PREDICTIVE VALIDITY OF CONTINUOUS ASSESSMENT FOR PERFORMANCE IN N.C.E. EXAMINATION IN FEDERAL COLLEGE OF EDUCATION, ZARIA

BY

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DECLARATION

I declare that this thesis is my own work and has not been submitted in any form for another degree or diploma at any other university or institution.

It is a record and production of my own work.

Information derived from the published or unpublished work of others has been acknowledged in the text.

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CERTIFICATION

This work entitled "Predictive Validity of Continuous Assessment Scores for Performance in N.C.E. Examination" by ANGO ABDULLAHI LADAN, meets the requirement governing the award of the degree of Master of Education in Psychology in the Department of Education of the Ahmadu Bello University, Zaria. Its contribution to knowledge and literary presentation is approved.

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CHAPTER ONE

1.1 INTRODUCTION

Assessment in Education has been part and parcel of the Nigerian traditional and informal education system. The traditional and informal system of education was not that of paper and ink tests. It was rather more practical for example, the son of a blacksmith is taught how to make a hoes and is expected through consistent practice to eventually master the skills involved in making a hoe.

With the advent of western education the informal approach was replaced by a more formalised system of assessment. This system was based on tests and examination which are conducted internally within the school setting or externally by an external body such as (WASC) West African Examination Council, (NTI) National Teachers Institute.

The tests and examinations were generally summative because they came at the end of a course of instruction and the results were used for grading, selection or c certification. For these reasons such tests and examinations became anxiety provoking on the part of the students who try to ensure success by all means (fair or foul). As such the educational system lost cognisance of the importance of assessment as a means of improving student learning.

In an effort to reform educational evaluation in Nigeria, the concept of continuous assessment was ushered into the Nigerian educational scene by the National Policy on Education (1979 revised, 1981). This specified the 6-3-3-4 system of Education. This system replaced the 6-5-4 system which was characterized by the 'one shot' type of assessment whereby learners' achievement over a period of time, say at the end of a term of academic year were assessed by a single final examination. Under the 6-5-4 system assessment was usually conducted by schools for ce certification and placement into the next level of Education. The 'one shot' type of assessment, according to West African Examinations Council (W.A.E.C. 1989), is summative in nature and became threatening and anxiety-provoking in nature.and It was also noted by W.A.E.C. (1989) that the 'teacher was teaching almost exclusively for examinations.' The Federal Ministry of Education (FME 1985) also pointed out that there was high incidence of examination malpractices in the system because 'the single final examination was so crucial in deciding the future of the candidate that the temptation to ensure success by all means (fair and foul) was very high. It is also the view of the Federel Ministry of Education (FME, 1985) that since decision are taken at the end of the year, such decisions might be too late to be of help to improve students' learning because as at the point in time they would be going to other classes, courses or topics.

While commenting on the 'one shot' system of evaluation, Ikejiani (1971) submited that this system is responsible for the undue importance that is attached to paper qualification in the society. He writes inter alia;

> The cult of the certificates has impeded good education in our country. Many school boys or girls associate education with the possession of a certificate as an end product of education. We have imprisoned the minds of our youths instead of releasing them to invent, discover, build and produce. Our education has been barren so that very soon, we shall face the problem of having many 'educated' people but none qualified to do the work needed for the welfare of the nation. We import expatriates to do work we have failed to train our youths to do.

Still on the 'one shot' system of evaluation Olaitan and Agusiobo (1978) opined that the system is largely responsible for the disproportionate number of school drop outs. To this end they felt that :-

> The society, the industry and the students themselves frowned against the failure of the school to provide them with tools with which they would compete favourably in the competitive 'world of work'. The unemployment rate among the unskilled successful high school graduates and the so called 'drop out from school is an evidence of the society's dissatisfaction with our present mode of assessment of educational outcome.

These observations among many others against the single final examination used in assessing over a period of time informed the introduction of continuous assessment method. As a result of the importance attached to this method it runs through the vein and marrow of the National Policy on Education.

According to the Federal Ministry of Education F.M.E. (1985) the objectives of continuous assessment are as follows:-

(a) To give the teacher greater involvement in the overall assessment of his or her student.

(b) To provide a more valid assessment of the student's overall ability and performance.

(c) To enable teachers to be more flexible and innovative in their instructions.

(d) To provide a basis for the teacher to improve his/her instructional methods.

(e) To reduce examination malpractices.

Against this background, the introduction of continuous assessment in our schools is seen by many as constructive. Positive reaction and effort of the age long criticism of our system of education and an indication of its desire to improve the nation's process of assessing the product of the educational efforts.

Continuous assessment from the foregoing is an assessment of the student's academic achievement from the day he/she enters the school uptil the time of graduation which assessed only one aspect of the student academic prowess and ignored those aspects of the whole person such as character, attitudes, interests and physical skills which are, in practice, the major determinants of the students worth in life. The introduction of continuous assessment system into our educational system gives status

to the affective and psychomotor domains even though it still places emphasis on the cognitive development since one of the functions of the system of education is to prepare the students for the various higher levels of education.

Bloom (1956) cited in Turton (1983) proposed a simple three part division of educational objectives into those which were:-

(a) Cognitive, that is concerned with the intellectual and academic thought processes.

(b) Affective, that is concerned with attitudes, character, beliefs and interest.

(c) Psychomotor, that is concerned with physical attributes such as muscular coordination and manipulative skills.

THE CONCEPT OF CONTINUOUS ASSESSMENT

With the contemporary issue on Nigerian education system, it will not be difficult for one to note the frequent criticism that the educational system is facing which is too much oriented towards external examinations. It is further asserted that this kind of orientation does not only constitute a major obstacle for the development of a creative thinking and learning situation in the classroom. It also has a negative effect on the promotion of reflective thinking since it over-emphasises learning by rote (Turton, 1983).

Therefore, the Federal Ministry of Education, Science and Technology handbook (1985, P. 10), defined Continuous assessment as:-

> A mechanism whereby the final grading of a student in the cognitive, affective and psychomotor domains of behaviour take into account all his performance during a given period of schooling. Such assessment involves the use of a great variety of modes of guiding and improving the learning and performance of the students.

Furthermore, the concept of continuous assessment as viewed by Ezewu and Okoye (1982) is said to be a systematic and objective process of determining the extent of student's performance in all ramifications of the expected changes in his behaviour from the day he enters upons a course of study.

A summary of the Minimum Standards for N.C.E. Teachers (1990) stresses continuous assessment has basic in the overall evaluation of Nigerian students. A combination of continuous assessment scores (CA) and end of semester examination scores yield the course Grade of the students in each of the subjects offered by the students in the semester.

A paper presented at the Test Development Division of the West African Examination Council (WAEC) undated further stated that Continuous Assessment was intended to lead to the achievement of the following:-

(a) Improvement of teaching strategies including methods of teaching.

(b) Ensuring better attainment of course content.

(a(c) Reducing Examination malpractice and examination tension.

(d) Creating a conducive learning atmosphere.

(e) Integrating character development formally into the final assessment.

Similarly, in a paper presented at the West African Examination Council (WAEC) undated on the Guidelines of Educational Evaluation and Implementation of the Continuous Assessment programme it was stated that learning can be said to occur only when it brings about a permanent positive change in behaviour since education is a process that helps the learner to change in many ways, it involves the following three principal tasks;

1. Establish whether or not learning has brought change in the desired direction or whether desirable changes have taken place;
2. Determining the changes that should take place in the learner.
3. Determining the role of instructional programmes in assisting the learner to be better.

However, Educational Assessment has long been in existence informally. This takes the practical shape. In the traditionally system of education students are concerned in their parent's crafts and profession so that the students can inherit his father trade.

The ultimate role of educational evaluation is for making decisions from the feedback information or results and for improvement of the system either on the curriculum or the instructional programmes or for selection and placement. Therefore, the ultimate focus of this research is to examine the predictive validity of continuous assessment and its efficacy in determination of the N.C.E. Examination scores. The difference in gender of students in continuous assessment scores and NCE examination scores was also a subject of interest.

1.2 STATEMENT OF THE PROBLEM

The study is intended to examine the predictive validity of continuous assessment scores and its relevance in determining the N.C.E. Examination scores.

The study also intends to examine the difference in gender of students in Continuous assessment scores and N.C.E. Examination scores.

Predictive validity of continuous assessment scores for performance in N.C.E. Examination scores means the ability of continuous assessment score to tell an observer of a candidate's scores what he may score in future tests or examination. This is because the performance of student's in continuous assessment scores that is reliable may correctly predict the score of the student in an Examination.

Therefore the problem of this study is to find out the degree at which the continuous assessment scores are able to predict the final N.C.E. Exam scores of students, this is important because continuous assessment are often obtained formally through (test) or by informal means (Assignments) whereas the final examination scores are purely formal (exam) it would be important to find out the predictive value of the continuous assessment. Besides unless the continuous assessment has a good predidive validity, it will make suspect the final examination scores since continuous assessment is 40% of the final score.

1.3 OBJECTIVES OF THE STUDY

The objectives of the present study include the need to :-

1. Examine the predictive validity of Continuous Assessment Scores (CASS) in
   - (i) PHE
   - (ii) Islamic Studies
   - (iii) Social Studies
   - (iv) Physics
   - (v) English
   - (vi) Biology
   - (vii) Home Economics
   - (viii) Hausa

2. Examine the influence of sex difference (gender) in the predictive validity of Continuous Assessment Scores (CASS) in :-

(i) PHE
(ii) English
(iii) Biology
(iv) Social Studies
(v) Hausa
(vi) Physics
(vii) Islamic Studies

1.4 RESEARCH QUESTIONS

1. To what extent do the continuous assessment scores (CASS) in -

(i) PHE
(ii) Islamic Studies
(iii) Social Studies
(iv) Physics
(v) English
(vi) Biology
(vii) Home Economics
(viii) Hausa

Predict the Examination scores in N.C.E. in Federal College of Education, Zaria.

2. What is the influence of sex differences (gender) in the predictive validity of Continuous assessment scores (CASS) for N.C.E. examination in Federal College of

Education, Zaria in -

(i) PHE
(ii) English
(iii) Biology
(iv) Social Studies
(v) Hausa
(vi) Physics
(vii) Islamic Studies

1.5 HYPOTHESES

1. There is no significant relationship between Continuous Assessment Scores and N.C.E. Examination scores in -
   (i) PHE
   (ii) Islamic Studies
   (iii) Social Studies
   (iv) Physics
   (v) English
   (vi) Biology
   (vii) Home Economics
   (viii) Hausa

2. There is no significant difference between male and female (gender) in continuous assessment scores and N.C.E. Examination scores in -
   (i) PHE
   (ii) English
   (iii) Biology
   (iv) Social Studies

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(v) Hausa

(vi) Physics

(vii) Islamic Studies

1.6 SIGNIFICANCE OF THE STUDY

This study will be of significance if continuous assessment is seen as a cooperative venture between teachers and students aimed at improving the teaching-learning process for the benefit of the students.

If predictive validity of continuous assessment scores are ascertained continuous assessment (CA) could encourage student to become conscientious in their studies so that in the end they could achieve whatever goals they set for themselves. It could also prepare the students well for any examination and this will stop the motives of cheating when the students are ill-prepared for the examination.

Furthermore, the study will help in ascertaining the quality and standard of certification because continuous assessment scores would be found reliable.

The study will re-educate the society in the need to adjust its evaluation and utilization of our school products in terms of paper qualification. To this end, the idea of issuing out certificates with the stamp 'pass' or 'fail' will be discouraged.

Instead the use of transcripts showing the final cummulative grades in various learning experiences will serve much better.

Continuous assessment which is a significant feature of the Nigerian system of Education was made to assume a better focus in the minds of school functionaries, parents, and employers of labour. Assessment of the individual in his course of study as stipulated by the National Policy of Education section I, sub-section 7(7) will be based wholly or partly on continuous assessment.

The common entrance examination results for selection into secondary schools incorporate the headmaster's continuous assessment.. Also the junior secondary school Leaving Certificate is based on a state examination and continuous assessment. Similarly, the senior secondary school certificates is based on a formal examination and continuous assessment.

State governments work out continuous assessment modalities for junior secondary schools while, Colleges of Education work out modalities for continuous assessment with the assistance of National Commission for Colleges of Education (NCCE). The senior secondary schools relate with WAEC (West African Examination Council) for continuous assessment modalities for the senior secondary schools.

Despite all these provisions and the importance attached to continuous assessment practice and implementation, the confidence of the people over the system is gradually wearing. People are suspicious over the validity, objectivity and the efficacy of the system because of the factors that influence the evaluation programme.

1.7 ASSUMPTIONS

It is assumed that :-

1. The Federal College of Education, Zaria is aware of the role of continuous assessment scores in the overall students evaluation procedure.
2. All Departments in Federal College of Education, Zaria have uniform patterns of continuous Assessment scores of 40% in the total evaluation of the students.
3. All Departments in Federal College of Education, Zaria have proper records of student's continuous assessment scores.
4. All departments in Federal College of Education, Zaria implement the continuous assessment score evaluation guidelines as contained in the (NCCE, 1990) Minimum standards.
5. All the students in Federal College of Education Zaria are aware of the 40% portion of the total 100% evaluation procedure.

6. It is assumed that all the Departments have been accredited prior to terminal examination.

1.8 SCOPE AND DELIMITATION

The research was under taken to find out the predictive validity of continuous assessment. The study was carried out in Federal College of Education, Zaria and was delimited to N.C.E. students.

1.9 SUMMARY

The study stem from the concern of the researcher to find out the relationship of continuous assessment scores and N.C.E. Examination scores. Also important is the influence of gender in continuous assessment scores and N.C.E. examination scores in Federal College of Education, Zaria.

The significance of the study to the teachers, students, administrators and education ministries was highlighted. Hypotheses, research questions and assumptions were stated and the significance of the study to the society was also discussed.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, an attempt was made to critically examine findings by authors and comments on continuous assessment. The central focus was on:

1. The concept of continuous assessment.
2. The characteristics of continuous assessment.
3. The importance of continuous assessment.
4. Continuous assessment as a predictor.
5. Continuous assessment in other countries.
6. Continuous assessment - Nigerian experience.
7. Methods and Techniques of continuous assessments.
8. Relationship of continuous assessment with formal examination.

2.2 THE CONCEPT OF CONTINUOUS ASSESSMENT

The concept of continuous assessment may be viewed in a simplistic way as a systematic and regular method or technique of determining what a learner has gained from learning activities in terms of knowledge, thinking, and reasoning (Cognitive), character development (Affective), and Industry (Psychomotor).

Cognitive aspect include knowledge and understanding, application of concepts, principles acquired by the learner where as the affective include the feelings, attitudes,

interest, emotion and honesty. The psychomotor aspects deals with the motor-skills such as physical abilities, and manipulative skills. All these are aspects of learning activities which are determined by learning outcomes.

The Federal Government Handbook on Continuous assessment (1985) defined continuous assessment as:

> A mechanism whereby the final grading of a student in the cognitive, affective, and psychomotor domains of behaviour systemmatically take account of all : performance during a given period of schooling. Such an assessment involves the use of a great variety of modes of evaluation for the purpose of guiding and improving the learning and performance of the students.

Yoloye (1984) referred to continuous assessment as a method of evaluating the progress and achievement of students in educational institutions. It aims to get the truest possible picture of each student's ability and at the same time help each student to develop his or her abilities to the fullest. It is a method whereby the final grading of students takes account in a systematic way of their whole performance during a given period of schooling.

The views expressed by writers or authors shows that continuous assessment system is progressive in terms of evaluating the resultant changes in the behaviour of the learner based on his academic achievement, character development and manipulative skills. This is in contrast with the former method of assessment which is narrow because it only assessed the intellectual progress of the students.

Host and Bloomfield (1975) define continuous assessment as the systematic collection of marks or grades over a period of time and their aggregation into final grade.

Bajah (1984) viewed continuous assessment as a continuous updating of judgement about performance in relation to specific criteria which will allow at any time a cummulative judgement to be made about performance upon these same criteria. To this end, this view indicate the fact that certain basic criteria must be present before any assessment can be effectively carried out, such criteria involves the learning procedures, Teaching/learning.

A comprehensive, clear and explicit definition of continuous assessment was given by Ezewu and Okoye (1981) it is a systematic and objective process of determining the extent of a student's performance in all the expected changes in his behaviour, from the day he enters upon a course of study in a continuous and progressive manner to the end of such a course of study and a judicious accumulation of all pieces of information derived from this purpose with a view of using them to guide and shape the student in his learning from time to time and serve as basis for important decisions about the student.

Federal Ministry of Education Handbook on continuous assessment (1985) has stated that continuous assessment is carried out at pre-determined intervals (usually co-inciding) with some identifiable units of

instruction or level of education system) for the purpose of monitoring the progress or otherwise of the students and the general performance of the students.

Therefore, continuous assessment is a systematic, comprehensive and an objective process of determining the extent of a student's performance in respect of changes of his behaviour in the cognitive, affective and psychomotor domain.

The National Steering Committee on Continucus assessment in Nigerian schools regards continuous assessment as a method of ascertaining what students gain from schooling in terms of knowledge, industry, and character development, taking into account all his/her performance in tests, assignments, projects and other school activities during a given school period (termly, yearly or the entire period of an educational level).

In a similar manner, Yoloye (1984) defines continuous assessment as a method of evaluating the progress and achievement of students in educational institutions. It aims at getting the truest possible and realistic picture of each student's ability and at the same time helping each student to develop his or her abilities to the fullest. It is a method whereby the final grading of student takes account, in a systematic way of their whole performance during a given period of schooling.

A summary of Mini Standard for N.C.E. Teachers (1990) stated that, "The National Policy on Education (1981, p. 6-7) in introducing the 6-3-3-4 system of education stresses continuous assessment as basic in the overall evaluation of Nigerian students. A combination of continuous assessment scores and end of semester examination scores yield the course grade.

Hassan (1994), reported that continuous assessment is updating of judgement about performance in relation to specific criteria which allowed at anytime a cummulative judgement to be made about performance upon these same criteria.

Furthermore, Hassan (1994), asserted that continuous assessment is seen as a systematic collection of marks or grades over a period of time and its aggregation into a final grade. Continuous assessment give scope to the classroom teacher to make use of a wide variety of assessment, procedures, methods, techniques, appropriate to the subjects being offered by the students. Such procedures include practicals, projects and field work. All these have their place in the scheme of continuous assessment as grades and marks will be awarded on the basis of performance in each of the methods used for determining the student's performance.

Turton (1983) states that continuous assessment is not simply the recording and compiling of data. Assessment of the progress of the students is also intimately linked to the instruction they have been given.

In an attempt to change the behaviour of individual

or the students an in-built mechanism which include innovations such as the continuous assessment and instructional methods needed by the teachers for his own improvement of teaching was introduced. This also enhances learning by the student in the cognitive, affective, and psychomotr domains of behaviour.

Continuous assessment is not to be much concerned with the assessment of subjects, but to help students in the areas of cognitive, affective and psychomotor development. It should be viewed as a mechanism whereby the final grading of a student in the cognitive, affective, and psychomotor domain systematically takes account of all his performance during a given period of schooling. Such an assessment involves the use of a great variety of modes of evaluation for the purpose of guiding and improving the learning and performance of students. (Federal Ministry of Education, Science and Technology, (1983).

2.3 CHARACTERISTICS OF CONTINUOUS ASSESSMENT

The above definitions presents a number of terms which form the major characteristics of continuous assessment as being:-

(a) Systematic.
(b) Comprehensive
(c) Cummulative
(d) Guidance oriented
(e) Diagnostic
(f) Prognostic
(g) Formative
(h) Summative

2.3(a) Systematic :- Continuous assessment is said to be systematic in the sense that it requires an operational plan which indicates what measurements are to be made of the students performance, at what time intervals or times during the school year the measurements are to be made and the results recorded, and the nature of the tools or instruments to be used in the measurement. In this connection the process of a continuous assessment is one whereby things happens because they have been scheduled to happen.

Ughamahu (1994) stressed that the systematic nature of continuous assessment is that its operation requires the working out in advance a definite programme of the assessment. Thus an operational plan that indicates or specifies what measurements are to be made

of the student's performance, the time interval when such measurement are to be made, the results recorded and the specific nature of instruments or strategies to be adopted for the measurement are usually decided in advance.

Ipaye (1972) stressed that continuous assessment is systematic when only the varieties and types of assessment to be used well in advanced are specified for the students to know. How frequent these assessment should be, that is end of the month, every class test etc. The students should also know who is to be involved in their assessment, more importantly the teachers teaching them.

Turton (1983) opines that continuous assessment should be planned and be periodic. This indicates that what ever is going to be used in measurement of the student's performance such as test items, instruments should be well-planned and the assessment should be made at intervals. This makes continuous assessment systematic.

2.3(b) Comprehensive: Continuous assessment iss said to be comprehensive in that a variety of instruments or assessment procedures are used in ascertaining the performance of the students. Bloom (1956), Oghamadu (1984), stated that such instruments includes tests/examinations, assignments, projects, observations, questionnaires, interviews, and socio-metric techniques.

Therefore, continuous assessment is comprehensive because it does not only measure the outcome of instruction in terms of achievement, it also measures other aspects like the affective and the psychomotor domain.

2.3(c) Cummulative:- Continuous assessment is cummulative because all assessment information about a student from the day he enters upon a course of study up to any point in time is skillfully kept so that any decision about the students at any point in time takes cognisance of all the assessment information up to that time.

Oghamadu (1994) stressed that the cummulative nature of continuous assessment is based on decision making that any decision to be made on any student at anytime must take into account all the previous decisions about the student.

Turton (1983) states that continuous assessment is cummulative when it takes into account previous assessment and records. This shows that the school should keep records of the students on an unprecedented scale because of the continuity in the collection and use of continuous assessment data.

Hassan (1994) indicated that continuous assessment scores are added from the first term through the second term and are considered for grading with the final examination scores for either promotion to the next class or for graduation.

2.3(d) Guidance Oriented : Guidance oriented continuous assessment stressed that areas of the student's strength should be communicated to them. Also, the areas of weaknesses are also communicated to the students so as to enable them make adjustment.

Turton (1983) opined that guidance oriented continuous assessment shows greater validity of a process of continuous assessment because of the involvement of the classroom teacher in the assessment procedure.

Guidance oriented continuous assessment indicates that information obtained is used to guide the student's further development. In other words, information obtained from planned and frequent administration of the variety of tests in a continuous assessment practice can be very useful in guiding the students in the right part of learning not only in the cognitive but also in the affective, and psychomotor areas.

2.3(e) Diagnostic: Another characteristic of continuous assessment is the diagnostic function.

Ohucha (1988) states that there are many uses for which assessment data or scores may be put in our present system of education. Assessment for placement, and/or certification is highly appreciated. Continuous assessment serves as an immediate feed-back to both teachers and the students. It affords the opportunity of taking corrective actions whenever any undesirable trends are observed.

Hassan (1994) expressed that the main focus of any terminal examination is to find out the extent the stated goals and objectives of a given course of instruction have been met. The school exist to assist the students acquire knowledge, principles, facts, values and desirable habits for careers and survival as such diagnostic nature of continuous assessment ensures that such principles, knowledge, values, are assessed for the benefits of the students.

2.3(f) Prognostic: This aspects of continuous assessment looks into the future. It predicts how well the student will perform on similar tasks or even completely different tasks in future.

2.3(g) Formative: Ezewu (1982) said that "the objective of formative assessment is to enable the students to monitor his progress and with a view to identify his learning problems and correct them.

2.3(h) Summative: Summative assessment is given at the tail end of the term, year. It is more concerned with decision making at the time of assessment either at the middle of the term, semester or end of the year and such decisions takes into account the result of the formative assessment.

Turton (1983) added five particular characteristics of a practical school based continuous assessment and these include the following:-

1. Simplicity.
2. Comprehensibility.
3. Security.
4. Validity.
5. Intergrity.

1. Simplicity, this aspect stressed that continuous assessment is made simple in design and operation. Turton (1983) stressed that any new idea to be introduced into the institutional setting has to be simple at the outset, the refinement could come later.

2. Comprehensibility: In this aspect, continuous assessment data or scores should be in form of what can easily be comprehended by all concerned. One of the aims of the system is to communicate present information to the students. Comprehensibility is achieved through the adoption of a system of grading based on ranking students in order of merit within a particular year group for each subject.

3. Security : Concern for the security of a system of continuous assessment is expressed in two areas, namely: the physical security aspects and the security against forgery or misuse. Records of students performance had to be physically secured against natural hazards such as fire, rain or theft.

4. Validity, this is another practically based characteristic of continuous assessment. There are two construct here: internal and external. Within the institution, a commonly agreed programme of instruction and assessment ensures internal consistency of results. External is effected by a system of moderation.

5. Integrity: In this aspect integrity is promoted within the system through making reasonable demands on the teachers in terms of frequency of assessment, giving them the appropriate support in terms of training and materials.

Well designed forms of data recording and ensuring an equitable distribution of the extra work load which continuous assessment entails - are equally important.

2.4 IMPORTANCE OF CONTINUOUS ASSESSMENT

It is important for the classroom teachers to understand that the student's performance is determined by the combined influence of both the cognitive, affective and psychomotor domains.

A Handbook on continuous assessment by the Federal Ministry of Education (1985), clearly stated 5 objectives of continuous assessment:-

1. To identify levels of ability, achievement and affective development for various individuals and groups of students.

2. To diagnose learning difficulties in individual's strength and weaknesses in group performance for the purpose of improving instructions.
3. To assess group gains in achievement on cooperatively developed standardized instruments in the evaluations of some locally introduced innovative programmes.
4. To assess special aptitudes and interests of students for counselling purposes.
5. To have something to report to parents and some interested others.

The above shows that the new education system does not allow for lazy teachers. Teachers have to be on their toes to be able to assess the students completely.

Olabisi (1985) in a paper delivered at the Lagos State Ministry of Education seminar "Towards more effective instruction and performance" highlighted the following rationale for advocating continuous assessment.

1. Assessment is an integral part of the teaching process. It is therefore, reasonable that teachers should be involved in the final assessment of the students.
2. An assessment procedure which takes into account the student's performance throughout the entire period of schooling is likely to be more valid and more indicative of the student's over-all ability than a single examination.
3. The readiness of the teachers to introduce innovation into their teaching is often frustrated by the fact

that a final examination does not take into account such innovations.

In continuous assessment situation the teacher's assessment of the perfommance of the students on such innovationsc can become a part of the final assessment. The teachers would therefore be encouraged to be flexible and innovative.

4. An important aspect of instruction is the appropriate guidance of the students both in his or her learning and preparation for a career.

A continuous assessment procedure facilitates such guidance functions in schools.

5. A teacher also needs to assess his or her own instructional methods from time to time in order to improve his or her performance.

Data from continuous assessment can be useful to the teacher for such self-assessment.

6. The occurence of examination mal-practices and leakages in examination is the fact that the single examination is so crucial in decising the future of students such that the temptation to ensure success by all means is very high. It is believed that if continuous assessment is employed this temptation would be considerably reduced.

Similarly, the advocacy of continuous assessment arose from belief that it would:-

(a) Give the teacher greater involvement in the overall assessment of his or her students.

(b) Provide a more valid assessment of the student's overall ability and performance.

(c) Enable teachers to be more flexible and innovative in their instructions.

(d) Provide a basis for more effective guidance of the students.

(e) Provide basis for the teacher to improve his or her instructional methods.

Kolo, in an undated paper. "Challenges of a Guidance Oriented Continuous Assessment". Stressed the importance of the Guidance Oriented Continuous Assessment on the following:-

1. The Teacher
2. The Headmaster/Mistress
3. School Officers
4. Educational Departmental Personnel.

1. FOR THE CLASSROOM TEACHER

(a) Continuous assessment is a challenge to use various methods of assessment and records.

(b) Demands a renewed dedication and honesty.

(c) Willingness to learn from colleagues and supervisors.

2. THE HEADMASTER/MISTRESS

(a) Continuous assessment encourages a more intense supervision.

(b) A detailed understanding of continuous assessment records.

(c) Continuous assessment encourages more efforts to discuss problem areas with the teachers for improvements.

3. TO THE SCHOOL SUPERVISORS

(a) Serious and sincere supervision of both teaching - learning and records are adhered to.

(b) Gives assistance to the teachers and Headmaster.

(c) Encourages personal talk with students and teachers performing badly.

4. TO THE EDUCATION DEPARTMENT

(a) Encourages genuine interest in the school learning and teaching environment.

(b) A need for guidance counselling for a start at Local Education Department to be solely responsible for guidance service in the school.

Hassan (1994) stressed the importance of continuous assessment in making decisions.

1. Instructional decisions : To be able to decide accurately what should be taught at what time and to which students or what the students should be made to learn. The teacher needs relevant information from assessment procedures.

2. Curricular decisions: An educational institution or system may have to decide whether or not to introduce a certain newer alternative curricular programme for example, the need for modern mathematics to take the place of traditional mathematics.

3. Selection decision:- The issue here is whether or not to admit a student to a school or some training programme. This kind of decision calls for the use of prediction.

4. Interest decisions. To decide whether or not a student would like to pursue some specified educational or training programme one needs accurate information from relevant assessment procedures.

5. Placement, selection and diagnostic decisions are decisions made by the schools from assessment of the students for the purpose of remedial and career placement.

6. Personality characterization decision: Continuous assessment stressed on the affective domain is able to characterize a student by judiciously recording a student's emotional balance and interpersonal relationship with his peers and teachers.

PREDICTION AND PREDICTIVE VALIDITY

According to Best (1977) prediction is a method for estimating future performance of students on the basis of past performance. He mains that it is an inferential application of correlational analysis and it serves as one of the most useful application of correlation.

Hills (1976) postulates that the concept of a test being an effective predictor of future performance is known in educational measurement as validity. He opines that a good predictor is called a valid test. In essence therefore, prediction determines the student's attainments in academic achievement and predicts future performance.

AHMADU BELLO UNIVERSITY

Validity, the need to achieve validity through a system of external moderation has been mentioned by many commentators on the new National Policy on Education with regards to the inclusion of continuous assessment as a component of the student's evaluation in schools.

2.5 CONTINUOUS ASSESSMENT AS A PREDICTOR

Prediction in continuous assessment is the ability of continuous assessment ascores to look into the future, to forecast the scores the students can obtain in any final assessment.

Clesser (1960) stated that prediction is a primary purpose of all scientific inquiry. Further, he reiterated that prediction concerns learning capacity, success and adjustment of the human organism. Decision according to Glesser, requiring predictions are of three types, classification, guidance and selection.

Classification is putting the individual into a category or class which he belongs to while guidance is aimed at providing information regarding interest, abilities and success in reaching goals while finally selection involves categorising the individual students based on his success in a given task.

Hassan (1994) defined prediction as an effort to forecast an event or outcomes on the basis of data or information considered relevant to the unobserved event. She further claimed that most prediction in the scientific world yield information about un-observed

event in numerical form with a margin of the error frequently specified. To minimise errors of observations, the physical, biological or behavioural scientist manipulate phenemena under controlled conditions in a laboratory setting.

Prediction refers to the forecasting of future outcomes. One predicts the existence or non-existence of a relation. Mergenu (1950).

2.6 CONTINUOUS ASSESSMENT IN OTHER COUNTRIES

Pressures for liberalisation of the examination system have produced changes in Canada, U.S.A., Australia, England, and Liberia to mention but few. The policies adopted in each place at any given time depended on a host of factors peculiar to that nations' educational history, political factors and previous experiences.

Ipaye (1982) stressed that for continuous assessment to be meaningful in Nigeria, we must consider the factors in practice in the countries as mentioned above, due to the fact that they have stated the implementation of the continuous assessment techniques long ago.

In Canada, examination authorities have adopted a system in which school assessment are combined with public examination results in standard ratio. This gives more and more responsibilities to the teachers in matters relating to assessment, for teachers to prepare a reliable classroom test in Canada, they have to be very effective

in assessment practice.

In the U.S.A. the issue of continuous assessment is linked with the use of various standardised tests for admission and placement purposes. As such, the implication of this to Nigeria if left uncontrolled and uncoordinated at the centre. The use of continuous assessment for certification purposes will lead to varieties of standards. This will not augur well for the nation's educational system.

In Australia, the use of internal assessment which replaced the public examination led to free exchange of information on courses of study, methods of assessment and the use of item banks from which teachers drew for constructing their own tests. Results from such tests are useful in providing comparability across groups of students from different schools. This led to a sharp increase in the pass rate.

In England, there are three modes of examinations, Modes I, II and Mode III.
Mode I which is the GCE, Pure and simple and external.
Mode II is external but based on syllabus developed by groups of schools while Mode III is based on the syllabus by teachers approved by the CSE Board.
Mode III provides an example of the increasing interest of most British teachers in continuous assessment as a means of certifying candidates at the end of secondary education.

2.7 CONTINUOUS ASSESSMENT - NIGERIAN EXPERIENCE

By continuous assessment, the student's work is assessed by means of essays, projects and periodic tests. The termly summaries together with the end of term examination scores in a given proportion form the student's continuous assessment scores for the term. This is repeated for such term and at the end of the year, the ratios are worked out to obtain a single score for the student. This score represents the performance score at the end of the course. In each case, both cognitive and non-cognitive aspects are taken into account.

Seminars and workshops have been held at state and local levels to formalize the introduction of continuous assessment into the system of education especially the newly introduced 6-3-3-4 system in 1982/83.

The (1981) "Handbook on Continuous Assessment" came into being after various lectures, seminars and workshops on the nature, importance, and characteristics of continuous assessment was looked into.

Hassan (1994) was of the view that the introduction of continuous assessment in the secondary school system has affected the mode of operation of the West African Examination Council, (WAEC) in terms of its marks assemblage, and certification process.

Ipaye (1982) stressed that in operating continuous assessment, the teacher's attitude to work is an important

factor in view of the rather heavy workload involved. This, in essence, shows that the teachers require skills or competency for assessment because there is little attention to the skills that might be desirable for teachers to acquire.

2.8 METHODS AND TECHNIQUES OF CONTINUOUS ASSESSMENT

Ughamadu (1994) stated that continuous assessment should be comprehensive. This means that the methods and techniques used in the assessment of the cognitive and non-cognitive (affective and psychomotor) behaviour of the students should be normalised. The methods and techniques that can be used in continuous assessment system include the following:-

1. Tests
2. Projects
3. Assignments
4. Observations
5. Chelists.
6. Interviews
7. Questionnaires
8. Socio-metric techniques
9. Rating scales
10. Anecedotal Records.

1. TESTS

A test is the major and most commonly used instrument for the assessment of cognitive behaviour. Test in simple terms refers to sets of questions which students are expected to answer. It is their responses to the questions that gives a measure of their level of performance or achievement.

2. PROJECT

Another significant instrument for measuring achievement is the project. Projects can be used for the assessment of behaviours in the cognitive, affective and psychomotor domains. A project can be referred to as a task or large-scale exercise of students which they may work on over an extended period of time. Some projects may span over a period of one month, a term or academic year.

3. ASSIGNMENT

Assignment means giving some specific tasks or work to students to be completed within a specific period of time. An assignment can be considered an extension of class activity or a fore-runner of a class activity. They provide an opportunity for learning as well as a basis for assessment.

4. OBSERVATION

Observation as a technique of gathering information is an old one with confidence in information gathered on students. The teacher will be better disposed to include such information in student's reports.

There is the need for some systematic observation whereby students would be observed in an organised manner, with systematic observation, The teacher can watch and study behaviour systematically. Systematic behaviour observation is an appropriate technique for assessing affective and psychomotor behaviour.

5. CHECKLIST

Checklist consists essentially of a listing of steps, activities, behaviours or statements associated with given behaviour traits that the observer records when - incidents occur. With checklists a teacher can determine whether or not particular behaviour traits or characteristic are present or absent. Checklists can be utilized effectively in assessing affective and psychomotor behaviour.

6. INTERVIEW.

Interviewer is a technique of obtaining relevant information from people through direct oral questioning of conversational nature. Usually the information sought may be about the person or another person or an event.

Through the interview technique information about affective behaviour of students can be obtained using the interview technique. A classroom teacher can get to know a student's interest, family background, his relationship with his teachers and classmates and his participation in school and community activities.

7. QUESTIONNAIRE

The questionnaire consists of a set of questions that are presented in written form to a respondent who is expected to responde in writing. The questionnaire can be structured or open-ended. In the structured questionnaire the respondent is required to select one or more respon es from alternatives. The open-ended format gives the respondent freedom to answer in his own words. Teachers can get information relating to student's attitudes, interests, study habits and personality characteristics with the use of questionnaire.

8. SOCIO METRICS

The socio-metric technique is a device for assessing some aspects of non-cognitive behaviour of students. It is used to assess the pattern of social relationship in a group of students. The teacher who has knowledge of the pattern of social relationship of his class students can use it in arranging group work or projects.

DEDICATION

This piece of work is dedicated to my Beloved Late mother MALAMA HABIBATU LADAN and to the Entire members of the family.

ANGO ABDULLAHI LADAN.

ABSTRACT

This study was primarily conceived because of the challenges ahead in the practice of continuous assessment. Education experts were sceptical about the practice of the continuous assessment tests in respect of its reliability, validity and objectivity.

The research traced the inception of continuous assessment in the Nigerian Education system and the concepts of continuous assessment. The research also found out the relationship between continuous assessment scores and N.C.E. examination scores by correlation statistical method.

The findings further uncovered the fact that gender is not a factor in predicting N.C.E. examination scores from continuous assessment scores. The result indicate no significant difference in gender of students and their performance in N.C.E. examination and continuous assessment scores.

The findings indicate that continuous assessment were awarded haphazardly as reflected in one of the groups tested. This showed a negative correlation.

Based on the findings, the researcher suggested the use of or application of internal moderation of the continuous assessment scores within the departments to ensure validity, reliability and objectivity and to remove the teachers bias.

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DEFINITION OF TERMS

CA (Continuous Assessment) - Teacher Oriented assessment which is 40% of the final scores.

CASS (Continuous Assessment Scores) - Continuous Assessment scores for N.C.E.

FME (Federal Ministry of Education - A Federal Government parastatals.

NCE Nigeria Certificate in Education.
Certificate awarded at the end of a three years course of study in a Federal College of Education or State College of Education.

NCCE (National Commission for Colleges of Education).
A funding body for all the Federal Colleges of Education.

NERDC (Nigerian Educational Research and Development Council) A body for Educational research and Development.

NTI National Teachers Institute - Examining body that conduct tTeacher Grade II Examination and NCE/CC for Primary School Teachers.

WAEC West African Examination Council, the examining body that conducts the SSCE, collects and incorporates continuous assessment scores in the Final SSCE Examination.

PREDICTION - Refers to the Forecasting on future outcomes.

PREDICTIVE VALIDITY - Ability of continuous assessment scores to forecast accurately what a candidate may score at the N.C.E. Examination.

J.S.S. Junior Secondary School the first arm of the three year course of study after primary school leaving certificate.

S.S.S. Senior Secondary School, the last part of the Secondary School Education after the Junior Secondary School Leaving Certificate.

9. RATING SCALES

In rating scale it is expected to indicate the degree of presence of status or quality of what is being rated. The rating scale makes the students to indicate how much he agrees with a statement.

10. ANECDOTAL RECORDS

This is another simple technique for assessing affective behaviour of the students. An anecdotal can be referred to as a brief written description of some specific behaviour in the day to day life of the student as observed by the teacher.

Anecdotal records are therefore records of specific incidents of student's behaviour over a period of time. Anecdotal records can provide a classroom teacher with a longitudinal picture of changes that have taken place in a particular student. Thus any person reading through a student's anecdotal records can make an assessment of the typical behaviour of the students.

2.9 RELATIONSHIP OF CONTINUOUS ASSESSMENT WITH FORMAL EXAMINATION

The relationship of continuous assessment with formal examination provides for differences in abilities and learning styles of the students. An individual learning effectiveness is determined by the level of mastery he achieves, rather than by how his performance/compares with his classmates.

Onasanya (1991), stressed that teaching for continuous assessment is for Diagnostic process which is given at the end of each learning unit.

The results of formative tests are used to reinforce the learning of the high achievers and to diagnose the learning errors of low achievers. Through this, the results of the learner in the formal examination can be improved.

Similarly, upon completion of a course unit, an end-of-course test (summative test) is administered. The results of this test is used together with the cummulative test performance to assign course grades from the continuous assessment scores and the examination scores.

When test items on each unit of learning are used formatively, they provide adequate tool for an "On-going" assessment during classroom instruction. This pinpoints specific unmastered objectives which need remediation prior to certification or grading.

The use of test items as a diagnostic progress instrument provides opportunities for the teacher to identify the underlying cause of student's learning difficulties. They also help to formulate a plan for adequate remedial measures and to optimise the level of students learning outcome.

SUMMARY

A review of relevant literatures commentries and opinions on the nature of continuous assessment by different authors, writers have been analysed. Also the importance of continuous assessment and a critical analyses of the relevance of continuous assessment in other countries including the Nigerian experience has been made and discussed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter is made up of description of research methodology. As such attention would be given to the description of the population and sample of the study, instrumentation, sources the data and the statistical procedure used for analysis of the data.

Afolabi (1990) as cited in Hassan (1994) states that this chapter is the "operational blue print" which the researcher employs in accomplishing the objectives of the study.

3.2 POPULATION

The population was made up of NCE II and NCE III of Federal College of Education, Zaria 1994 Academic session. The students were (1002) - One thousand and two in number from eight departments out of sixteen Departments, these include, PHE, ISS, S/S, Physics, English, Biology, Home Economics and Hausa.

Khan and Best (1989 : 1), Dagari (1994) described population as "any group of individuals that have one or more characteristics in common that are of interest to the researcher"

Population they continued "may be all the individuals of a particular type or a more restricted part of that group.

3.3 SAMPLE SIZE

Dagari (1994) stressed that a sample is a small proportion of a population selected for observation and analysis. By such observation of the small proportion inferences could be made on the characteristics of the population when such sample was selected based on the principles of randomness.

From a total of one thousand and two students made up of N.C.E. II and N.C.E. III (1002) of Federal College of Education, Zaria a total of two hundred and seventy eight (278) students were used as sample for this study. This is an appropriate sample size for a population of one thousand and two (1002). Krejcie and Morgan (1970).

3.4 SAMPLING PROCEDURE

A simple random sampling techniques was used for selecting the Departments for this study. PHE, ISS, S/S, Physics, English, Biology, Home Economics and Hausa.

A total of sixteen departments in Federal College of Education forms the population of the study and eight departments were selected through simple random technique.

S/NO	LIST OF DEPARTMENTS IN F.C.E. ZARIA
1.	Agricultural Science Department.
2.	Arabic Department.
3.	Biology Department.
4.	Christian Religious Studies Department.
5.	Chemistry Department.
6.	English Department.
7.	Geography Department.
8.	Hausa Department.
9.	Home Economics Department.
10.	Islamic Religious Studies Department.
11.	Integrated Science Department.
12.	Mathematics Department.
13.	Physics Department.
14.	Physical and Health Education Department.
15.	Primary Education Studies Department.
16.	Social Studies Department.

S/NO	LIST OF DEPARTMENTS INCLUDED IN THE SAMPLE
1.	P.H.E. Department.
2.	Islamic Religious Studies Department.
3.	Social Studies Department.
4.	English Department.
5.	Physics Department.
6.	Biology Department.
7.	Home Economics Department.
8.	Hausa Department.

3.5 SOURCES OF DATA

At the end of each semester N.C.E. examination scores are moderated externally and the moderated scores are incorporated with the continuous assessment scores to get the candidate's final results.

Continuous assessment scores are not moderated. The scores are only sent to various departmental examination officers by individual lecturers. The score sheets contain columns for continuous assessment scores, N.C.E. examination scores and the final scores. Therefore moderation jointly is done with the continuous assessment scores and the NCE examination scores.

Therefore, all the data used for this study was collected from the various departmental examination officers who are responsible for keeping the student's scores.

3.6 PROCEDURE FOR DATA COLLECTION

The researcher asked for and collected a letter of introduction to the Provost, Federal College of Education, Zaria from the Head of Psychology Section, Faculty of Education, Ahmadu Bello University, Zaria. The letter requests on behalf of the researcher for data needed for the study.

Photocopying was used as the procedure for data collection, this method was found most appropriate because it gives a true replication of data.

3.7 VALIDITY OF DATA

Validity of continuous assessment scores (CASS) was very difficult to determine because each department used its own tests and scores inorder to arrive at the 40% continuous assessment scores. As such the standard of setting test items and the objectivity in marking varies from teacher to teacher. Standards therefore differ from department to department.

In order to ensure validity of the data the scores collected from each department was compared with the scores submitted to the school examination officer and the Academic Office.

Only scores that are moderated externally by the university of affiliation was used for this study. because examination scores and continuous assessment scores are combined in the same record sheets for the purpose of moderation.

External moderation is done by senior lecturers with experience and holders of a higher degree (Ph.D) in their areas of specialisation. This also makes the scores used for this study to be valid and reliable.

External moderation of the marking schemes and questions also ensure validity of the scores awarded.

3.8 DATA ANALYSIS

The data collected was analysed using descriptive statistics and statistical tests. The Pearson Product Moment Correlation Coefficient technique was employed to resolve th first hypothesis. The t-test statistical procedure was used to resolve the second hypothesis.

3.9 SUMMARY

This chapter made attempts to describe the population and the sample size for the study. Also the sampling technique and the source of data, procedure for data collection, as well as procedure for data analysis was discussed.

CHAPTER FOUR

4.0 DATA ANALYSIS

4.1 INTRODUCTION

The purpose of this chapter is to present the results of the anamysis of the data collected in the course of the study. To test the null hypotheses presented in chapter one, the Pearson Product Moment Correlation Coefficient statistical technique and the t-test statistical prodedure were used. Retention or rejection of each hypothesis was based on 0.05 level of significance

4.2 HYPOTHESIS 1

There is no significant relationship between continuous assessment scores and N.C.E. examination scores for -

(a) PHE
(b) Islamic Studies
(c) Social Studies
(d) Physics
(e) English
(f) Biology
(g) Home Economics
(h) Hausa

To test this hypothesis the Pearson Product Moment Correlation Coefficient was computed for all the sub-hypotheses.

Table 4.1 indicate the result of the hypotheses

TABLE 4.1

CORRELATION OF CONTINUOUS ASSESSMENT SCORES AND N.C.E. EXAMINATION SCORES

		r	df	p	DECISION
a.	PHE	0.34	49	.02	*S significant
b.	ISS	0.78	206	0.0001	*S significant
c.	S/S	0.43	29	0.02	*S significant
d.	Physics	0.63	16	0.007	*S significant
e.	English	0.34	72	0.003	*S significant
f.	Biology	0.00051	31	0.997	*NS Not significant
g.	Home Economics	-0.019	71	0.87	*NS Not significant
h.	Hausa	0.632	56	0.064	*NS Not significant

The coefficient of correlation in the above Table (a-e) shows a significant relationship between continuous assessment scores and N.C.E. examination scores in PHE, ISS, S/S, Physics and English. Similarly, the coefficient of correlation from (f - h) shows "Not significant." There is no significant relationship between continuous assessment scores and N.C.E. examination scores in Biology, Home Economics and Hausa.

Table 4.1 above indicate the coefficient of correlation in PHE was $r = 0.34$. This is significant.

The coefficient of correlation in Islamic Studies was $r = 0.78$. This shows significant relationship. The coefficient of correlation in Social Studies was $r = 0.43$. This is also siginificant in Physics $r = 0.63$. This also shows significant and English the $r = 0.34$. This is significant too.

The hypothesis is reject in Five subjects, PHE, ISS, SS, Physics and English.

In Biology the coefficient of correlation was $r = 0.00051$. This indicate Non-significance. In Home Economics $r = -0.019$. It is Not significant and is Negative. In Hausa $r = 0.632$ and this also shows non-significance. The hypothesis is therefore retained in three subjects namely, Biology, Home Economics and Hausa.

The results in the above table shows that PHE, Islamic Studies, Social Studies, Physics and English indicate significant relation between continuous assessment scores and N.C.E. examination scores.

The results in Biology, Home Economics and Hausa indicate non-significance relationship between continuous assessment scores and N.C.E. examination scores.

TABLE 4.1b

CORRELATION OF CONTINUOUS ASSESSMENT SCORES VERSUS N.C.E. EXAMINATION SCORES BY GENDER IN THE EIGHT SUBJECTS

	SUBJECTS MALE	N	r	df	DECISION	FEMALE	N	r	df	DECISION
a.	PHE	28	.2523	27	*S significant	PHE	21.	.4805	20	*S significan
b.	ISS	100	.8177	99	*S significant	ISS	105	.7517	104	*S significan
c.	S/S	10	.5387	9	*S significant	S/S	20	.4217	19	*S significan
d.	Biology	13	.4150	12	* Significant	Biology	20	.5394	19	*S significan
e.	Physics	13	.6710	12	*S significant	Physics	4	.7553	3	*S significan
f.	Hausa	29	.0521	28	*NS significant	Hausa	28	.1693	27	*NS significan
g.					*S significant	H/Econs	72	-.0082	71	*NS significan
h.	English	28	.2219	27		English	45	-.0071	44	*NS significan

The coefficient of correlation in the above table (a-e) shows a significant relationship between continuous assessment scores for male and female and also the examination scores in PHE, ISS, S/S, Biology and physics and shows non-significant in Hausa, Home Economics which is the only female course and English indicate significant in the male results but shows non-significant in the female results.

The analysis in Table 4.1b is a further analysis of the first hypothesis in order to determine the significant relationship by gender and to further determine the performance of male and female in each of the subjects.

4.3 HYPOTHESIS II

There is no significant difference between the mean score of male and female students in continuous assessment scores in -

(a) PHE

(b) English

(c) Biology

(d) Social Studies

(e) Hausa

(f) Physics

(g) Islamic Studies.

To test this hypothesis a t-test statistical procedure was computed for all the sub-hypotheses.

Table 4.2 indicate the result of the hypothesis.

TABLE 4.2

P.H.E. : THE INFLUENCE OF GENDER IN CONTINUOUS ASSESSMENT SCORES FOR PHE

VARIABLE : CA

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	28	21.03571429	3.87759130	-0.614	47	0.5439
Female 2	21	21.73809524	4.11284284			

VARIABLE : EXAM

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	28	32.39285714	6.31775444	1.2749	47	0.2086
Female 2	21	30.02380952	6.59446016			

There is no significant difference between male and female in continuous assessment in N.C.E. examination for PHE.

The results indicate that the hypothesis is retained.

TABLE 4.3

ENGLISH: The Influence of gender in Continuous Assessment scores for English

VARIABLE: CA

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	28	20.19642857	3.65234396	0.4392	71	0.6619
Female 2	45	19.82222222	3.46927350			

VARIABLE : EXAM

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	28	23.78571429	5.15038397	-.15509	71	0.1254
Female 2	45	25.55555556	4.47114768			

There is no significant difference between and female in continuous assessment in N.C.E. examination for English.

The results indicate that the hypothesis is retained.

TABLE 4.4

BIOLOGY : The Influence of gender in Continuous assessment scores for Biology

VARIABLE : CA

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	13	23.07692308	3.79059227	-0.5976	31	0.5545
Female 2	20	23.80000000	3.12207758			

VARIABLE : EXAM

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	13	35.73076923	8.48924659	-0.5242	31	0.6038
Female 2	20	37.20000000	7.44700576			

There is no significant difference between male and female in continous assessment scores in N.C.E. examination for Biology.

The hypothesis is therefore retained.

TABLE 4.5

SOCIAL STUDIES: The influence of gender on continuous assessment scores in N.C.E. examination for Social Studies

VARIABLE : CA

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	10	23.6500000	10.63707835	0.8559	28	0.3993
Female 2	20	22.8500000	9.50207734			

VARIABLE : EXAM

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	10	31.10000000	3.97771570	0.6124	28	0.5452
Female 2	20	30.20000000	3.70419392			

There is no significant difference between male and female continuous assessment scores in N.C.E. examination for Social Studies.

The results indicate that the hypothesis is retained.

TABLE 4.6

HAUSA : The Influence of gender in continuous assessment scores in N.C.E. examination for Hausa

VARIABLE : CA

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	29	18.81034483	2.48715814	0.5993	55	0.5514
Female 2	28	18.28571429	3.97778221			

VARIABLE : EXAM

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	29	32.70689655	7.04135392	0.5666	55	0.5733
Female 2	28	32.08928571	6.25248628			

There is no significant difference between male and female in continuous assessment scores in N.C.E. examination for Hausa.

The results indicate that the hypothesis is retained.

TABLE 4.7

PHYSICS: The influence of gender in continuous assessment scores for Physics.

VARIABLE : CA

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	13	23.30769231	3.56802035	-0.4377	15	0.6678
Female 2	4	24.12500000	1.54784797			

VARIABLE : EXAM

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	13	20.76153846	11. 51763419	-0.5765	15	0.5728
Female 2	4	24.25000000	5.42371337			

There is no significant difference between male and female in continuous assessment scores in N.C.E. Examination for Physics.

TABLE 4.8

ISLAMIC STUDIES: The influence of gender in continuous assessment scores for Islamic Studies

VARIABLE : CA

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	100	22.97500000	4.08889541	-0.4341	203	0.6647
Female 2	105	23.20000000	3.30835190			

VARIABLE : EXAM

Subjects	N	$\bar{X}$	SD	t	df	p
Male 1	100	31.20900000	9.17701449	0.0901	203	0.9283
Female 2	105	31.09523810	8.90470253			

There is no significant difference between male and female in continuous assessment scores in N.C.E. examination for Islamic Studies.

DISCUSSION

HYPOTHESIS ONE

Hypothesis one states that, there is no significant relationship between continuous assessment scores and NCE examination scores in -

(a) PHE

(b) ISS

(c) S/S

(d) Physics

(e) English

(f) Biology

(g) Home Economics

(h) Hausa

From the results of the analysed data in Table 4.1 after the Pearson Product Moment Correlation Coefficient was computed, it was found out that the following sub-hypotheses, PHE, Islamic Studies, Social Studies, Physics and English indicated significant relationship and the hypothesis was therefore rejected in each of the sub-hypotheses above.

Similarly, the result of the Pearson Product Moment Correlation Coefficient was computed for the remaining sub-hypotheses, Biology, Home Economics, and Hausa and it was found out that the hypothesis was retained.

This shows that hypothesis one was rejected by five groups and retained by three groups. This gave the researcher 60% in favour of rejection of the null-hypothesis. As such the null hypothesis is rejected.

This finding contrast sharply with the findings of Adeleye (1992) as reported by Hassan (1994) in which he had done correlations of six subjects in ten schools. In English Language the correlation coefficient between continuous assessment scores and Terminal assessment scores were generally low.

Three out of the ten schools had significant relationship between continuous assessment scores and Terminal assessment scores at 0.05 level of significance. The present study indicate significant relationship between continuous assessment scores and N.C.E. examination scores in Five subjects - PHE, ISS, S/S, Physics and English and indicate non-significance in three subjects Biology, Home Economics, and Hausa.

Turton (1988) worked on the correlation between continuous assessment scores and attainment tests of Form I, Form II and Form III in Integrated Science. The correlation showed significance at 0.05 level of significance. This is unlike the groups in the present dingins where five out of the eight groups showed significant relationship and three groups showed no significant relationship. The null hypothesis is rejected in five groups and retained in three groups.

Hassan (1994) showed in her finding the correlation of continuous assessment scores and terminal assessment scores for English subject in Thirteen schools in Kaduna metropolis. Five of the thirteen schools rejected the null hypothesis.

Turton (1988) reported that the correlation between continuous assessment scores, attainment test and Non-verbal intelligence test of Form I, Form II and Form III showed high significance in all the groups whereas in the present study not all the groups showed significant relationship between continuous assessment and the N.C.E. examination scores. Only five groups out of eight groups showed significance three groups indicate non-significant relationship.

Since about 60% of the groups rejected the null hypothesis one (only three out of the eight groups retained the null-hypothesis the research can only conclude that there is significant relationship between continuous assessment scores and N.C.E. examination scores. As such the null hypothesis was rejected. This indicate that there is significant relationship between continuous assessment scores and N.C.E. examination scores.

From the results of the analysed data, PHE shows a significant relationship in continuous assessment scores with N.C.E. examination scores. This could be becauuse Physical Education is considered to be 100% associated with the psychomotor domain. Physics, Biology and Home Economics also have a heavy psychomotor components.

Also, English language, Hausa and Social Studies have the smallest psychomotor component though not Zero since the act of reading requires movement of the eye across the paper, which is a psychomotor activity.

Psychomotor skills can only be acquired through training and improved through practice. To th make valid assessment of student's performance in this domain training and practice has to be given. As such PHE and the science subjects like Biology, Physics, Home Economics emphasizes the practical aspects of assessment and practical tests are insisted upon in all the science subjects.

Furthermore, one of the most important reasons adduced, to this significant relation by five groups in the first hypothesis is the fact that the teacher's attitude which is expected to be influence by the students are not easily influenced. This is inspite of such inducements such as monetary reward or sexual gratifications. Very poor renumeration and very high cost of living in the society which makes it very common for teachers to engage in other money-yielding ventures which are not related to teaching does not reduce teacher's objectivity and reliability in the award of marks. This shows that teachers are also assessing the students in terms of tests, assignments, projects and other continuous assessment components and that the three domain of learning objectives are really assessed. This shows that the results are valid.

This makes the results to show significant relationship.

The results equally indicate that teachers possess sufficient knowledge about the techniques and problems of evaluation generally.

Another factor that may have influenced the present result was mentioned by Hassan (1989), classroom teachers lack the technical know how for constructing valid assessment instruments. While they normally set questions for examinations, such questions do not follow the technical procedure of building test specification to relate course content with the objectives in a meaningful fashion. Many teachers as the study reveal, were satisfied with the practice of copying from past questions.
In another study, Hassan (1981) also shows that classroom teachers generally write poor test items and cannot construct good multiple choice item.

The groups that indicated non-significance in the first hypothesis were only three and this may be due to the fact that before the commencement of continuous assessment the staff/students ratio in most schools was in the region of 1:20 but at present, the staff/students ratio has increased remarkably. As a result of this development, the attitude of many teachers is affected by the heavy workload associated with continuous assessment. Some see it too burdensome while some see it as an unnecessary creation of more work for teachers.

This is why in Home Economics which is one of the groups that indicate non-significance showed a negative correlation which indicate that the result im suspicious. Some teachers short circuit tests and some conduct just a single test and simply multiply the scores and this is indicative in the groups that showed non-significance especially in Home Economics.

HYPOTHESIS TWO

There is no significant difference between gender of students in continuous assessment scores in -

(a) PHE

(b) ISS

(c) S/S

(d) Biology

(e) Physics

(f) Hausa

(g) English

From the results of the analysed data in Table 4.2 after the t-test statistical procedure was computed it was found out the following sub-hypotheses on PHE, ISS, S/S, Biology, Physics, Hausa and English showed non-significant difference in all the sub-hypotheses, as such the hypothesis is retained and this showed that there is no significant difference between gender of students in continuous assessment scores and N.C.E. examination scores in the groups correlated.

Hypothesis two was retained by all the groups.

In a finding by Turton as reported by Hassan (1994) there was a sharp contrast with the present findings because it was shown that Turton rejected the Null hypothesis on the influence of gender . There was no significant relationship between gender of students and continuous assessment and achievement test scores.
Gender is not a factor in predicting N.C.E. examination scores from continuous assessment scores.

Attitudes towards proper implementation of continuous assessment system is a factor which sometimes make teachers fail to conduct a proper assessment. Instead scores are recorded or simply multiplied without actually assessing the students. Since the results do not indicate significant difference this shows that the difference between male and female do not affect the scores in examination and assessment scores.

With the physical, physiological and psychological differences between males and females the performance in continuous assessment and N.C.E. examination still shows no difference in gender.

The aspect of sexual harrassment among the female students by teachers is not indicated. This may be due to the fact that the students f(females) take their studies seriously and refused to cooperate with the teachers for marks in continuous assessment and examination. Even though continuous assessment can be tampered with but still the assessment is not biased.

Teacher's bias does not affect the scores between male and female. The issue of relationship or friendship seems to affect the scores. But the results indicate that the scores are objective because both sexes indicate that there is no difference in their level of performance. To this end, it is evident that the college examination and disciplinary committee has not punished any teacher on the basis of sexual harrassment or any illegal relationship between students and staff.

Incentives or monetary reward is another factor that may influence the teachers because of the high cost of living in the society. But the results indicate no significant difference among the seven groups tested. It is therefore concluded that incentives and monetary reward are not factors that may influence the teacher's decision in award of marks.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter summaries the outcome of the investigation on the predictive validity of continuous assessment scores and N.C.E. examination scores. The chapter also profers explanations for the results arrived at. It also make recommendations on the research.

5.2 SUMMARY

The object of this study was to determine the predictive validity of continuous assessment and its efficacy in determining the N.C.E. examination scores. This led to the formulation of the following Null-hypothesis.

(i) There is no significant relationship between continuous assessment scores and N.C.E. examination scores in -

(a) PHE

(b) ISS

(c) S/S

(d) Physics

(e) English

(f) Biology

(g) Home Economics

(h) Hausa

(ii) There is no significant difference between male and female mean scores in continuous assessment scores and N.C.E. Examination scores in -

(a) PHE

(b) ISS

(c) S/S

(d) English

(e) Biology

(f) Physics

(g) Hausa

1002 students were selected by simple random sampling technique from eight departments in Federal College of Education, Zaria. The Pearson Product Moment Correlation Coefficient was used to resolve the first hypothesis and the t-test statistical procedure was used to resolve the second hypothesis.

In the interpretation of analysed data, hypothesis one was rejected by five groups PHE the Γ value was 0.34 Islamic Studies the Γ was 0.78, Social Studies Γ value was 0.34. Three groups retained the hypothesis : Biology Γ value was 0.00051, Home Economics Γ 0.019 and Hausa Γ = 0.632. A Negative correlation was identified in Home Economics.

From the results the coefficient of correlation shows significant relationship between continuous assessment scores and N.C.E. examination scores in five groups and showed non-significant relationship in three

groups. This indicates that the hypothesis is rejected because 60% of the groups rejected the null hypothesis.

Hypothesis two was retained by all the groups only Home Economics was isolated because there was no male in the department since the hypothesis is on the gender of students.

When all the seven groups PHE, Islamic Studies, Social Studies, Physics, Biology, English and Hausa were correlated the coefficient of correlation indicate insignificance. This shows that there was no significant difference between gender of students in continuous assessment scores and N.C.E. examination scores in all the groups.

5.3 CONCLUSION

The analysis and interpretation of the data collected during the study led to the following conclusions.

There is a marked encouragement in the administration of continuous assessment and teachers seems to have been involved in the administration.

The students seem to take continuous assessment seriously because students could predict their grades or scores on examination from their total scores of the continuous assessment.

Only three groups out of the eight groups tested showed no significant relationship and one of the

three groups indicate a negative correlation which shows that the data is suspicious as such scores may be awarded without actually assessing the students. Five groups indicate significant relationship. This shows that hypothesis one is rejected.

Hypothesis two was retained for all the groups tested. There is no significant difference between males and females in continuous assessment scores and N.C.E. examination scores for PHE, ISS, S/S, Physics, English, Biology and Hausa. This indicate that the gender of students is not a factor in predicting N.C.E. examination scores from continuous assessment scores. This also shows that males and females inspite of their physical, physiological and psychological difference their performance shows no differences with the males in continuous assessment scores and N.C.E. examination scores. Also, there was no case of harrassment since the college examination and disciplinary committee did not cite any case of harrassment between any teacher and female students in the College.

5.4 LIMITATION OF THE STUDY

Not all the N.C.E. students were used in the study. N.C.E. I students were not used in the study, because their examination scores was not subjected to external moderation. Another limitation was incomplete continuous assessment scores and examination records of some students.

5.5 RECOMMENDATIONS

The practice of continuous assessment leaves much to be desired. Now is the time to rise to the challenges of the revolution that the scheme is expected to bring about in our educational system. However, all hope is not lost if the following recommendations are considered for quick and immediate implementation:

1. The condition of service of teachers should be given an upward treatment. This will bring to the earth the reward of teaching which hitherto was believed to be in heaven. With the reward within easy reach, the talented ones who have bade the teaching profession farewell can be encouraged back into the field. Those still on the job shall be retained and fresh graduates brought in. With the availability of a rich pool of staff the practice of continuous assessment in our schools will receive the such needed boost.
2. The preparation of serving teachers in the modern technique and problems of evaluation and methods of keeping records should be taken more seriously.
3. Standard test instruments should be prepared by education experts and government should ensure the availability of these tests to teachers in various schools and departments. To this and government should seek the assistance of

institutions and Faculties of Education of our various Universities, and of the Nigerian Educational Research and Development Council (NERDC).

4. The society should be further re-educated to adjust its evaluation and utilization of school products in terms of paper qualification alone. To this end, the idea of issuing out certificates with the stamp of 'Pass' or 'fail' should be discouraged, instead, the use of transcripts showing the final cummulative grades scored in each learning experiences and comments regarding the affective domain should be encouraged.

5. In addition to external moderation of internal assessment, moderation in each school should be entrusted to the school continous assessment committee. This committee should be saddled with the responsibility of overseeing what is done, how it is done and make suggestions when necessary.

6. A new body which could be called continuous assessment monitoring unit should be saddled with the responsibilities of comparing assessment scores sent in from each school and department and the originals of the same scores in the school.

7. Regular workshops should be organised by the college to refresh the memories of teachers on how continuous assessment tests should be conducted. The insignificant correlation in some of the groups could be due to lack of standardized marking scheme and external moderation of the scores.

To this end one of the groups indicate a negative correlation which showed that the scores are suspicious and that scores may have been awarded harphazardly without actually assessing the students.

8. The importance of a uniform marking scheme in examination and the introduction of a marking scheme in the administration or implementation of continuous assessment would go a long way in eschewing bias during award of scores by teachers.

9. Heads of departments should take on direct monitoring on continuous assessment in their departments. They should through the departmental examination officers ensure that accurate records of continuous assessment are kept on each student in the college.

10. Students on their part should take continuous assessment more seriously. The college through the college examination officer and the Academic Secretary should educate the students in a face to face academic encounter on the importance of continuous assessment and the advantage of doing their work consistently.

11. The staff of the academic office should be made to take part in a workshop concerning records keeping and computational skills of continuous assessment scores and examination scores.

12. Internal modertation of continuous assessment scores within the departments will help to remove bias of the teachers in scoring.

13. There should be the use of a computer for proper computation of examination scores, the continuous assessment scores and records for reliability, validity and objectivity of the scores.

Since the research is carried out in Federal College of Education, where the students are undergoing a teacher-training programme in various subjects, a proper continuous assessment programme will require the following skills:

I. Skills in planning, construction and the use of achievement tests and other instruments for measuring learning.

II. Skills in interpretation of scores from assessment instruments.

III. Computational skills for

(a) Converting raw scores into meaningful forms.

(b) Giving appropriate weights to scores from different scores and

(c) Combining scores from different measures to get an overall scores.

IV. Skills in the keeping of records and preparation of reports.

5.6 RECOMMENDATIONS FOR FURTHER STUDY

Studies should be carried out on other academic subjects or groups. Also a study should be carried out to assess the possibility of making continuous assessment test format and marking scheme uniform across departments.

Researches should be carried out to show why gender is not a factor in continuous assessment and performance in N.C.E. examination.

Finally, the present study is centered on Federal College of Education, Zaria. A more comprehensive study to cover other Colleges of Education in the country at large need to be encouraged.

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APPENDIX 1

Date: 3rd Feb... 19 96

The Provost,
Federal College of Education,
Zaria.

Dear Sir/Madam,

COLLECTION OF RESEARCH DATA

The bearer Ango Abdullahi Ladan is conducting a research on Predictive Validity of Continuous Assessment Scores for Performance in N.C.E. Examination, in Federal College of Education, Zaria as part of the requirement for the degree of Master of Education (Psychology).

The Faculty of Education will be grateful if you could permit him to collect data on Continuous Assessment Scores and N.C.E. Examinations scores at F.C.E. Zaria.

Thanks for your continued cooperation with us.

Yours faithfully,

DR. G.A. ADEYANJU
SUPERVISOR.