NTI by DLS in South-South States,
3. determine the extent to which utilization of media facilities has improved the NCE programme of NTI by DLS in South-South States,

4. determine the extent to which utilization of student-support services has improved the NCE programme of NTI by DLS in South-South States,

Significance of the Study

The findings of the study are practically expected to be of significance to the following: the management of National Teachers' Institute, Kaduna, national education policy planners, and other institutions that operate through distance learning system, professionals, scholars, and non-governmental and inter-governmental organizations.

The findings of the study will reveal to the management of National Teachers' Institute (NTI) the extent of the provision of the development programmes for its staff in the achievement of effective teaching and learning of Nigeria Certificate in Education (NCE) programme. Based on the findings of the study, the management would be able to mount various staff development programmes leading to the development, upgrading and certification of course tutors (facilitators).

The findings of the study will also be relevant to all the bodies involved in the planning of national education policy. Such bodies include Nigerian Educational Research and Development Council (NERDC), National Commission for Colleges of Education (NCCE), National University Commission (NUC), National Business and Technical Examinations Board (NABTEB), and National Commission for Mass Literacy, Adult and Non-formal Education (NMEC) among others. They will find this study very useful as a working document. The findings will enable them realize the relationship between the provision of physical facilities and effective teaching and learning. The findings of the study will further them to cope with the numerous problems affecting the effective utilization of physical facilities in Nigeria Certificate in Education programme.

Other institutions that operate through distance learning system (either as autonomous or part of existing institutions) in Nigeria will find the findings of this study very useful. It will create awareness and lead them to forge partnership with state, national and international institutions for the purpose of capacity building through research and production, and provision and utilization of media facilities for effective teaching and learning in Nigeria Certificate in Education programme through distance learning mode.

Also, the findings of the study will help to enlighten professionals and scholars wishing to extend further research in the area of utilization of student-support services in distance learning system. Towards this direction, the findings of the study will serve as reference material. The findings of the study will also motivate distance learning students to focus on and keep themselves busy and active during the lesson, creating the chance for effective retention of the learned subject matter.

Finally, the findings of this study will be useful to the non-governmental and inter-governmental organizations (both locally and internationally) and service providers. It will enable them to use the equivalency theory of Keegan (1986) to motivate distance learning students who are engaged in the NCE programme of NTI by DLS. The tenet of the theory is that the more equivalent the learning experiences of distant learners are to those of local learners, the more equivalent will be the outcomes of the educational experiences for all learners. Through this, the distance learning institutes would be able to make provisions for appropriate and equivalent learning experiences for each distance learning student as the theory is based on the impact of new telecommunications technologies on distance education which is far-reaching. The role of the course tutors is to meet the distance learning students have learning experiences that are tailored to the environment and situation in which they find

themselves. The findings will also enable the course tutors to improve on the result-oriented management and clarification of organizational roles and structures in the NCE programme of NTI by DLS.

Research Questions

The following research questions are posed to guide the study:

1. To what extent has the utilization of staff development programmes improved the NCE programme of NTI by DLS in South-South States?
2. To what extent has the utilization of physical facilities improved the NCE programme of NTI by DLS in South-South States?
3. To what extent has the utilization of media facilities improved the NCE programme of NTI by DLS in South-South States?
4. To what extent has the utilization of student-support services improved the NCE programme of NTI by DLS in South-South States?

Hypotheses

The following null hypotheses will be tested at 0.05 level of significance:

1. There is no significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent to which utilization of staff development programmes has improved the NCE programme of NTI by DLS in South-South States.
2. There is no significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent to which utilization of physical facilities has improved the NCE Programme of NTI by DLS in South-South States.

3. There is no significance difference between the mean ratings distance learning students and course tutors of NTI on the extent to which utilization of media facilities has improved the NCE Programme of NTI by DLS in South-South States.
4. There is no significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent to which utilization of student-support services has improved the NCE Programme of NTI by DLS in South-South States.

Scope of the Study

The study focused on the assessment of the utilization of available resources for the improvement of Nigeria Certificate in Education (NCE) programmes of the National Teachers' Institute (NTI) by Distance Learning System (DLS) in South-South States of Nigeria. The study was restricted to NTI distance learning students and course tutors in the various study centres in all the six states of the South-South, Nigeria, comprising Akwa-Ibom, Bayelsa, Cross River, Delta, Edo and Rivers States. The study was further restricted to the assessment of the extent to which utilization of staff development programmes, physical and media facilities, and student-support services have improved the NCE programmes of NTI by DLS in South-South States, Nigeria.

CHAPTER TWO

LITERATURE REVIEW

This chapter reviewed the various literatures that are related to the study under the following sub-headings:

Conceptual Framework

- Assessment
- Distance Learning System (DLS)

Theoretical Framework

- Equivalency Theory of Keegan (1995)
- Behaviour Modification Theory of Skinner (1974)
- Teaching Effectiveness Theory of Marzano (2002)

Review of Related Empirical Studies

- Studies relating to the provision of staff development programmes
- Studies relating to the utilization of physical facilities
- Studies relating to the utilization of media facilities
- Studies relating to the utilization of student-support services

Summary of Literature Review

Conceptual Framework

Concept of assessment

Assessment is a method for analyzing and evaluating student achievement or programme success. According to Linn and Miller in Fuentes, Andalecio and Dadivas (2016), assessment is any of a variety of procedures used to obtain information about student performance. It refers to the full range of information gathered and synthesized by teachers

about their students and their classrooms. In education, assessment is the wide variety of methods or tools that educators use to evaluate, measure, and document the academic readiness, learning progress, skill acquisition, or educational needs of students (Great Schools Partnership, 2015). Therefore, assessment in education is the process of documenting, usually in measurable terms, knowledge, skill, attitudes, and beliefs. It is a tool or method of obtaining information from tests or other sources about the achievement or abilities of individuals.

Assessment can focus on the individual learner, the learning community (class, workshop, or other organized group of learners), the institution, or the educational system as a whole. Assessment uses information to support decisions on maintaining, changing, or discarding intended practices or programmes. Assessment involves the collection of information about a programme performance as well as judgment, interpretation and actions taken. Assessment has also been presented as a process of developing images, making decisions, and checking hypotheses about other person's behaviours in interaction with the environment. According to McMillan (2000), characteristics of a good assessment include that it is inherently a process of professional judgment. It is based on separate but related principles of measurement evidence and evaluation. Assessment decision-making is influenced by a series of tensions, and it influences students' motivation and learning. Also, good assessment is valid, fair and ethical, efficient and feasible, and enhances instruction. Good assessment uses multiple methods and appropriately incorporates technology. In a related development, Fuentes, Andalecio and Dadivas (2016) asserted that the characteristics of assessment include that assessment is a continuous cycle, an open process, promotes valid inferences and employs multiple measures of performance. Assessment measures what is worth learning, and supports every student's opportunity to learn important subjects.

What is most essential about assessment is to understand how general, fundamental assessment principles and ideas can be used to enhance student learning and teacher effectiveness. Stressing on the principles of educational assessment, Fuentes, Andalecio and Dadivas (2016) stated that assessment always begins with educational values and standards. It is a vehicle for attaining educational goals and for improving on these educational goals. These educational goals (values and standards) should be made explicit to all concerned from the very beginning. Desired learning competencies (skills, knowledge, values, ways of thinking and learning) are the determinants of what are to be assessed. It therefore means that assessment systems lead educators to help students attain the educational goals, values, and standards.

Assessment is often divided into initial, formative, and summative categories for the purpose of considering different objectives for assessment practices. According to Mctighe and O'Connor (2005), they are:

- i. Placement assessment: It is used to place students according to prior achievement or personal characteristics, at the most appropriate point in an instructional sequence, in a unique instructional strategy, or with a suitable teacher conducted through placement testing. Placement assessments are used to “place” students into a course, course level, or academic programme. The assessments are administered before a course or programme begins, and the basic intent is to match students with appropriate learning experiences that address their distinct learning needs.
- ii. Formative assessment: It is generally carried out throughout a course or project. Formative assessments can take the form of diagnostic, standardized tests, quizzes, oral question, or draft work. It is carried out concurrently with instructions, and it is aimed at seeing if the students

understood the instruction before doing a summative assessment. Formative assessments are on-going assessments, reviews, and observations in a classroom. Teachers use formative assessment to improve instructional methods and student feedback throughout the teaching and learning process. The results of formative assessments are used to modify and validate instruction.

iii. Summative assessment: This type of assessment is generally carried out at the end of a course or project. Summative assessments are typically used to assign students a course grade. They are made to summarize what the students have learned, and to determine whether they understand the subject matter well. Summative assessments are typically used to evaluate the effectiveness of instructional programmes and services at the end of an academic year or at a pre-determined time. The goal of summative assessments is to make a judgment of student competency after an instructional phase is complete (McMillan, 2000). Summative assessments are typically scored and graded tests, assignments, or projects that are used to determine whether students have learned what they were expected to learn during the defined instructional period.

iv. Diagnostic assessment: Diagnostic assessment deals with the whole difficulties at the end that occurs during the learning process.

Assessments are also designed in a variety of ways for different purposes:

i. Standardized assessment: It is designed, administered, and scored in a standard, or consistent, manner. It often uses a multiple-choice format, though some include open-ended, short-answer questions. Standardized tests can be administered to large student populations of the same age or grade level in a state, region, or country, and results can be compared across individuals and groups of students.

- ii. Standards-referenced assessment: It is also called standards-based assessment. It is designed to measure how well students have mastered the specific knowledge and skills described in local, state, or national learning standards.
- iii. Common assessment: It is used in a school or district to ensure that all teachers are evaluating student performance in a more consistent, reliable, and effective manner. Common assessment is used to encourage greater consistency in teaching and assessment among teachers. It allows educators to compare performance results across multiple classrooms, courses, schools, and/or learning experiences (which is not possible when educators teach different material and individually develop their own distinct assessments).
- iv. Performance assessment: This is also called authentic assessment. It typically requires students to complete a complex task, such as a writing assignment, science experiment, speech, presentation, performance, or long-term project.
- v. Portfolio-based assessment: It involves collections of academic work—for example, assignments, laboratory results, writing samples, speeches, student-created films, or art projects—that are compiled by students and assessed by teachers in consistent ways. It is often used to evaluate the acquisition of diverse knowledge and skills over a period of time.

Based on the variety of ways assessments are designed, there are some useful functions of assessment in education and social sciences. According to Shepard (2000), they include that assessment are used to identify the strengths and weakness of programme performance so that the implementers of such programmes can provide a special support for its development. Also, educators use a diverse array of assessment tools and methods to measure everything from a four-year-old's readiness for kindergarten to a twelfth-grade student's comprehension of advanced physics. Assessments are typically designed to measure specific elements of learning

or programme development. It involves a student's perceived ability or readiness to learn; the successful acquisition of skills and knowledge; the understanding and recall of facts; or the ability to analyze and comprehend various types of texts and reading. Formative assessments are in-process evaluations of performance that are typically carried out several times during a unit, course or development programme. Finally, the general purpose of formative assessment is to give educators or administrators real-time feedback about the positive or negative performance of the programme so that instructional materials, equipment and approaches and support can be modified accordingly.

Concept of distance learning system

The concept of distance learning system is reviewed under the following sub-headings: meaning of distance learning, objectives of distance learning, characteristics of distance learning, staff development programmes for distance learning, physical facilities for distance learning, media facilities for distance learning, student-support services for distance learning, and the factors militating against the effective implementation of distance learning programme.

Meaning of distance learning

Distance learning is also called e-learning or on-line learning. Unlike conventional classroom learning, it is not bounded by space and time. Therefore, distance learning refers to the interactive, educational process between student and teacher separated by physical distance (Işman, Dabaj, Altınay & Altınay, 2004). It adapts to individual differences and the way students react to media. Personality, intellectual abilities, cognitive and learning styles are important concerns in distance learning (Isman et al., 2004). According to Liu (2008), instructors and learners are commonly separated by space and time, although they may choose to interact synchronously or asynchronously over the length of the course.

Distance learning is an effective economic means of providing educational opportunities to people because it is multi-model. According to United Nations Education, Scientific and Cultural Organization, UNESCO (2002), distance learning programme represents approaches that focus on opening access to education and training provision, freeing learners from the constraints of time and place and offering flexible learning opportunities to individuals and groups of learners. Yusuf (2006) asserted that distance learning is a term that describes the students' centredness of education and it deals with the use of print and electric technologies to present individual lessons to learners at a distance. Holmberg (1997) asserted that distance learning is a system of education that does not operate through traditional conventions which are essentially restrictive in terms of admission, attendance, and subject combination. Peter in Ugwu (2015) affirmed that distance learning is a method of imparting knowledge, skills and attitudes which is rationalized by the application of division of labour and organizational principles as well as by the extensive use to technical media especially for the purpose of reproducing high quality teaching materials which makes it possible to instruct great numbers of students at the same time. It is an industrialized form of teaching and learning. Adebayo (2007) stated that distance learning is a type of education that takes place outside the conventional school system; it is imparted without necessarily having personal interaction with students or learners.

The alternative approaches of distance learning have made it to grow rapidly in the recent past. For instance, in 2002, in United States, 81 per cent of all institutions of higher education offered at least one fully online or blended course. Among public institutions, the number was as high as 97 per cent with 49 per cent of them offering an on-line degree programme. At the same time, over 1.6 million students took at least one on-line course during fall 2002 and among all U.S. higher education students, 11 per cent took at least one on-line

course (Allen & Seaman, 2003). In 2003, 2004 and 2005, the enrollment increased to 1.98 million, 2.35 million, and 3.2 million, respectively. The three-year continuous 20 to 30 per cent growth rate in on-line enrollments far exceeds the overall rate of growth for the entire higher education student population. Simultaneously, around 50 per cent of all schools kept an optimistic attitude toward distance learning and identified on-line education as a critical long-term strategy in the three years (Allen & Seaman, 2003).

Besides fostering common educational practices in conventional classrooms, distance learning is portrayed as possessing more potential and thus, more promise in promoting student interactions and enhancing learning outcomes by utilizing advanced computer technology. For example, Bruce, Dowd, Eastburn and D'Arcy (2005) suggested that the web has the ability to provide student interactions and multiple paths for learning. Learners can have greater control over information access, individualized pacing and timing and with more support in the inquiry process. Lebaron and Miller (2005) advocated for the vast possibilities offered by effective online design: entry to a global range of resources, 24/7 interaction within a purposeful learning community, convenience of access, and opportunities for reflective dialogue.

Therefore, the faculty needs to develop skills in helping students adjust to the unique features of distance learning. With all of the challenges facing distance learning, studies have shown that distance learners desire content and motivational support beyond course materials and are limited in their success without it (Williams, 2006). The importance of students' interactions in the teaching and learning process cannot be over-emphasized. Vygotsky in Liu (2008) stated that collaborative learning is necessary in building one's own cognitive process. Among group members, if they cannot share their knowledge effectively, it can lead to poor learning outcomes (Soller, 2004). To test the difference of collaborative learning and

individual learning, Ellis in Liu (2008) compared the problem-solving results between 5th graders who worked with a partner and those who worked alone. The result showed that 75 per cent of the paired students solved the problem with new mathematical rules while only 32 per cent of the students working individually came up with a solution.

To promote learner-centred education, the American Psychological Association (APA) designed a document – Learner-Centred Psychological Principles – to provide a guideline of the factors affecting learning in the 1990s (APA Work Group of the Board of Educational Affairs, in Liu, 2008). It includes 14 principles which are grouped into four domains: cognitive and metacognitive factors, motivational and affective factors, developmental and social factors, and individual differences factors. Principle 11 relates closely with student interaction issues under the developmental and social factors. It states that learning is influenced by social interactions, interpersonal relations, and communication with others. As one of the principles have been repeatedly verified over the years, McCombs and Vakili (2005) confirmed that learning is enhanced by having positive relationships with other learners and permitting them to learn from each other in a trusting environment. Following the same principle, researchers advocated for the building of an on-line learning community within distance learning courses. In this community, the knowledge is co-constructed among the community of learners and not delivered from a single instructional source (Burbules & Callister, 2000). Besides active communication, interaction, on-line presence, and moderated discussions, the formation of an on-line community is one of the key elements for high-quality on-line education delivery. Fostering interactivity in an on-line community is the main indicator of success in on-line courses (Bender, 2003). Also, Liu (2008) pointed out that learners' interaction among

classmates is one of the five areas of interactivity. Therefore, promoting students' interactions in distance learning courses is important for setting up an on-line learning community.

Distance learning is expanding rapidly as it gains worldwide acceptance by students, educational institutions, employer organizations, and the public at large. It makes education accessible to underserved populations, and flexible in fitting into complex lifestyles, schedules, and responsibilities of present day's learners. According to Clark (2001), distance learning in homes, offices, and libraries complement classical learning in classrooms. The pace of change, the need for lifelong learning, and diminishing educational budgets are pressuring educational institutions to create alternative efficient ways to learn through distance learning.

The quality of distance learning is no longer in question, and focus has moved beyond defining what it is to determining what it can do. Instead of traveling to attend regularly scheduled classes at a teacher-centred campus, distance learners can access internet courses virtually anywhere. Despite the physical distance between learners and instructors, communication technologies offer many opportunities for interaction. These same communication technologies facilitate rapid dissemination of new concepts in disciplines such as science and technology. Distance learning is a positive influence for change and global implementation in all disciplines. Pedagogy in traditional institutions of learning has been affected by distance learning.

For societal development; education should be a leader in providing easy access to knowledge, effective ways to learn, and growth opportunities for qualified people. Distance learning according to Isman et al. (2004) enables people to learn individually at any time or place. They learn from computer-assisted programmes, interactive multimedia, and internet discussions rather than from lectures and classroom methods of instruction. Willis (2002)

stated that distance learning is really related by the discovery of truth for gaining antithesis sides of the thoughts to get the exact knowledge. Distance educators refer to three distinct applications of computers in the off-campus study environment: computer managed instruction, computer aided learning, and computer conferencing (Willis, 2002).

- i. Computer managed instruction: It facilitates management and administration of the learning process. It provides opportunities for electronic counselling of students, on-line registration, institutional record keeping, evaluation, and tracking student progress.
- ii. Computer aided learning: It includes software applications to teach learners different subjects and concepts through pre-structured and programmed materials. Courseware either replaces or supplements materials that distance learners are expected to learn through other media (print, video, audio cassette). Lesson formats range from tutorials to simulations. The learners can also use Internet resources for exploration and research.
- iii. Computer conferencing: It uses the electronic network to enables individuals to communicate via computers at the same time (synchronous) or delayed time (asynchronous), either as a group or between two individuals. Typical formats include email, bulletin board, threaded discussion, net meeting (with the possibility of audio, video, and shared “blackboard” displays), and databases.

Distance learning requires alternative learning process, roles of facilitators and learners (Clark, 2001). People’s roles in distance education can be categorized in four subtitles:

- i. *Learners*: In distance learning, learners have role to learn. In that process, learners have difficult and different roles according to traditional learning process.
- ii. *Facilitators*: The main role of the facilitator is the design of the course and setting the needs of learners. Facilitator has role to guide the learners.

- iii. *Designer groups:* These persons determine goals, content, delivery systems, interaction, and evaluation. Usually, it is a team of subject matter experts, educators, instructional designers, and production personnel. They design the cyber and digital environment for the effective teaching and learning.
- iv. *Directors:* In the all institutes, there are people who direct planning, implementation, and evaluation of the education process.

Interdependence, distance and interaction interplay with the roles of learners and facilitators. There are three types of interaction within the distance learning. They are learner-content, learner-instructor and learner-learner interactions. These three types of interactions play a key role in distance education. As in face-to-face communication, they share ideas through email and chatting (Isman et al., 2004). From the fore-going, distance learning means a programme designed for working professionals in either industry or government. It is designed to provide learners with time, location flexibility, and relevant course content. The programme also needs to demand strong academic performance from their non-traditional adult learners.

Objectives of distance learning

Distance learning is a teaching-learning mode that enables a vast majority of working people to have access to education without losing their jobs or staying away from their jobs. The goals of distance learning in Nigeria are to provide access to quality education and equity in educational opportunities for those who otherwise would have been denied, to meet special needs of employers by mounting special certificate courses for their employees at their workplace, to encourage internationalization especially of tertiary education curricula, and to ameliorate the effect of internal and external brain drain in tertiary institutions by

utilizing Nigerian experts as teachers regardless of their locations or places of work (Federal Republic of Nigeria, FRN, 2008).

From the fore-going Obetta (2014) articulated the objectives of distance learning as follows:

- i. to have courses for students to learn in scattered areas covering sparsely populated large geographical areas,
- ii. to train teachers who are already working and cannot be taken away for more than a few weeks,
- iii. to provide educational opportunities for adults who are deprived of education to have acceleration of man-power development,
- v. to increase the output of educational system,
- vi. to bring into the classroom expert knowledge, rare experiences of stimulating personalities,
- vii. to update knowledge and skills,
- viii. to initiate national campaign that will deal with health of political issues, and
- ix. to have a cost-effective programme for a large number of students.

The overriding aim of distance learning is to respond to the growing educational needs of people who have not been catered for in the conventional forms. Opportunities offered are often from post-literacy to post-secondary studies. Education now as in the past has always been held as the fundamental human rights of every citizen. FRN (2008) affirmed that every Nigerian would be given equal opportunities to actualize his potentials.

In distance learning programme, most of the courses and programmes are targeted at the adult population. This is a way of providing and expanding educational opportunities to the adult population in developing countries.

Characteristics of distance learning

Learner autonomy should be the goal of distance learning. It is good for learners to be self-directed, motivated, evaluative, and responsible for their own learning. This changes the traditional role of the teacher from disseminator and manager to designer, moderator, guide and coach. Learner autonomy is realized when distance learners participate in setting learning objectives, implementing their programme of study, and evaluating their personal learning and performance. Instead of face-to-face instruction, distance educators design learning environments that stimulate productive learning activities. Distance learners use these activities to achieve course goals and meet their individual needs. Isman et al. (2004) have enumerated design considerations for distance learning to include good structure, clear objectives, small units, planned participation, completeness, repetition, synthesis, stimulation, variety, open-ended, feedback and continuous evaluation. Reflection in distance learning means engaging individual learners to explore their experiences to lead to new understanding and appreciations. Holmberg (1997) handled the guided didactic conversation between facilitator and learner as pervasive characteristic of distance learning. They include:

- i. that those feelings of personal relation between the teaching and learning parties promote study pleasure and motivation;
- ii. that such feelings can be fostered by well-developed self instructional material and two way communication at a distance,

- iii. that intellectual pleasure and study motivation are favourable to the attainment of study goals and the use of proper study processes and methods,
- iv. that the atmosphere, language and conventions of friendly conversation favour feelings of personal relation,
- v. that messages given and received in conversational forms are comparatively easily understood and remembered,
- vi. that the conversation concept can be successfully translated, for use by media available, to distance education, and
- vii. that planning and guiding the work, whether provided by the teaching organization or the student, are necessary for organized study, which is characterized by explicit or implicit goal conceptions (Holmberg, 1997, p.47).

For the most part, distance learners are adult learners. Compared to school-age students, they are self-reliant and responsible for their own learning. They should be encouraged to assume responsibility for setting objectives, self-direction, personal responsibility, personal experiences, making decisions, learning to solve problems, and maintaining intrinsic motivation (Moore & Kearsley, 2005). According to Isman et al. (2004), research in distance learning encompasses the changing roles of teachers and distance learners, the role of interactive technologies, and its global impact on traditional and underserved populations of learners. Distance learning requires an individualized learning process where the learner can access knowledge from computer-assisted programmes and/or other technologies such as television. Isman et al (2004) stated that with development of high technology, learners look for fast, easy, any-time, anywhere education opportunities. They expect high educational standards based on global competition. Distance learning may serve as

an alternative to traditional on-campus instruction or “blended” to combine distance with on-campus courses.

The changing roles of learners and teachers in distance learning are influencing classical education standards and pedagogy. According to Isman et al. (2004), the roles of the learners in distance learning are:

- i. be disciplined and on task;
- ii. consult with and seek guidance from advisors through required access methods,
- iii. assume responsibility for your own learning,
- iv. develop effective interaction with teachers and counselors (like classical learning),
- v. evaluate and judge your own performance, and
- vi. combat prejudice and communication barriers.

In the same way, Isman et al. (2004) stated that the roles of the teachers in distance learning are to:

- i. assume responsibility for preparation and presentation of learning tasks;
- ii. immediately consult with students to correct problems and keep them on task,
- iii. be aware of student needs and wishes; respond promptly to communications and tests,
- iv. build student motivation,
- v. combat prejudice of communicational barriers, and
- vi. establish an effective environment for student-teacher and student-student interaction.

Staff development programmes for distance learning

Every educational system requires highly skilled teaching personnel to sustain it. It is because of this that teachers are regarded as the most important element in the school system as no educational system can rise above the quality of its teachers. Hence, training is often

organized for teachers to upgrade and update their knowledge and skills (Osunde & Omoruyi, 2004). In Nigeria the need for well qualified teachers has gained pre-eminence because it is considered as a means of not only providing them with the necessary skills and knowledge needed to help educate those who could not gain admission into the regular programmes but also those who are unwilling to leave their jobs for full-time education and training programmes (Imhabekhai, 1998).

Training is conceived as an organized procedure by which people learn and acquire knowledge and skills for a definite purpose. Osunde & Omoruyi (2004) also stated that training is the process of increasing human efficiency through which people are offered the opportunity to acquire new skills and current knowledge required in carrying out various specialized tasks in their place of work. Training and retraining are necessary if efficiency and profits are to be attained. When people are offered training, they acquire new and improved skills and knowledge that will enable them to perform better thereby enhancing their level of productivity. Osunde & Omoruyi further affirmed that training and retraining for teachers is capable of enhancing their level of performance and also enabling them to cope with the ever-increasing challenges of educating the mass of the people in the country.

Since the early 1980s, the Nigerian education system has witnessed an unprecedented increase in population. The major challenge that has continued to agitate the minds of educational planners, administrators and the government has been how best to cope with the increasing population of students as well as provide well-qualified teaching personnel that would help empower the individual students through the acquisition of knowledge and skills and would enable them to participate fully and actively in nation building (Imhabekhai, 2000). It was in response to this challenge that the Federal Government in 1976 through Act No.7

established the National Teachers' Institute. According to National Teachers' Institute (2001), the enabling Act mandated the institute to provide refresher and upgrading courses for teaching personnel; organize workshops, seminars and conferences; conduct examinations; carry out research; and to formulate policies and initiate programmes that would lead to the improvement in the quality and content of education in the country.

The overall goal of the institute therefore, was to uplift the quality and quantity of teaching personnel in Nigeria through training and retraining programmes (Omoruyi, 2001). The institution was thus expected to provide courses of instruction leading to the development, upgrading and certification of teachers as specified in the relevant syllabus using a distance learning approach or technique. The Institute's distance learning programmes cover the entire country and are managed through field centres located in each of the 36 states including the Federal Capital Territory. In pursuance of its mandate, the Institute has initiated training and training programmes for helping unqualified primary school teachers and also refresher courses in the teacher training colleges. Recently, the institute also embarked on the Nigeria Certificate in Education (NCE) programme through a distance learning system.

The academic staff of teacher education institution plays a vital role in term of quality and quantity of teachers produced. It is expected that he who will teach or lecture at the teacher education institution must be professionally qualified and of high moral integrity. This is because teachers are seen as role models. Teacher educators have sense of belonging, loyal and dedicated and have a mission for the institution. The issue of social and economic gain/benefit is secondary to them. Although, Akinwumi (2006) stated that teachers were seen as the most cheated group, it should not be basis for losing their mission and objectives. Once they

deviated from their missions, it will definitely affect the academic performance of teachers in training and therefore have a negative effect in their overall output.

Physical facilities for distance learning

The importance of physical facilities planning in the development of an effective educational programme at all levels of education should not be underestimated. In order to have effective and efficient teaching and learning, school physical facilities (school plants) should be viewed as being closely interwoven and inter dependent (Yusuf, Ajayi & Sofoluwe, 2013). School could be viewed as a factory that requires money, men and material resources to aid its production. School physical facilities are essential in teaching and learning process. Similarly, Adegoke (2005) agreed that physical facilities include the school building, equipment which also include the permanent structures like workshop, libraries, classrooms, laboratories, hostels assembly hall and semi-permanent structures. Also, Ijaduola (2008) maintained that physical facilities need to be adequately utilized in order to ensure both effectiveness and efficiency of the educational sector. An effective school facility is responsive to the changing programs of educational delivery, and at a minimum should provide a physical environment that is comfortable, safe, secure, accessible, well illuminated, well ventilated, and aesthetically pleasing. The school facility consists of not only the physical structure and the variety of building systems, such as mechanical, plumbing, electrical and power, telecommunications, security, and fire suppression systems. The facility also includes furnishings, materials and supplies, equipment and information technology, as well as various aspects of the building grounds, namely, athletic fields, playgrounds, areas for outdoor learning, and vehicular access and parking.

The school physical facilities are much more than a passive container of the educational process; they are rather, integral components of the conditions of learning. The layout and design of physical facilities contribute to the place experience of students, educators, and community members.

Depending on the quality of the design and management, the physical facilities can contribute to a sense of ownership, safety and security, personalization and control, privacy as well as sociality, and spaciousness or crowdedness. The attainment of an effective teaching and learning is closely related to the planning of physical facilities (Fehintola 2009). Also, Oyesola (2007) stated that the main objective of physical facilities in schools is to satisfy educational goals which have been predetermined by educational planner. Better physical facilities will enhance better school programmes and the community needs by providing a place for psychological and physical safety for both students and teachers and also enhance better quality control of instructions.

The major reason for building a school is to implement an educational programme. A smooth implementation of an educational programme can only occur and the chances of actualizing its goals enhanced if the physical facilities possess some desirable qualities or standards (Fenker, 2004). Ensuring that physical facilities meet these standards should be the major concerns of all efforts directed at planning, designing and constructing school physical facilities. In addition to facilitating the implementation of the educational programme, some of the qualities are necessary for the all-round development of children and youth and the well-being of the school staff. Englehardt in National Open University of Nigeria, NOUN (2011) refers to these qualities as objectives of major concern in school plant planning, design and

construction. The following objectives should be put in focus when planning and constructing school plants:

i. **Spatial adequacy and desirability:** One very important objective of school plant planning that is directly related to the implementation of the educational programme is the provision of adequate and appropriately organized spaces to facilitate and support teaching and learning activities. There should be enough space to accommodate the present school enrolment and any possible increase in student population in foreseeable future. It is desirable that learning spaces be adequate for both individual and group work. Adequacy of space is also sought for administrative and other offices needed for rendering special services to students and staff and for storing materials and supplies for the school. Provision of adequate spaces for outdoor learning and recreation should also feature as one of the objectives of school plant development.

ii. **Health and safety:** Ensuring the safety, security and good health of the learner as well as other staff of the school is another objective that any school plant planner should accomplish. All buildings should be structurally adequate and enough safety features, such as fire alarm systems, firefighting equipment, and emergency exits should be provided. Learning takes place effectively in an environment in which the learner feels safe and secure. Toilet and other sanitation facilities to meet the needs of the students and staff should be provided.

iii. **Adaptability:** School buildings are expensive to construct and are usually intended for long-term use. While in use, there may be some changes in the educational programme; new subjects may be introduced requiring new methods of teaching or equipment that may require special storage facilities; there may be unexpected increase in school enrolment and any unforeseen development that may hasten the obsolescence of the buildings. In order to cope

with such unforeseen circumstances, it is a desirable objective of school plant planning and construction to make the buildings adaptable.

iv. Aesthetics: Providing a school plant with beautiful surroundings is another objective of school plant planning. Attractive school environment with well designed buildings and other structures may not only stimulate learners' interest in schooling and appreciation of creative arts, but it may also engender a sense of belonging and pride for their school. Such attractive-looking school and beautiful surroundings are also a source of pride to the members of the local community of the school.

v. Durability: Owing to the expected long life span of school buildings and high construction costs, durability is one of the objectives to be targeted when planning and constructing them. Durability in this case should not imply rigidity of the structures; this is because of some inevitable changes that often occur and call for flexible structures. Rather, it calls for the use of high quality building materials and competent workmanship so that the completed school plant can be put into good use for a long time; and at the same time, it should be easily adaptable as the need arises. The use of high quality building materials may be initially expensive but it eventually pays off in terms of relatively low cost of maintenance. It should be noted that many writers refer to these objectives as attributes or characteristics.

The character of physical facilities in schools determines, to a considerable extent, the types and quality of curricular and co-curricular activities that take place in it. The nature and size of the school building determine the shape and size of the classrooms. According to NOUN (2011), the shape and size of the classrooms with their equipment, furniture and the types and variety of educational materials available affect the ways in which learners can be organized for instruction, the possible methods of teaching that can be adopted by teachers and

the types of learning activities that the students can be engaged in. If home economics, technical education, music and fine arts, for instance, are part of the curriculum, the appropriate rooms and workshops must be provided with the relevant equipment and materials. Otherwise, the implementation of those aspects of the curriculum will be greatly impaired.

Practical lessons cannot be organized for science students in schools without science laboratories, or in schools with science laboratories but without the relevant materials and equipment. The planning of school building to accommodate the educational programme affects the life and activities that go on within it. Therefore, a school plant can either be an effective tool or a barrier to education. If a school's facilities are poorly planned and designed with inadequate number, sizes, and arrangement of learning spaces, it may hinder the operation of the educational programme. As well, poor planning and design of facilities may lead to undesirable behaviour of learners and inability of the school to achieve its educational goals. In this regard, NOUN (2011) observed that the quality of education that a child receives is directly related to the availability or lack thereof of physical facilities and the overall atmosphere in which learning takes place. The location, size and nature of the school plant affect the types and number of curricular and co-curricular activities that can take place in and outside it. A school built on a small site, for instance, may not have enough space for playgrounds and recreational facilities. The physical and health education aspect of the educational programme can hardly be adequately implemented in schools built on such sites. The extent of out-door learning in such schools may also be severely limited. Indeed, there is no doubt that attainment of educational objectives will be almost impossible without an adequate school plant.

There is growing evidence that the physical condition of a school is related to students' academic achievements and behaviour as well as the well-being of staff and students. A study of The District of Columbia schools in 1991, for instance, found that standardized achievement scores among students in poor condition were six per cent lower than those in fair condition and 11 per cent below schools in excellent condition (NOUN, 2011). Another study of Virginia high schools in 1993 found that student scores on achievement tests, adjusted for socio-economic status, were up to five per cent lower in buildings with lower quality ratings. Even some building design features have been shown to have measurable influence upon student learning. Among the influential features and components found to have negative impact upon student performance in buildings where their deficiencies exist are those impacting lighting, temperature, acoustics and age (Earthman, 2002). Results of some studies on specific quality factors have been summarized by Young, Green, and Roehrich-Patrick (2003) as follows:

- i. Students had higher achievement scores in newer facilities. As the age of the facilities decreased, there was a corresponding increase in mathematics, reading, and composition.
- ii. There were fewer disciplinary incidents in newer facilities.
- iii. Attendance records were better in the new facilities.
- iv. As the condition of the facility improved, achievement scores improved.
- v. Stimulating environments promoted positive attitudes in students.

The physical conditions under which teachers work have direct positive and negative effects on their morale, sense of personal safety, feelings of effectiveness in the classroom and the general learning environment (NOUN, 2011). Poor ventilation in schools, accumulation of dust and growth of mould in ceilings and walls can lead to respiratory infections, headaches, and

sleepiness among students and staff (Environmental Protection Agency, 2000). Poor air quality has been linked to student absenteeism often due to asthma and other respiratory diseases (American Lung Association, 2002). According to Lackney (2003), meeting the nation's needs on school learning environments for the 21st Century, should depend on the following principles:

- i. The learning environment should enhance teaching and learning and accommodate the needs of all learners;
- ii. The learning environment should serve as a centre of the community,
- iii. The learning environment should result from a planning and design process that involves all community interests,
- iv. The learning environment should provide for health, safety, and security,
- v. The learning environment should make effective use of available resources, and
- vi. The learning environment should be flexible and adaptable,

Media facilities for distance learning

Distance learning also needs to use technology. In the early days of distance learning, radio and television were the media used to conduct educational activities. Currently, the methods have extended to the internet, email, software, video, tapes, and cameras among others. Liu (2008) stated that instructors and students may choose to use technology in a conventional classroom teaching (but it is optional). Distance learning is a form of education in which course content is delivered and interaction provided by the technologies and methodologies of the Internet. The online environment allows people to interact with others asynchronously or synchronously in collaborative environments; to gain access to remote multimedia databases for active, resource-based learning; and to manage self-paced,

individualized learning in a flexible way. Moreover, the Internet allows students to enroll in courses from anywhere in the world at almost any time.

There is a new vision developed during the past 15 – 20 years, strongly influenced by the social and cognitive sciences. The educational system now focuses on learning rather than on teaching. The focus of learning theory has changed to learning styles and perception. Knowledge is considered as socially constructed through action, communication and reflection involving learners (Huebner & Wiener, 2001). To design effective distance learning programmes, it is important to understand how learning occurs and the factors that influence motivation, communication, perception, and learning. Learning strategies may consider cognitive learning strategies, metacognitive activities for planning and self-regulation, and learner's goals and motivation. Cognitive strategies cannot be divorced from learner's purpose in using them. Therefore, learner goals and motivation highly influence the cognitive strategies. The distance learning requires intrinsic motivation to support skill development, intellectual interests, challenge or personal growth consistent with the results of relevant research (Gibson, 1997).

Learning environments range from teleconferences to interactive multimedia via the Internet. They are designed to engage the learner. For example, in audio conferencing there are four major strategies for the teacher. They are: humanizing and relating to the learner; participation and interaction, message style presentation of information, and feedback to determine effectiveness of learning and teaching. Television and computers are tools used by educators to disseminate and manage instruction. It is important for educators to know the values and limitations of different communication media and techniques. The coordinator of distance learning programme should establish competence, continuity, control and confidence

(Isman et al., 2004). Large group one-way communications should be supported by small group activities and interactive computer experiences. Even in distance learning, there may be a need for individual tutoring with real time interaction between learners and facilitators, or peer learning where learners work together and support each other. Distance learners need guidance, encouragement and reassurance; constructive criticism and advice, fair and objective grading, and timely response from the instructor.

Teachers should share their knowledge and experience with students by providing consulting, helping, directing, and advising. Distance learning embraces whole of the learner's activity, responsibility and willingness for formulating and asking relevant questions and seeking answers. Many Distance learning programmes use discussion and question-answer type media, or decisions based on short scenarios or simulations. The main consideration is to define and measure role effectiveness of teacher-learner communication on learning at a distance (Willis, 2002). Distance learning is new technological power for developing a dynamic self-concept for distance learners. The constructivist approach changes the role of educators. Distance learning emulates this approach by leading the learners to develop their own strategies, objectives, evaluation, implementation under the guidance of a teacher (Gibson in Drew, 2008).

Research provides data to compare effectiveness of the teaching and learning in a great variety of situations. Learning in a high-tech, global environment presents new roles and responsibilities for both teacher and learner. In addition; there is a radical change in construction and delivery of course content. Media to facilitate interaction between and among learners, teachers, and content increases the opportunity for in-depth and meaningful learning

(Drew, 2008). The focus is on the student and his active role in learning supported by technology.

Student-support services for distance learning

The dominant feature of distance learning institution is the physical and often temporal distance that separates the instructor and learner. Because distance learners are often placed in a unique situation in which neither instructors nor learners are physically present to clarify, discuss, or provide feedback, effective distance learning requires a sound student support system. According to Molefi (2002), students' support services are any systems or procedures that are purposefully created and effectively utilized by a distance learning institution to support and/or facilitate teaching and learning at a distance. They may include any or all of these: record keeping and administration (pre admission counseling); admission or enrolment and registration information (administrative assistance), books despatch by mail (library service), tutoring and counseling, weekend courses and study centres, and electronic communication technologies (such as phones, radio, audio tapes, video, and television). Usun (2004) stated that learner support is the resources that learners can access in order to carry out the learning processes. In distance learning, support is concerned with a range of human and non-human resources to guide and facilitate the educational transaction. The resources may be library facilities, various media and software programs, community leaders, or they could be various socio-economic variables such as learner's financial self-sufficiency and capacity to cope with their roles and responsibilities in the family and community. The amount of support services an institution can offer largely depends on that particular institution's capacity and resources at its disposal. However, these can be put into two categories which are: academic functions, including such packages as tutorial, advising and counseling services, and

administrative functions, such as enrolment; admission and registration; record keeping; information provision; and delivery of study materials (Usun, 2004).

Traditional students have many physical clues of their attachment to the institution. Providing support services to the distance learning population is an important part of creating the feeling of belonging for students who do not have access to traditional clues. Other support services include access to library materials and facilities, delivery of course materials, traditional mail services, counseling, mentoring, job placement, and peer interaction. According to Molefi (2002), student support services are basically provided to facilitate learning so that students reach their ultimate goal. They also help students realize the institutional objective of the course by minimizing the negative effects of isolation and the lack of regular personal contact; minimize the drop-out rate, and help students deal with the teaching institution and to augment the package of course materials. Other reasons for providing student support services are to improve the students' learning experience; provide extra assistance to weaker students, and to provide counselling for those who have personal difficulties.

In a related development, Ntakana (2011) outlined some of the reasons why student support programmes are important. They are:

- i. *Enhance academic performance:* According to Adams (2006), student support programmes assist students from under-privileged backgrounds to cope with mainstream courses; provide a separate, safe space for addressing their learning difficulties; develop study and writing skills; and clarify key concepts and elements of content. Nqadala (2007) stated that student support programmes break down barriers to learning and promote effective learning.

ii. *Reduce attrition rates and increase retention and throughput rates:* Kirkham and Ringelstein (2008) stated that student support programmes are strategies to assist students in their learning process and thereby motivate them to remain committed to completing their higher education. Ntakana (2011) identified student attrition as a major concern and therefore endorsed the use of student support programmes to combat the problem. The supplemental instruction provides opportunities for students to be more involved in the learning and teaching process and thus get retained and succeed in their studies.

iii. *Help students acquire knowledge and develop life skills:* Kirkham and Ringelstein (2008) affirmed that students' involvement has a motivating influence on performance. The level of students' involvement with on-campus activities was positively correlated with retention at university (Ntakana, 2011). The greater the students' involvement in activities outside of the traditional lecture or tutorial, the greater their acquisition of knowledge, development of relevant skills and likelihood of remaining at university (Kirkham & Ringelstein, 2008).

iv. *Assist first year students to adjust at university:* According to Calder (2004), peer interaction plays a central role in the successful transition process. Peer assisted learning involves an active or interactive mediation of learning by students with the support of other students (Topping & Ehly, 2001).

v. *Peer Support programmes create a sense of community:* Student to student interaction enhances networking which leads to formation of study groups; providing a non-threatening atmosphere which is conducive to learning; providing study and learning strategies can be applied in other areas of study; and avoiding the creation of a remedial programme that may carry negative connotations (Kirkham & Ringelstein, 2008). Also, Ntakana (2011) advocated that collaborative learning does not only improve academic performance, but it also improves

students' self-esteem. Self-esteem plays a major role towards motivation and making learning a fulfilling experience. Gerdes and Mallinckrodt in Ntakana (2011) stated that personal adjustment and integration into the social fabric of campus life play a significant role at least as academic factors in student retention.

The student support services are many and diverse. According to Stewart, Goodson, Miertschin, Norwood and Ezell (2013), the students' support services include instructional support services centre, student organizations, academic services centre, course design and technical support services, learning support, student success and retention programmes, general support services, scholarships and financial aid, library resources, computing and technology help desks.

i. *Instructional support services centre*. Under the instructional support services centre, Stewart et al. (2013) stated that the following student services are offered: course software assistance; individual course tutoring (both face-to-face and online); graduate record examinations (GRE) preparation; supplementary course materials; a meeting place for students working on group assignments, and a worksite for teaching assistants to support online courses. Others are: distribution of student course materials; collection of student assignments, as requested by the instructor; provision for student supplies, and proctoring of flexibly scheduled examinations or makeup examinations.

ii. *Student organizations*. On student organizations, students are supported through membership and leadership opportunities. In addition to establishing connections to one another, students developed channels to the faculty, campus, and community. Student members engaged in diverse activities including sponsorship of speakers, student discussions, service projects, fundraising activities, career days, and campus events.

iii. *Academic services centre.* Another students' support service according to Stewart et al. (2013), is academic services centre. The academic services centre includes academic advising and orientations. As the site for academic advising, academic services centre rosters and logs recorded student contact via e-mail, telephone, and on-campus appointments. Logs indicate how students benefit from support, having received advising about academic processes and regulations, evaluation of transfer credits, course sequencing, degree plans, and evaluation of progress toward graduation. Additionally, the academic services centre regularly made referrals to other campus services. Also, orientations were provided at a number of different levels. According to Miertschin, Goodson and Schroeder (2010), the orientations are in form of general institution orientations; campus-wide online orientations, course-specific online orientations. Counseling through an academic services centre (ASC) provided support with academic counseling for students. On-line students are served by academic advisors via e-mail, telephone, or on-campus visits. ASC advisors oriented students to academic processes and regulations, evaluated transfer credits, created degree plans, communicated with students regarding events and deadlines, monitored academic progress, provided referrals to other campus services, facilitated career planning, and evaluated readiness for graduation.

iv. *Course design and technical support services.* Course design and technical support services were targeted for faculty to help students. The distance learning institutions employ instructional design support staff members who provide course design. These staff members train faculty in the use of course software and online communication tools, trained and monitored graduate students who assisted with course design, and provided direct design services. The distance learning institutions also employ technical support personnel to support the technology needs of faculty and staff. Their responsibilities include assisting faculty and

staff with hardware and software needs and maintenance of computer laboratories for students' use (Stewart et al., 2013).

v. *Learning support*. On learning support, logs of student services record individual contacts with students on a daily basis. Analysis of the logs provided evidence of extensive students' use and problem resolution. Learning support serves as both a physical place of contact and as an on-line resource for assistance with challenges related to course content and software (Miertschin et al, 2010). Students used tutoring services in both face-to-face and on-line formats, which together met student needs for course support and flexibility. The learning support services supported students by providing a single highly available location where they could flexibly pick up or submit course materials and complete examinations in a proctored setting. Flexible scheduling of examinations and on-demand assistance accommodate students' busy lifestyles.

vi. *Student success and retention programme*. Student success and retention programme is another students' support service. Student success, satisfaction, and retention can be influenced by students' levels of connection and interactivity with institutions' faculty, personnel, and systems. It is the duty of the distance learning institution to support several student success programmes across campus. That helps students to make the transition to college and support their academic pursuits once they arrive. These programmes include the following and were accessible to on-line students: services for undeclared students, pre-professional students, and students in transition, tutoring and testing in difficult courses; academic services for natural sciences; enrichment for students with academic obstacles; services for educationally and economically underserved students; learning and self-development services to increase

academic performance and improve student retention; and services to foster the development of written communication skills.

vii. *General support services*. On general support services, Stewart et al. (2013) stated that they involve other critical support services provided with attention to access for on-line students. They include: career counseling, recruitment, assessment, and internships (career services); accommodation and support services for students with temporary or permanent health impairment, physical limitation, psychiatric disorder, or learning disability (centre for disabilities); psychological, educational, and social support services for students (counseling and psychological services); initiative to share good things about campus and encourage student attendance at centre events. Furthermore, there are numerous other services such as the bookstore, office of admissions, division of administration and finance, credits and transfers, among others. These support services are developed to accommodate the needs of online students.

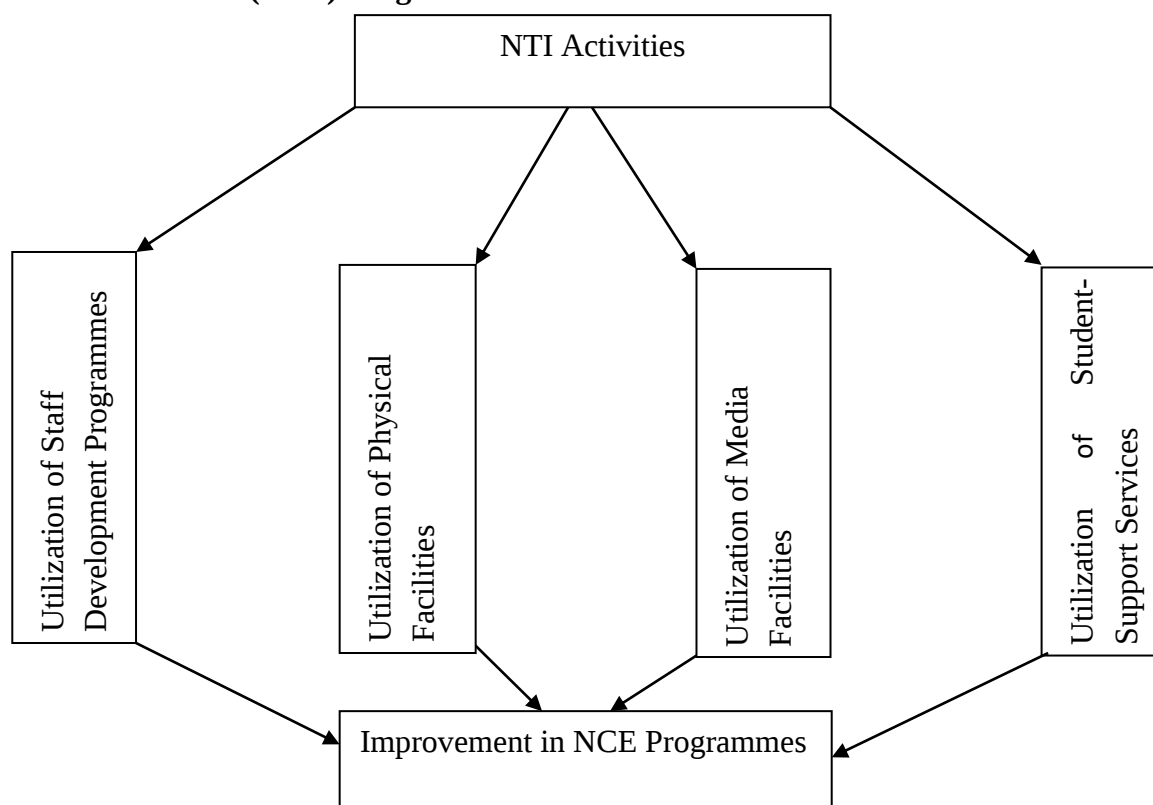
viii. *Scholarships and financial aid*. The scholarships and financial aid as students' support service in distance learning institutions provide an array of financial aid options to assist on-line students in their educational pursuits. Additional information about available undergraduate scholarships can be made available via the office of scholarships and financial aid website. The institution also offers scholarships directed towards on-line students (Stewart et al., 2013).

ix. *Library resources*. On library resources, Miertschin et al. (2010) affirmed that off-campus access to library resources is a critical service for on-line students. Resource guides and tutorials are available as outline of the procedures for requesting library materials are delivered both electronically and/or physically to prescribed off-campus distance education sites.

Librarians and electronic help desk services are part of the resources that assist students in learning how to remotely use research tools, identify and use databases, search for appropriate sources, request materials for use, and receive materials.

x. *Computing and technology help desks*. The technology support service that is most valued by on-line students is the help desk service. The Information Technology combines its customer services, information services, and media services departments to form technology services and support. For times when on-line students may be on campus, the institution also maintains numerous computer laboratories (Miertschin et al, 2010).

Fig. 1: Schematic Representation of the Relationship Between the National Teachers' Institute's (NTI's) Activities and the Improvement of Nigeria Certificate in Education (NCE) Programmes



Source: The Researcher (2018).

Figure 1 above shows that there is close relationship between the various activities of National Teachers' Institute (NTI), Kaduna in its study centres and improvement in Nigeria Certificate in Education (NCE) programmes. The figure above showed that the provision of staff development programmes, utilization of physical and media facilities and the utilization of students' support services are the main activities of National Teachers' Institute (NTI). Therefore, for effective improvement of the Nigeria Certificate in Education (NCE) programmes of National Teachers' Institute (NTI), all the major activities of the institute have to be taken seriously in their provision and utility.

Theoretical Framework

In this review, the following theories are discussed:

- i. Equivalency Theory of Keegan (1995)
- ii. Behaviour Modification Theory of Skinner (1974)
- iii. Teaching Effectiveness Theory of Marzano (2012)

Equivalency theory

The equivalency theory was propounded by Keegan (1995). The theory states that education at a distance should be built on the concept of equivalency of learning experiences. Therefore, the more equivalent the learning experiences of distant learners are to those of conventional learners, the more equivalent will be the outcomes of the educational experiences for all learners. The theory advocates designing a collection of equivalent learning experiences for distant learners, even though they may be different for each learner. The objective of the instructional designer of distance learning is to provide for appropriate, equivalent learning experiences for each distance learning student. The theory is based on the impact of new telecommunications technologies on distance education which is far-reaching. Real-time television systems permit learners and instructors to see and be seen, hear and be heard, in almost the same way as in the conventional classroom. Keegan therefore, suggested that electronically linking instructor and students at various locations creates a virtual classroom.

This theory is based on the definition of distance education as formal, institutionally-based educational activities where the learner and teacher are separated from one another, and where two-way interactive telecommunication systems are used to synchronously and asynchronously connect them for the sharing of video, voice, and data-based instruction. In elaborating on this theory, Simonson (1995) stated that it should not be necessary for any

group of learners to compensate for different, possibly lesser, instructional learning experiences. Students should have learning experiences that are tailored to the environment and situation in which they find themselves.

The key elements to equivalency theory are the concepts of equivalency, learning experiences, appropriate application, students, and outcomes.

i. *Equivalency.* Central to this theoretical approach is the concept of equivalency. Distant learners have fundamentally different environments in which to learn. It is the responsibility of the distance educator to design learning events that provide experiences with equal value for learners.

ii. *Learning Experience.* Second in importance is the concept of learning experience. A learning experience is anything that happens to the student to promote learning, including what is observed, felt, heard, or done. It is likely that different students in various locations, learning at different times, may require a different mix of learning experiences. The goal of instructional planning is to make the sum of experiences for each learner equivalent. Instructional design procedures should attempt to anticipate and provide the collection of experiences that will be most suitable for each student or group of students.

iii. *Appropriate Application.* The idea of appropriate application implies that learning experiences suitable to the needs of the individual learner and the learning situation should be available and that the availability of learning experiences should be proper and timely. In other words, learning experiences that are made available to either distant learners should allow delivery of instructional ideas that fit the expectations and facilities available to them.

iv. *Students.* Students are the ones involved in the formal, institutionally-based learning activity (the course or unit of instruction). The distance learners should be defined by their

enrollment in a course, not by their location. They necessarily seek institutionally-based education, sanctioned by a recognized and accredited organization.

v. *Outcomes.* Finally, the outcomes of a learning experience are those obvious, measurable, and significant changes that occur cognitively and effectively in learners because of their participation in the course or unit. Outcomes consist of at least two categories: those that are instructor-determined and those determined by learners. Instructor-determined outcomes are usually stated as course goals and objectives and identify what learners should be able to accomplish after the learning experience that they could not accomplish prior to participating in it. Learner-determined outcomes are less specific, more personal, and relate to what the learner hopes to accomplish as a result of participation. Equivalent learner-determined outcomes are identified when learners enroll in follow-up courses or apply newly learned skills to job or course situations.

The equivalency theory is related and relevant to the present study in that teachers, learners, and the public in general have identified learning at a distance as the equivalent of what they consider to be traditional learning. Therefore, distance learning has become mainstream in Nigeria. The theory is based on core values of education, such as the use of regular classroom teachers to facilitate the teaching and learning process, local control, small class size, rapport between teacher and learner, and personalized learning. Most importantly, equivalent distant learning relies heavily on the use of powerful interactive telecommunications systems to be successful, which is part of the present study. The present study also assesses the extent of equivalency in the learning experiences of all distance learning students, regardless of how they are linked to the resources or the instruction they require.

Behaviour modification theory

The behaviour modification theory was propounded by Skinner (1974). The behaviour modification theory of interest is also called the Skinnerian operant conditioning model. The behaviour modification theory maintains that organisms can emit responses, which implies that organisms can think. Thus, the behaviour modification theory is tilted towards the theory of cognitive learning. The theory is rooted in operant conditioning, which sees the organism in the process of operating on its environment. This means that the organism is, “bouncing around its world, doing what it does”. In the course of operating, the organism develops a tendency to repeat or not to repeat the behaviour in the future (extinction). The behaviour modification theory works under the assumptions that:

- i. behaviour produces consequences;
- ii. behaviour is a function of its consequences;
- iii. behaviour followed by positive consequences tends to be repeated and behaviour followed by negative consequences tends to stop and how we behave in the future depends upon what those consequences are;
- iv. all complex behaviours are learned, shaped and subject to observable laws;
- v. one can change behaviour through rewards and punishments;
- vi. behaviour is determined by the environment/the consequences or anticipated consequences of that behaviour;
- vii. some of what we learn is not the direct result of reinforcers but rather the result of observing others and the consequences of their actions and by modelling our behaviours after them;

- viii. virtually all work behaviours are operant in the sense that they generate consequences in their environment and these consequences in part shape and control behaviour

The operant conditioning approach to understanding human behaviour focuses on observable outcomes. It does not make attempt at understanding the internal state of the individual. It recognizes four different kinds of reinforcements which are positive reinforcement (where a pleasant reward follows a right act); negative reinforcement (where a right act is brought about by discouraging a wrong act); extinction (where a wrong act not reinforced discontinues); and punishment (where a wrong act is blamed). The issues involved in behaviour modification are seeking out the desired behaviours; noting whether these behaviours are observable/measurable; seeking out what reinforces these behaviours; noting when to apply the reinforcers; noting the consequences of the reinforcements, and looking for ways to improve the reinforcement pattern.

Based on the fore-going, the steps involved in behaviour modification include:

- i. targeting specific behaviours;
- ii. analyzing the causes and antecedents of existing behaviours or barriers to new behaviours;
- iii. explicitly settling concrete measurable goals;
- iv. training the individual to adopt the behaviours;
- v. clearly reinforcing the behaviours through reinforcers like praising, recognizing, giving good grades, promotion and giving incentives like money, books and other physical gifts, and
- vi. giving concrete continuous feedback to the individual to strengthen positive performances and weaken unapproved and poor performances.

Therefore, behaviour modification in effect, involves reinforcing a behaviour which is similar to the one desired until the animal or human being performs a behaviour that would never show up in ordinary life.

Behaviour modification theory is relevant to this study as schools have been constantly involved in shaping human behaviours just like parents, bosses, governmental agencies and some voluntary organizations do, using assumptions on how people learn. Behaviour modification theory is highly relevant in educational organizations including the National Teachers' Institute (NTI) to shape the behaviours of distance learners. The institute was established to modify behaviours of teachers who could not benefit much from the regular teachers' college system. With time, the services offered by the NTI extended to recruiting and shaping the behaviour of new intakes into the teaching profession.

Teaching effectiveness theory

The teaching effectiveness theory was propounded by Marzano (2012). Teaching effectiveness theory is based on the premise that the real source of organizational effectiveness is people, because the organizational structure is formed by people. Thus, in order to understand what determines effective organizations, it is necessary to unravel what determines individual behaviour, performance and effectiveness within the organization. According to the theory, an individual's behaviour refers to the concrete actions he engages in, whereas an individual's performance refers to those sets of behaviours expected of the individual by the organization. In other words, performance refers to those behaviours that are congruent with the demands of the organization. An individual's performance can be assessed only when standards are well-defined and there is a clear knowledge of the organization's expectations and demands. Since organizations and management generally encourage organization members

to engage in behaviours which result in effective performance for the organization, the factors that influence the behaviours of organization members must be understood. They include: the individual's level of motivation for the task; the internal state of the individual that causes him to engage in effective performance; and the individual's ability, which includes possession of the skills and capacities for effective performance on that job. Others are the individual's perception (the way the individual interprets sensory experiences); the individual's personality (personal traits of character of the individual); and a wide variety of organizational systems and resources.

Each of these five effectiveness attributes has sub-categories and both behaviour and effective performance are influenced by factors in the external environment. Among the five factors that are said to contribute to individual effectiveness, the last one organizational systems and resources is external to the individual and is under the control of the organization, for better or for worse. The organizational systems and resources such as the physical facilities, the reward structure, the organizational structure, leadership, communication patterns, the system of interrelationships and the levels of interactions are very influential in determining behaviour and effective performance of individual members. In respect to facilities, it is essential to provide organizational members with things like space, working tools and equipment in order for them to perform well in the organization. In an educational organization, both the teachers and the learners must be provided with the necessary resources for effective work because teachers teach the way they were taught in schools.

Individual effectiveness theory is relevant to this study in the sense that the study is designed to assess the extent to which the provision of development programmes for staff, the utilization of physical and media facilities, and student-support services have improved Nigeria

Certificate in Education (NCE) programmes of National Teachers' Institute (NTI) in South-South States, Nigeria. The organizational systems and resources factor is most relevant because it is the attribute that links individuals' effectiveness to the NTI organization in terms of its organizational mode, structural patterns, facilities, educational leadership, communication and interrelationships within the organization. Organizational systems and structure commands much importance in this study because, much attention should be given to the organizational strategies and the structuring of the scheme for effective education delivery since the distance learning system does not conform with the regular educational system.

Review of Related Empirical Studies

In this section, related empirical studies on the assessment of (NCE) programmes of National Teachers' Institute (NTI) by Distance Learning System (DLS) were reviewed. The studies were reviewed under the following sub-headings Nigeria Certificate in Education:

Studies relating to the utilization of staff development programmes in improving the Nigeria Certificate in Education programmes of National Teachers' Institute: On the utilization of staff development programmes, Okodoko and Samuel (2015) conducted a study on evaluating the implementation of NTI/NCE Mathematics programme by distance learning system. The research design for this study was the descriptive survey. The population was 337, comprising 322 mathematics students and 15 course tutors in six NTI study centres during the 2009/2010 academic year. The sample was made up of 165 students and course tutors, which was drawn using the proportionate random sampling technique. The instrument used for the study was Mathematics Curriculum Evaluation Questionnaire. Data collected was analyzed using Pearson product moment correlation coefficient. The findings of the study revealed a significant relationship between teachers' qualification and the implementation of NTI (NCE)

Mathematics curriculum by distance learning system. It might be associated with the fact that teachers play a significant role in any teaching-learning process relative to the implementation stage of a school curriculum. Based on findings of the study, recommendations were proffered among which include that National Teachers' Institute (NTI) course tutors or teachers should be encouraged to go for in service training, workshops, seminars and conferences to up-date their knowledge on current trends and innovations in mathematics education curriculum.

The study of Okodoko and Samuel (2015) is related to the present study as it focused on the evaluation of NTI/NCE programme by distance learning system. However, the present study is on the assessment of the whole NCE programmes of the NTI where as the Okodoko and Samuel's study centred on the evaluation of implementation of only Mathematics programme.

In a related development, Osunde and Omoruyi (2004) evaluated the National Teachers' Institute's manpower training programme for teaching personnel in Mid-western Nigeria. The design for the study was descriptive survey design. The population for this study comprised participants in the National Teachers' Institute manpower training programmes in Mid-western Nigeria. The sample for the study comprised 240 participants selected from the Institute's Nigeria Certificate in Education (NCE), the Teacher Training Grade Two Certificate (TCII) and the Pivotal Teacher Training Programme (PTTP). The sample size was selected using a simple random sampling procedure. The instrument used for data collection was a structured questionnaire designed by the researchers. Data collected were analyzed using simple percentage, mean score and chi-square statistics. The analysis of the results obtained showed that the training programmes provided by the NTI are relevant to needs of the area under investigation. On the basis of the findings of the study, it is recommended that more teachers

should be encouraged to enlist in the programme as a means of raising the revenue base of the Institute for its programmes.

The study conducted by Osunde and Omoruyi (2004) is related to the present study in that both of them centred on the evaluation of the National Teachers' Institute's programme. However, while Osunde and Omoruyi's study was on the Institute's manpower training programme for teaching personnel in Mid-western Nigeria (only Delta and Edo States), the present study covered the whole of South-South States of Nigeria.

Also, Samuel and Anderson (2011) carried out an evaluation of implementation of NTI and NCE distance learning system Social Studies curriculum in Bayelsa State, Nigeria. The research design for the study was the descriptive survey. The population was 820 comprising 802 Social Studies students and 18 course tutors in six NTI study centres of Bayelsa State Nigeria during the 2011/2012 Academic Session. A sample of 530 students and course tutors were drawn using proportionate stratified random sampling technique. Instrument used was the NTI Evaluation and Implementation of Social studies Questionnaire for teachers and students. Data were analyzed using Pearson product moment correlation analysis. Among the findings of the study was that there is a significant relationship between teachers' qualification and the implementation of NTI programme in Social Studies by distance learning system. Based on the findings of the Study, the study recommended that course tutors should be encouraged to go for seminars, workshops or conferences to update their knowledge on recent trends and innovations in social studies.

The relationship between the study of Samuel and Anderson (2011) and the present study is that the studies were on the evaluation of implementation of NTI and NCE distance learning system. However, the study conducted by Samuel and Anderson was specifically on

the implementation of Social Studies curriculum in Bayelsa State, while the present study is on the entire NCE programmes of NTI in the whole of South-South States.

Studies relating to the utilization of physical facilities in improving the Nigeria Certificate in Education programmes of National Teachers' Institute: On the utilization of physical facilities to improve Nigeria Certificate in Education programmes of National Teachers' Institute, Okodoko and Samuel (2015) conducted a study on evaluating the implementation of NTI/NCE Mathematics programme by distance learning system. The research design for this study was the descriptive survey. The population was 337, comprising 322 mathematics students and 15 course tutors in six NTI study centres during the 2009/2010 academic year. The sample was made up of 165 students and course tutors, which was drawn using the proportionate random sampling technique. The instrument used for the study was Mathematics Curriculum Evaluation Questionnaire. Data collected was analyzed using Pearson product moment correlation coefficient. The findings of the study revealed a significant difference between structural facilities and the implementation of NTI/NCE mathematics programme by distance learning system. This might be as a result of the fact that instructional facilities plays a great role in the implementation of school curriculum and that distance learning systems need to have adequate facilities that will promote effective learning. Based on the findings of the study, recommendations were made which included that facilities should be adequately provided in NTI study centres to enhance the implementation of mathematics curriculum.

The studies conducted by Okodoko and Samuel (2015) was closely related to the present study as it revealed that there was a significant difference between structural facilities and the implementation of NTI/NCE mathematics programme by distance learning system. However, the present study centred on the assessment of the utilization of physical facilities in the improvement of NCE programmes of NTI in South-South States of Nigeria.

Also, Samuel and Anderson (2011) carried out an evaluation of implementation of NTI and NCE distance learning system Social Studies curriculum in Bayelsa State, Nigeria. The research design for the study was the descriptive survey. The population was 820 comprising 802 Social Studies students and 18 course tutors in six NTI study centres of Bayelsa State Nigeria during the 2011/2012 Academic Session. A sample of 530 students and course tutors were drawn using proportionate stratified random sampling technique. Instrument used was the NTI Evaluation and Implementation of Social studies Questionnaire for teachers and students. Data were analyzed using Pearson product moment correlation analysis. Among the findings of the study was that there was a significant relationship between the level of structural facilities and the implementation of NTI curriculum in Social Studies by distance learning system. The finding could be due to the fact that structural facilities as a key component of the school physical learning environment plays a significant role in the teaching learning process, hence determine the effective implementation of curriculum. The recommendations put forward for adoption based on the findings of the Study include that the National Teachers' Institute should improve upon the structural facilities in her study centres to enhance adequate implementation of Social Studies curriculum.

The work of Samuel and Anderson (2011) is related to the current study in that the study showed a significant relationship between the level of structural facilities and the implementation of NTI and NCE distance learning system Social Studies curriculum in Bayelsa State. The present study is on the utilization of physical facilities in the improvement of NCE programmes of NTI by distance learning system in South-South States.

Studies relating to the utilization of media facilities in improving the Nigeria Certificate in Education programmes of National Teachers' Institute: On the utilization of media facilities to improve Nigeria Certificate in Education programmes of National Teachers' Institute programmes, Asodike and Ebong (2012) carried out a study on the resource provision for the implementation of National Teachers' Institute (NTI), Kaduna, distance learning programme in South-South, Nigeria. The design used for study was descriptive research. The population of the study was 3652 NCE Cycle IV students from six study centres in the South-South geo-political zone, Nigeria. Using a stratified random sampling technique, 730 (20%) of the NCE Cycle IV from each of the study centres formed the sample size. The instrument for data collection was a checklist titled 'Human Resources Quality and Quantity and the Availability, Adequacy and Relevance of Print Media for NCE DLS programme in NTI Study Centre'. A combination of descriptive and inferential statistical techniques was employed in the analysis of the data. The findings of the study showed that the modules for education courses were not only available, adequate but were also relevant to the programme. Among the recommendations was that the non-print materials should be adequately provided as they serve as quality indicator in distance learning programmes.

The study of Asodike and Ebong (2012) is related to the present study as they all are focused on the implementation of National Teachers' Institute (NTI), Kaduna distance learning programme in South-South, Nigeria. However, Asodike and Ebong's study was on the resource provision for the implementation of National Teachers' Institute programme, but the present study covered the staff development programme provision, physical and media facilities' utilization and students' support services' utilization.

Also, Omotosho, Lateef, Amusa and Bello (2015) conducted a research into the information and communication technology adoption and use among students of a Nigerian University for distance learning. Survey research design was used for the study. The target population of the study was 2,800 registered students of the National Open University of Nigeria, Lagos Study Centre. Simple random sampling technique was used to select 280 students. Data for the research work was collected through the use of questionnaire and observations. Data obtained were analyzed using descriptive statistics, tables of frequencies distribution and simple percentages. The findings of the study showed that the National Open University has ICT facilities such as Computers, Printers, Photocopiers, Video (DVD/VCD), Scanners and Dedicated Radio Transmission channel for students at the Lagos study centre as observed while on the fields while some members of staff mentioned telephones and digital cameras as some of the ICT facilities that are available in the different schools/faculties. Based on the findings of the study, the study recommended that provision and access should be provided to multimedia that will be illustrative and interactive in e-learning to complement the high access that the students have to the ICT facilities at the study centre.

The study of Omotosho et al, (2015) is related to this study as they all are focused on the assessment of distance learning institutions in Nigeria. However, the work of Omotosho et al centred on information and communication technology adoption and use among students of the National Open University of Nigeria, Lagos Study Centre. The present study is on the NCE programmes of NTI in South-South States.

Also, Samuel and Anderson (2011) evaluated the implementation of NTI and NCE distance learning system Social Studies curriculum in Bayelsa State, Nigeria. The research design for the study was the descriptive survey. The population was 820 comprising 802 Social

Studies students and 18 course tutors in six NTI study centres of Bayelsa State of Nigeria during the 2011/2012 academic session. A sample of 530 students and course tutors were drawn using proportionate stratified random sampling technique. Instrument used was the NTI Evaluation and Implementation of Social Studies Questionnaire for teachers and students. Data were analyzed using Pearson product moment correlation analysis. Among the findings of the study was that there is a significant relationship between the levels of instructional media and the implementation of NTI programme in Social Studies by distance learning system. Based on the findings of the Study, the study recommended that course tutors should be encouraged to go for seminars, workshops or conferences to update their knowledge on recent trends and innovations in social studies. The recommendations put forward for adoption based on the findings of the study was that the National Teachers' Institute should provide the relevant instructional materials in the various study centres for effective implementation of Social Studies curriculum.

The work of Samuel and Anderson (2011) is closely related to the present study as both were on the assessment of the implementation of NTI and NCE distance learning system. However, the work of Samuel and Anderson was limited to the assessment of Social Studies curriculum in Bayelsa State; the present study comprised all the NCE programmes of NTI in South-South States of Nigeria.

Also, Aramide and Bolarinwa (2010) conducted a study on the availability and use of audiovisual and electronic resources by distance learning students in the National Open University of Nigeria (NOUN), Ibadan Study Centre. The study adopted survey research design. The population of the study was 749 students from the various departments at the Ibadan study centre of NOUN out of which 149 of them were selected using simple random

sampling technique. The instrument used for the collection of data was a structured questionnaire design and constructed by the researchers. Data collected were analyzed using frequencies and percentages as well as Pearson product moment correlation analysis. Among the findings of the study was that there is regular use of audiovisual and electronic resources by distance learning students at the Ibadan Study Centre of NOUN. However, the study recommended among other things that distance education institutions should train students on the use and application of audiovisual and electronic resources in their academic activities, government and other policymakers should explore, encourage, and promote the development and use of emerging modern audiovisual and electronic resources at all levels of education, government and other stakeholders should advance and support the use of audiovisual and electronic resources and develop distance education programmes of the highest quality.

The study conducted by Aramide and Bolarinwa (2010) is closely related to this study in that both centred on the assessment of the distance learning programmes. Specifically, the study of Aramide and Bolarinwa was restricted to the assessment of the availability and use of audiovisual and electronic resources (media facilities) by distance learning students in the National Open University of Nigeria (NOUN). The present study is on distance learning students of National Teachers' Institute. The present study also has a wider scope as it covers such activities as the provision of staff development programme, utilization of both physical and media facilities, and utilization of students' support services.

Studies relating to the utilization of student-support services in improving the Nigeria Certificate in Education programmes of National Teachers' Institute: On the utilization of student-support services to improve Nigeria Certificate in Education programmes of National Teachers' Institute, Sim, Atan and Idrus (2005) studied the learners' support system in distance

education in relation to the satisfaction of quality at the School of Distance Education, University of Malaysia. The study adopted descriptive survey. The population of the study was 558 students who were on the three-week annual residential intensive course held at the main campus of University of Malaysia. The instrument used for data collection was a structured questionnaire that consisted of 171 items, and each item was accompanied by two different five-point Likert scales; one for the expectation of quality, and the other for the perception of quality. Data analyses were conducted using the SPSS version 10.0. The findings of the study showed that students' association and counselling services are not frequently used by the students. Based on the findings of the study, it was recommended that appropriate steps should continuously be taken to maintain the highest level of satisfaction of quality among the learners in order to remain and to excel in an increasingly competitive industry.

The study conducted by Sim et al. (2005) is related to the present study. Both assessed the programmes of distance learning institutions. However, while the study of Sim et al was on the School of Distance Education, University of Malaysia, the present study is NCE programmes of National Teachers' Institute study centres in South-South States, Nigeria.

Summary of the Literature Review

The review of related literature looked into the concept of distance learning system. The literature reviewed showed that distance learning refers to the interactive, educational process between student and teacher separated by physical distance. It is a programme designed for working professionals in either industry or government. The study reviewed also showed that the overriding aim of distance learning is to respond to the growing educational needs of people who have not been catered for in the conventional forms. The reviewed literature further showed that the characteristics of distance learning among others include the feelings of

personal relation between the teaching and learning parties which promote study pleasure and motivation; and the use of proper study processes and methods among others.

The reviewed literature further showed the four major areas of distance learning systems as utilization of staff development programmes, physical and media facilities for distance learning, and student-support services for distance learning. On staff development programmes, the reviewed literature showed that the overall goal of the National Teachers' Institute was to uplift the quality and quantity of teaching personnel in Nigeria through training and retraining programmes. On the utilization of physical facilities for distance learning, the literature reviewed that the facilities which include permanent structures like workshop, libraries, classrooms, laboratories, hostels assembly hall, mechanical, plumbing, electrical and power, telecommunications, security, and fire suppression systems, and semi-permanent structures among others are essential in teaching and learning process. The physical facilities need to be adequately utilized in order to ensure both effectiveness and efficiency of the educational sector. On the utilization of media facilities for distance learning, the literature showed that distance learning use media facilities/technologies in form of radio, television, internet, email, software, video, tapes, and cameras among others to conduct educational activities. On the utilization of student-support services for distance learning, study further showed that students' support services are any systems or procedures that are purposefully created and effectively utilized by a distance learning institution to support and/or facilitate teaching and learning at a distance. They include among others; record keeping, pre-admission counseling, admission and registration information, books dispatch by mail (library service), tutoring and counseling, weekend courses and study centres, and electronic communication technologies (such as phones, radio, audio tapes, video, and television).

The literature further reviewed equivalency theory, behaviour modification theory and teaching effectiveness theory as some of the theories that are related to the study of the National Teachers' Institute programmes by distance learning system. Finally, the study reviewed some of the empirical studies that are related to the utilization of staff development programmes, physical facilities and media facilities for distance learning, and student-support services for distance learning.

However, to the best knowledge of the researcher, none of the studies reviewed was on the extent to which utilization of staff development programmes, physical and media facilities, and student-support services have improved Nigeria Certificate in Education (NCE) programmes of National Teachers' Institute (NTI) in South-South States, Nigeria. This is the gap which the present study intended to fill.

CHAPTER THREE

RESEARCH METHOD

This chapter presented the research method used for the study. It was discussed under the following sub-headings: Design of the Study; Area of the Study, Population of the Study, Sample and Sampling Technique, Instrument for Data Collection, Validation of the Instrument, Reliability of the Instrument, Procedure for Data Collection and Method of Data Analysis.

Design of the Study

The design adopted for this study was descriptive survey design. Descriptive survey design, according to Ali (2006), is a study which seeks to use the data obtained from a sample in an investigation to document, describe, and explain what is in existent or non-existent, or the present state of a phenomenon being investigated. This type of survey design was chosen because it would help to elicit responses from the NTI distance learning students and course tutors in the various study centres in all the six states of the South-South, Nigeria on the assessment of the utilization of available resources for the improvement of Nigeria Certificate in Education (NCE) programme of National Teachers' Institute (NTI) in South-South States, Nigeria.

Area of the Study

The study covered all the six states of South-South States of Nigeria, namely; Akwa-Ibom, Bayelsa, Cross River, Delta, Edo and Rivers States. The six states are among the nine states in Niger-Delta. Geographically, South-South States are located at the South-South Geopolitical Zone of Nigeria. The zone shares boundaries with Ondo and Kogi States on the West and North-West, respectively; and with Abia, Anambra and Imo States on the North, and

Ebonyi and Benue States on the North-East. South-South States are bounded on East by Cameroon and on the South by Atlantic Ocean sitting directly on the Gulf of Guinea.

The South-South States were heterogeneous in terms of values, beliefs, norms and cultural ceremonies. Majority of the inhabitants were Christians while others were believers of African Traditional Religion (ATR) and Moslems. In terms of occupation, majority of the inhabitants were farmers. Yet, others were public servants and traders. In terms of education, the area is known for its high performance in education as more than 50 per cent of the males (between 15 – 49 years old) have attained secondary school education or higher (National Population Commission, 2015).

The area was chosen because it was regarded as educationally developed zone (with the exception of Bayelsa and Cross River States). As such, there is continued increase in the number of qualified persons that demand for university education. The choice of the area was justified by the fact that there was high number of applicants who applied for conventional tertiary education. However, only a few of them were admitted due to inadequate admission space. Consequently, this resulted in large number of those who opt for NTI NCE (DLS). There was therefore the need to assess the utilization of available resources for the improvement of NCE programme of NTI by DLS to determine the extent to which utilization of staff development programmes, physical and media facilities, and student-support services have improved the NCE programme of NTI by DLS in South-South, Nigeria.

Population of the Study

The population for the study is made up of 7, 118, comprising 6, 806 distance learning students and 312 course tutors of Nigeria Certificate in Education (NCE) programme of National Teachers' Institute (NTI) by distance learning system (DLS) in South-South States of

Nigeria. The population was drawn from the 57 Nigeria Certificate in Education (NCE) study centres of the National Teachers' Institute in the South-South. They are: Akwa-Ibom State (6 study centres), Bayelsa State (11 study centres), Cross River State (6 study centres), Delta State (13 study centres), Edo State (6 study centres) and River State (15 study centres). Therefore, all the distance learning students and course tutors of Nigeria Certificate in Education (NCE) programmes of the National Teachers' Institute (NTI) by distance learning system (DLS) in South-South States of Nigeria constituted the population as shown in Appendix A (p. 123).

Sample and Sampling Technique

The sample for the study was 1, 125, comprising 1, 016 distance learning students and 109 course tutors of Nigeria Certificate in Education (NCE) programmes of the National Teachers' Institute (NTI) by distance learning system (DLS) in South-South States of Nigeria. In composing the sample, the researcher employed proportionate stratified random sampling technique to select 31.6 per cent of the (18 out of 57 study centres) Nigeria Certificate in Education (NCE) study centres of the National Teachers' Institute in the South-South. The entire population was categorized into six sub-groups based on the six states in the area. Then randomly, 18 study centres representing 31.6 per cent were proportionally selected from the 57 study centres in South-South States. They were Akwa-Ibom State (2 study centres), Bayelsa State (3 study centres), Cross River State (2 study centres), Delta State (4 study centres), Edo State (2 study centres) and Rivers State (5 study centres).

Therefore, using proportionate stratified random sampling technique, the researcher drew 1, 016 distance learning students and 109 course tutors of NTI NCE (DLS) in South-South States of Nigeria. The sample therefore represented 15.81 per cent of the entire distance

learning students and course tutors of Nigeria Certificate in Education (NCE) programme of the National Teachers' Institute (NTI) by distance learning system (DLS) in South-South States of Nigeria as shown on Appendix A (p.123).

Instrument for Data Collection

The instrument used for data collection was a structured questionnaire titled: "Assessment of the Utilization of Available Resources for the Improvement of Nigeria Certificate in Education (NCE) Programme of National Teachers' Institute (NTI) Questionnaire" (AUARINCEPNTIQ). The questionnaire was meant to elicit information on the activities of NTI NCE (DLS) in South-South States of Nigeria. It has two sections, Section A and B. Section A elicited information on the Bio-data of the respondents. Section B had 37 items that are grouped into four clusters based on the four research questions formulated for the study. Cluster A with six items was on the extent to which utilization of staff development programmes has improved the NCE programme of NTI. Cluster B with 11 items was on the extent to which utilization of physical facilities has improved the NCE programme of NTI, while Cluster C with eight items was on the extent to which utilization of media facilities has improved the NCE programme of NTI. Finally, Cluster D with 12 items was on the extent to which utilization of students' support services has improved the NCE programme of NTI. The response options for Clusters A, B, C and D were:

Very High Extent (VHE)	=	4
High Extent (HE)	=	3
Low Extent (LE)	=	2
Very Low Extent (VLE)	=	1

Validation of the Instrument

To ensure the validity of the instrument, the initial draft was face validated by one expert in measurement and evaluation unit of the Department of Science Education and two experts in the Department of Adult Education and Extra-Mural Studies, all from University of Nigeria, Nsukka. They made corrections on the adequacy of language for the level of the respondents, its relevance to the problem of the study and the objectives of the study. Their comments were used to modify the instrument from the initial 59 items to the present 37 items as shown in Appendix C (pp. 130 – 162).

Reliability of the Instrument

The reliability of the instrument was ascertained through trial testing. The researcher administered copies of the instrument on 23 respondents, 19 distance learning students and four course tutors of NCE programmes of the National Teachers' Institute (NTI) in Dennis Memorial Grammar School, Onitsha in Anambra State. The state was not among the sampled states used for the study. However, it had similar characteristics with the study area in terms of historical and socio-cultural backgrounds such as language, adherence to belief, religion, values, norms and social ceremonies.

Cronbach alpha was used to estimate the internal consistency reliability level of the instrument. From the analysis, Clusters A – D had the following reliability co-efficient: 0.69, 0.80, 0.79 and 0.84 while the overall reliability coefficient was 0.89 as shown in Appendix D (pp. 163 – 171). This was considered high enough for the research.

Procedure for Data Collection

The researcher employed the services of five research assistants. The research assistants were briefed on how to administer the 1, 125 copies of the questionnaire on the distance

learning students and course tutors of Nigeria Certificate in Education (NCE) programmes of the National Teachers' Institute (NTI) by distance learning system (DLS) in South-South States of Nigeria during their face-to-face session in their various study centres. The researcher briefed the research assistants on the purpose of the study and on how to administer the instrument to the respondents in the various study centres in the South-south States. The briefing was done in one day. The administration and collection of the instrument were done with the help of research assistants within four weeks using on-the-spot delivery and retrieval technique to ensure high return rate of the questionnaire. Out of 1,125 copies of the questionnaire distributed, only 882 copies were duly filled and returned. This gave a percentage return rate of 78.40 as shown in Appendix E (p.176). However, 92 copies of the questionnaire were never returned while 151 of them were wrongly filled and so were discarded.

Method of Data Analysis

The data collected were analyzed using weighted Mean and Standard deviation for answering the five research questions. Real limit of numbers were used to interpret the results thus:

$$3.50 - 4.00 = \text{VHE}$$

$$2.50 - 3.49 = \text{HE}$$

$$1.50 - 2.49 = \text{LE}$$

$$1.00 - 1.49 = \text{VLE}$$

Student t-test statistics was used to test the five null hypotheses meant for the study at 0.05 level of significance. Therefore, if the calculated level of significance is greater than or equal to the critical value of 0.05 level of significance, it means the difference is not significant

(NS); therefore, the null hypothesis was accepted. On the other hand, if the calculated level of significance is less than the critical value of 0.05 level of significance, it means the difference is significant (S); as such, the null hypothesis was not accepted.

CHAPTER FOUR

RESULTS

In this chapter, the results of the study were presented in line with the research questions and hypotheses that guided the study. The summary of the findings was also highlighted.

Research Question One

To what extent has the utilization of staff development programmes improved the NCE programme of NTI by DLS in South-South States?

Data for answering research question one were presented on Table 1:

Table 1

Mean responses of the NTI course tutors and learners on the extent of utilization of staff development programmes in the improvement of NCE programme of NTI by DLS.

N = 882

Utilization of staff development programmes in the improvement of NCE programme of NTI by DLS:				
S/No.		$\bar{x}$	SD	Decision
1.	Workshops improve NTI staff's professional skills by working to their full potentials.	2.58	.78	High Extent
2.	Seminars improve NTI staff on the use of modern techniques in teaching and learning of NCE programme.	2.42	.81	Low Extent
3.	Course upgrade improves NTI staff's understanding of the NCE course contents.	2.43	.81	Low Extent
4.	Conferences improve NTI staff's research skills; and implement policies to meet the institution's objectives.	2.44	.82	Low Extent
5.	Refresher courses improve NTI staff's career skills by having career satisfaction through cordial teacher-student relationship.	2.60	.87	High Extent
6.	In-service training programmes improve NTI staff's technical abilities through creative and motivated learning.	2.59	.86	High Extent
Cluster Mean		2.51	.65	High Extent

Data on Table 1 above shows the mean values and standard deviations of the respondents' responses on the extent to which utilization of staff development programmes has

improved the NCE programme of NTI by DLS in South-South States of Nigeria. Data on Table 1 showed that three out of the six items (item 1, 5 and 6) had mean values of 2.58, 2.60 and 2.59, and standard deviation of 0.78, 0.87 and 0.86, respectively. The data indicated that their mean values ranged from 2.58 – 2.60. Each of these values was within the real limit of 2.50 – 3.49; indicating that staff development programmes were provided in the NCE programme of NTI to a high extent through workshops, refresher courses, and in-service training programmes. However, the data showed that other three items (item 2, 3 and 4) had mean values of 2.42, 2.43 and 2.44 and standard deviation of 0.81, 0.81 and 0.82, respectively. The data indicated that their mean values ranged from 2.42 – 2.44. Each of these values was within the real limit of 1.50 – 2.49; indicating that staff development programmes were provided in the NCE programme of NTI to a low extent through seminars, course upgrade and conferences.

The results based on the cluster mean ($\bar{x} = 2.51$, $SD = 0.65$) indicated a high extent of utilization of staff development programmes in the improvement of the NCE programme of NTI by DLS.

H01: There is no significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent to which utilization of staff development programmes has improved the NCE Programme of NTI by DLS in South-South States.

Data for testing null hypothesis one were presented on Table 2:

Table 2

t-test statistics on the extent of utilization of staff development programmes in the improvement of NCE Programme of NTI by DLS in South-South States.

t-Critical = 1.960

S/No.	Items	Status	N	$\bar{x}$	SD	t	df	Sig. (2-tailed)	Decision
1.	Workshops improve NTI staff's professional skills by working to their full potentials.	NTI Course Tutors	98	2.36	.66	-3.02	880	.00	S
		NTI Students	784	2.61	.79				
2.	Seminars improve NTI staff on the use of modern techniques in teaching and learning of NCE programme.	NTI Course Tutors	98	2.39	.70	-.37	880	.71	NS
		NTI Students	784	2.42	.82				
3.	Course upgrade improves NTI staff's understanding of the NCE course contents.	NTI Course Tutors	98	2.34	.66	-1.23	880	.22	NS
		NTI Students	784	2.44	.83				
4.	Conferences improve NTI staff's research skills; and implement policies to meet the institution's objectives.	NTI Course Tutors	98	2.35	.71	-1.19	880	.24	NS
		NTI Students	784	2.45	.84				
5.	Refresher courses improve NTI staff's career skills by having career satisfaction through cordial teacher-student relationship.	NTI Course Tutors	98	2.45	.72	-1.86	880	.06	NS
		NTI Students	784	2.62	.89				
6.	In-service training programmes improve NTI staff's technical abilities through creative and motivated learning.	NTI Course Tutors	98	2.43	.80	-2.00	880	.05	S
		NTI Students	784	2.61	.86				
Cluster t						-2.05		.04	S

*S = Significant; **NS = Non Significant

Table 2 above shows the analysis of t-test statistics on the extent of utilization of staff development programmes in the improvement of NCE Programme of NTI by DLS in South-South States. Data on Table 2 showed that two out of the six items (item 1 and 6) had their t-Calculated significant values at 0.00 and 0.05 respectively. These significant values were less than or equal to 0.05; indicating that there was significant difference between the mean ratings of distance learning students and course tutors of NTI on the two items. However, four out of

the six items (item 2, 3, 4 and 5) had their t-Calculated significant values at 0.71, 0.22, 0.24 and 0.06, respectively. The significant values were greater than 0.05; indicating that there was no significant difference between the mean ratings of distance learning students and course tutors of NTI on the four items.

However, the Cluster t-Calculated value was significant at 0.04. This value was less than 0.05; indicating that there was significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of staff development programmes in the improvement of NCE Programme of NTI by DLS in South-South States.

Research Question Two

To what extent has the utilization of physical facilities improved the NCE programme of NTI by DLS in South-South States?

Data for answering research question two were presented on Table 3:

Table 3

Mean responses of the NTI staff and course tutors on the extent of utilization of physical facilities in the improvement of NCE programme of NTI by DLS.

N = 882

Utilization of physical facilities in the improvement of NCE programme of NTI by DLS through:				
S/No.		$\bar{x}$	SD	Decision
1.	Using laboratories for science, technology, mathematics and life sciences improves problem-solving skills and scientific attitudes among NCE students.	2.64	.88	High Extent
2.	Using libraries improves NCE students' access to the reference materials mentioned by their teachers in NTI programme.	2.10	1.00	Low Extent
3.	Using Computer rooms where computers and other types of information technology hardware are kept improves the academic achievement of NCE students in NTI programme.	2.06	1.09	Low Extent
4.	Using staff preparation rooms improves the physical and emotional needs of the NCE staff and students of NTI institutions.	2.33	.97	Low Extent
5.	Using ventilation facilities improves the psychological safety for both NCE students and teachers in NTI institutions.	2.35	.91	Low Extent
6.	Using sanitation facilities improves health and hygiene standards of NTI students thereby leading to better quality control of instructions in their NCE programme.	2.30	.94	Low Extent
7.	Using classroom furniture (desks, tables, chairs) improves the sense of belonging and pride on NTI learners in their NCE programme.	2.28	.96	Low Extent
8.	Using separate toilet blocks develops good sanitation and healthful habits among NTI learners and staff of NCE programme.	2.34	.96	Low Extent
9.	Using electricity improves the levels of NTI teachers' motivation and stability on the NCE programme.	2.91	.94	High Extent
10.	Using students' common rooms improves the achievement scores of NCE students and corresponding increase in mathematics, reading, and composition.	3.01	.96	High Extent
11.	The condition of NTI classroom roofs, walls, and floors improves students' learning and positive attitudes.	3.25	1.58	High Extent
Cluster Mean		2.51	.60	High Extent

Data on Table 3 above shows the mean values and standard deviations of the respondents' responses on the extent of utilization of physical facilities in the improvement of NCE programme of NTI by DLS in South-South States of Nigeria. Data on Table 3 showed

that four out of the 11 items (item 1, 9, 10 and 11) had their mean values and standard deviation as 2.64 (0.88), 2.91 (0.94), 3.01 (0.96) and 3.25 (1.58), respectively. The data showed that their mean values ranged from 2.64 – 3.25. Each of these values was within the real limit of 2.50 – 3.49; indicating that the utilization of physical facilities in the NCE programme of NTI was to a high extent through using laboratories for science, technology, mathematics and life sciences, using electricity, using students' common rooms, and through improving the conditions of NTI classroom roofs, walls, and floors. However, the data showed that other seven items (item 2, 3, 4, 5, 6, 7 and 8) had mean values of 2.10, 2.06, 2.33, 2.35, 2.30, 2.28 and 2.34, while their standard deviation values were 1.00, 1.09, 0.97, 0.91, 0.94, 0.96 and 0.96 respectively. The data indicated that their mean values ranged from 2.06 – 2.35. Each of these values was within the real limit of 1.50 – 2.49; indicating that the utilization of physical facilities in the NCE programme of NTI was to a low extent on the seven items.

The results based on the cluster mean ($\bar{x} = 2.51$, $SD = 0.60$) indicated a high extent of utilization of physical facilities in the improvement of the NCE programme of NTI by DLS.

H0₂: There is no significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent to which utilization of physical facilities has improved the NCE Programme of NTI by DLS in South-South States.

Data for testing null hypothesis two were presented on Table 4:

Table 4
t-test statistics on the extent of utilization of physical facilities in the improvement of NCE
Programme of NTI by DLS in South-South States.

t-Critical = 1.960

S/No.	Items	Status	N	$\bar{x}$	SD	t	df	Sig. (2-tailed)	Decision
1.	Using laboratories for science, technology, mathematics and life sciences improves problem-solving skills and scientific attitudes among NCE students.	NTI Course Tutors	98	2.36	.82	3.39	880	.00	S
		NTI Students	784	2.67	.88				
2.	Using libraries improves NCE students' access to the reference materials mentioned by their teachers in NTI programme.	NTI Course Tutors	98	2.24	1.03	1.41	880	.16	NS
		NTI Students	784	2.08	1.00				
3.	Using Computer rooms where computers and other types of information technology hardware are kept improves the academic achievement of NCE students in NTI programme.	NTI Course Tutors	98	2.25	1.18	1.78	880	.08	NS
		NTI Students	784	2.04	1.08				
4.	Using staff preparation rooms improves the physical and emotional needs of the NCE staff and students of NTI institutions.	NTI Course Tutors	98	2.57	.97	2.62	880	.01	S
		NTI Students	784	2.30	.96				
5.	Using ventilation facilities improves the psychological safety for both NCE students and teachers in NTI institutions.	NTI Course Tutors	98	2.76	.83	4.75	880	.00	S
		NTI Students	784	2.30	.91				
6.	Using sanitation facilities improves health and hygiene standards of NTI students thereby leading to better quality control of instructions in their NCE programme.	NTI Course Tutors	98	2.69	.87	4.42	880	.00	S
		NTI Students	784	2.25	.94				
7.	Using classroom furniture (desks, tables, chairs) improves the sense of belonging and pride on NTI learners in their NCE programme.	NTI Course Tutors	98	2.65	.84	4.17	880	.00	S
		NTI Students	784	2.23	.96				
8.	Using separate toilet blocks develops good sanitation and healthful habits among NTI learners and staff of NCE programme.	NTI Course Tutors	98	2.89	.87	6.14	880	.00	S
		NTI Students	784	2.27	.95				
9.	Using electricity improves the levels of NTI teachers' motivation and stability on the NCE programme.	NTI Course Tutors	98	3.35	.93	4.97	880	.00	S
		NTI Students	784	2.86	.93				
10.	Using students' common rooms improves the achievement scores of NCE students and corresponding increase in mathematics, reading, and composition.	NTI Course Tutors	98	3.36	.93	3.89	880	.00	S
		NTI Students	784	2.96	.96				
11.	The condition of NTI classroom roofs, walls, and floors improves students' learning and positive attitudes.	NTI Course Tutors	98	3.27	.88	.11	880	.92	NS
		NTI Students	784	3.25	1.65				
Cluster t						4.52		.00	S

Table 4 above shows the analysis of t-test statistics on the extent of utilization of physical facilities in the improvement of NCE Programme of NTI by DLS in South-South States of Nigeria. Data on Table 4 showed that eight out of the 11 items (item 1, 4, 5, 6, 7, 8, 9 and 10) had their t-Calculated significant values at 0.00, 0.01, 0.00, 0.00, 0.00, 0.00, 0.00 and 0.00, respectively. These significant values were less than 0.05; indicating that there was significant difference between the mean ratings of distance learning students and course tutors of NTI on the eight items. Therefore, the null hypothesis of no significant difference was rejected for the eight items. However, three out of the 11 items (item 2, 3 and 11) had their t-Calculated significant at 0.16, 0.08 and 0.92, respectively. These significant values were greater than or equal to 0.05; indicating that there was no significant difference between the mean ratings of distance learning students and course tutors of NTI on the three items.

However, the cluster t-Calculated value was significant at 0.00. This value was less than 0.05; indicating that there was significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of physical facilities in the improvement of NCE Programme of NTI by DLS in South-South States.

Research Question Three

To what extent has the utilization of media facilities improved in the NCE programme of NTI by DLS in South-South States?

Data for answering research question three were presented on Table 5:

Table 5

Mean responses of the NTI course tutors and learners on the extent of utilization of media facilities in the improvement of NCE programme of NTI by DLS.

N = 882

Utilization of media facilities in the improvement of NCE programme of NTI by DLS through:				
S/No.		$\bar{x}$	SD	Decision
1.	Using television improves the retention of the learners' attention in NCE programme.	3.27	.86	High Extent
2.	Applying over-head projectors improves the acquisition of practical experiences in the NCE programme.	3.37	.86	High Extent
3.	Using textbooks improves learners' self-activities in the NCE programme.	3.08	.91	High Extent
4.	Using printed materials improves the medium of communication between the teacher or institution and the students.	2.32	.68	Low Extent
5.	Using digital versatile discs (DVD) makes video images easier to use in NTI classrooms without searching through a length of tape.	2.35	.74	Low Extent
6.	Using video tapes improves NCE programme through the provision of feedbacks on the students' performance.	2.27	.70	Low Extent
7.	Using DVD improves the NCE programme as it simplifies complex sequences of events.	2.27	.67	Low Extent
8.	Applying Video recordings improves students' technical skills through the acquisition of appropriate professional behaviour and attitude.	2.32	.71	Low Extent
Cluster Mean		2.66	.49	High Extent

Data on Table 5 above shows the mean values and standard deviations of the respondents' responses on the extent of utilization of media facilities in the improvement of NCE programme of NTI by DLS in South-South States of Nigeria. Data on Table 5 showed that three out of the eight items (item 1, 2 and 3) had mean values of 3.27, 3.37 and 3.08, and standard deviation of 0.86, 0.86 and 0.91 respectively. The values were within the real limit of 2.50 – 3.49; indicating that the utilization of media facilities was to a high extent in the NCE programme of NTI by DLS through retaining learners' attention in NCE programme using television, acquiring practical experiences in the NCE programme using over-head projectors, and improving learners' self-activities in the NCE programme using textbooks. However, the

data showed that other five items (item 4, 5, 6, 7 and 8) had mean values of 2.32, 2.35, 2.27, 2.27 and 2.32, with standard deviation of 0.68, 0.74, 0.70, 0.67 and 0.71. The data indicated that their mean values ranged from 2.27 – 2.35. Each of these values was within the real limit of 1.50 – 2.49; indicating that the utilization of media facilities was to a low extent in the NCE programme of NTI by DLS through improving the medium of communication between the teacher or institution and the students using printed materials, making video images easier to use in classrooms using digital versatile discs (DVD), providing feedbacks on the students' performance using video tapes, simplifying complex sequences of events using DVD, and acquiring appropriate professional behaviour and attitude applying Video recordings.

The results based on the cluster mean ($\bar{x}$ = 2.66, SD = 0.49) indicated a high extent of utilization of media facilities in the improvement of the NCE programme of NTI by DLS.

H03: There is no significance difference between the mean ratings of distance learning students and course tutors of NTI on the extent to which utilization of media facilities has improved the NCE Programme of NTI by DLS in South-South States.

Data for testing null hypothesis three were presented on Table 6:

Table 6
t-test statistics on the extent of utilization of media facilities in the improvement of NCE Programme of NTI by DLS in South-South States.

t-Critical = 1.960									
S/No.	Items	Status	N	$\bar{x}$	SD	t	df	Sig. (2-tailed)	Decision
1.	Using television improves the retention of the learners' attention in NCE programme.	NTI Course Tutors	98	3.47	.82	2.47	880	.01	S
		NTI Students	784	3.24	.86				
2.	Applying over-head projectors improves the acquisition of practical experiences in the NCE programme.	NTI Course Tutors	98	3.54	.80	2.10	880	.04	S
		NTI Students	784	3.35	.86				
3.	Using textbooks improves learners' self-activities in the NCE programme.	NTI Course Tutors	98	3.24	.73	1.81	880	.07	NS
		NTI Students	784	3.06	.93				
4.	Using printed materials improves the medium of communication between the teacher or institution and the students.	NTI Course Tutors	98	2.39	.73	1.06	880	.29	NS
		NTI Students	784	2.31	.68				
5.	Using digital versatile discs (DVD) makes video images easier to use in NTI classrooms without searching through a length of tape.	NTI Course Tutors	98	2.42	.75	1.05	880	.29	NS
		NTI Students	784	2.34	.74				
6.	Using video tapes improves NCE programme through the provision of feedbacks on the students' performance.	NTI Course Tutors	98	2.34	.73	1.64	880	.10	NS
		NTI Students	784	2.26	.70				
7.	Using DVD improves the NCE programme as it simplifies complex sequences of events.	NTI Course Tutors	98	2.32	.65	.69	880	.49	NS
		NTI Students	784	2.27	.68				
8.	Applying Video recordings improves students' technical skills through the acquisition of appropriate professional behaviour and attitude.	NTI Course Tutors	98	2.35	.72	.40	880	.69	NS
		NTI Students	784	2.32	.71				
Cluster t						2.32		.02	S

Table 6 above shows the analysis of t-test statistics on the extent to which the utilization of media facilities has improved the NCE programme of NTI in South-South States of Nigeria. Data on Table 6 showed that two out of the eight items (item 1 and 2) had their t-Calculated significant values at 0.01 and 0.04, respectively. The significant values were less

than 0.05; indicating that there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the two items. Therefore, the null hypothesis of no significant difference was rejected for the two items. However, six out of the eight items (item 3, 4, 5, 6, 7 and 8) had their t-Calculated significant values at 0.07, 0.29, 0.29, 0.10, 0.49 and 0.69. The significant values were greater than 0.05; indicating that there was no significant difference between the mean ratings of distance learning students and course tutors of NTI on the six items.

However, the cluster t-Calculated value was significant at 0.02. This significant value was less than 0.05; indicating that there was significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent to which the utilization of media facilities has improved the NCE programme of NTI by DLS in South-South States.

Research Question Four

To what extent has the utilization student-support services improved the NCE programme of NTI by DLS in South-South States?

Data for answering research question four were presented on Table 7:

Table 7

Mean responses of the NTI course tutors and learners on the extent of utilization of student-support services in the improvement of NCE programme of NTI by DLS.

N = 882

Utilization of student-support services in the improvement of				
S/No.	NCE programme of NTI by DLS:	$\bar{x}$	SD	Decision
1.	Using face-to-face sessions promotes greater interaction between students and teachers in NCE programme.	2.19	.65	Low Extent
2.	Using face-to-face sessions in NTI promotes students' practice of psychomotor skills in NCE programme.	2.15	.63	Low Extent
3.	Using face-to-face sessions in NTI promotes students' cognitive skills in NCE programme.	2.24	.60	Low Extent
4.	Using face-to-face sessions in NTI promotes students' affective skills in NCE programme.	2.82	.82	High Extent
5.	Using face-to-face sessions in NTI provides teachers with opportunities to discuss students' work and assess the extent of progress/problems in NCE programme.	2.84	.82	High Extent
6.	Using counselling in NTI provides guidance/advice to students on their educational progress in NCE programme.	2.87	.90	High Extent
7.	Using counselling in NTI provides advice to the students on career opportunities in NCE programme.	2.80	.93	High Extent
8.	Using counselling in NTI provides advice to NCE students on personal anxieties or on sudden crises in their lives.	2.79	.88	High Extent
9.	Using study centres in NTI provides NCE students a range of facilities which can supplement some of the ones they already have at home.	3.05	1.33	High Extent
10.	Using study centres in NTI provides students in NCE programme with opportunities to meet with and learn from each other in discussion group.	3.34	.82	High Extent
11.	Using study centres in NTI provides focal point for the interaction between tutor-counsellors and students in NCE programme.	3.13	.92	High Extent
12.	Using study centres provides remedy in tutorial sessions for any academic weaknesses or deficiencies in NCE programme.	3.25	2.14	High Extent
Cluster Mean		2.79	.48	High Extent

Data on Table 7 above shows the mean values and standard deviations of the respondents' responses on the extent of utilization of student-support services in the improvement of NCE programme of NTI by DLS in South-South States of Nigeria. Data on Table 7 showed that three out the 12 items (item 1, 2 and 3) had their mean values as 2.19, 2.15 and 2.24, and standard deviation values of 0.65, 0.63 and 0.60, respectively. The data showed that their mean values ranged from 2.15 – 2.24. Each of these values was within the real limit

of 1.50 – 2.49; indicating that student-support services have been utilized in the NCE programme of NTI by DLS to a low extent through promoting greater interaction between students and teachers in NCE programme, promoting students' practice of psychomotor skills in NCE programme, and promoting students' cognitive skills in NCE programme using face-to-face sessions.

However, the data showed that other nine items (item 4, 5, 6, 7, 8, 9, 10, 11 and 12) had mean values of 2.82, 2.84, 2.87, 2.80, 2.79, 3.05, 3.34, 3.13 and 3.25. Also, their standard deviation values were 0.82, 0.82, 0.90, 0.93, 0.88, 1.33, 0.82, 0.92 and 2.14. The data indicated that their mean values ranged from 2.79 – 3.34. Each of these values was within the real limit of 2.50 – 3.49; indicating that the utilization of student-support services was to a high extent in the NCE programme of NTI by DLS through promoting students' affective skills in NCE programme, and providing teachers with opportunities to discuss students' work and assess the extent of progress/problems in NCE programme using face-to-face sessions, providing guidance/advice to students on their educational progress in NCE programme, providing advice to the students on career opportunities in NCE programme, and providing advice to NCE students on personal anxieties or on sudden crises in their lives using counseling techniques. Others are providing students a range of facilities which can supplement some of the ones they already have at home, providing students with opportunities to meet with and learn from each other in discussion group, providing focal point for the interaction between tutor-counsellors and students, and providing remedy in tutorial sessions for any academic weaknesses or deficiencies in the study centres.

The results based on the cluster mean ($\bar{x} = 2.79$, $SD = 0.48$) indicated a high extent of utilization of student-support services in the improvement of the NCE programme of NTI by DLS.

H04: There is no significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of student-support services in the improvement of NCE Programme of NTI by DLS in South-South States.

Data for testing null hypothesis four were presented on Table 8:

Table 8
t-test statistics on the extent of utilization of student-support services in the improvement of NCE Programme of NTI by DLS in South-South States.

t-Critical = 1.960									
S/No.	Items	Status	N	$\bar{x}$	SD	t	Df	Sig. (2-tailed)	Decision
1.	Using face-to-face sessions promotes greater interaction between students and teachers in NCE programme.	NTI Course Tutors	98	1.98	.41	3.50	880	.00	S
		NTI Students	784	2.22	.67				
2.	Using face-to-face sessions in NTI promotes students' practice of psychomotor skills in NCE programme.	NTI Course Tutors	98	2.09	.35	.96	880	.34	NS
		NTI Students	784	2.16	.66				
3.	Using face-to-face sessions in NTI promotes students' cognitive skills in NCE programme.	NTI Course Tutors	98	2.04	.35	3.53	880	.00	S
		NTI Students	784	2.27	.62				
4.	Using face-to-face sessions in NTI promotes students' affective skills in NCE programme.	NTI Course Tutors	98	2.87	.83	.58	880	.56	NS
		NTI Students	784	2.82	.81				
5.	Using face-to-face sessions in NTI provides teachers with opportunities to discuss students' work and assess the extent of progress/problems in NCE programme.	NTI Course Tutors	98	2.86	.79	.19	880	.85	NS
		NTI Students	784	2.84	.83				
6.	Using counselling in NTI provides guidance/advice to students on their educational progress in NCE programme.	NTI Course Tutors	98	3.13	.85	3.12	880	.00	S
		NTI Students	784	2.83	.90				
7.	Using counselling in NTI provides advice to the students on career opportunities in NCE programme.	NTI Course Tutors	98	3.09	.83	3.30	880	.00	S
		NTI Students	784	2.77	.93				
8.	Using counselling in NTI provides advice to NCE students on personal anxieties or on sudden crises in their lives.	NTI Course Tutors	98	3.00	.76	2.53	880	.01	S
		NTI Students	784	2.76	.89				
9.	Using study centres in NTI provides NCE students a range of facilities which can supplement some of the ones they already have at home.	NTI Course Tutors	98	3.47	.71	3.35	880	.00	S
		NTI Students	784	3.00	1.38				
10.	Using study centres in NTI provides students in NCE programme with opportunities to meet with and learn from each other in discussion group.	NTI Course Tutors	98	3.74	.51	5.13	880	.00	S
		NTI Students	784	3.29	.84				
11.	Using study centres in NTI provides focal point for the interaction between tutor-counsellors and students in NCE programme.	NTI Course Tutors	98	3.54	.71	4.71	880	.00	S
		NTI Students	784	3.08	.94				
12.	Using study centres provides remedy in tutorial sessions for any academic weaknesses or deficiencies in NCE programme.	NTI Course Tutors	98	3.14	.93	.52	880	.60	NS
		NTI Students	784	3.26	2.24				
Cluster t						2.71		.01	S

Table 8 above shows the analysis of t-test statistics on the extent of utilization of student-support services in the improvement of NCE Programme of NTI by DLS in South-South States of Nigeria. Data on Table 8 showed that eight out of the 12 items (item 1, 3, 6, 7, 8, 9, 10 and 11) had their t-Calculated significant values at 0.00, 0.00, 0.00, 0.00, 0.01, 0.00, 0.00 and 0.00, respectively. The significant values were less than 0.05; indicating that there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the eight items. Therefore, the null hypothesis of no significant difference was rejected for the eight items. However, four out of the 12 items (item 2, 4, 5 and 12) had their t-Calculated significant values at 0.34, 0.56, 0.85 and 0.60, respectively. The significant values were greater than 0.05; indicating that there was no significant difference between the mean ratings of distance learning students and course tutors of NTI on the four items.

However, the cluster t-Calculated value was significant at 0.01. This value was less than 0.05; indicating that there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of student-support services in the improvement of NCE Programme of NTI by DLS in South-South States.

Summary of the Major Findings

The major findings of the study are as follows:

1. Staff development programmes to a high extent were utilized in the improvement of NCE programme of NTI by DLS through refresher courses, in-service training programmes and workshops.

2. There was significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of staff development programmes in the improvement of NCE Programme of NTI by DLS in South-South States.
3. Physical facilities to a high extent were utilized in the improvement of NCE programme of NTI by DLS through improving the conditions of NTI classroom roofs, walls, and floors, using students' common rooms, using electricity, and using laboratories for science, technology, mathematics and life sciences.
4. There was significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of physical facilities in the improvement of NCE Programme of NTI by DLS in South-South States.
5. Media facilities to a high extent were utilized in the improvement of NCE programme of NTI by DLS through retaining learners' attention in NCE programme using over-head projectors, television, and textbooks.
6. There was significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of media facilities in the improvement of NCE programme of NTI by DLS in South-South States.
7. Student-support services to a high extent were utilized in the improvement of NCE programme of NTI by DLS through providing students with opportunities to meet with and learn from each other in discussion group using study centres, providing remedy in tutorial sessions for any academic weaknesses or deficiencies using study centres, providing focal point for the interaction between tutor-counsellors and students using study centres, among others.

8. There was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of student-support services in the improvement of NCE Programme of NTI by DLS in South-South States.

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter presented the discussion of the findings, educational implications of the study, conclusion, recommendations and suggestions for further research.

Discussion of the Findings

The findings of the study were discussed under the following sub-headings:

Extent of utilization of staff development programmes in the improvement of NCE programme of NTI by DLS

The findings of the study showed that the utilization of staff development programmes was to a high extent in the NCE programme of NTI by DLS through refresher courses, in-service training programmes and workshops. The findings of the study were in line with the assertion of Osunde and Omoruyi (2004) that training is often organized for teachers to upgrade and update their knowledge and skills. It is the process of increasing human efficiency through which people are offered the opportunity to acquire new skills and current knowledge required in carrying out various specialized tasks in their place of work. Omoruyi (2001) noted that the overall goal of the NTI was to uplift the quality and quantity of teaching personnel in Nigeria through training and retraining programmes. The institute is expected to provide courses of instruction leading to the development, upgrading and certification of teachers as specified in the relevant syllabus using a distance learning approach or technique.

However, the findings of the study showed that the utilization of staff development programmes was to a low extent in the NCE programme of NTI through seminars, course upgrade and conferences. Contrary to the findings of the study, National Teachers' Institute (2001) affirmed that the enabling Act mandated the institute to provide refresher and upgrading

courses for teaching personnel; organize workshops, seminars and conferences; conduct examinations; carry out research; and to formulate policies and initiate programmes that would lead to the improvement in the quality and content of education in the country.

The first hypothesis (H_{01}) centred on whether there is any significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of staff development programmes in the improvement of NCE Programme of NTI by DLS in South-South States. The null hypothesis was rejected meaning that there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of staff development programmes in the improvement of NCE Programme of NTI by DLS in South-South States. Cluster t-Calculated value was significant at 0.04. The value was less than 0.05; indicating that there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of staff development programmes in the improvement of NCE Programme of NTI by DLS in South-South States.

So, the hypothesis showed that the distance learning students and staff of NTI did not agree on the same parameter on the extent of utilization of staff development programmes in the improvement of NCE Programme of NTI by DLS in South-South States. The significant difference may be attributed to the fact that the distance learning students of NTI are not conversant with the staff development programmes, especially refresher courses, in-service training programmes and workshops.

Extent of utilization of physical facilities in the improvement of NCE programme of NTI by DLS

The findings of the study showed that the utilization of physical facilities was to a high extent in the improvement of NCE programme of NTI by DLS through improving the conditions of NTI classroom roofs, walls, and floors, using students' common rooms, using electricity, and using laboratories for science, technology, mathematics and life sciences. The findings of the study were in line with the findings of Yusuf, Ajayi and Sofoluwe (2013) that school physical facilities (school plants) should be viewed as being closely interwoven and inter dependent in order to have effective and efficient teaching and learning. An effective school facility is responsive to the changing programmes of educational delivery, and at a minimum should provide a physical environment that is comfortable, safe, secure, accessible, well illuminated, well ventilated, and aesthetically pleasing. The school facility consists of not only the physical structure and the variety of building systems, such as mechanical, plumbing, electrical and power, telecommunications, security, and fire suppression systems. The facility also includes furnishings, materials and supplies, equipment and information technology, as well as various aspects of the building grounds, namely, athletic fields, playgrounds, areas for outdoor learning, and vehicular access and parking.

However, the findings of the study showed that the utilization of physical facilities was to a low extent in the improvement of NCE programme of NTI by DLS through using libraries for students' access to the reference materials, using computer rooms where computers and other types of information technology hardware are kept, using staff preparation rooms for physical and emotional needs of the staff and students, using ventilation facilities for psychological safety for both students and teachers, using sanitation facilities for health and

hygiene standards of students, using classroom furniture such as desks, tables, chairs, and using separate toilet blocks for good sanitation and healthful habits among learners and staff.

On these, Adegoke (2005) agreed that physical facilities include the school building, equipment which also include the permanent structures like workshop, libraries, classrooms, laboratories, hostels assembly hall and semi-permanent structures. Ijaduola (2008) maintained that physical facilities need to be adequately utilized in order to ensure both effectiveness and efficiency of the educational sector. Therefore, the physical conditions under which teachers work have direct positive and negative effects on their morale, sense of personal safety, feelings of effectiveness in the classroom and the general learning environment (NOUN, 2011). Poor ventilation in schools, accumulation of dust and growth of mould in ceilings and walls can lead to respiratory infections, headaches, and sleepiness among students and staff (Environmental Protection Agency, 2000). Poor air quality has been linked to student absenteeism often due to asthma and other respiratory diseases (American Lung Association, 2002).

The second hypothesis (H_{02}) centred on whether there is any significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of physical facilities in the improvement of NCE Programme of NTI by DLS in South-South States. The null hypothesis was rejected. It showed that there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent to which the utilization of physical facilities has improved the NCE Programme of NTI by DLS in South-South States. Cluster t-Calculated value was significant at 0.00. The value was less than 0.05; indicating that there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent to which the

utilization of physical facilities has improved the NCE Programme of NTI by DLS in South-South States.

Therefore, the hypothesis (H0₂) showed that the distance learning students and course tutors of NTI did not equally agree on the extent of utilization of physical facilities in the improvement of NCE Programme of NTI by DLS in South-South States. The significant difference may be attributed to the fact that the distance learning students of NTI are usually separated from the course tutors both in space and time. Also, most of the learners utilize the physical facilities only during the face-to-face sessions.

Extent of utilization of media facilities in the improvement of NCE programme of NTI by DLS

The findings of the study showed that the utilization of media facilities was to a high extent in the improvement of NCE programme of NTI by DLS through retaining learners' attention in NCE programme using over-head projectors, television, and textbooks. Supporting the findings of the study, Drew (2008) asserted that media facilitate interaction between and among learners, teachers, and content. They also increase the opportunity for in-depth and meaningful learning. The focus is on the students and their active roles in learning supported by technology. Currently, the media facilities have extended to the internet, email, software, video, tapes, and cameras among others. Liu (2008) stated that instructors and students may choose to use technology in a conventional classroom teaching (but it is optional). The online environment allows people to interact with others asynchronously or synchronously in collaborative environments; to gain access to remote multimedia databases for active, resource-based learning; and to manage self-paced, individualized learning in a flexible way. Moreover, the Internet allows students to enroll in courses from anywhere in the world at almost any time.

The third hypothesis (H₀₃) centred on whether there is any significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of media facilities in the improvement of NCE Programme of NTI by DLS in South-South States. The null hypothesis was rejected as there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of media facilities in the improvement of NCE Programme of NTI by DLS in South-South States. Cluster t-Calculated value was significant at 0.02 which was less than 0.05; indicating that there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of media facilities in the improvement of NCE Programme of NTI by DLS in South-South States.

Therefore, the hypothesis (H₀₃) showed that the distance learning students and course tutors of NTI did not agree equally on the extent of utilization of media facilities in the improvement of NCE Programme of NTI by DLS in South-South States. The significant difference may be due to the fact that the distance learning course tutors of NTI are more comfortable with the traditional media facilities. Also, lack of in-depth knowledge on technical know-how of the media facilities operation may be a factor.

Extent of utilization of student-support services in the improvement of NCE programme of NTI by DLS

The findings of the study showed that the utilization of student-support services was to a high extent in the improvement of NCE programme of NTI by DLS through providing students with opportunities to meet with and learn from each other in discussion group using study centres, providing remedy in tutorial sessions for any academic weaknesses or deficiencies using study centres, providing focal point for the interaction between tutor-

counsellors and students using study centres, providing students a range of facilities which can supplement some of the ones they already have at home using study centres, providing guidance/advice to students on their educational progress using counseling techniques, providing teachers with opportunities to discuss students' work and assess the extent of progress/problems using face-to-face sessions, promoting students' affective skills, using face-to-face sessions, providing advice to the students on career opportunities using counseling techniques, and providing advice to students on personal anxieties or on sudden crises in their lives using counseling techniques.

According to Stewart, Goodson, Miertschin, Norwood and Ezell (2013), the students' support services include instructional support services centre, student organizations, academic services centre, course design and technical support services, learning support, student success and retention programmes, general support services, scholarships and financial aid, library resources, computing and technology help desks. Usun (2004) stated that learner-support is the resource that learners can access in order to carry out the learning processes. In distance learning, support is concerned with a range of human and non-human resources to guide and facilitate the educational transaction. The resources may be library facilities, various media and software programmes, community leaders, or they could be various socio-economic variables such as learner's financial self-sufficiency and capacity to cope with their roles and responsibilities in the family and community.

The amount of support services an institution can offer largely depends on that particular institution's capacity and resources at its disposal. Molefi (2002) stated that students' support services are any systems or procedures that are purposefully created and effectively utilized by a distance learning institution to support and/or facilitate teaching and learning at a

distance. They may include any or all of these: record keeping and administration (pre-admission counseling); admission or enrolment and registration information (administrative assistance), books despatch by mail (library service), tutoring and counseling, weekend courses and study centres, and electronic communication technologies (such as phones, radio, audio tapes, video, and television). Providing support services to the distance learning population is an important part of creating the feeling of belonging for students who do not have access to traditional clues.

Stewart et al. (2013) stated that the student-services offered include course software assistance; individual course tutoring (both face-to-face and online); graduate record examinations (GRE) preparation; supplementary course materials; a meeting place for students working on group assignments, and a worksite for teaching assistants to support online courses. Others are distribution of students' course materials; collection of student assignments, as requested by the instructor; provision for student supplies, and proctoring of flexibly scheduled examinations or makeup examinations.

Another students-support service according to Stewart et al. (2013) is academic services centre which is a site for academic advising, academic services centre rosters and logs recorded student contact via e-mail, telephone, and on-campus appointments. On learning support, logs of student services record individual contacts with students on a daily basis. Analysis of the logs provided evidence of extensive students' use and problem resolution. Learning support serves as both a physical place of contact and as an on-line resource for assistance with challenges related to course content and software (Miertschin et al., 2010). Students used tutoring services in both face-to-face and on-line formats, which together met student needs for course support and flexibility. The learning support services supported

students by providing a single highly available location where they could flexibly pick up or submit course materials and complete examinations in a proctored setting.

Student success and retention programme is another students' support service (Stewart et al., 2013). Student success, satisfaction, and retention can be influenced by students' levels of connection and interactivity with institutions' faculty, personnel, and systems. It is the duty of the distance learning institution to support several student success programmes across campus. On general support services, Stewart et al. (2013) stated that they involve other critical support services provided with attention to access for on-line students. They include career counseling, recruitment, assessment, and internships (career services); accommodation and support services for students with temporary or permanent health impairment, physical limitation, psychiatric disorder, or learning disability (centre for disabilities); psychological, educational, and social support services for students (counseling and psychological services); initiative to share good things about campus and encourage student attendance at centre events. Furthermore, there are numerous other services such as the bookstore, office of admissions, division of administration and finance, credits and transfers, among others. These support services are developed to accommodate the needs of online students.

On library resources, Miertschin et al. (2010) affirmed that off-campus access to library resources is a critical service for on-line students. Resource guides and tutorials are available as outline of the procedures for requesting library materials are delivered both electronically and/or physically to prescribed off-campus distance education sites. Librarians and electronic help desk services are part of the resources that assist students in learning how to remotely use research tools, identify and use databases, search for appropriate sources, request materials for use, and receive materials. Miertschin et al. (2010) stressed that the technology support service

that is most valued by on-line students is the help desk service. The Information Technology combines its customer services, information services, and media services departments to form technology services and support. For times when on-line students may be on campus, the institution also maintains numerous computer laboratories.

However, the findings of the study showed that student-support services were utilized in the improvement of NCE programme of NTI by DLS to a low extent through promoting greater interaction between students and teachers in NCE programme, promoting students' practice of psychomotor skills in NCE programme, and promoting students' cognitive skills in NCE programme using face-to-face sessions. Contrary to these findings, Molefi (2002) stated that student-support services are basically provided to facilitate learning so that students reach their ultimate goal. They also help students realize the institutional objective of the course by minimizing the negative effects of isolation and the lack of regular personal contact; minimize the drop-out rate, and help students deal with the teaching institution and to augment the package of course materials. Other reasons for providing student support services are to improve the students' learning experience; provide extra assistance to weaker students, and to provide counselling for those who have personal difficulties.

Adams (2006) affirmed that student-support programmes assist students from under-privileged backgrounds to cope with mainstream courses; provide a separate, safe space for addressing their learning difficulties; develop study and writing skills; and clarify key concepts and elements of content. Nqadala (2007) stated that student-support programmes break down barriers to learning and promote effective learning. Kirkham and Ringelstein (2008) stated that student-support programmes are strategies to assist students in their learning process and thereby motivate them to remain committed to completing their higher education. Student-to-

student interaction enhances networking which leads to formation of study groups; providing a non-threatening atmosphere which is conducive to learning; providing study and learning strategies can be applied in other areas of study; and avoiding the creation of a remedial programme that may carry negative connotations (Kirkham & Ringelstein, 2008). Also, Ntakana (2011) advocated that collaborative learning does not only improve academic performance, but it also improves students' self-esteem.

The fourth hypothesis (H0₄) was to find out if there is any significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of students-support services in the improvement of NCE Programme of NTI by DLS in South-South States. The null hypothesis was rejected as there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of students-support services in the improvement of NCE Programme of NTI by DLS in South-South States. Cluster t-Calculated value was significant at 0.01 which was less than 0.05; indicating that there was a significant difference between the mean ratings of distance learning students and course tutors of NTI on the extent of utilization of students-support services in the improvement of NCE Programme of NTI by DLS in South-South States.

Therefore, the hypothesis (H0₄) showed that the distance learning students and course tutors of NTI did not agree on equal parameters on the extent of utilization of students-support services in the improvement of NCE Programme of NTI by DLS in South-South States. The significant difference may be because the distance learners of NTI are not acquainted with the various students-support services available in the various study centres.

Educational Implications of the Study

Based on the findings of the study, there are several educational implications for the improvement of the NCE Programme of National Teachers' Institute by distance learning system in South-South States of Nigeria. The NCE Programme of NTI by DLS would effectively improve when staff development programmes are employed, physical and media facilities, as well as student-support services are utilized in the teaching and learning process.

On the utilization of staff development programmes in the improvement of NCE programme of NTI by DLS, the study showed that the staff development programmes to a low extent were provided through seminars, course upgrade and conferences. This implies that the administrators of NTI programmes need not provide only workshops, refresher and upgrading courses for teaching personnel, and in-service training programmes; they also need to organize seminars and conferences; conduct examinations; carry out research; and to formulate policies and initiate programmes that would lead to the improvement in the quality and content of education in the country. This is necessary as the overall goal of the NTI by DLS is to uplift the quality and quantity of teaching personnel in Nigeria through training and retraining programmes. The institution's administration needs to provide courses of instruction leading to the development, upgrading and certification of teachers as specified in the relevant syllabus using a distance learning approach or technique. It therefore implies that the administrators of NTI programmes need to mount various staff development programmes leading to the development, upgrading and certification of course tutors (facilitators) especially for those the NCE programme.

On the utilization of physical facilities in the improvement of NCE programme of NTI by DLS, the study showed that the utilization of physical facilities was to a low extent through

using libraries for students' access to the reference materials, using computer rooms where computers and other types of information technology hardware are kept, using staff preparation rooms for physical and emotional needs of the staff and students, using ventilation facilities for psychological safety for both students and teachers, using sanitation facilities for health and hygiene standards of students, using classroom furniture such as desks, tables, chairs, and using separate toilet blocks for good sanitation and healthful habits among learners and staff.

This has implication to the providers of educational programmes such as Nigerian Educational Research and Development Council (NERDC), National Commission for Colleges of Education (NCCE), National University Commission (NUC), National Business and Technical Examinations Board (NABTEB), and National Commission for Mass Literacy, Adult and Non-formal Education (NMEC) among others. They need to provide and encourage educational institutions, including NTI by DLS to adequately utilize reference materials in the libraries, computers in the computer rooms, sanitation and ventilation facilities for health and hygiene standards of students and staff, classroom furniture such as desks, tables, chairs for healthful habits among learners and staff. They need to realize that there is relationship between the provision of various physical facilities and effective teaching and learning. The findings of the study would also enable National Teachers' Institute (NTI) by distance learning system (DLS) to cope with the numerous challenges affecting the effective utilization of physical facilities in Nigeria Certificate in Education (NCE) programme.

The study further revealed that the utilization of media facilities in the improvement of NCE Programme of National Teachers' Institute (NTI) by distance learning system (DLS) is not highly encouraging. This was made manifest on the high extent of utilization of media facilities in the improvement of NCE Programme of National Teachers' Institute (NTI) by

distance learning system (DLS) through retaining learners' attention in NCE programme using over-head projectors, television, and textbooks only. The study showed that the utilization of media facilities was to a low extent in the NCE programme of NTI by DLS through improving the medium of communication between the teacher or institution and the students using printed materials, making video images easier to use in classrooms using digital versatile discs (DVD), providing feedbacks on the students' performance using video tapes, simplifying complex sequences of events using DVD, and acquiring appropriate professional behaviour and attitude applying video recordings.

The implication is that the administrators and managers of National Teachers' Institute and other institutions that operate through distance learning system (either as autonomous or part of existing institutions) in Nigeria need to create awareness on the utilization of various media facilities available in the various study centres. Such facilities include digital versatile discs (DVD), video tapes, and video recordings. They also need to forge partnership with state, national and international institutions for the purpose of capacity building through research and production, and provision and utilization of media facilities for effective teaching and learning in Nigeria Certificate in Education programme through distance learning mode.

On the utilization of student-support services in the improvement of NCE programme of NTI by DLS, the study showed that the utilization of student-support services was to a low extent in the improvement of NCE programme of NTI by DLS through promoting greater interaction between students and teachers in NCE programme, promoting students' practice of psychomotor skills in NCE programme, and promoting students' cognitive skills in NCE programme using face-to-face sessions. This is not encouraging. The implication of the findings is that the administrators of National Teachers' Institute need to provide good student-

support services that include a variety of activities aimed at promoting greater interaction between students and staff, promoting students' practice of psychomotor skills, and promoting students' cognitive skills. It implies also that there is need to motivate distance learning students to focus on and keep themselves busy and active during the lesson, creating the chance for effective retention of the learned subject matter through effective and efficient student-support services.

Finally, the study has implications for the course tutors and administrators of National Teachers' Institute (NTI), national education policy planners, professionals, scholars and organizations, and other distance education institutions on the various challenges militating against the effective implementation of NCE programme of NTI by DLS. The challenges range from lack of consistency in programme/policy implementation, no regular supply of electricity, ineffective integration of most technological media, poor ICT penetration, high cost of procurement of some media facilities, poor net-work services, facilitators are not adequately trained on the use of information communication technology, to undue delay in the distribution of media facilities and student-support services. Other challenges are inadequate qualified manpower to operate the electronic instructional materials, and high maintenance cost of the physical and media facilities.

Therefore, this implies that there is need for experts in policy development to formulate policies in distance learning programmes that will enable the various stakeholders in the sector to provide enabling environment for effective staff development programmes, utilization of physical and media facilities as well as student-support services so as to improve the NCE programme of NTI by DLS. Through this, the distance learning students and course tutors of NTI will rise up to the challenges of over-coming the impact of the utilization of physical and

media facilities as well as student-support services for the improvement of Nigeria Certificate of Education Programme of National Teachers' Institute by distance learning system in South-South States of Nigeria.

Conclusion

The study assessed the utilization of available resources for the improvement of Nigeria Certificate in Education (NCE) Programme of National Teachers' Institute (NTI) by distance learning system (DLS) in South-South States of Nigeria. The study was carried out on 784 distance learning students and 98 course tutors of NTI from the 57 study centres in the six states of South-South. The study was carried out with the aim of the National Teachers' Institute achieving its mandate of encouraging the improvement of the quality of NCE teachers through utilization of staff development programmes, physical and media facilities as well as student-support services in the distance learning system. Therefore, as there is need for the improvement of the Nigeria Certificate in Education Programme of National Teachers' Institute, especially in the South-South States of Nigeria. There is also need for the examination of extent of the utilization of staff development programmes, physical and media facilities as well as student-support services in the programme.

Four research questions were formulated to guide the study, while four null hypotheses were tested at 0.05 level of significance. The descriptive survey design was adopted for the study. A structured questionnaire was used for the collection of data. The collected data were analyzed by computing and comparing the mean scores, and by the use of Student t-test statistics.

From the findings and the discussion of the study, it was shown that the respondents agreed that to high extent, there was utilization of staff development programmes, physical and media facilities as well as student-support services in the Nigeria Certificate in Education

Programme of National Teachers' Institute by distance learning system. Also, all the four null hypotheses (H_{01} , H_{02} , H_{03} and H_{04}) were not accepted showing that the distance learning students and course tutors of National Teachers' Institute did not agree on equal parameters on the extent of utilization of staff development programmes, physical facilities, media facilities and student-support services in the Nigeria Certificate in Education Programme of National Teachers' Institute by distance learning system in South-South, Nigeria.

Recommendations

Based on the findings of the study, the following recommendations were proffered:

National Teachers' Institute (NTI) should mount various staff development programmes for to the development, upgrading and certification of NTI academic staff (course tutors or facilitators). Such development programmes should include seminars, conferences; workshops, refresher and upgrading of courses, in-service training programmes; research; policy formulation. This is necessary as it would lead to the improvement in the quality and content of education in Nigeria.

National Commission for Colleges of Education (NCCE) should provide and encourage the various study centres of National Teachers' Institute to adequately utilize reference materials in the libraries, computers in the computer rooms, sanitation and ventilation, and classroom furniture such as desks, tables, chairs. These when provided would go a long improving the relationship between the provision of various physical facilities and effective teaching and learning in Nigeria Certificate in Education (NCE) programme of National Teachers' Institute (NTI).

National Teachers' Institute should ensure that there is effective equipment usage; resource handling, laboratory procedures, adequacy of directions/instructions for safe use of

various physical facilities, and modelling of safe practices. On this, Federal Government of Nigeria through its various educational agencies should support the National Teachers' Institute in the provision of enabling environment through the provision of regular power for the improvement of academic performance of students and the general literacy level in Nigeria.

National Teachers' Institute should endeavour to create awareness on the utilization of various media facilities available in the various study centres. Such facilities include digital versatile discs (DVD), video tapes, video recordings, over-head projectors, and television. Towards this direction, National Teachers' Institute should forge partnership with state, national and international institutions for the purpose of capacity building through research and production, and provision and utilization of media facilities for effective teaching and learning in Nigeria Certificate in Education programme through distance learning mode.

National Teachers' Institute should accept the innovation in teaching approaches (methods) through the use of ICT media to enhance academic performance of distance learning students. The systematic utilization of the education technology such as ICT media software (print, radio and television broadcast, video and audio cassettes, computer-band learning and telecommunications) in the teaching and learning process of Nigeria Certificate in Education programme of National Teachers' Institute would eventually lead to the achievement of academic success in the programme.

National Teachers' Institute should provide a variety of activities aimed at promoting greater interaction between students and course tutors, promoting students' practice of psychomotor skills, and promoting students' cognitive skills. The variety of activities should include face-to-face sessions, counseling techniques and study centres. On this, National Teachers' Institute should motivate distance learning students to focus on and keep themselves

busy and active during the lesson by creating chances for effective retention of the learned subject matter through effective and efficient student-support services.

The Federal Ministry of Education under the auspices of National Commission for Colleges of Education (NCCE) should ensure that qualified course tutors are recruited for the Nigeria Certificate in Education (NCE) programme of National Teachers' Institute (NTI) by distance learning system (DLS). This will go a long way reducing the workloads on the few qualified academic staff and increase the ability to manage physical and media facilities and student-support services. As a way of improving effective teaching and learning, both qualified and unqualified course tutors should be encouraged to attend professional development programmes to increase their knowledge on the available innovative school plants.

The Federal Government of Nigeria should encourage the development of open learning system by giving more financial support to open learning institutions, especially, National Teachers' Institute. This would enable such institutions, including National Teachers' Institute to provide the basic infrastructures like classrooms, laboratories, and textbooks among others. This will also go a long way ensuring that enough learning facilities are provided in the various study centres. Also, adequate provision of infrastructure and learning facilities will make learning profitable thereby encouraging distance learning students in the institute's teaching and learning process.

Suggestions for Further Research

Based on the areas that need to be covered, further research should be carried out in the following areas:

1. Evaluation of the strategies for improving the effective management and utilization of physical and media facilities in National Teachers' Institute (NTI) in South-South, Nigeria.
2. Assessment of the contributions of student-support services in the improvement of teaching and learning in Nigeria Certificate in Education (NCE) programme of National Teachers' Institute (NTI) by distance learning system (DLS) in South-South, Nigeria.
3. Assessment of the extent of resource provision for the implementation of National Teachers' Institute (NTI), Kaduna, distance learning programme in South-South, Nigeria.
4. Evaluation of the staff development programme for Nigeria Certificate in Education teaching personnel in National Teachers' Institute South-South, Nigeria.
5. Evaluation of the learning resource designs for the enhancement of teaching and learning in National Teachers' Institute by distance learning system in South-South, Nigeria.

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APPENDIX A

POPULATION AND SAMPLE DISTRIBUTION

S/N	States	Centres	Population			Centres Sampled	Number Sampled	Percentage Sampled
			NTI Students	NTI Staff	Total			
1.	Akwa-Ibom	6	836	39	875	2	138	
2.	Bayelsa	11	1440	64	1504	3	238	
3.	Cross River	6	846	31	877	2	140	
4.	Delta	13	1720	52	1772	4	279	
5.	Edo	6	834	36	870	2	137	
6.	Rivers	15	1130	90	1220	5	193	
TOTAL		57	6806	312	7118	18	1125	15.81

Source: National Teachers' Institute (NTI), South-South Zonal Office, Benin (2018).

APPENDIX B

QUESTIONNAIRE

**Department of Adult Education and
Extra-Mural Studies,
University of Nigeria,
Nsukka.**

16th September, 2018.

Dear Respondent,

**ASSESSMENT OF THE NCE PROGRAMME OF NATIONAL TEACHERS'
INSTITUTE BY DLS IN SOUTH-SOUTH STATES, NIGERIA**

I am a post-graduate student of the above-named department conducting a research on the *Assessment of the Nigeria Certificate in Education (NCE) Programme of National Teachers' Institute (NTI) by Distance Learning System (DLS) in South-South States, Nigeria.*

There are statements against which you are being requested to indicate your degree of agreement or disagreement. You are free to respond to each of the items by simply ticking (✓) in the space provided.

Please bear in mind that this is an academic exercise and any information supplied would be treated confidentially.

Yours faithfully,

**Emeka, V. Azuka
(PG/PhD/07/42562)**

SECTION A: (BIO-DATA OF THE RESPONDENTS)

Please tick (✓) as appropriate in the boxes provided as they apply to you.

Status: (a) NTI Course Tutor ☐ (b) NTI Distance Learning Student ☐

SECTION B

Cluster A: Indicate the extent of provision of staff development programmes in the NCE programme of NTI by DLS in South-South States.

S/NO.	ITEMS	Very High Extent	High Extent	Low Extent	Very Low Extent
1.	Staff development programmes such as workshops help to improve NTI staff's professional skills by working to their full potentials.				
2.	Staff development programmes such as seminars help to improve NTI staff on the use of modern techniques in teaching and learning of NCE programme.				
3.	Staff development programmes such as course upgrade help to improve NTI staff's understanding of the NCE course contents.				
4.	Staff development programmes such as conferences help to improve NTI staff's research skills; and implement policies to meet the institution's objectives.				
5.	Staff development programmes such as refresher courses help to improve NTI staff's career skills by having career satisfaction through cordial teacher-student relationship.				
6.	Staff development programmes such as in-service training programmes help to improve NTI staff's technical abilities through creative and motivated learning.				

Cluster B: Indicate the extent of utilization of physical facilities in the NCE programme of NTI by DLS in South-South States.

S/NO.	ITEMS	Very High Extent	High Extent	Low Extent	Very Low Extent
7.	The use of physical facilities such as laboratories for science, technology, mathematics and life sciences in NTI programme helps to improve problem-solving skills and scientific attitudes among NCE students.				
8.	The provision of physical facilities such as libraries helps to improve NCE students' access to the reference materials mentioned by their teachers in NTI programme.				
9.	The provision of physical facilities such as Computer rooms where computers and other types of information technology hardware are kept helps to improve the academic achievement of NCE students in NTI programme.				
10.	The use of physical facilities such as staff preparation rooms helps to improve the physical and emotional needs of the NCE staff and students of NTI institutions.				
11.	The use of physical facilities such as ventilation facilities helps to improve the psychological safety for both NCE students and teachers in NTI institutions.				
12.	The use of physical facilities such as sanitation facilities helps to improve health and hygiene standards of NTI students thereby leading to better quality control of instructions in their NCE programme.				
13.	The use of physical facilities such as classroom furniture (desks, tables, chairs) helps to improve the sense of belonging and pride on NTI learners in their NCE programme.				
14.	The use of physical facilities such as separate toilet blocks helps to develop good sanitation and healthful habits among NTI learners and staff of NCE programme.				

15.	The use of physical facilities such as electricity helps to improve the levels of NTI teachers' motivation and stability on the NCE programme.				
16.	The use of physical facilities such as students' common rooms helps to improve the achievement scores of NCE students and corresponding increase in mathematics, reading, and composition.				
17.	The condition of NTI classroom roofs, walls, and floors helps to improve students' learning and positive attitudes.				

Cluster C: Indicate the extent of utilization of media facilities in the NCE programme of NTI by DLS in South-South States.

S/NO.	ITEMS	Very High Extent	High Extent	Low Extent	Very Low Extent
18.	The use of media facilities such as television helps to improve the retention of the learners' attention in NCE programme.				
19.	The application of media facilities such as over-head projectors to NTI helps to improve the acquisition of practical experiences in the NCE programme.				
20.	The use of media facilities such as textbooks helps to improve learners' self-activities in the NCE programme.				
21.	The use of media facilities such as printed materials in NTI helps to improve the medium of communication between the teacher or institution and the students.				
22.	The use of media facilities such as digital versatile discs (DVD) makes video images easier to use in NTI classrooms without searching through a length of tape.				

23.	The use of media facilities such as video tapes in NTI helps to improve NCE programme through the provision of feedbacks on the students' performance.				
24.	The use of media facilities such as DVD helps to improve the NCE programme of NTI as it simplifies complex sequences of events.				
25.	The application of media facilities such as Video recordings in NTI helps to improve students' technical skills through the acquisition of appropriate professional behaviour and attitude.				

Cluster D: Indicate the extent of utilization of student-support services in the NCE programme of NTI by DLS in South-South States.

S/NO.	ITEMS	Very High Extent	High Extent	Low Extent	Very Low Extent
26.	The use of student-support services such as face-to-face sessions promotes greater interaction between students and teachers in NCE programme.				
27.	The use of face-to-face sessions in NTI promotes students' practice of psychomotor skills in NCE programme.				
28.	The use of face-to-face sessions in NTI promotes students' cognitive skills in NCE programme.				
29.	The use of face-to-face sessions in NTI promotes students' affective skills in NCE programme.				
30.	The use of face-to-face sessions in NTI provides teachers with opportunities to discuss students' work and assess the extent of progress/problems in NCE programme.				
31.	The use of student-support services such as counselling in NTI provides guidance/advice to students on their educational progress in NCE programme.				

32.	The use of counselling in NTI provides advice to the students on career opportunities in NCE programme.				
33.	The use of counselling in NTI provides advice to NCE students on personal anxieties or on sudden crises in their lives.				
34.	The use of student-support services such as study centres in NTI provides NCE students a range of facilities which can supplement some of the ones they already have at home, e.g. television and computers, among others.				
35.	The use of study centres in NTI provides students in NCE programme with opportunities to meet with and learn from each other in discussion group.				
36.	The use of study centres in NTI provides focal point for the interaction between tutor-counsellors and students in NCE programme.				
37.	The use of study centres provides remedy in tutorial sessions for any academic weaknesses or deficiencies in NCE programme.				

APPENDIX C

VALIDATES' COMMENTS

1

EVALUATION OF THE NCE PROGRAMME OF NATIONAL TEACHERS' INSTITUTE IN SOUTH-SOUTH STATES OF NIGERIA.

BY

**EMEKA, V. AZUKA
(PG/PhD/07/42562)**

Purpose of the Study

The purpose of the study is to evaluate the NCE Programme of NTI in South-South States of Nigeria. Specifically, the objectives of the study are to:

1. determine the extent to which personnel development programmes have improved the NCE Programme of NTI in South-South States,
2. determine the extent to which the utilization of infrastructural facilities has improved the NCE Programme of NTI in South-South States,
3. determine to what extent to which the utilization of media facilities has improved the NCE Programme of NTI in South-South States,
4. determine to the extent to which the utilization of student-support services has improved the NCE Programme of NTI in South-South States,
5. ascertain the factors militating against the effective implementation of the NCE programme of NTI in South-South States.

Research Questions

The following research questions are posed to guide the study:

1. To what extent have the staff development programmes improved the NCE programme of NTI in South-South States?
2. To what extent has the utilization of infrastructural facilities improved the NCE programme of NTI in South-South States?
3. To what extent has the utilization of media facilities improved the NCE programme of NTI in South-South States?
4. To what extent has the utilization of student-support services improved the NCE programme of NTI in South-South States?
5. What are the factors militating against the effective implementation of NCE programme of NTI in South-South States?

Hypotheses

The following null hypotheses will be tested at 0.05 level of significance:

1. There is no significant difference between the mean ratings students and staff of NTI on the extent to which staff development programmes have improved the NCE Programme of NTI in South-South States.
2. There is no significant difference between the mean ratings of students and staff of NTI on the extent to which the utilization of infrastructural facilities has improved the NCE Programme of NTI in South-South States.

3. There is no significance difference between the mean ratings students and staff of NTI on the extent to which the utilization of media facilities has improved the NCE Programme of NTI in South-South States.
4. There are no significant difference between the mean ratings students and staff of NTI on the extent to which the utilization of student-support services has improved the NCE Programme of NTI in South-South States.
5. There are no significant difference between the mean ratings students and staff of NTI on the factors militating against the effective implementation of NCE programme of NTI in South-South States.

Department of Adult Education and
Extra-Mural Studies,
University of Nigeria,
Nsukka.

1st August, 2016.

Dear Respondent,

**EVALUATION OF THE NCE PROGRAMME OF NATIONAL TEACHERS'
INSTITUTE IN SOUTH-SOUTH STATES OF NIGERIA.**

I am a post-graduate student of the above-named department. I am conducting a research on the *Evaluation of the NCE Programme of National Teachers' Institute in South-South States of Nigeria*.

There are statements against which you are being requested to indicate your degree of agreement or disagreement. You are free to respond to each of the items by simply ticking (✓) in the space provided.

Please bear in mind that this is an academic exercise and any information supplied would be treated confidentially.

Yours faithfully,

Emeka, V. Azuka
(PG/PhD/07/42562)

SECTION A: (BIO-DATA OF THE RESPONDENTS)

Please tick (✓) as appropriate in the boxes provided as they apply to you.

Status: (a) NTI Staff ☐ (b) NTI Students ☐

SECTION B

S/NO.	ITEMS	Very High Extent	Moderate Extent	Low Extent	Very Low Extent
Cluster A	The extent the staff development programmes have improved the NCE programme of NTI in South-South States.				
1.	Staff development programmes have helped staff to upgrade their basic skills.				
2.	Staff development programmes have helped staff to improve on their professional skills by working to their full potentials and being equipped to deal with the changing demands of the institution. <i>Delete</i>				
3.	Staff development programmes have helped staff to improve on their management skills by working with higher morale.				
4.	Staff development programmes have helped staff to improve on their supervisory skills by increasing productivity and responsiveness in meeting institution's objectives.				
5.	Staff development programmes have helped staff to improve on their career skills by having career satisfaction.				
6.	Staff development programmes have helped staff to improve on their technical training <i>in terms of</i> by being creative <i>of</i> and motivated.				

Cluster B	The extent the utilization of infrastructural facilities has improved the NCE programme of NTI in South-South States.				
7.	Infrastructural facilities enable learners to develop problem-solving skills and scientific attitudes. <i>like what</i>				
8.	Infrastructural facilities enable learners to have access to the reference materials mentioned by the teacher. <i>which of the infrastructural facilities are also referred to here?</i>				
9.	Infrastructural facilities form potent factors that contribute to academic achievement of students in the school system.				
10.	Infrastructural facilities satisfy the physical and emotional needs of the staff and students of the school.				
11.	Infrastructural facilities provide a place for psychological safety for both students and teachers in schools.				
12.	Infrastructural facilities enhance better quality control of instructions.				
13.	Infrastructural facilities ensure a safe, secure hygienic and comfortable shelter for students, teachers and other staff as teaching, learning and other activities of the school take place.				
14.	Infrastructural facilities help to determine how students are organized for instruction and the teaching methods adopted by teachers in the school.				
15.	Infrastructural facilities provide adequate and organized spaces to facilitate and support teaching and learning activities.				
16.	Infrastructural facilities take care of some changes in the educational programme such as introduction of new subjects requiring new methods of teaching or equipment requiring special storage facilities.				

specify the infrastructural facilities you are referring to -

17.	Infrastructural facilities take care of unexpected increase in school enrolment and any unforeseen development that may hasten the obsolescence of the buildings.				
18.	Infrastructural facilities such as attractive school environment with well designed buildings and other structures stimulate learners' interest in schooling and appreciation of creative arts.				
19.	Infrastructural facilities engender a sense of belonging and pride on learners for their school.				
20.	Infrastructural facilities foster the development of good sanitation and healthful habits among learners and staff.				
21.	Infrastructural facilities with good air quality, rich natural lighting and under suitable thermal and acoustic conditions, increase the levels of teachers' motivation and stability on the job.				
22.	Infrastructural facilities lead to improvement in achievement scores and corresponding increase in mathematics, reading, and composition.				
23.	Infrastructural facilities lead to fewer disciplinary incidents in schools, improvement in attendance records and promotion of positive attitudes in students.				
Cluster C	The extent the utilization of media facilities has improved the NCE programme of NTI in South-South States.				
24.	Media facilities help to retain the learners' attention.				
25.	Media facilities help to retain information in the teaching-learning situation.				
26.	Media facilities help to provide concrete and realistic experiences by reducing meaningless word responses of students.				

You see, media is part of infrastructure facility so, specify the ones you use as in cluster C,

27.	Media facilities help to offer a real life experience which stimulates self-activity on the part of the learners.				
28.	Media facilities help to promote greater acquisition and longer retention of factual knowledge.				
29.	Media facilities help to reinforce verbal messages which contribute to effective teaching-learning of distance education learning.				
30.	Media facilities help to provide opportunities for independent and individual learning of the distance education learners.				
31.	Media facilities enable individual students to learn at their own paces.				
32.	Media facilities facilitate scientific investigation and discovery among students.				
33.	Media facilities provide diversity of thoughts to the students.				
34.	Media facilities develop scientific attitudes and skills on students.				
Cluster D	The extent the utilization of student-support services has improved the NCE programme of NTI in South-South States.				
35.	Student-support services like face-to-face sessions make for greater interaction between student and teacher.				
36.	Student-support services like face-to-face sessions enable students to practice psychomotor skills in laboratories and verbal skills through personal communication.				
37.	Student-support services like face-to-face sessions encourage attitudes and habits of relevance for the study, mutual inspiration and stimulation of fellow students and training in co-operation.				

38.	Student-support services like face-to-face sessions make it imperative that live tutors communicate with students on a number of subjects, themes within subjects and general types of learning (e.g. free problem-oriented learning).				
39.	Student-support services like face-to-face sessions provide opportunities to discuss the students' work and to assess the extent of progress/problems if any.				
40.	Student-support services like Counselling and General Student Support provide guidance/advice to students on their educational progress.				
41.	Student-support services like Counselling and General Student Support provide advice the students on career opportunities.				
42.	Student-support services like Counselling and General Student Support provide advice to students on personal anxieties (e.g. regarding money, marital problems, pregnancies or contraception) or on sudden crises in their lives.				
43.	Student-support services like Study Centres offer students a range of facilities which can supplement some of the ones they already have at home, e.g. television, and computers, among others.				
44.	Student-support services like Study Centres afford the students the opportunities to meet each other and to learn from each other in discussion group.				
45.	Student-support services like Study Centres serve as focal point for the interaction between tutor-counsellors and students.				

46.	Student-support services like Study Centres help to remedy in tutorial sessions any academic weaknesses or deficiencies and to promote individual student's overall progress.				
Cluster E	The factors militating against the effective implementation of NCE programme of NTI in South-South States.				
47.	Lack of consistency in programme/policy implementation.				
48.	There is no regular supply of electricity for the proper functioning of the infrastructural and electronic media facilities.				
49.	There is ineffective integration of most technological media in the delivery of distance education programme.				
50.	Government has not provided adequate postal services to rural areas where many of the distance education students reside.				
51.	There is poor and inefficient postal system in terms of safety of goods, quick delivery of correspondences, and accessibility to remote areas, among others.				
52.	Poor economic situations in the country have effects on middle level manpower that to afford basic technological and communication gadgets may not be possible.				
53.	There is poor ICT penetration in distance education programme resulting from its inadequacy.				
54.	Some of the electronic media facilities like computers are very costly to procure.				
55.	There is poor reception due to poor net-work services as in the case of telephone and internet.				

56.	Most of the distance education facilitators have not been adequately trained on the use of information communication technology equipment.				
57.	There is undue delay in the distribution of the media facilities and student-support services from the headquarters to the various study centres.				
58.	There is lack of qualified manpower to operate the electronic instructional materials.				
59.	The maintenance of the instructional materials is very costly.				

Handwritten signature 10/8/16

EVALUATION OF THE NCE PROGRAMME OF NATIONAL TEACHERS'
INSTITUTE IN SOUTH-SOUTH STATES OF NIGERIA

BY

EMEKA, V. AZUKA
 (PG/PhD/07/42562)

*Instrument was pre validated
 by Dr. J. O. O. O. O.
 19/08/16*

Purpose of the Study

The purpose of the study is to evaluate the NCE Programme of NTI in South-South States of Nigeria. Specifically, the objectives of the study are to:

1. determine the extent to which personnel development programmes have improved the NCE Programme of NTI in South-South States,
2. determine the extent to which the utilization of infrastructural facilities has improved the NCE Programme of NTI in South-South States,
3. *ascertain* ~~determine~~ to what extent to which the utilization of media facilities has improved the NCE Programme of NTI in South-South States,
4. determine to the extent to which the utilization of student-support services has improved the NCE Programme of NTI in South-South States,
5. ascertain the factors militating against the effective implementation of the NCE programme of NTI in South-South States.

Research Questions

The following research questions are posed to guide the study:

*Don't you think there may be
 need to assess ^{availability} ~~resources~~ of resources
 in the programme before its utilisation?*

1. To what extent have ^{has personnel} the staff development programmes improved the NCE programme of NTI in South-South States?
2. To what extent has the utilization of infrastructural ^{facilities} improved the NCE programme of NTI in South-South States?
3. To what extent has the utilization of media facilities improved the NCE programme of NTI in South-South States?
4. To what extent has the utilization of student-support services improved the NCE programme of NTI in South-South States?
5. What are the factors militating against the effective implementation of NCE programme of NTI in South-South States?

Hypotheses

The following null hypotheses ^{are formulated in the study and} will be tested at 0.05 level of significance:

1. There is no significant difference between the mean ratings students and staff of NTI ^{with regard to} on the extent ^{personnel} to which staff development programmes have improved the NCE Programme of NTI in South-South States.
2. There is no significant difference between the mean ratings of students and staff of NTI ^{regarding} on the extent ^{we} to which the utilization of infrastructural ^{facilities} has improved the NCE Programme of NTI in South-South States.

See your first objective to, examine staff or personnel

3. There is no significance difference between the mean ratings students and staff of NTI on the extent to which the utilization of media facilities has improved the NCE Programme of NTI in South-South States.
4. There ^{is} ~~are~~ no significant difference between the mean ratings students and staff of NTI on the extent to which the utilization of student-support services has improved the NCE Programme of NTI in South-South States.
5. There ^{is} ~~are~~ no significant difference between the mean ratings students and staff of NTI on the factors militating against the effective implementation of NCE programme of NTI in South-South States.

Department of Adult Education and
Extra-Mural Studies,
University of Nigeria,
Nsukka.

15th June, 2016.

Dear Respondent,

**EVALUATION OF THE NCE PROGRAMME OF NATIONAL TEACHERS'
INSTITUTE IN SOUTH-SOUTH STATES OF NIGERIA**

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space

I am a post-graduate student of the above-named department. I am conducting a research on the *Evaluation of the NCE Programme of National Teachers' Institute in South-South States of Nigeria*.

There are statements against which you are being requested to indicate your degree of agreement or disagreement. You are free to respond to each of the items by simply ticking (✓) in the space provided.

Please bear in mind that this is an academic exercise and any information supplied would be treated confidentially.

Yours faithfully,

Emeka, V. Azuka
(PG/PhD/07/42562)

SECTION A: (BIO-DATA OF THE RESPONDENTS)

Please tick (✓) as appropriate in the boxes provided as they apply to you.

Status: (a) NTI Staff ☐

(b) NTI Students ☐

SECTION B

S/NO.	ITEMS	Very High Extent	Moderate Extent	Low Extent	Very Low Extent
Cluster A	The extent the staff development programmes have improved the NCE programme of NTI in South-South States.				
1.	Staff development programmes have helped staff to upgrade their basic skills.				
2.	Staff development programmes have helped staff to improve on their professional skills by working to their full potentials and being equipped to deal with the changing demands of the institution.				
3.	Staff development programmes have helped staff to improve on their management skills by working with higher morale.				
4.	Staff development programmes have helped staff to improve on their supervisory skills by increasing productivity and responsiveness in meeting institution's objectives.				
5.	Staff development programmes have helped staff to improve on their career skills by having career satisfaction.				
6.	Staff development programmes have helped staff to improve on their technical training by being creative and motivated.				

I suggest you provide information on the various states

Assign numerical value to the weight
Very high extent (VHE) - 4 points, Low extent (LE) - 2 points
High extent (HE) - 3 points, Very low extent (VLE) - 1 point

indicate the extent staff dev programmes have improved the NCE programme of NTI in your locality

Scale
Very High Extent
Moderate Extent
Low Extent
Very Low Extent

Be specific in the basic programme what are the skills required

Identify a programme and tie it to a specific NCE programme

Same as above

There may be need to identify a programme and measure the extent it has helped in NCE programme

Staff attendance to conferences was offered them opportunity to apply various and methods of teaching to the NCE programme

Staff acquisition of technical skills through in-service training has promoted the teaching of technical subjects in NCE programme of NTI

3
See cluster A and use as guide

Cluster B	The extent the utilization of infrastructural facilities has improved the NCE programme of NTI in South-South States.	VHE	HFE	LE	VLE
7.	Infrastructural facilities enable learners to develop problem-solving skills and scientific attitudes.				
8.	Infrastructural facilities enable learners to have access to the reference materials mentioned by the teacher.				
9.	Infrastructural facilities form potent factors that contribute to academic achievement of students in the school system.				
10.	Infrastructural facilities satisfy the physical and emotional needs of the staff and students of the school.				
11.	Infrastructural facilities provide a place for psychological safety for both students and teachers in schools.				
12.	Infrastructural facilities enhance better quality control of instructions.				
13.	Infrastructural facilities ensure a safe, secure hygienic and comfortable shelter for students, teachers and other staff as teaching, learning and other activities of the school take place.				
14.	Infrastructural facilities help to determine how students are organized for instruction and the teaching methods adopted by teachers in the school.				
15.	Infrastructural facilities provide adequate and organized spaces to facilitate and support teaching and learning activities.				
16.	Infrastructural facilities take care of some changes in the educational programme such as introduction of new subjects requiring new methods of teaching or equipment requiring special storage facilities.				

The items are more of functions of facilities and not on its utilisation to improved NCE programme of NTI. Use may use the example provided on item 8 as a guide.

17.	Infrastructural facilities take care of unexpected increase in school enrolment and any unforeseen development that may hasten the obsolescence of the buildings.				
18.	Infrastructural facilities such as attractive school environment with well designed buildings and other structures stimulate learners' interest in schooling and appreciation of creative arts.				
19.	Infrastructural facilities engender a sense of belonging and pride on learners for their school.				
20.	Infrastructural facilities foster the development of good sanitation and healthful habits among learners and staff.				
21.	Infrastructural facilities with good air quality, rich natural lighting and under suitable thermal and acoustic conditions, increase the levels of teachers' motivation and stability on the job.				
22.	Infrastructural facilities lead to improvement in achievement scores and corresponding increase in mathematics, reading, and composition.				
23.	Infrastructural facilities lead to fewer disciplinary incidents in schools, improvement in attendance records and promotion of positive attitudes in students.				
Cluster C	The extent the utilization of media facilities has improved the NCE programme of NTI in South-South States.				
24.	Media facilities help to retain the learners' attention.				
25.	Media facilities help to retain information in the teaching-learning situation. X				
26.	Media facilities help to provide concrete and realistic experiences by reducing meaningless word responses of students.				

See cluster A

The use of media facilities in NTI programme helps to retain the learners' attention in NCE programme

The application of media facilities to NTI promotes the acquisition of practical experiences in the NCE programme

27.	Media facilities help to offer a real life experience which stimulates self-activity on the part of the learners.								
28.	Media facilities help to promote greater acquisition and longer retention of factual knowledge.								
29.	Media facilities help to reinforce verbal messages which contribute to effective teaching-learning of distance education learning.								
30.	Media facilities help to provide opportunities for independent and individual learning of the distance education learners.								
31.	Media facilities enable individual students to learn at their own paces.								
32.	Media facilities facilitate scientific investigation and discovery among students.								
33.	Media facilities provide diversity of thoughts to the students.								
34.	Media facilities develop scientific attitudes and skills on students.								
Cluster D	The extent the utilization of student-support services has improved the NCE programme of NTI in South-South States.								
35.	Student-support services like face-to-face sessions make for greater interaction between student and teacher.								
36.	Student-support services like face-to-face sessions enable students to practice psychomotor skills in laboratories and verbal skills through personal communication.								
37.	Student-support services like face-to-face sessions encourage attitudes and habits of relevance for the study, mutual inspiration and stimulation of fellow students and training in co-operation.								

Direct questions as
ways of application
of media facilities
in NTI are
promoted in
NCE programme
and not facilities
of media facilities
in a conventional
school setting

VHE HE LE ULE

in NTI.

in NTI
NCE programme

in NTI
in NCE programme

38. The use of face-to-face sessions in NTI
promote students practice of affective
skills in NCE programme

38.	Student-support services like face-to-face sessions make it imperative that live tutors communicate with students on a number of subjects, themes within subjects and general types of learning (e.g. free problem-oriented learning).				
39.	Use of Student-support services like face-to-face sessions provide opportunities to discuss the students' work and to assess the extent of progress/problems if any. <i>in NTI</i>				
40.	Use of Student-support services like Counselling and General Student Support provide guidance/advice to students on their educational progress. <i>in NTI</i> <i>as</i> <i>in NRE programme</i>				
41.	Student-support services like Counselling and General Student Support provide advice the students on career opportunities.				
42.	Student-support services like Counselling and General Student Support provide advice to students on personal anxieties (e.g. regarding money, marital problems, pregnancies or contraception) or on sudden crises in their lives.				
43.	Student-support services like Study Centres offer students a range of facilities which can supplement some of the ones they already have at home, e.g. television, and computers, among others.				
44.	Student-support services like Study Centres afford the students the opportunities to meet each other and to learn from each other in discussion group.				
45.	Student-support services like Study Centres serve as focal point for the interaction between tutor-counsellors and students.				

Use 39 and 40 as guide on the remaining items.

46.	Student-support services like Study Centres help to remedy in tutorial sessions any academic weaknesses or deficiencies and to promote individual student's overall progress.				
Cluster E	The factors militating against the effective implementation of NCE programme of NTI in South-South States. <i>make your opinion on</i>	1A	A	1D	1D
47.	Lack of consistency in programme/policy implementation.				
48.	There is no regular supply of electricity for the proper functioning of the infrastructural and electronic media facilities.				
49.	There is ineffective integration of most technological media in the delivery of distance education programme. <i>NTI for ICE NCE</i>				
50.	Government has not provided adequate postal services to rural areas where many of the distance education students reside. <i>Reframe</i>				
51.	There is poor and inefficient postal system in terms of safety of goods, quick delivery of correspondences, and accessibility to remote areas, among others. <i>Reframe</i>				
52.	Poor economic situations in the country have effects on middle level manpower that to afford basic technological and communication gadgets may not be possible. <i>Expunge</i>				
53.	There is poor ICT penetration in distance education programme resulting from its inadequacy. <i>Reframe</i>				
54.	Some of the electronic media facilities like computers are very costly to procure. <i>High cost of procurement of some media facilities</i>				
55.	There is poor reception due to poor net-work services as in the case of telephone and internet. <i>no network</i>				

56.	Most of the distance education facilitators have not been adequately trained on the use of information communication technology equipment .				
57.	There is undue delay in the distribution of the media facilities and student-support services from the headquarters to the various study centres.				
58.	There is lack ^{insufficient} of qualified manpower to operate the electronic instructional materials.				
59.	The maintenance of the instructional materials is <u>very</u> costly.				

**EVALUATION OF THE NCE PROGRAMME OF NATIONAL TEACHERS'
INSTITUTE IN SOUTH-SOUTH STATES OF NIGERIA.**

BY

**EMEKA, V. AZUKA
(PG/PhD/07/42562)**

Purpose of the Study

The purpose of the study is to evaluate the NCE Programme of NTI in South-South States of Nigeria. Specifically, the objectives of the study are to:

1. determine the extent to which ^{staff} personnel development programmes have improved the NCE Programme of NTI in South-South States,
2. determine the extent to which the utilization of infrastructural facilities has improved the NCE Programme of NTI in South-South States,
3. determine ^{the} to ~~what~~ extent to which the utilization of media facilities has improved the NCE Programme of NTI in South-South States,
4. determine ~~to~~ the extent to which the utilization of student-support services has improved the NCE Programme of NTI in South-South States,
5. ascertain the factors militating against the effective implementation of the NCE programme of NTI in South-South States.

Research Questions

The following research questions are posed to guide the study:

1. To what extent have the staff development programmes improved the NCE programme of NTI in South-South States?
2. To what extent has the utilization of infrastructural facilities improved the NCE programme of NTI in South-South States?
3. To what extent has the utilization of media facilities improved the NCE programme of NTI in South-South States?
4. To what extent has the utilization of student-support services improved the NCE programme of NTI in South-South States?
5. What are the factors militating against the effective implementation of NCE programme of NTI in South-South States?

Hypotheses

The following null hypotheses will be tested at 0.05 level of significance:

1. There is no significant difference between the mean ratings ^{of} students and staff of NTI on the extent to which staff development programmes have improved the NCE Programme of NTI in South-South States.
2. There is no significant difference between the mean ratings of students and staff of NTI on the extent to which the utilization of infrastructural facilities has improved the NCE Programme of NTI in South-South States.

3. There is no significance difference between the mean ratings students and staff of NTI on the extent to which the utilization of media facilities has improved the NCE Programme of NTI in South-South States.
4. There are no significant difference between the mean ratings students and staff of NTI on the extent to which the utilization of student-support services has improved the NCE Programme of NTI in South-South States.
5. There are no significant difference between the mean ratings students and staff of NTI on the factors militating against the effective implementation of NCE programme of NTI in South-South States.

Department of Adult Education and
Extra-Mural Studies,
University of Nigeria,
Nsukka.

1st August, 2016.

Dear Respondent,

**EVALUATION OF THE NCE PROGRAMME OF NATIONAL TEACHERS'
INSTITUTE IN SOUTH-SOUTH STATES OF NIGERIA.**

I am a post-graduate student of the above-named department. I am conducting a research on the *Evaluation of the NCE Programme of National Teachers' Institute in South-South States of Nigeria*.

There are statements against which you are being requested to indicate your degree of agreement or disagreement. You are free to respond to each of the items by simply ticking (✓) in the space provided.

Please bear in mind that this is an academic exercise and any information supplied would be treated confidentially.

Yours faithfully,

Emeka, V. Azuka
(PG/PhD/07/42562)

QUESTIONNAIRE ON EVALUATION OF 2

SECTION A: (BIO-DATA OF THE RESPONDENTS)

Please tick (✓) as appropriate in the boxes provided as they apply to you.

Status: (a) NTI Staff ☐ (b) NTI Students ☐

SECTION B

S/NO.	ITEMS	Very High Extent	Moderate Extent	Low Extent	Very Low Extent
Cluster A S/A	The extent the staff development programmes have improved the NCE programme of NTI in South-South States. <i>Item Statement</i>				
1.	Staff development programmes have helped staff to upgrade their basic skills.				
2.	Staff development programmes have helped staff to improve on their professional skills by working to their full potentials and being equipped to deal with the changing demands of the institution.				
3.	Staff development programmes have helped staff to improve on their management skills by working with higher morale.				
4.	Staff development programmes have helped staff to improve on their supervisory skills by increasing productivity and responsiveness in meeting institution's objectives.				
5.	Staff development programmes have helped staff to improve on their career skills by having career satisfaction.				
6.	Staff development programmes have helped staff to improve on their technical training by being creative and motivated.				

Cluster B	The extent ^{to which} the utilization of infrastructural facilities has improved the NCE programme of NTI in South-South States. ^{Item Statement}	VBE	ME	LE	VLE
7.	Infrastructural facilities ^{enable} learners to develop problem-solving skills and scientific attitudes.				
8.	Infrastructural facilities ^{enable} learners to have access to the reference materials mentioned by the teacher.				
9.	Infrastructural facilities ^{form} potent factors that contribute to academic achievement of students in the school system.				
10.	Infrastructural facilities ^{satisfy} the physical and emotional needs of the staff and students of the school.				
11.	Infrastructural facilities ^{provide} a place for psychological safety for both students and teachers in schools.				
12.	Infrastructural facilities ^{enhance} better quality control of instructions.				
13.	Infrastructural facilities ^{ensure} a safe, secure hygienic and comfortable shelter for students, teachers and other staff as teaching, learning and other activities of the school take place.				
14.	Infrastructural facilities ^{help} to determine how students are organized for instruction and the teaching methods adopted by teachers in the school.				
15.	Infrastructural facilities ^{provide} adequate and organized spaces to facilitate and support teaching and learning activities.				
16.	Infrastructural facilities ^{take} care of some changes in the educational programme such as introduction of new subjects requiring new methods of teaching or equipment requiring special storage facilities.				

17.	Infrastructural facilities ^{Take} care of unexpected increase in school enrolment and any unforeseen development that may hasten the obsolescence of the buildings.				
18.	Infrastructural facilities such as attractive school environment with well designed buildings and other structures ^{Stimulate} learners' interest in schooling and appreciation of creative arts.				
19.	Infrastructural facilities ^{Engender} a sense of belonging and pride on learners for their school.				
20.	Infrastructural facilities foster the development of good sanitation and healthful habits among learners and staff.				
21.	Infrastructural facilities with good air quality, rich natural lighting and under suitable thermal and acoustic conditions, increase the levels of teachers' motivation and stability on the job.				
22.	Infrastructural facilities lead to improvement in achievement scores and corresponding increase in mathematics, reading, and composition.				
23.	Infrastructural facilities lead to fewer disciplinary incidents in schools, improvement in attendance records and promotion of positive attitudes in students.				
Cluster C	The extent the utilization of media facilities has improved the NCE programme of NTI in South-South States. <i>Item Statement</i>	<i>VHE</i>	<i>ME</i>	<i>LE</i>	<i>NE</i>
24.	Media facilities help to retain the learners' attention.				
25.	Media facilities help to retain information in the teaching-learning situation.				
26.	Media facilities help to provide concrete and realistic experiences by reducing meaningless word responses of students.				

27.	Media facilities help to offer a real life experience which stimulates self-activity on the part of the learners.				
28.	Media facilities help to promote greater acquisition and longer retention of factual knowledge:				
29.	Media facilities help to reinforce verbal messages which contribute to effective teaching-learning of distance education learning.				
30.	Media facilities help to provide opportunities for independent and individual learning of the distance education learners.				
31.	Media facilities enable individual students to learn at their own paces.				
32.	Media facilities facilitate scientific investigation and discovery among students.				
33.	Media facilities provide diversity of thoughts to the students.				
34.	Media facilities develop scientific attitudes and skills on students.				
Cluster D	The extent the utilization of student-support services has improved the NCE programme of NTI in South-South States. <i>Item statement</i>	<i>VHE</i>	<i>ME</i>	<i>LE</i>	<i>VLE</i>
35.	Student-support services like face-to-face sessions make for greater interaction between student and teacher.				
36.	Student-support services like face-to-face sessions enable students to practice psychomotor skills in laboratories and verbal skills through personal communication.				
37.	Student-support services like face-to-face sessions encourage attitudes and habits of relevance for the study, mutual inspiration and stimulation of fellow students and training in co-operation.				

38.	Student-support services like face-to-face sessions make it imperative that live tutors communicate with students on a number of subjects, themes within subjects and general types of learning (e.g. free problem-oriented learning).				
39.	Student-support services like face-to-face sessions provide opportunities to discuss the students' work and to assess the extent of progress/problems if any.				
40.	Student-support services like Counselling and General Student Support provide guidance/advice to students on their educational progress.				
41.	Student-support services like Counselling and General Student Support provide advice the students on career opportunities.				
42.	Student-support services like Counselling and General Student Support provide advice to students on personal anxieties (e.g. regarding money, marital problems, pregnancies or contraception) or on sudden crises in their lives.				
43.	Student-support services like Study Centres offer students a range of facilities which can supplement some of the ones they already have at home, e.g. television, and computers, among others.				
44.	Student-support services like Study Centres afford the students the opportunities to meet each other and to learn from each other in discussion group.				
45.	Student-support services like Study Centres serve as focal point for the interaction between tutor-counsellors and students.				

46.	Student-support services like Study Centres help to remedy in tutorial sessions any academic weaknesses or deficiencies and to promote individual student's overall progress.				
Cluster E S/NO	The factors militating against the effective implementation of NCE programme of NTI in South-South States. <i>Item Statement</i>	<i>VAE</i>	<i>ME</i>	<i>LE</i>	<i>VLE</i>
47.	Lack of consistency in programme/policy implementation.				
48.	There is no regular supply of electricity for the proper functioning of the infrastructural and electronic media facilities.				
49.	There is ineffective integration of most technological media in the delivery of distance education programme.				
50.	Government has not provided adequate postal services to rural areas where many of the distance education students reside.				
51.	There is poor and inefficient postal system in terms of safety of goods, quick delivery of correspondences, and accessibility to remote areas, among others.				
52.	Poor economic situations in the country have effects on middle level manpower that to afford basic technological and communication gadgets may not be possible.				
53.	There is poor ICT penetration in distance education programme resulting from its inadequacy.				
54.	Some of the electronic media facilities like computers are very costly to procure.				
55.	There is poor reception due to poor net-work services as in the case of telephone and internet.				

56.	Most of the distance education facilitators have not been adequately trained on the use of information communication technology equipment.				
57.	There is undue delay in the distribution of the media facilities and student-support services from the headquarters to the various study centres.				
58.	There is lack of qualified manpower to operate the electronic instructional materials.				
59.	The maintenance of the instructional materials is very costly.				

Vatted
 The instrument is suitable for the study but you need to modify the item states of clusters A, B, C, & D to agree with the response options. Example has been give already.

Ant col 8/16
 Ugruanyi, C-S

APPENDIX D

COMPUTATIONS

A. Reliability Analysis

CLUSTER A

Case Processing Summary

		N	%
Cases	Valid	34	100.0
	Excluded ^a	0	.0
	Total	34	100.0

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.685	.736	6

Item Statistics

	Mean	Std. Deviation	N
ITEM A1	3.3824	.60376	34
ITEM A2	3.3824	.73915	34
ITEM A3	3.7941	.41043	34
ITEM A4	3.3529	.77391	34
ITEM A5	2.6471	.98110	34
ITEM A6	2.7941	1.20049	34

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.225	2.647	3.794	1.147	1.433	.182	6
Item Variances	.680	.168	1.441	1.273	8.556	.209	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ITEM A1	15.9706	7.423	.523	.420	.624
ITEM A2	15.9706	6.272	.727	.575	.545
ITEM A3	15.5588	8.375	.406	.217	.666
ITEM A4	16.0000	6.121	.728	.662	.539
ITEM A5	16.7059	9.002	-.078	.231	.817
ITEM A6	16.5588	4.921	.591	.708	.579

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.3529	9.508	3.08351	6

CLUSTER B**Case Processing Summary**

	N	%
Valid	34	100.0
Cases Excluded ^a	0	.0
Total	34	100.0

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.795	.787	11

Item Statistics

	Mean	Std. Deviation	N
ITEM B7	2.6176	.88813	34
ITEM B8	3.0294	.83431	34
ITEM B9	1.7941	.68664	34
ITEM B10	2.7647	.92307	34
ITEM B11	2.4118	1.01854	34
ITEM B12	2.2941	.75996	34
ITEM B13	2.2353	.92307	34
ITEM B14	3.3529	.77391	34
ITEM B15	3.0588	.82694	34
ITEM B16	2.7059	.98518	34
ITEM B17	3.0000	.61237	34

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.450	1.794	3.029	1.235	1.689	.161	11
Item Variances	.754	.471	1.037	.566	2.200	.036	11

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ITEM B7	14.5294	11.954	.621	.724	.750
ITEM B8	14.1176	13.258	.428	.638	.786
ITEM B9	15.3529	13.750	.458	.588	.781
ITEM B10	14.3824	11.577	.657	.577	.741
ITEM B11	14.7353	11.231	.628	.493	.747
ITEM B12	14.8529	14.675	.223	.323	.816
ITEM B13	14.9118	11.598	.653	.478	.742
ITEM B14	16.0000	6.121	.728	.662	.539
ITEM B15	15.1905	12.662	.957	.298	.821
ITEM B16	15.1905	12.662	.957	.683	.581
ITEM B17	15.0000	15.500	.508	.490	.690

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
17.1471	16.553	4.06860	11

CLUSTER C**Case Processing Summary**

	N	%
Valid	34	100.0
Cases Excluded ^a	0	.0
Total	34	100.0

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.788	.805	8

Item Statistics

	Mean	Std. Deviation	N
ITEM C18	3.0588	.69375	34
ITEM C19	3.6471	.48507	34
ITEM C20	3.2059	.59183	34
ITEM C21	3.2941	.71898	34
ITEM C22	2.9412	.81431	34
ITEM C23	3.2353	.78079	34
ITEM C24	3.3529	.48507	34
ITEM C25	2.6471	.98110	34

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.248	2.941	3.647	.706	1.240	.051	8
Item Variances	.442	.235	.663	.428	2.818	.030	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ITEM C18	19.6765	7.559	.392	.375	.786
ITEM C19	19.0882	8.083	.441	.377	.776
ITEM C20	19.5294	7.651	.468	.596	.770
ITEM C21	19.4412	6.254	.768	.614	.706
ITEM C22	19.7941	6.653	.528	.374	.762
ITEM C23	19.5000	7.348	.372	.439	.795
ITEM C24	19.3824	7.213	.800	.735	.725
ITEM C25	19.7059	9.002	.708	.531	.717

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.7353	9.534	3.08770	8

CLUSTER D**Case Processing Summary**

		N	%
Cases	Valid	34	100.0
	Excluded ^a	0	.0
	Total	34	100.0

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.837	.840	12

Item Statistics

	Mean	Std. Deviation	N
ITEM D26	3.2353	.74096	34
ITEM D27	3.0588	.69375	34
ITEM D28	3.3824	.65202	34
ITEM D29	3.2353	.81868	34
ITEM D30	3.4118	.55692	34
ITEM D31	3.3529	.70189	34
ITEM D32	3.5294	.62426	34
ITEM D33	3.4118	.71229	34
ITEM D34	3.2941	.68599	34
ITEM D35	3.4706	.62426	34
ITEM D36	2.9412	.89935	34
ITEM D37	3.0000	.86603	34

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.265	3.059	3.412	.353	1.115	.020	12
Item Variances	.487	.310	.670	.360	2.161	.018	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ITEM D26	13.0882	4.447	.762	.748	.768
ITEM D27	13.2647	4.746	.711	.627	.784
ITEM D28	12.9412	5.815	.362	.404	.872
ITEM D29	13.0882	4.325	.699	.747	.789
ITEM D30	12.9118	5.234	.719	.666	.792
ITEM D31	11.7059	5.471	.588	.636	.672
ITEM D32	11.6471	5.993	.545	.463	.690
ITEM D33	11.5294	7.515	.151	.298	.821
ITEM D34	11.8824	4.610	.780	.683	.581
ITEM D35	11.5882	6.632	.594	.490	.690
ITEM D36	12.2941	4.846	.815	.920	.765
ITEM D37	12.2353	4.441	.891	.952	.737

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.3235	7.377	2.71606	12

GRAND RELIABILITY**Case Processing Summary**

		N	%
Cases	Valid	34	100.0
	Excluded ^a	0	.0
	Total	34	100.0

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.893	.900	37

Item Statistics

	Mean	Std. Deviation	N
ITEM A1	3.3824	.60376	34
ITEM A2	3.3824	.73915	34
ITEM A3	3.7941	.41043	34
ITEM A4	3.3529	.77391	34
ITEM A5	2.6471	.98110	34
ITEM A6	2.7941	1.20049	34
ITEM B7	2.6176	.88813	34
ITEM B8	3.0294	.83431	34
ITEM B9	1.7941	.68664	34
ITEM B10	2.7647	.92307	34
ITEM B11	2.4118	1.01854	34
ITEM B12	2.2941	.75996	34
ITEM B13	2.2353	.92307	34
ITEM B14	2.7619	.76842	34
ITEM B15	2.7619	.76842	34
ITEM B16	3.0000	.83666	34
ITEM B17	3.0000	.83666	34
ITEM C18	3.0588	.69375	34
ITEM C19	3.6471	.48507	34
ITEM C20	3.2059	.59183	34
ITEM C21	3.2941	.71898	34
ITEM C22	2.9412	.81431	34
ITEM C23	3.2353	.78079	34
ITEM C24	3.3529	.48507	34
ITEM C25	3.0476	.92066	34
ITEM D26	3.2353	.74096	34
ITEM D27	3.0588	.69375	34
ITEM D28	3.3824	.65202	34
ITEM D29	3.2353	.81868	34
ITEM D30	3.4118	.55692	34
ITEM D31	2.7619	.76842	34
ITEM D32	3.0000	.83666	34
ITEM D33	3.0000	.83666	34
ITEM D34	3.1905	.74960	34
ITEM D35	3.0000	.83666	34
ITEM D36	3.0000	.83666	34
ITEM D37	3.0000	.83666	34

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.073	1.794	3.794	2.000	2.115	.194	37
Item Variances	.556	.168	1.441	1.273	8.556	.077	37

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ITEM A1	124.1600	178.890	-.002	.	.846
ITEM A2	124.0800	181.493	-.123	.	.849
ITEM A3	124.0000	179.500	-.031	.	.846
ITEM A4	124.0000	174.500	.182	.	.843
ITEM A5	124.1600	181.307	-.121	.	.848
ITEM A6	124.0800	179.077	-.010	.	.846
ITEM B7	124.2000	178.167	.013	.	.847
ITEM B8	123.7600	167.023	.577	.	.834
ITEM B9	123.6800	169.643	.419	.	.837
ITEM B10	123.6400	172.073	.381	.	.838
ITEM B11	123.9200	168.493	.473	.	.836
ITEM B12	123.6400	168.740	.450	.	.836
ITEM B13	123.8800	167.027	.559	.	.834
ITEM B14	123.9600	171.540	.375	.	.838
ITEM B15	123.6000	171.167	.310	.	.839
ITEM B16	123.7600	171.940	.331	.	.839
ITEM B17	124.2000	171.833	.323	.	.839
ITEM C18	123.0000	180.167	-.075	.	.845
ITEM C19	124.0400	176.373	.107	.	.844
ITEM C20	123.8400	172.223	.345	.	.839
ITEM C21	123.7600	169.607	.447	.	.837
ITEM C22	124.0400	172.207	.279	.	.840
ITEM C23	123.9600	172.123	.244	.	.841
ITEM C24	124.4000	171.833	.423	.	.838
ITEM C25	124.2400	172.523	.342	.	.839
ITEM D26	124.0400	168.290	.405	.	.837
ITEM D27	124.1200	177.610	.036	.	.847
ITEM D28	123.6800	172.143	.281	.	.840
ITEM D29	123.8000	169.750	.371	.	.838
ITEM D30	123.7600	179.607	-.037	.	.846

ITEM D31	123.8000	175.000	.129	.	.844
ITEM D32	123.8000	169.750	.371	.	.838
ITEM D33	124.0400	162.373	.652	.	.830
ITEM D34	123.7200	167.627	.440	.	.836
ITEM D35	124.0000	176.250	.105	.	.844
ITEM D36	124.1600	170.640	.384	.	.838
ITEM D37	124.0000	161.417	.702	.	.829

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
126.8000	179.417	13.39465	37

B. Mean Analysis

Report

Status of the Respondents		SDP 1	SDP 2	SDP 3	SDP 4	SDP 5	SDP 6
NTI Course Tutors	Mean	2.3571	2.3878	2.3367	2.3469	2.4490	2.4286
	N	98	98	98	98	98	98
	Std. Deviation	.66192	.69805	.65714	.70495	.71971	.79948
NTI Students	Mean	2.6097	2.4196	2.4439	2.4515	2.6224	2.6122
	N	784	784	784	784	784	784
	Std. Deviation	.79314	.81879	.83009	.83518	.88571	.86224
Total	Mean	2.5816	2.4161	2.4320	2.4399	2.6032	2.5918
	N	882	882	882	882	882	882
	Std. Deviation	.78336	.80597	.81307	.82203	.87018	.85701

Status of the Respondents		PF 1	PF 2	PF 3	PF 4	PF 5	PF 6
NTI Course Tutors	Mean	2.3571	2.2347	2.2449	2.5714	2.7551	2.6939
	N	98	98	98	98	98	98
	Std. Deviation	.81544	1.03347	1.17589	.97389	.82564	.86642
NTI Students	Mean	2.6735	2.0829	2.0370	2.3010	2.2972	2.2513
	N	784	784	784	784	784	784
	Std. Deviation	.87859	.99783	1.08038	.96222	.90954	.94247
Total	Mean	2.6383	2.0998	2.0601	2.3311	2.3481	2.3005
	N	882	882	882	882	882	882
	Std. Deviation	.87701	1.00239	1.09265	.96672	.91161	.94417

Status of the Respondents		PF 7	PF 8	PF 9	PF 10	PF 11	MF 1
NTI Course Tutors	Mean	2.6531	2.8878	3.3469	3.3571	3.2653	3.4694
	N	98	98	98	98	98	98
	Std. Deviation	.83853	.87205	.93171	.93335	.87991	.81486
NTI Students	Mean	2.2296	2.2679	2.8546	2.9605	3.2474	3.2436
	N	784	784	784	784	784	784
	Std. Deviation	.95937	.95073	.92463	.95477	1.65011	.85953
Total	Mean	2.2766	2.3367	2.9093	3.0045	3.2494	3.2687
	N	882	882	882	882	882	882
	Std. Deviation	.95560	.96181	.93776	.96003	1.58280	.85718

Status of the Respondents		MF 2	MF3	MF 4	MF 5	MF 6	MF 7
NTI Course Tutors	Mean	3.5408	3.2347	2.3878	2.4184	2.3776	2.3163
	N	98	98	98	98	98	98
	Std. Deviation	.80165	.72937	.72699	.74507	.72532	.65167
NTI Students	Mean	3.3482	3.0587	2.3099	2.3355	2.2551	2.2666
	N	784	784	784	784	784	784
	Std. Deviation	.86358	.92593	.67776	.73654	.69571	.67550
Total	Mean	3.3696	3.0782	2.3186	2.3447	2.2687	2.2721
	N	882	882	882	882	882	882
	Std. Deviation	.85862	.90753	.68341	.73753	.69970	.67272

Status of the Respondents		MF 8	SSS 1	SSS 2	SSS 3	SSS 4	SSS 5
NTI Course Tutors	Mean	2.3469	1.9796	2.0918	2.0408	2.8673	2.8571
	N	98	98	98	98	98	98
	Std. Deviation	.71942	.40562	.35426	.34933	.83280	.78648
NTI Students	Mean	2.3163	2.2207	2.1569	2.2653	2.8163	2.8406
	N	784	784	784	784	784	784
	Std. Deviation	.70896	.66746	.65867	.61776	.81301	.82666
Total	Mean	2.3197	2.1939	2.1497	2.2404	2.8220	2.8424
	N	882	882	882	882	882	882
	Std. Deviation	.70978	.64792	.63232	.59799	.81491	.82187

Status of the Respondents		SSS 6	SSS 7	SSS 8	SSS 9	SSS 10	SSS 11
NTI Course Tutors	Mean	3.1327	3.0918	3.0000	3.4694	3.7347	3.5408
	N	98	98	98	98	98	98
	Std. Deviation	.84509	.82595	.75982	.70644	.50871	.70592
NTI Students	Mean	2.8329	2.7666	2.7628	2.9949	3.2883	3.0804
	N	784	784	784	784	784	784
	Std. Deviation	.90204	.93210	.88832	1.38131	.84180	.93597
Total	Mean	2.8662	2.8027	2.7891	3.0476	3.3379	3.1315
	N	882	882	882	882	882	882
	Std. Deviation	.90038	.92615	.87776	1.33153	.82341	.92435

Status of the Respondents		SSS 12	Cluster A	Cluster B	Cluster C	Cluster D
NTI Course Tutors	Mean	3.1429	2.3844	2.7607	2.7615	2.9124
	N	98	98	98	98	98
	Std. Deviation	.93058	.61873	.54002	.39040	.37447
NTI Students	Mean	3.2628	2.5266	2.4730	2.6417	2.7740
	N	784	784	784	784	784
	Std. Deviation	2.24373	.65059	.60119	.49169	.48761
Total	Mean	3.2494	2.5108	2.5049	2.6550	2.7894
	N	882	882	882	882	882
	Std. Deviation	2.13801	.64833	.60126	.48277	.47818

C. T-Test Analysis by Status of the Respondents

Group Statistics

	Status of the Respondents	N	Mean	Std. Deviation	Std. Error Mean
SDP 1	NTI Course Tutors	98	2.3571	.66192	.06686
	NTI Students	784	2.6097	.79314	.02833
SDP 2	NTI Course Tutors	98	2.3878	.69805	.07051
	NTI Students	784	2.4196	.81879	.02924
SDP 3	NTI Course Tutors	98	2.3367	.65714	.06638
	NTI Students	784	2.4439	.83009	.02965
SDP 4	NTI Course Tutors	98	2.3469	.70495	.07121
	NTI Students	784	2.4515	.83518	.02983
SDP 5	NTI Course Tutors	98	2.4490	.71971	.07270
	NTI Students	784	2.6224	.88571	.03163
SDP 6	NTI Course Tutors	98	2.4286	.79948	.08076
	NTI Students	784	2.6122	.86224	.03079
PF 1	NTI Course Tutors	98	2.3571	.81544	.08237
	NTI Students	784	2.6735	.87859	.03138
PF 2	NTI Course Tutors	98	2.2347	1.03347	.10440
	NTI Students	784	2.0829	.99783	.03564
PF 3	NTI Course Tutors	98	2.2449	1.17589	.11878
	NTI Students	784	2.0370	1.08038	.03858
PF 4	NTI Course Tutors	98	2.5714	.97389	.09838
	NTI Students	784	2.3010	.96222	.03437
PF 5	NTI Course Tutors	98	2.7551	.82564	.08340
	NTI Students	784	2.2972	.90954	.03248
PF 6	NTI Course Tutors	98	2.6939	.86642	.08752
	NTI Students	784	2.2513	.94247	.03366
PF 7	NTI Course Tutors	98	2.6531	.83853	.08470
	NTI Students	784	2.2296	.95937	.03426
PF 8	NTI Course Tutors	98	2.8878	.87205	.08809
	NTI Students	784	2.2679	.95073	.03395
PF 9	NTI Course Tutors	98	3.3469	.93171	.09412
	NTI Students	784	2.8546	.92463	.03302
PF 10	NTI Course Tutors	98	3.3571	.93335	.09428
	NTI Students	784	2.9605	.95477	.03410
PF 11	NTI Course Tutors	98	3.2653	.87991	.08888
	NTI Students	784	3.2474	1.65011	.05893
MF 1	NTI Course Tutors	98	3.4694	.81486	.08231
	NTI Students	784	3.2436	.85953	.03070
MF 2	NTI Course Tutors	98	3.5408	.80165	.08098
	NTI Students	784	3.3482	.86358	.03084
MF3	NTI Course Tutors	98	3.2347	.72937	.07368
	NTI Students	784	3.0587	.92593	.03307
MF 4	NTI Course Tutors	98	2.3878	.72699	.07344
	NTI Students	784	2.3099	.67776	.02421
MF 5	NTI Course Tutors	98	2.4184	.74507	.07526
	NTI Students	784	2.3355	.73654	.02631
MF 6	NTI Course Tutors	98	2.3776	.72532	.07327

	NTI Students	784	2.2551	.69571	.02485
MF 7	NTI Course Tutors	98	2.3163	.65167	.06583
	NTI Students	784	2.2666	.67550	.02413
MF 8	NTI Course Tutors	98	2.3469	.71942	.07267
	NTI Students	784	2.3163	.70896	.02532
SSS 1	NTI Course Tutors	98	1.9796	.40562	.04097
	NTI Students	784	2.2207	.66746	.02384
SSS 2	NTI Course Tutors	98	2.0918	.35426	.03579
	NTI Students	784	2.1569	.65867	.02352
SSS 3	NTI Course Tutors	98	2.0408	.34933	.03529
	NTI Students	784	2.2653	.61776	.02206
SSS 4	NTI Course Tutors	98	2.8673	.83280	.08413
	NTI Students	784	2.8163	.81301	.02904
SSS 5	NTI Course Tutors	98	2.8571	.78648	.07945
	NTI Students	784	2.8406	.82666	.02952
SSS 6	NTI Course Tutors	98	3.1327	.84509	.08537
	NTI Students	784	2.8329	.90204	.03222
SSS 7	NTI Course Tutors	98	3.0918	.82595	.08343
	NTI Students	784	2.7666	.93210	.03329
SSS 8	NTI Course Tutors	98	3.0000	.75982	.07675
	NTI Students	784	2.7628	.88832	.03173
SSS 9	NTI Course Tutors	98	3.4694	.70644	.07136
	NTI Students	784	2.9949	1.38131	.04933
SSS 10	NTI Course Tutors	98	3.7347	.50871	.05139
	NTI Students	784	3.2883	.84180	.03006
SSS 11	NTI Course Tutors	98	3.5408	.70592	.07131
	NTI Students	784	3.0804	.93597	.03343
SSS 12	NTI Course Tutors	98	3.1429	.93058	.09400
	NTI Students	784	3.2628	2.24373	.08013
Cluster A	NTI Course Tutors	98	2.3844	.61873	.06250
	NTI Students	784	2.5266	.65059	.02324
Cluster B	NTI Course Tutors	98	2.7607	.54002	.05455
	NTI Students	784	2.4730	.60119	.02147
Cluster C	NTI Course Tutors	98	2.7615	.39040	.03944
	NTI Students	784	2.6417	.49169	.01756
Cluster D	NTI Course Tutors	98	2.9124	.37447	.03783
	NTI Students	784	2.7740	.48761	.01741

Independent Samples Test

		t-test for Equality of Means				
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
SDP 1	Equal variances assumed	-3.023	880	.003	-.25255	.08355
SDP 2	Equal variances assumed	-.369	880	.712	-.03189	.08640
SDP 3	Equal variances assumed	-1.230	880	.219	-.10714	.08709
SDP 4	Equal variances assumed	-1.188	880	.235	-.10459	.08805
SDP 5	Equal variances assumed	-1.863	880	.063	-.17347	.09310
SDP 6	Equal variances assumed	-2.004	880	.045	-.18367	.09167
PF 1	Equal variances assumed	-3.386	880	.001	-.31633	.09341
PF 2	Equal variances assumed	1.414	880	.158	.15179	.10734
PF 3	Equal variances assumed	1.778	880	.076	.20791	.11693
PF 4	Equal variances assumed	2.619	880	.009	.27041	.10323
PF 5	Equal variances assumed	4.745	880	.000	.45791	.09650
PF 6	Equal variances assumed	4.421	880	.000	.44260	.10011
PF 7	Equal variances assumed	4.174	880	.000	.42347	.10144
PF 8	Equal variances assumed	6.139	880	.000	.61990	.10097
PF 9	Equal variances assumed	4.966	880	.000	.49235	.09915
PF 10	Equal variances assumed	3.887	880	.000	.39668	.10205
PF 11	Equal variances assumed	.105	880	.916	.01786	.16968
MF 1	Equal variances assumed	2.465	880	.014	.22577	.09158
MF 2	Equal variances assumed	2.098	880	.036	.19260	.09182
MF3	Equal variances assumed	1.813	880	.070	.17602	.09711
MF 4	Equal variances assumed	1.063	880	.288	.07781	.07322
MF 5	Equal variances assumed	1.049	880	.294	.08291	.07902
MF 6	Equal variances assumed	1.635	880	.102	.12245	.07490
MF 7	Equal variances assumed	.690	880	.490	.04974	.07210
MF 8	Equal variances assumed	.402	880	.688	.03061	.07608
SSS 1	Equal variances assumed	-3.495	880	.000	-.24107	.06898
SSS 2	Equal variances assumed	-.960	880	.337	-.06505	.06775
SSS 3	Equal variances assumed	-3.526	880	.000	-.22449	.06366
SSS 4	Equal variances assumed	.584	880	.559	.05102	.08734
SSS 5	Equal variances assumed	.188	880	.851	.01658	.08811
SSS 6	Equal variances assumed	3.123	880	.002	.29974	.09599
SSS 7	Equal variances assumed	3.296	880	.001	.32526	.09868
SSS 8	Equal variances assumed	2.530	880	.012	.23724	.09376
SSS 9	Equal variances assumed	3.345	880	.001	.47449	.14185
SSS 10	Equal variances assumed	5.133	880	.000	.44643	.08698
SSS 11	Equal variances assumed	4.705	880	.000	.46046	.09787
SSS 12	Equal variances assumed	-.523	880	.601	-.11990	.22917
Cluster A	Equal variances assumed	-2.051	880	.041	-.14222	.06934
Cluster B	Equal variances assumed	4.515	880	.000	.28769	.06372
Cluster C	Equal variances assumed	2.321	880	.021	.11974	.05160
Cluster D	Equal variances assumed	2.711	880	.007	.13839	.05105

APPENDIX E

QUESTIONNAIRE RETURN RATE

S/N	States	Centres	Number of Questionnaire Distributed	Number of Questionnaire Returned	Percentage Rate of Return
1.	Akwa-Ibom	2	138	108	
2.	Bayelsa	3	238	186	
3.	Cross River	2	140	109	
4.	Delta	4	279	218	
5.	Edo	2	137	107	
6.	Rivers	5	193	154	
Total		18	1125	882	78.40