

THE UNIVERSITY OF HULL

THE IMPLEMENTATION OF CONTINUOUS ASSESSMENT IN  
SECONDARY SCHOOLS IN IMO STATE NIGERIA

Being a Thesis submitted for the Degree of  
DOCTOR OF PHILOSOPHY

In the University of Hull

by

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## DEDICATION

With respect to my  
mother-in-law, JESSIE OBASI,  
who died shortly before the completion of this work.

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## LIST OF ABBREVIATIONS

CA	Continuous assessment
CAEP	Continuous assessment of educational progress
GRF	Cumulative record folder
CSE	Certificate of secondary education
DES	Department of education and science
ENG	English language
FE	Final examination
GCE O/Level	General certificate of education ordinary level
GCSE	General certificate of secondary education
INT. SC	Integrated science
INSET	In-service education of teachers
JAMB	Joint admission and matriculation board
JSS	Junior secondary school
NCE	National certificate in education
NUT	Nigerian union of teachers
PTA	Parents/teachers association
RDD model	Research & development model
SSS	Senior secondary school
SOC STD	Social studies
UPE	Universal primary education
WAEC	West African examination council
WASC	West African school certificate

## CHAPTER ONE

### THE RESEARCH CONTEXT

#### 1.1 Introduction

In the years immediately following World War Two, it became apparent, particularly in Europe and in U.S.A., that the war had brought about vast social and economic changes. There was increased concern all over the world that education should keep pace with these continuing changes and an important outcome of this concern was the rapid increase of research into all aspects of education made possible by the considerable post-war expansion in the number of postgraduate studies at the Universities and Colleges of Education.

Curriculum Theory assumed a place of growing importance in Universities, particularly in U.S.A. In 1949, Ralph Tyler published his "Basic Principles of Curriculum and Instruction" which shifted the emphasis of curriculum study from being mainly theoretical and put forward a blueprint for practical curriculum change consisting of four basic steps, formulation of objectives, choice of experience, organization of content and, finally, evaluation.

But concern, no matter how strong, invariably needs the added assistance of a sense of urgency to loosen the purse strings of treasury, and this came in the late 1950s. In 1957 Russia's Sputniks went into orbit, clear evidence that America's technological and therefore military supremacy was

not unassailable. First, science and mathematics at high school level were given massive injections of purpose and resources as the production of more scientists and engineers became a priority objective. (Miles, 1964a). To Miles (1964a), 1957 marked the beginning of the "Struggle for national survival" (p.8), with a striking acceleration in change rates.

The movement in the U.K. did not lag behind (Young, 1965). By the mid-1960s, curriculum development was a fast expanding phenomenon throughout the western world (Miles, 1964a; Young, 1965).

Concurrent with these educational developments in the industrialised countries, the political structure of the world was changing. In particular, many of the old colonial territories, for example Nigeria, were achieving independence (Nigeria got her independence in 1960). Within then, increased emphasis on an expansion of education became a political imperative. Education was seen by all parts of society as being the key to personal prosperity and status, and by the governments as the key to national progress. In addition, an increasing concern with the form and content of education mirrored the desire for cultural and intellectual, as well as political independence, and the need, in many countries to develop a sense of national identity which would override tribal and regional affiliations.

Externally, each of the new countries had a separate voice in the world councils, and their voices in combination



highlighted the problems they faced in bringing education to all their citizens (see UNESCO 1961). In 1961, at the Conference of African States on the Development of Education in Africa, held in Addis Ababa under the aegis of the United Nations Economic Commission for Africa (UNESCO), the Ministers of Education placed on record their request for assistance (UNESCO 1961, p.16). The programme recommended by the Conference had been expressed mainly in the form of long and short-term targets for the quantitative expansion of education facilities at all levels, but there were two statements concerning qualitative changes "Improvement of the quality of African Schools (and Universities) shall be a constant aim." "Special attention shall be paid to the training of teachers at all levels...." (UNESCO, 1961, Chapter V, p.18).

In the early 1960s, therefore, internal pressures and external conditions for curriculum reform in the developing countries like Nigeria, arrived in conjunction. According to Havelock and Huberman (1977) internally, politicians, governments and a small number of educators were eager for change. Externally, the curriculum development movement was gathering momentum, a reservoir of educators with practical experience of curriculum development was becoming available and international organizations (for instance UNESCO) and governments were ready and eager to provide resources and expertise (see Havelock and Huberman, 1977). By the mid-1960s curriculum development projects began to proliferate throughout the developing world.

Lewis, formerly Professor of Education in the London University Department in Developing Countries writes:

The outcome of much of the effort has been disappointing and rarely commensurate with the resources put into the projects. In most cases, the investigation and execution of a project has lain in the hands of a few committed and dedicated persons. Initial efforts have often appeared to be very successful because of the initiative, drive and sometimes genius of the innovators.... and devoted responses of the classroom practitioners.... However, when the stage of general replication has been reached and steps have been taken to introduce the new curriculum materials and methods into the school system, too frequently, the results have been unsatisfactory and the new content and new methods have lost much of their presumed virtue (Lewis, 1976).

Hawes (1972, p.21) gives reasons for the failure of these innovations in developing countries:

"and the main reasons for the failure of so many attempts at curriculum improvement has been that teachers have been unable to implement the new syllabuses and materials, either by reason of their insufficient basic education, or because their training had not fitted them for the new approaches and because no significant retraining had taken place" (p.21.).

There are obviously many conditions which militate against the introduction of major changes in schools systems in developing countries like Nigeria. Teachers are under-educated and the training they have received is usually inadequate in quality and quantity. The pool of expertise for teacher-training, supervisory and administrative positions in education is shallow. Financial resources are, in most countries, very limited. (Ukaeje 1966, Aisiku and Fafunwa, 1982).

In different countries, these conditions play their parts, in varying degrees, in reducing the prospects of success. Nevertheless, the consistent failure in many systems, to make

the successful transition from small to large-scale implementation, necessarily calls into question the soundness of the procedures adopted within the overall strategy of trial, modification, large-scale implementation.

The procedures invariably used, differ only in detail from those used in the developed countries and documented in curriculum text books and case studies. This is not totally unexpected. The majority of the first wave of curriculum development leaders came from the Western countries. Subsequently, they have been replaced by indigenous persons whose ideas and qualifications in the field of curriculum have been obtained at Western Universities. In addition, the basic tasks which have to be carried out in the process of curriculum reform are essentially the same in developed and developing countries alike. Objectives have to be formulated, content selected, activities and experiences organised, materials tested, modified and produced in quantity, teachers trained, pre-service courses modified, parents, head-masters and administrators consulted and informed, and financial resources allocated.

Whatever similarities there may be in the constraints affecting curriculum reform in Western and non-Western societies, it is probable that there are factors specific to the circumstances of the Third World Country like Nigeria that need to be identified, analysed and interpreted. It is the object of this study to attempt these tasks through the analysis of the implementation of continuous assessment in Imo

state, Nigeria.

With the attainment of independence in 1960, Nigerians gradually started to re-examine their role in the world community of nations - moving from being subjects of a colonial power toward being citizens of their own independent country. The Nigerian government and its people came to regard education as the key to over-all development. Fafunwa (1984) notes that after the attainment of independence many educators expressed concern about the lack of relevance of the Nigerian educational system in meeting the pressing economic, social and cultural needs of the nation. The criticism of the system by many educated Nigerians led to the National Curriculum Conference held in Lagos in September 1969 (Fafunwa 1984). This conference according to Fafunwa was a major landmark in the history of Nigeria and indeed, in the history of education in Africa. What was unique according to Fafunwa in the Nigerian situation was that the idea of involving a cross-section of people in curriculum reform. The report of the conference is published as a book (Adaralegbe 1972).

Four years later, in 1973, a national seminar was called to prepare the draft of a national policy on education based on the recommendations of the 1969 Curriculum Conference. Based on the report of the Seminar, the Federal Government finally brought out the document "Federal Republic of Nigeria National Policy on Education" in 1977. In the same year the Federal Government set up the seven-man "Implementation Committee for the National Policy on Education" with terms of reference (see

Government views of the Implementation Committee's Blueprint. Lagos, Federal Ministry of Information, 1978).

In 1979, the Federal Government issued another White Paper entitled 'Government Views on the Implementation Committee's Blueprint on The Federal Republic of Nigerian National Policy on Education'. The Government accepted most of the recommendations put forth by the Implementation Committee, rejected some and deferred decisions on some others. The National Policy on Education was revised in 1981 and in it the Government reaffirmed its stand on CA among other issues.

## 1.2 The National Policy on Education

The mid-1960s saw the emergence of many educational reforms. Some of these new ideas have found their way into many African national reports on education. A new National Policy on Education for Nigeria was approved by the Federal Government in 1979 but the policy dates back to the first national conference in September 1969. One of the distinctive features of the new National Policy on Education was its emphasis on Continuous Assessment. The following extracts from

the policy illustrates clearly this emphasis.

### Philosophy

"Educational assessment and evaluation will be liberalised by basing them in whole or in part on continuous assessment of the progress of the individual".

Paragraph 7 (7)

### Primary Education:

(8) Government plans that progress along the educational cycle will be based on continuous overall guidance - oriented assessment by teachers and headmasters. However, Government recognises the implication of the implementation of such a measure for teacher education and will accordingly ensure that programmes of pre-service teacher education in the teacher training colleges, and of in-service training in the National Teachers Institute and the Institutes of Education, will incorporate training in the continuous assessment of pupils.

(9) Government will look into the possibility of abolishing the primary school leaving certificate examination as soon as the processes for continuous assessment have been worked out and validated. Meanwhile, certification at this level of education will be based on continuous assessment and the result of the primary school leaving certificate examination.

Section 3, Para 15. (8 and 9).

"The first School Leaving Certificate examination will ultimately be abolished and Primary School Leaving Certificates will be issued by the Headmasters of individual schools and will be based on continuous assessment of pupils and not on the results of a single final examination".

Section 4, Para 23. (2).

### Secondary Education

"(1) As an interim measure the present system of a National Common Entrance Examination will be allowed to continue until the Junior Secondary School system has taken off. The selection for entry into the Secondary Schools will, as soon as possible, be improved by incorporating Headmasters' continuous assessment into the Common Entrance Examination Result.



"(2) Junior Secondary School Leaving Certificates will also be based on the continuous assessment method".

Section 4. Para 23. (1 and 2).

### Teacher Education

"The existing practice in most of our institutions of learning of basing the assessment of students' work on one final examination and on one type only is no longer tenable. Continuous Assessment based on a variety of evaluation techniques should be henceforth adopted, and there should be some means for ensuring some common national standards both in the areas of public examinations as well as in the internal ones. The implementation of this will lie between the teacher training institutions, the Universities which serve as moderators for some of them, the Ministries of Education and West African Examinations Council. These organisations will be expected to meet and work out a scheme". Section 9, Para 70.

### Higher Education

"The Universities and other institutions of higher learning will also be required to reconsider the practice whereby examination performance in a limited number of papers determines the grading of graduates and to explore ways of introducing an element of continuous evaluation".

Section 5, Para. 43 (2).

### Administration and Planning

"The Sixth Form course will be abolished with the adoption of the 6-3-3-4 system, and; (1) ultimately there will be no formal examination at the end of the first six years of primary education; certificates will be based on continuous assessment.

"(2) at the end of the first three years following primary education the Junior Secondary School Leaving Certificate will be based on state examination and continuous assessment method. The Certificate will be issued by the Headmaster.

"(3) at the end of the second three years course, (senior secondary) a formal examination will be given but the performance during the three years will be weighed and taken into account for certification purposes."

Section 11, Para 99. (1,2,3).

### 1.3 The Problem

As we have seen, the Nigerian National Policy on Education (1981) proposes a great deal of innovation in the country's educational system, and one such proposal is the introduction of CA into the school system, both in the primary and secondary schools.

As part of their programme of educational reform, the several governments of Nigeria, Federal and State, are advocating the introduction of CA in the education system. In consequence, a Steering Committee under Professor Yoloye, was appointed by the Federal Ministry of Education to prepare a Handbook for CA which would serve as a training guide for teachers and although the implementation of CA was to start in 1982, the book was published in 1985 - three years after the prescribed date.

The Nigerian Government realises that the implementation of CA poses significant problems to the teachers who are directly concerned (see A Handbook on CA 1985), and as such will accordingly ensure that programmes of INSET will incorporate training in the CA of pupils. However, the scope of training which has since begun was planned to commence at the federal level and descend to the local Government levels in each of the twenty-one states. The detailed expectation by the Steering Committee in this regard can be seen as follows:

"It is expected that by the time the series of workshops on continuous assessment have ended.... every school will have at least one teacher who would have attended the training workshop. This person will automatically be a member of the school committee.... His first duty will be to brief the other members of the committee on the details



of operating the system" (p.88).

However, experience and research have shown that sound theoretical curriculum innovations can turn out to be a curse rather than a blessing, due to faulty planning and uncooperative attitudes in those who are to execute them. More specifically, it is not hidden knowledge that there can be teachers who are suspicious of curriculum innovation either because it will entail more involvement on their part or because they are married to conventions and would prefer to do things as they have always been done. There can be no doubt too that the implementation and the success of the innovation do not rest solely with the planners or the Steering Committee on CA, but with the teachers, yet they will be trained only one per school. By this arrangement it is assumed that teachers:

- (a) are being carried along in the planning and implementation of the CA scheme.
- (b) are prepared to apply themselves as expected to the practice of a judicious CA in their respective schools.
- (c) are professionally able to implement CA.

Equally, since the introduction of CA in Nigeria, there have been mounting criticisms of the educational reforms: For example, in an article entitled 'Continuous Assessment, the Plague of our School System' (Daily Star, January 17, 1986, p.8) Njoku Egwuatu has this to say:

"First, teachers and pupils are kept uselessly busy. Because of the countless number of tests conducted in a term,.... Second, the policies encourage and expose the pupils to examination malpractices.... Third, too much

freedom is given to the teacher....

Not long ago, a supervisor told an assessment committee, that during one of his routine tours of schools, he saw marks given to children in teachers' records but did not see where the tests were written in the pupils' exercise books. It was no surprise to anyone. Pose as an ordinary man and ask as many teachers as you can about continuous assessment, you will find the answers astonishingly identical - negative".

In a recent article in a national magazine - Newswatch, CA was reported to have been described as a 'sham' by a former state governor (Newswatch, June 13, 1988).

Besides, the Government is aware that the implementation of the CA poses certain significant problems for the educational system in general:

The two major problem areas are identified in A Handbook on CA; namely:

- (a) Comparability of standards, and
- (b) record-keeping, and the continuity of records.

The single national examination provided some basis for comparing the quality of students' performances across schools.

Under CA, such a comparison becomes extremely difficult. The difficulty arises from two main sources, namely:

- (a) differences in the quality of tests and other assessment instruments used in different schools, and
- (b) differences in the procedures for scoring and grading the various assessment instruments in the various schools.

With record-keeping and the continuity of records, for CA to be meaningful, there has to be meticulous keeping of accurate records on each pupil. Second, since these records are expected to be cumulative from class to class and from

school to school, there is need for uniformity in the kinds of records kept and the format for keeping such records. There is therefore the problem that the educational system must expect several thousands, perhaps millions, of teachers to keep accurate records with a more or less uniform format.

Having recognised the problem of comparability of standards and record-keeping aspects of CA as important issues for consideration in the implementation of CA, when I travelled to Nigeria in 1986 in order to pilot the measuring instruments of this study, there were doubts about the implementation of the CA scheme partly because of the fear of the usual gap which existed between educational planning and implementation in Nigeria and partly because the CA Implementation Committee's guidelines for action - A Handbook on CA had not been received by the teachers and even the guidelines appear to be in vague and in most general terms.

This assessment reform is initiated with the intention of rectifying the defects of the existing educational assessment. The programme is to usher in a significant change in the quality of educational output of the country. Thus, the purpose of this study is to ascertain to what extent the CA is successfully being implemented in school in Imo State, Nigeria. The research will explore the factors that are inhibiting or reinforcing the implementation of CA in secondary school in Imo State.

#### 1.4 Limitations of the Study

The findings and recommendations in this thesis are limited to the study of the Implementation of CA in secondary schools in Imo State, Nigeria. Imo State is selected for the study because a national survey was beyond the resources of the author, though the implementation of CA is a nation-wide phenomenon. Reference may be made to other states when necessary. The assumption is that though the development of the scheme is a nationwide issue, being undertaken and financed mainly by both the Federal and State Governments, the detailed administration, organisation, planning and supervision of the implementation of the programme is the sole responsibility of each state government. In this case, not only has each state its own unique problems, but also the level of implementation between states differs. For example, while the programme was started in 1982 by some states, Imo State started two years later - in 1984 to implement the scheme. Thus, for the purposes of management and control of data Imo State is chosen.

The study again is limited to second level education - secondary school. The choice of secondary school is determined by the great importance attached to secondary education in a developing economy in view of its functional value in the supply of 'high quality manpower' direct into the labour force as well as being a preparatory ground for further studies (see National Policy on Education 1981).

One important limitation of this study is that the investigation will not be derived from the results of any

previous empirical research as no previous enquiry has been carried out on this topic in this area.

### 1.5 The Purpose of the Study

The primary purpose of this study is both diagnostic and prescriptive; if after the exploration of the salient factors that may be inhibiting or reinforcing the implementation of CA in secondary schools in Imo State, some problems are found inhibiting the implementation of CA, an attempt will be made to offer solutions to these problems. Although the writer is of the opinion that if there are any problems, simple and complete solutions may not exist, nevertheless partial solutions are necessary.

However, successful implementation of the CA scheme will only be realised if the people concerned candidly and systematically diagnose their educational problems and plan the educational future in the light of what they uncover in the diagnosis.

It is hoped that the thesis will contribute to a wider dialogue about the complex implementation problems and challenges facing the CA programme particularly and the education system of the country generally, to the better orientation particularly of young people preparing themselves to be tomorrow's custodians of education, and to the unleashing of greater energies to advance the progress of this most important of social enterprises.

Although this study is not addressed to any particular

audience, it is hoped that it will be useful to both teachers and educational planners in Imo State in particular, and Nigeria in general. For it discusses among other important pedagogical issues, a typical new educational role for teachers, and administrators, highlighting possible problems and examining from a variety of angles how to cope with such problems. And by identifying some important implementation problems, it hopes to increase the probability of the effective implementation of educationally promising ideas in Imo State and beyond.

#### 1.6 Organisation

The study is organised in three parts, containing in all eleven chapters.

Part One (Chapters 1 - 4) deals with the background information. Chapter One introduces the research context, defining the problems and other issues related to the topic of this thesis. Chapter Two gives some background information about Imo State, the area covered by the study. Chapters 3 - 4 take a close look at CA generally.

Part Two (Chapters 5 - 6) is a literature review. While Chapter Five reviews theories and models of curriculum innovation, Chapter Six examines implementation generally.

Part Three (Chapters 7-11) is about the empirical aspect of the study, implications, solutions and recommendations. Chapter 7 is a case study of the first JSS examination results and CA marks for the first three years of the implementation of



the scheme. The Chapter examines the relationship between the CA marks and the JSS examination results. Chapter Eight is on Methodology, while Chapter Nine presents the data, Chapter Ten discusses the findings, synthesising the empirical evidence with documentary evidence. Chapter Eleven ends the study with further lines of action and enquiry, summary reflections and possible solutions and suggestions for future work.

### 1.7 Motivation

The motivation for this study came from a number of sources.

First, the study of the implementation of CA is motivated by the writer's own experience and interest, and the belief that the reform of our system of educational assessment will be a contributory factor in the development of our educational system.

Second, the study is prompted by the dearth of material concerning the implementation of continuous assessment in schools in Nigeria. The columns of the national newspapers, the pronouncements of the radios and the press may present an inadequate picture of the implementation of CA in schools. Thus, it is considered that there is justification for an exploration of the reactions of the relevant participants of continuous assessment implementation.

Third, another source of motivation is the developing interest among a group of educationalists (Curriculum Theorists) in the field of CA and the call for research on CA.

For according to Ojerinde and Falayajo (1984) "Although a great deal has been written about Nigerian education policy, little has been said about assessment and examination - an important aspect of the policy. The little written about assessment has not dealt with continuous assessment" (p.vii).



## CHAPTER TWO

### A PROFILE OF IMO STATE, NIGERIA

#### 2.1 General Introduction

"No matter what sort of bill you have, everything depends upon the men, who so to speak, are inside of it, and who are to make it work. In the hands of the right men, any bill would produce the desired results...."

(Charles Francis Adams quoted in Kolko, 1965, p.37).

The study is on the implementation of continuous assessment (CA) in secondary schools in Imo State, Nigeria. In Nigeria the National Policy on Education (1981) and the government's views on the Onabamiro Committee (1979) proposed a great deal of innovations in the country's educational system. One such proposal was the introduction of CA into the school system, especially in both primary and secondary schools. This reform is initiated with the firm intention of rectifying the defects of the educational system. However, there could be a mismatch between the plans for the reform of assessment and their implementation. Adams (1965) argues that how social policy is actually used in practice depends upon the daily activities of those organizational members in charge of applying or implementing it. If they respond to influences other than the intention of the law's advocates, then even the most carefully worded and strongly supported legislation is unlikely to be implemented as planned. In other words, implementation is not simply an extension of planning and adoption processes. It is a phenomenon in its own right.

A working assumption is, therefore, that both the understanding and achievement of reform in CA scheme is a task requiring the support of all those who are directly or indirectly concerned with education, that is, teachers, parents, students, educational administrators and politicians.

Since this study is limited to Imo State, Nigeria, some background knowledge of the state may be necessary. This Chapter therefore, describes briefly the setting of the study, the general picture of the state, its geographical position within Nigeria, and the dominant society (Igbo Society) in relation to other societies in Nigeria, with a focus on their different patterns of response to change in general and educational change in particular and the state education system so that the reader will have a better understanding of the results of the investigation and the subsequent discussions and suggestions.

## 2.2 Imo State: Geography

The decree of the Federal Military Government of Nigeria, brought Imo State into being on the third day of February 1976. Imo State was part of the former East Central State which itself was created from the former Eastern Region also by a government decree in May 1967 (see Figure 1).

FIGURE ONE

The Emergence of Nigeria's States

1963(4 Regions)    1967(12 States)    1976(19 States)    1987(21 States)

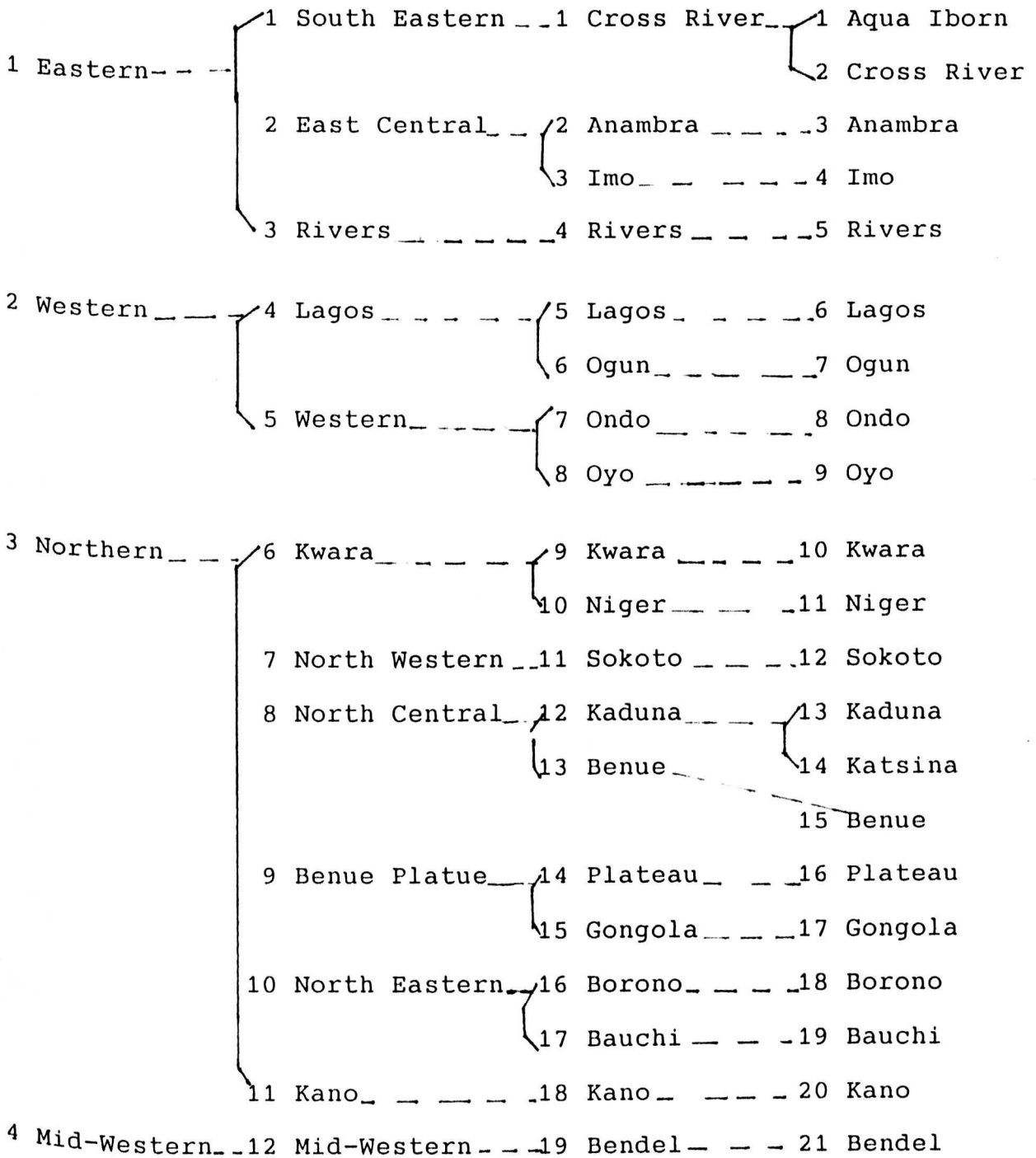
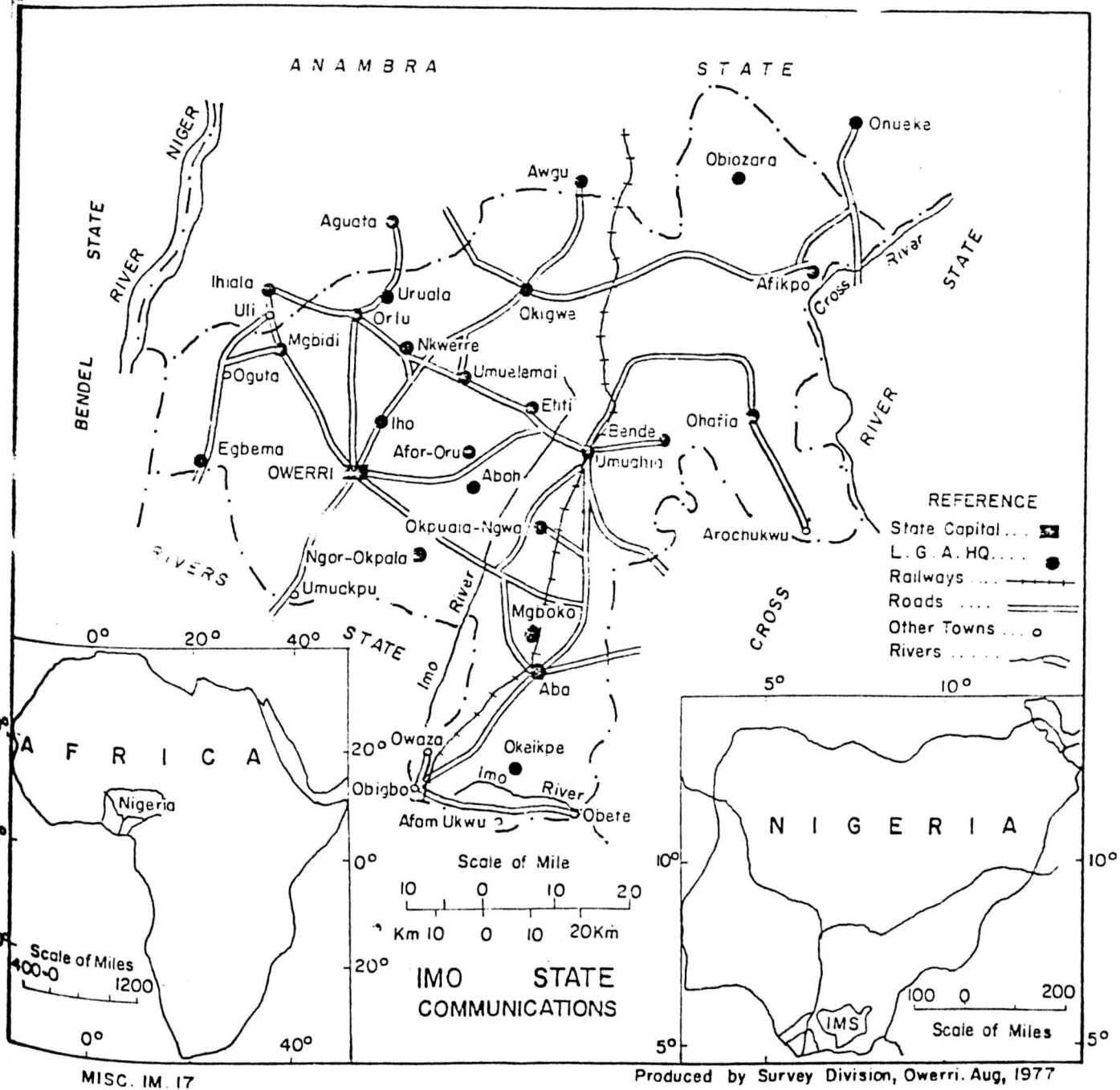


Fig. 2

A MAP OF IMO STATE, NIGERIA.



Source: Ministry of Lands and Survey, Survey Division Owerri, August 1977.

Imo State lies between latitudes 4° 45'N and 6° 15'N and between longitudes 6°E and 8°E, covering an area of 12,689 square kilometres within the rain-forest region of Nigeria (see Figure 2).

The population of Imo State according to the 1963 national population census was 3,672,654. With a population of about 5,871,485 in 1982, Imo State has the fifth largest population among Nigeria's nineteen states. (Imo State Statistical Year Book, 1982, p.27). Its population density of about 700 per square mile is the second highest in the country. (Imo State, Nigeria, Annual Digest of Statistics, 1977).

Owerri is the state capital. The state is headed by a military governor. There are twenty one Local Government Areas (L.G.A.) in the state.

### 2.3 The People of Imo State (Igbos) and their neighbours; some significant factors in their response patterns to change, with particular reference to educational change.

The Igbos are in the words of Forde and Jones (1950), "tolerant, ultra-democratic and highly individualistic" (p.24). Ukeji noted also that "the different political systems developed by different elements possibly have influenced the general characteristics of the people (of Nigeria); with autocracy and Mohammedanism in the North, there is apparent conservatism; with constitutional monarchy in Yorubaland, there is apparent shrewdness and subtlety; and with republicanism in Igboland there is apparent individualism and dynamism". (Ukeje, 1966: p.8).

Traditional societies in Nigeria inevitably vary in their flexibility and predispositions to accept alternative ways of life. It would probably be easier to convince the republican Igbo society to try a certain "change or innovation" than the oligarchical, autocratic Hausa society of the North. Indeed, studies have consistently revealed that the Igbos are achievement oriented and that their society gives a great deal of credit to personal achievement and has a high capacity for change (Ottenberg, 1959, 130-143; Ndem, 1961; Elechukwu, 1974). The transfer of these characteristics to formal education has led to, in part, its more rapid development amongst the Igbos than their neighbours in Nigeria. This argument raises one important question: what has influenced the differences and the general characteristics of Nigerian traditional societies?

One example differentiating one traditional society from another can be offered in relation to attitude to religion. Among the Hausas in the North where there was already a common established religion before the coming of the white man, the parents refused to accept mission education for their children. Lord Lugard is quoted as saying:

"They (the Hausa parents) wanted none of our (British) instruction. They were alert to protect their culture from infidel communications and were well satisfied with the 25,000 Koranic schools where in courtyards or under trees little boys in shrill repetition learned a few Arabic texts...."

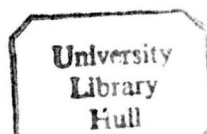
(Niven 1967: 285)

In effect, the Hausa society became less eager and less reform-minded in matters of Western education than the Igbo society

which had no well established religion before the advent of Christianity and mission education in Nigeria.

Apter (1965) identifies two sets of value systems as the basis of differentiating the traditional societies one from each other - the one which sees human action in terms of its immediate practical result ("instrumental society"), and the other which evaluates human action in "transcendental" terms ("consummatory society"). According to Apter (1965), instrumental society responds more quickly to change because there, all human actions are examined on the basis of their practicability and their resultant effects are not necessarily viewed against the background of existing social values. Conversely, consummatory societies feel threatened by anything that is not in conformity with their traditional way of life. The Igbo society belongs to the instrumental group of societies, and their quick response to new ideas and systems such as Western education is not accidental.

Some other factors that contribute to the reform-mindness of the Igbo society in matters of formal education are wealth distribution and traditional means of livelihood. The chief economic resource of the Igbos was the palm produce which the colonial administration did not do much to expand in a way that it could benefit the majority of the people. This was much unlike the Yoruba society in the west where there were rich cocoa farmers from about the early 1920s when money economy started making its impact on Nigerians. Also, the land in most parts of Igboland was infertile, although subsistence farming



was still carried out by an overwhelming majority of the people. According to Diamond (1962: 2):

"Population pressure on deteriorating forestlands in, for example, Owerri Province at the heart of Eastern region, had, in conjunction with the social character of the Igbo, led to a continuous migration of [the] Ibo to all regions of Nigeria...."

The tendency among the Igbos to migrate to other parts of Nigeria in search of jobs is apparently due to their "social character" and the effect of the poverty of the land. Formal education was needed for most of these jobs, and as more Igbos got them, their parents' awareness of the economic value of education was heightened and they became even more prepared to support educational changes which appeared to them to be worthwhile.

#### 2.4 The State Education System

Education is a high priority sector in Imo State. It occupies the pride of place in the state's development effort and takes the lions share of the state's annual budget. In the 1979/80 fiscal year, the sum of ₦68.9 million (Imo State, Nigeria, (1979), Progress 4: Education, p.4) was appropriated for education out of the state government's budget of ₦609 million.

Government of Imo State regards education as a dynamic instrument of change. Thus the provision of equal educational opportunities for all citizens of the state at the primary, secondary, and tertiary levels, is a prime policy of the government. Equal opportunities in education have brought



about the present large population of students in schools in Imo State, Nigeria.

The Education Services Board was established in April 1978, to manage post-primary schools in the state. The management of primary schools on the other hand, is the responsibility of the local governments. The Education Services Board is specially charged with responsibility for the recruitment of staff for post-primary institutions, budgeting and payment of salaries of all staff of post-primary schools, promoting discipline, management and transfer of staff in the post-primary school system, transfer and admission of students for classes. The Board consists of a chairman and three other members with a top administrative officer as its secretary.

The Board has five zonal offices and each zonal office is headed by a superintendent of schools who is the chief executive of the zonal administration of the board.

Education in Nigeria is a shared responsibility between the Federal Government and the State Government. For example, apart from being solely responsible for university education in the country, the Federal Government subsidises expenses on primary, secondary and tertiary education. It also lays down broad guidelines on education for the country but allows each state to work out the details of its own educational programmes on the bases of its own needs, problems and potentialities.

Accordingly, with annual financial assistance from the Federal Government, the Imo State government like the other state governments builds and maintains its own primary and

secondary schools, and colleges of education and technology. The role of the State Ministry of Education and each of these units of the Imo State education system will be described briefly below.

## 2.5 The Role of Ministry of Education: Imo State

While the local Governments and the Education Services Board are responsible for the management of primary and post-primary schools respectively, the Ministry itself is "responsible for co-ordination, planning, and direction of all educational effort in the state. The Ministry gives general and specific directives on all matters relating to education in the state." (Imo State, Nigeria, (1979), Progress 4: Education, p.4). The Ministry determines and maintains educational standards. It is responsible for curriculum development, school inspection, placement of students in schools, examination, certification, teachers' salary assessment and grading of teachers. In effect, the state government, through its Ministry of Education, is currently the sole proprietor and the 'provider' of formal education in the state. Thus, charged with "inculcating in the minds of the citizenry generative enlightenment for creating social and economic development" the ministry undertakes specifically to:

- (i) set standards at various levels of formal education;
- (ii) ensure compliance to standards;
- (iii) provide physical structures and facilities for formal learning;

- (iv) evaluate the quality of formal learning;
- (v) Liaise with other bodies concerned with education control and delivery;
- (vi) manage post-primary and tertiary educational institutions;
- (vii) produce middle level manpower;
- (viii) place students into secondary schools;
- (ix) use the mass media to maximise the few available high quality teaching resources; and
- (x) maximise knowledge and utilization of the culture of the people. (Alvan Ikoku College of Education:

Information Bulletin, Vol. 5, No.11 (Dec. 1979), p.22)

A number of institutions therefore falls within the portfolio of the ministry. They include the State Education Services Board; secondary education; adult education; teacher education; the Education Inspectorate; Standard Research and Development Centre; technical education; special education; the Scholarships Board; Students' Advisory Committee; Extra-Mural education; registration and examinations; textbooks development; and schools services and supplies. (Alvan Ikoku College of Education, Ibid. p.M9)

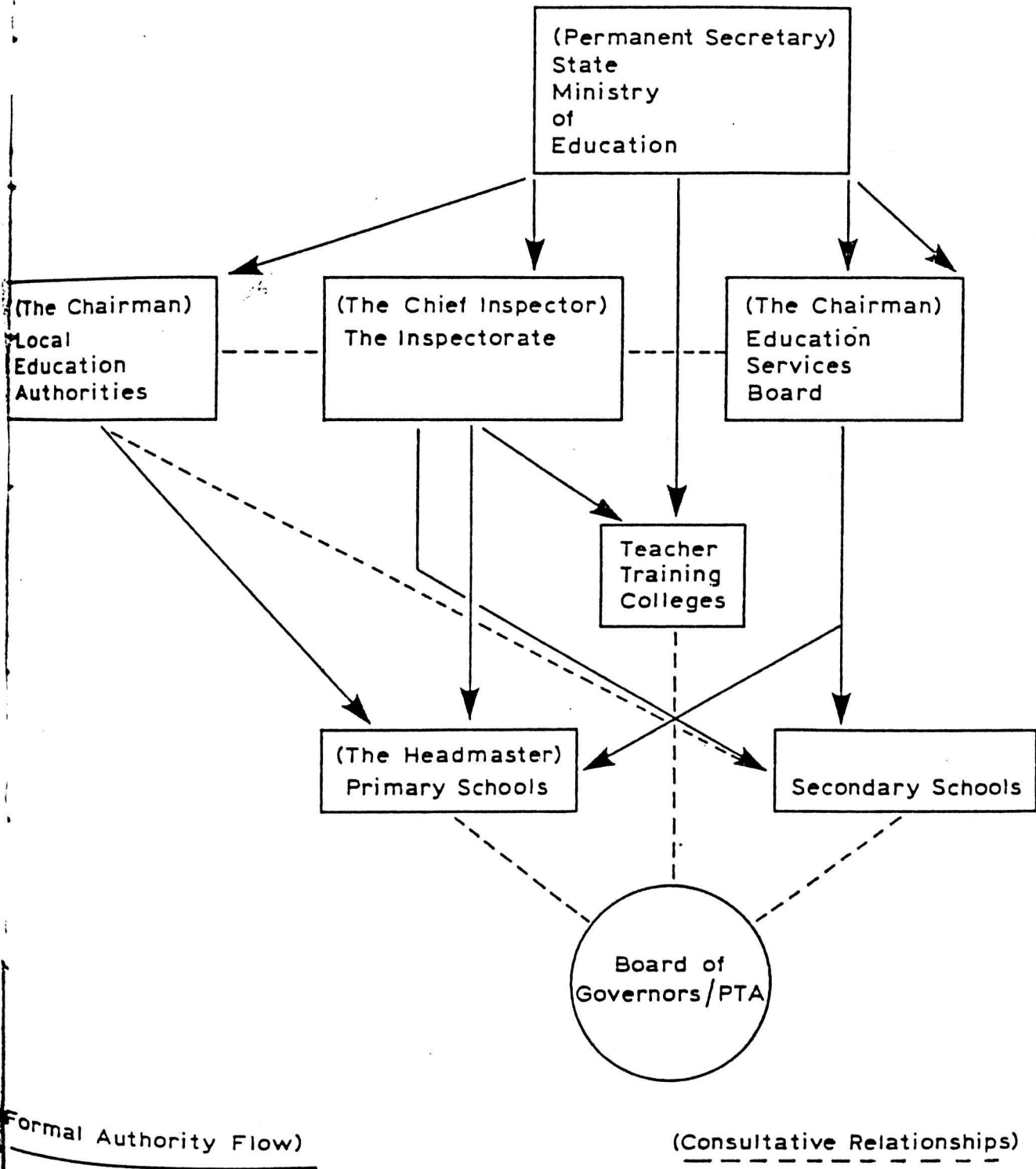
Apart from the execution of some capital projects, policy formulation and the payment of teachers' salaries, the State Ministry of Education awards a number of scholarships for undergraduate and post-graduate studies. In 1982/83, for example, it awarded 218 scholarships to its undergraduate and post-graduate students in various disciplines, and 19 of those

being for studies in Education. (Imo State Statistical Year Book (1982), p.209). (See Figure 3 for the Organogram of education management in Imo State.)

Fig..3

Organogram of Educational  
Management in Imo State

Patterns of authority in the Imo state of Nigeria school system, 1979 / 80.



## 2.6 Nursery Education

Nursery education is the only form of formal education that is not owned by the state. Unfortunately there are no published data relating to such pre-primary schools apart from a few national guidelines on nursery education issued by the Federal Ministry of Information, Lagos. The Federal Republic of Nigeria National policy on Education (1981) defines pre-primary Education as:

"the education given in an educational institution to children aged 3 to 5 plus prior to their entering the primary school." (p.10).

There are about 38 pre-primary institutions in Imo State in 1984/85 school year. (Imo State: Digest of Educational Statistics, 1984/85, p.1).

## 2.7 Primary Education

In Nigeria, the National Policy on Education (1981 : 12) referred to primary education as education given in an institution for children aged normally 6 to 11+. Since the rest of the education system is built upon it, the primary level is the key to the success or failure of the whole system. Government made Primary Education free and universal by implementing the Universal Primary Education (UPE) Scheme in September 1976 and proposes to make it compulsory as soon as possible.

Igbo is the language of instruction for the first three Years of primary education in Imo State; English is officially the language of instruction for the upper grades, although Igbo

is nevertheless used persistently by teachers in instruction.

Government prescribes the following curricular activities for the primary school:

"the inculcation of literacy and numeracy, the study of science, the study of the social norms and values of the local community and of the country as a whole through civic and social studies, the giving of health and physical education, moral and religious education, the encouragement of aesthetic, creative and musical activities, the teaching of local crafts and domestic science and agriculture". (National Policy on Education (1981), p.12).

The National Policy on Education Section 3 subsection 9 says that:

"Government will look into possibility of abolishing the primary school Leaving Certificate examination as soon as the processes for continuous assessment have been worked out and validated. Meanwhile, certification at this level of education will be based on continuous assessment and the result of the primary school leaving certificate examination".

Imo State started the continuous assessment in 1984/85 school year. (See Appendix 2).

The first primary school in what is now known as Imo State was built in 1892 at Unwana in Afikpo, while the second one was built twelve years later at Umuapu in Ohaji. At the creation of Imo State in 1976 by a government decree there were altogether 1,862 primary schools with a total pupil enrolment of 742,206 in the state. Although Imo State accounted for about 6.5 per cent of the country's total population in 1976, its primary school enrolment for the same period amounted to about 10.2 per cent of the total national primary school enrolment. In fact, the state had the highest primary school enrolment in 1977. Table 2(01) below shows how the state

compared with the other states in terms of the total national population and the national primary school enrolment, 1976-1977/78. In the 1984/85 school year there were 2,012 primary schools in the state with an enrolment of 849,703 pupils and a total of 20,235 teachers. (see Table 2(02)). Out of the 20,235 teachers in primary schools in the state in 1984/85, 9 have National Certificate in Education (N.C.E.) and its equivalent, 668 have Associate Certificate in Education (A.C.E.), 135 have Grade I, 19,403 have Grade II and others are 20 in number. However, it should be borne in mind that Pedersen (1973) noted that the possibilities of improving the quality of education are strongly influenced by the competence of the human services that school systems can employ.



Table 2(01)

THE STATES' POPULATIONS WITH PRIMARY SCHOOL ENROLMENT, 1976-1978.

<u>State</u>	<u>Population</u> <u>1976</u>	<u>%</u>	<u>Primary</u> <u>Enrolment</u> <u>1977/78.</u>	<u>%</u>
Anambra	4,936,497	6.4	907,252	9.0
Bauchi	3,337,046	4.4	329,600	3.3
Bendel	3,377,767	4.4	743,370	7.4
Benue	3,331,173	4.3	686,900	6.8
Borno	4,114,180	5.4	360,100	3.6
Cross River	4,773,873	5.2	768,290	7.6
Gongola	3,575,823	4.7	340,300	3.4
Imo	5,040,863	6.6	1,034,790	10.2
Kaduna	5,625,094	7.3	636,000	6.3
Kano	7,926,206	10.3	565,380	5.6
Kwara	2,353,196	3.1	319,020	3.2
Lagos	2,172,419	2.8	404,000	4.0
Niger	1,639,506	2.1	179,860	1.8
Ogun	2,128,760	2.8	299,000	3.0
Ondo	3,746,608	4.9	490,000	4.8
Oyo	7,149,390	9.3	866,400	8.6
Plateau	2,781,663	3.6	463,500	4.6
Rivers	2,360,665	3.1	405,908	4.0
Sokoto	6,229,660	8.1	301,000	3.0
NIGERIA	76,600,389	100% approx.	10,104,670	100

Source: British Council, Education Profile, Nigeria (1979)

Table 2(02)

SUMMARY OF IMO STATE PRIMARY SCHOOL STATISTICS: 1976/77 - 1984/85

YEAR	NO. OF SCHOOLS	PRIMARY 1	PRIMARY 2	PRIMARY 3	PRIMARY 4	PRIMARY 5	PRIMARY 6	MALE	FEMALE	BOTH	NO. OF TEACHERS
1976/77	1897	260,918	165,694	139,124	127,590	117,368	127,706	472,928	465,470	938,398	27,130
1977/78	1919	175,209	183,665	190,234	160,483	141,724	152,511	492,914	510,912	1003,826	29,176
1978/79	1925	198,578	186,487	190,597	156,405	141,449	143,951	498,832	515,635	1014,467	31,370
1979/80	1939	191,123	203,347	206,564	176,917	158,727	158,345	540,933	554,090	1095,023	30,987
1980/81	1953	206,417	220,268	223,094	191,074	171,429	171,018	548,220	599,080	1183,300	30,511
1981/82	1958	162,419	139,338	147,886	150,451	137,628	117,113	440,240	414,595	854,835	33,562
1982/83	1990	157,051	134,733	142,999	145,479	133,080	113,242	425,691	400,893	826,584	27,365
1983/84	2011	150,513	129,016	137,674	139,825	127,974	108,865	408,842	385,025	793,867	27,562
1984/85	2012	160,777	137,955	147,002	149,710	137,257	117,002	437,495	412,208	849,703	20,235

Source: Government of Imo State of Nigeria (1984/85). Digest of Educational Statistics. p. 5

## 2.8 Secondary Education

In Nigeria, secondary education is the form of education children receive after primary education and before the tertiary stage. The broad aims of secondary education within the overall national objective should be:

"(1) preparation for useful living within the society;  
and

(2) preparation for higher education". (National Policy on Education (1981) p.16)

Secondary education in Nigeria consists of the secondary grammar; technical and vocational, commercial, the secondary modern schools introduced by the government of the former Western Region in 1955 and now phased out, and the teacher training colleges. The secondary grammar schools are the most popular, and they prepare students for higher education, though many of their students go on to vocational training and employment. The technical, vocational and commercial secondary schools are expected to prepare students for middle-level job positions while teacher training colleges prepare teachers for primary schools. There is nothing like the English Comprehensive School system in the State, though many of the schools go by that name.

The oldest secondary school in Imo State was the Government College, Umuahia, which was established in 1929 while Aggrey Memorial College, Arochukwu, was the next built in 1932. The growth in the secondary school sub-sector is rapid. Imo State inherited 147 secondary schools when it was created

in February 1976. Government promptly ordered the building of new schools and the phasing<sup>out</sup> of some teacher training colleges and their conversion to secondary schools. Much of the credit for the large increase in the number of secondary schools goes to communities in the State which built schools with guidelines provided by the Ministry of Education and Information and handed them over to the government to operate under the State School System. In the 1984/85 school year the state had 442 secondary (Grammar) schools, with 234,374 enrolment and 11,360 teachers; 14 technical/vocational schools with 5,128 enrolment of pupils and 307 teachers, and 14 teachers' colleges with 4,961 enrolment of students and 331 teachers (see Tables 2(03) and 2(04)).

The secondary grammar schools followed a five year course leading to the West African School Certificate/General Certificate of Education 'O' level conducted by WASC. (See Appendix One for 6-3-3-4 system of education details (National policy on Education 1981, pp.16-18)).

Consequently what the Nigerian National Policy on Education has proposed is "the 6-3-3-4 new system". This refers to 6 years of primary school, 3 years of junior secondary, 3 years of senior secondary school and 4 years of University. Hence 6-3-3-4. The system aims to include in academic timetable vocational/technical subjects in both junior and senior secondary schools, using continuous assessment for deciding entry into the junior secondary, for the selection and promotion of students and award of junior secondary school

leaving certificate (Nigeria, Blueprint, 1978-79). Thus "In the meantime, selection for entry into secondary schools will, as soon as possible be improved by incorporating Headmasters' continuous assessment into the Common Entrance Examination results. (National Policy on Education (1981), p.10). Also the First School Leaving Certificate examination ultimately has to be abolished and primary School Certificates are issued by the Headmasters of individual schools and are based on continuous assessment of pupils and not on the results of a single final examination.

Junior secondary school leaving certificates will also be based on the continuous assessment method. The final secondary school leaving certificate will be based on a NATIONAL Examination. The Universities are expected to change their conditions for admission in the light of the new secondary school structure.

According to the Government of Imo State, Ministry of Education in a letter to the writer:

Imo State started the 6-3-3-4 programme of which Continuous Assessment is a part, from the 1984/85 school year. We are now completing the 2nd year of the programme. Consequently, we have not graduated any students in either the Junior or Senior Secondary. However, in answer to your questions:

1. At the moment, the weight recommended for Continuous Assessment and final examination are 60% and 40% respectively. There is no decision yet about senior secondary.

2. For Imo State, the first graduation from senior secondary schools will be in 1990. WAEC will conduct the Senior Secondary School Certificate examinations but definite policy has not been arrived at, as to the weights for Continuous Assessment and examination. (See Appendix 2)

Table 2(03)

Number of Educational Institutions in Imo State by Level and Type, 1976/77 to 1984/85

Year	Primary Schools	Post-Primary Level			Post-Secondary Level		
		Grammar/ Commercial Schools	Technical/ Vocational Schools	Teacher Training Colleges	Colleges of Education	Polytechnic/ Colleges of Technology*	Universities *
1976/77	1,897	148	7	13	1	-	
1977/78	1,919	221	11	18	1	-	
1978/79	1,925	276	11	14	1	2	
1979/80	1,939	350	11	14	1	2	
1980/81	1,953	391	13	14	1	2	
1981/82	1,953	424	14	14	1	2	1
1982/83	1,990	439	14	14	1	2	1
1983/84	2,011	444	14	14	1	2	1
1984/85	2012	442	14	14	1	2	1

NOTE:\* (a) College of Technology Owerri

(b) College of Agriculture Umuagwo Owerri.

Source: Government of Imo State of Nigeria. (1984/85). Abstract of Educational Statistics. p. 1

\* There is also a Federal University of Technology in Imo State :

Table 2 (04)

Enrolment in Educational Institutions in Imo State by Level and Type: 1976/77 to 1984/85

Year	Primary Schools	Post-Primary Level			Post-Secondary Level		
		Grammar Commercial Schools	Technical/Vocational Schools	Teacher Training Colleges	Colleges of Education	Polytechnic/Colleges of Technology*	Universities
1976/77	938,400	110,140	3,289	7,702	1,600		
1977/78	1,003,824	155,858	5,111	8,212	1,863		
1978/79	1,014,467	177,942	5,594	11,153	2,173	379	
1979/80	1,095,623	239,448	6,158	14,925	2,895	1,035	
1980/81	1,183,300	277,340	6,321	15,473	3,267	1,785	
1981/82	854,835	298,962	5,625	10,249	3,339	2,398	379
1982/83	826,584	279,414	5,477	9,993	3,194	2,132	771
1983/84	793,867	270,898	5,579	7,714	3,271	1,808	1,225
1984/85	849,703	234,374	5,128	4,961	3,697	1,725	1,775

NOTE: \*Figures for 1976/77 - 1983/84 cover both the College of Technology and College of Agriculture while 1984/85 relates to College of Technology only

Source: Government of Imo State of Nigeria. (1984/85). Abstract of Educational Statistics. p. 2

## 2.9 Higher Education

The Federal Government of Nigeria defines higher education as "the post-secondary education of the national education system which is given in Universities, Polytechnics and Colleges of Technology including such courses as are given by the colleges of Education, the Advanced Teacher Training Colleges, Correspondence Colleges and such institutions as may be allied to them...." (National Policy on Education, 1981, (p.22)).

There are accordingly five institutions providing higher education in Imo State namely, two Universities, one built by the Federal Government and one by the State Government and both opened in October 1981; one college of education, i.e. the Alvan Ikoku College of Education, Owerri; one college of technology, and a college of Agriculture.

The Alvan Ikoku College of Education (AICE) was established in 1963 as an Advanced Teacher Training College. In keeping with the Ashby Report, it is charged with responsibility for providing teachers in intermediate manpower grade. The college opened in May 1963 with an initial intake of 150 students. By the Edict No. 11 of May 31, 1973, promulgated by the former government of East Central State of Nigeria, the Advanced Teacher Training College became Alvan Ikoku College of Education. The name was in honour of a great educationalist and President of the Nigerian Union of Teachers for many years - Alvan Ikoku.

The objectives of the college are to hold forth to all



classes and communities without any distinction whatsoever an encouragement for pursuing a regular and liberal course of education. The college runs courses leading to the award of the Nigerian Certificate in Education (N.C.E.). The College also serves as a centre for educational research especially as applied to local conditions.

### CHAPTER THREE

#### CONTINUOUS ASSESSMENT

##### 3.1 Continuous assessment: definition

"As a term of art [continuous assessment] is more susceptible to description than to definition."

(Hoste and Bloomfield, 1975, p.86)

Continuous assessment has several shades of meaning as individual practices vary widely from country to country and within individual countries. For example, Young (1970) points out that individual practices of CA in the United States vary so widely that it is not even possible to describe its administration in detail. Young points out that, in general, CA is based on work assigned to pupils by the teacher. The assessment then usually consists of a series of questions about the assignments which are given regularly or irregularly (weekly, daily or fortnightly).

However, CA has been defined by several CSE examination boards in Britain as:

"....deliberately allows for periodic assessment throughout the course and takes into account progress towards the goal as well as success in reaching it;  
....the building up of a cumulative judgement about the performance of each individual;  
....a continual updating of teachers' judgements about their pupils."

(quoted in Hoste and Bloomfield 1975, p.18)

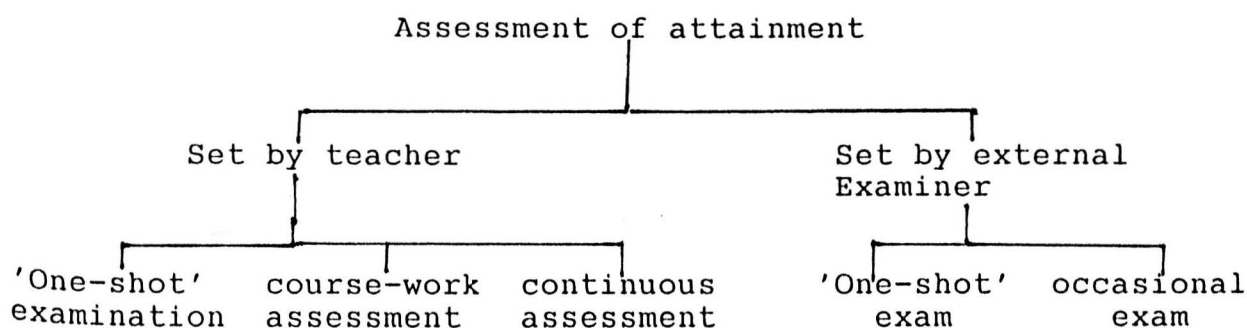
Hoste and Bloomfield (1975) define CA:

"as the systematic collection of marks or grades over a period of time and their aggregation into a final grade. These marks or grades may be awarded for class work, homework, practical or oral work by the use of objective test or essay-type examinations or by the subjective judgement of the teacher."

(Hoste and Bloomfield 1975, p.18)

To them the essence of continuous assessment is that it is a cumulative process, developing as the pupil develops and reflecting his changes in response to the course. It can be a sophisticated monitoring device giving feed-back to the teacher about the effectiveness of his teaching and to the pupil about the efficiency of his learning.

From their interpretation of CA they excluded the system in which work done during a course is stored and then assessed at the end of a course. In their report this is termed course-work assessment. The relationship between CA, course-work assessment and other methods is illustrated in the figure below according to Hoste and Bloomfield (1975).



Classification of assessment techniques, Hoste and Bloomfield, (1975)

But in some cases the distinction between course-work and other categories of work is by no means clear-cut. According to Cohen and Deale (1977) "what accounts for coursework in one hand may be called a project in another...." (p.65).

However in England and Wales for example, the subject - specific criteria provide for G.C.S.E. examinations in almost all subjects to include a significant element of coursework as

well as timed written examinations. It is thought that the setting and assessment of course work can help teaching and learning processes by measuring and encouraging the development of important skills not easily tested in timed written examinations including practical and oral skills and the ability to tackle extended pieces of written work.

Furthermore, Harlen (1976, p.82) writes that assessment refers to the variety of processes through which information is gathered about pupils' achievements and characteristics. The information may be gathered for several purposes: to give feedback to the pupils about their performance; to convey to others - parents, employers, those in other educational institutions - the progress and achievements across schools and from one point in time to another; to guide the teacher in making decisions about how to help the progress of individual pupils. The source of information - the behaviour of pupils - is the same in all cases but the emphasis upon various aspects and the detail required about them varies for these different purposes.

The National Steering Committee on Continuous Assessment in Nigerian Schools regards CA as a method of finding out what the pupil has gained from learning activities in terms of knowledge, thinking and reasoning, character development and industry. Various tools may be used in finding out the outcomes of these learning activities. These include tasks, assignments, projects, observations, interviews and questionnaires. The data obtained on the pupil will then be

used to aid his further development. Besides, accurate records of such data are filed for further use and for the purpose of providing information to parents, guardians, and others who can use them for the benefit of the pupil.

Given this information, a brief definition according to the Committee is that:

"Continuous assessment is a mechanism whereby the final grading of a student in the cognitive, affective and psychomotor domains of behaviour systematically takes account of all his performances 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 student." (A Handbook on CA. 1985, p.8).

Cohen and Deale (1977) have discerned three different views of how teacher assessment could operate. In one view, the teacher is seen as a counterpart to the external examiner, he assesses the same skills and abilities over a period of time as are tested on the day of the external paper[s]. His assessments are scaled and weighted appropriately and are taken into account together with the external paper[s] in deciding the candidates' final grades. The teacher's assessment is therefore intended to offset the unreliability associated with taking a particular test on a particular day.

The system of CA that operates in secondary schools in Imo State in particular, and Nigeria in general which is reported in this study encompasses the ideas reflected in this first view. For example, teacher's assessments are scaled and weighted appropriately and taken into account with the external paper[s] in deciding the candidates' final grade (see A

Handbook on Continuous Assessment, 1985, p.30).

A second and contrasting view is that the teacher is asked to assess aspects of the course which either cannot be examined externally or can be only examined with great difficulty.

A third view, perhaps the most extreme one, is that the teacher not only assesses specific components (orals, fieldwork etc.) but also marks all the externally set papers in the terminal examinations.

Conclusively, assessment lies at the core of learning. It covers any of the situations in which some aspect of a pupil's education is in some sense measured, whether this measurement is by a teacher, an examiner, or indeed the pupil himself or herself. From the definitions and explanations of CA, it is clear that the essence of CA is that it is cumulative in nature, growing as the child grows educationally and reflecting necessary changes and developments in response to various courses, subjects and projects. It is also clear that marks or grades could be awarded for a variety of classwork or homework.

One other important aspect of the process is that all marks/grades cumulatively form the basis on which the child is certificated; alternatively they may form a part of an external examination. Also of interest, and innovative, in the Nigerian case is the interest in non-cognitive aspects of learning. The behavioural attributes, manipulative skills and dexterity of the child are now to contribute in some way to the overall quantitative assessment of the child. Often, in the past, these attributes had no input whatsoever in the decision

whether the child was promoted or not, certificated or not. Even those Nigerian Universities which every year during graduation ceremonies, present graduates "found worthy in character and learning' had never bothered to include behavioural and affective measure/assessments in computing degree results.

Further, it is not only what a student does or achieves (or fails to do/achieve) in a given year that determines his progress or lack of progress, but what he does from his first day till his last day in school are cumulatively put together when a decision is to be made about him/her. Under CA therefore, decisions on the child are no longer based on only the end of year, or end of course examination. The child is not to be assessed in the area of knowledge acquired only but also in terms of behaviour, task performance and general activities. Non-cognitive gains and affective - cum psychomotor dispositions are also expected to play a more conspicuous role in assessment and, provided these could be worked out, contribute in given proportions to the student's life chances.

### 3.2 Characteristics of Continuous Assessment

According to Tunde Ipaye (1982):

"Seven main characteristics of continuous assessment could be identified. Continuous assessment is systematic, comprehensive, cumulative, diagnostic, prognostic, formative and summative. The first four characteristics clearly differentiate continuous assessment from the traditional approach to assessment...." (p.16).

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 pupils' 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 measurements.

Related to the systematic characteristic of CA is the comprehensive nature of it. CA is comprehensive in the sense that many types of instruments are used in determining the performance. As already indicated in the definitions of CA above, these include tests, projects, assignments, observation, questionnaires and interviews. Another aspect of the comprehensiveness is that the student is seen in his totality because decisions are made based on information obtained in the cognitive, affective, and psychomotor domains, especially in the Nigerian case.

Thirdly, CA is cumulative. It represents continuing awareness, by the teacher, of the development and knowledge of his students; it is a process which extends over a period of time: the gradual build-up of a cumulative judgement about performance. A teacher making use of CA is looking for signs which show the growth of thinking processes, and the development of those varying abilities towards which the teaching is aimed; he is more concerned with signposts than with the itinerary. An end-of-course examination will test achievement at one point in time within the limits of the test; under CA there is knowledge not only of this achievement, but



also of progress towards it: not merely of where he has got to, but also of how he got there.

However, CA is cumulative since any decision to be made at any point in time on the student takes into account all previous decisions about him. This requires the keeping of up-to-date or cumulative records on each student. There is a continuity in the collection and use of assessment data. Each datum adds on to the subsequent ones in given ratio. This means that the assessment at the end of a term includes all or most of the assessment data during the term, those add on to those for the following term etc. At the end of the year all data are considered, those for this year add onto those for the next until the child graduates from that level of education. This is called the cumulative nature of continuous assessment.

Fourthly, CA is diagnostic. CA characteristically implies increasing monitoring of students' progress. The process of monitoring reveals each child's strengths and weaknesses - weaknesses in terms of what areas the child has difficulties with, which objectives he has not achieved, how well he carries out specific tasks etc. The identified weaknesses together with their probable causes are then fed back to the child and this is why it is said that continuous assessment is formative.

It is also guidance oriented because information obtained is used to guide his further development. His areas of strengths are communicated to him and he is helped to further strengthen them. His areas of weaknesses are also fed back to him, he is given the opportunity to analyse these with the

teacher or the counsellor and remedial programmes are mapped out for him.

Related to the formative nature of CA is the prognostic nature. Here, effort is made to look into the future - to predict how well the child will perform on similar tasks in the future. During diagnosis areas which the child handled with relative facility are noted, areas with which he has problems and what the probable causes of these problems are, are identified. Placing these alongside his scores as well as the objective of the course it could easily be hypothesised about the student's probable performance in the future. This is particularly useful for counselling and guidance purposes.

Lastly, no matter how benevolent the assessment method is, there is going to be a time when some decisions have to be taken about the child on the basis of the outcome of the assessment. All assessment methods eventually lead to taking a decision but CA provides a variety of data to help the process and act of decision making. Therefore, CA could be said to be summative.

Apart from the characteristics of CA discussed above, - there are some other desirable characteristics of assessment procedures. In order to be fair to the candidates any nationally acceptable assessment procedure must have three qualities. It must be valid, reliable and give results which are nationally comparable.

Ahmann and Glock (1975) say that:

"Validity is often defined as the degree to which a measuring instrument actually serves the purposes for which it is intended.... Validity is clearly the most important characteristic of a measuring instrument. No

matter what other characteristics an instrument may possess, if it does not adequately serve the purposes for which its use is intended, it is of no value whatsoever".  
(p.215)

Hoste and Bloomfield (1975) write that "The validity of any assessment procedure is determined by the extent to which it measures what it sets out to measure". (p.21). Essay writing may be a valid method of assessing attainment in at least one aspect of English but its use as a test of ability in physical education, for example, is questionable. Generally, a statement of the validity of an assessment should be qualified by a statement of the purpose of the assessment. In other words, the statement 'essay writing is a valid method of assessing the ability to write connected, well-argued, coherent prose' is acceptable, but 'essay writing is a valid method of assessment' (that is the statement without a qualifying statement of purpose) is not.

Chase (1978) warns that it should also be noted that tests are not simply valid or invalid. Validity is a matter of degree" pp.58-9. He warns also that we cannot typically judge the validity of a test simply by looking at it. "A test that looks like it measures what it claims to measure is said to have face validity. It should be remembered, however, that a test with face validity may or may not produce data that are useful in making decisions about traits such as intelligence or vocational aptitudes. Face validity has its place in motivating test takers, but is an inadequate indication of validity by itself." (p.59).

The concept of validity of assessments is a complex issue and will not be discussed at great length in this study, but several aspects are important to the consideration of CA and merit brief mention.

There are several ways we can determine the validity of a test. All of these ways reflect relevance of the test scores to identify the quality of a given personal trait we wish to assess.

- (1) Relevance may be demonstrated by relating test scores to a second measure of a given trait, like comparing academic aptitude scores with actual achievement in school.
- (2) Or we may compare test content with the elements of an instructional programme,
- (3) Or we might require our test to classify people the way a given psychological theory of behaviour says people should be classified.

These three approaches to establishing test validity according to Chase (1978) are called:

- (1) Criterion-related validity (also referred to as predictive or concurrent validity)
- (2) Content validity and
- (3) Construct validity.

Each of the three types of validity can be defined 'as the degree to which a measuring instrument accomplishes the aim associated with that type' (Ahmann & Glock, 1975 (p.216)). To examine the ramifications resulting from the classification of

validity types, separate consideration of each type is necessary.

Criterion-related validity, 'also called empirical validation, is the process of comparing peoples' test-score rankings with one based on actual performance on a criterion task' (Chase, 1978, p.60). It can be divided into two parts, namely, the validity of instruments designed to predict future performance and that of instruments designed to estimate present status with respect to characteristics different from the test. The former is known as predictive validity and the latter as concurrent validity. The principal difference between these two classifications is the time at which the pupil displays the behaviour in question. In the first case we wish to predict the future. In the second, we want to gain information about present performance by using information obtained directly.

Content Validity - finding the content validity of a measuring instrument is equivalent to showing how well it samples certain types of situations or subject matter. The instrument claiming high content validity clearly attempts to include a cross-sectional sample of a great variety of items representing the area in which the pupil's performance is being measured.

In other words, content validity is reflected in the degree to which a test is a representative sample of a body of subject matter as defined by the instructional objectives used in teaching the subject.

Construct validity tries to explain how scores on a test can be explained in terms of psychological trait. Turney and Robb (1971) define construct as a "characteristic that is believed to account for some aspect of human behaviour, such as intelligence, sex, age, attitude" (p.155). Cronbach and Meehl (1955) define a construct as 'some postulated attribute assumed to be reflected in test performance. In test validation, the attribute about which we make statements in interpreting a test is a construct'. Each construct has an underlying theory which can be brought to bear in describing and predicting a person's behaviour.

In conclusion one has to bear in mind that a test or assessment procedure by itself is neither valid nor invalid. It always has validity in reference to:

- (a) some specific condition we are trying to observe and
- (b) a defined group of people on which the test has been tried out.

### Validity of Continuous Assessment

In continuous assessment, learning experience assessments (i.e. learning experiences that also form the basis of the assessment) and special assessments (i.e. special exercises conducted to sample learning) vary in the degree of validity they contribute to continuous assessment. Hoste and Bloomfield in their study found out that learning experiment assessment has high face validity and content validity, provided all aspects of the course are assessed. In this case the course is

the assessment and the assessment is the course. They say that the criterion - related validity of learning experience assessment depends on the criterion and the individual assessment scheme. If, for example, the criterion is subsequent academic performance in an examination at the end of the sixth form course, the validity of one particular learning experience assessment may be low although another may be high. The same assessment and a different criterion, such as success in a job after leaving school, may produce a different criterion-related validity.

The validities of special assessments are similar to those of other examinations and tests and the success with which validity is achieved depends on the skills of the test constructor. These ideas are summarised in Table 3(01) below.

Table 3(01)

Validities of learning experience assessment, special assessment techniques (in CA) and conventional examinations and tests.

**Type of Assessment**

Type of Validity	Learning experience assessment	Special assessments	Conventional exam and tests
Content	Very high	Depends on skills of constructor, but is probably higher than externally set exams	Varies with exam/test and course followed
Face	High	Fairly high (see comment above)	As above
Criterion-related	Depends on criterion chosen	Depends on criterion chosen	Depends on criterion chosen but probably will be higher for specially constructed tests than for conventional examinations or continuous assessment
Construct	Should be similar to the constructs underlying the course	Depends upon the assessment technique and the individual tests and test items	Depends upon the test or exam and the individual test items

Source: Hoste and Bloomfield (1975) p.23



Reliability 'means consistency of results' (Ahmann and Glock 1975 (p.235)). A test is reliable to the extent that it is consistent with itself, that is, ranks the individual in essentially the same position on successive application.

According to Chase (1978) there are four standard methods of determining test reliability:

- (a) give the same test to the same people on two occasions;
- (b) build two equivalent forms of the test and give each form to all persons;
- (c) give the test to all persons, get the first score on one-half of the test and the other score on the other half of the test; and
- (d) estimate the extent to which all items are assessing a common variable.

Table 3(02) below summarises methods of establishing reliability of tests.

Table 3(02)

Methods of establishing reliability of test

Method	Procedure	What it reveals
Test - re-test	Same test given to same students on two separate occasions; first scores correlated with second scores	Consistency of scores over a time lapse
Equivalent forms	Build 2 tests to assess a common behaviour domain, give both tests to the same students, correlate the 2 scores	Comparability of 2 assessments of the same skill or trait
split - half method	Give a test to a group of students, score the odd-numbered items, score the even-numbered items, correlate odd score with even score (note use of correction to allow for test length)	Since 2 scores are samples of content of same test, split-half indicates extent to which one part of test measures same way as another part of same test
Internal Consistency	Compare performance of students from item to item	Extent to which all items are producing similar results

There are three things which are notable with regard to reliability: reproduction (repeatability), comparability; and consistency of responses. In effect, three factors can be said to contribute to examination/assessment reliability.

- (1) The extent to which different forms of the same examination are comparable; that is, from year to year.
- (2) The consistency with which those who take the examination perform; that is throughout the various components of the examination.
- (3) The consistency with which the examination is marked.

#### Reliability of Continuous Assessment

Not much has been done to apply the above measures of reliability to CA.

However, test-retest reliability is clearly inapplicable to learning experience assessments of CA as it is hardly practicable to ask the candidates to spend another two years or three years repeating their course merely in order to see if they achieve the same result. Hoste and Bloomfield (1975) found that in 'special assessments' retesting merely gives an estimate of the reliability of the particular test and not of that of the continuous assessment procedure as a whole.

Split-half and internal consistency reliability coefficients can be calculated from the marks given to the components which contribute to the complete continuous assessment scheme. Internal consistency coefficients give an indication of the homogeneity of the assessment. A CA scheme

in which a similar rank order of candidates is produced on each testing occasion will result in a high internal consistency or split-half reliability coefficient (Hoste and Bloomfield, 1975). "One in which different rankings occur will produce a low overall coefficient. If a continuous assessment scheme which makes use of different techniques of assessment has a high reliability coefficient, it suggests that each technique is measuring similar abilities. Conversely, if the internal consistency reliability is low, each technique may be measuring a different aspect of performance. Provided the techniques used on each occasion are valid there may be an advantage in retaining this variety of techniques in spite of the low internal consistency of reliability coefficient" (Ibid).

Unfortunately, not much has been done to apply both reliability and validity measures to continuous assessment.

### Comparability

A further desirable characteristic of CA is comparability. There is the need for the assessment of pupils' attainment in schools to have a universal currency. In England and Wales, and in other countries too, one major reason for the existence of examination boards is the need for final assessment of pupils' attainment in school to have universal currency. Employers and institutions of higher education assume that boards have comparable standards. C.S.E. boards recognized that their first duty in respect of continuous assessment was to establish a procedure by which the standards of assessment

are seen to be comparable with those of the Mode I and Mode II examinations. For example, the Associated Lancashire Schools Examination Board (1971) stated that:

"....as a public examining body, it [the board] has a duty to maintain reasonable comparability of standards between different schemes of examining." (p.14).

Thus for a national examination to have credibility, the results should be comparable irrespective of where the examination was taken, who marked it and which board set the papers. One of the problems recognized by subject panels of C.S.E. boards is the need to equate standards between schools or between groups of schools entering candidates under Mode III. For this, most boards make provision for a moderator, who has to ensure that a level of performance which gains a grade 3 in one school is not rewarded with grade 2 or grade 4 in another. He must also try to bring all the Mode III results, whether obtained by examinations or by continuous assessment in line with the Mode 1 standards in the same subjects.

However, a number of patterns of moderation exist. This will be fully discussed later in this study.

Nigeria in implementing continuous assessment admits having some problems in comparability. (A Handbook on CA, 1985). Nevertheless, if examination certificates in Nigeria or any other country are to be acceptable to the general public, it is apparent that some form of moderation of internal assessment must be made so that the examining board can state with confidence that standards of assessment between one school and another have been scrutinized and adjusted where necessary.

### 3.4 Advantages and disadvantages of Continuous Assessment

Continuous assessment generates vigorous comments both for and against it. On the one hand it is seen as the most valid form of assessment, with the added advantage of fully involving teachers and pupils in the assessment process. On the other, it is seen as cumbersome and open to abuse by staff and pupils. Clearly there is scope for objective evaluation. Generally, much has been written about the advantages and disadvantages of continuous assessment.

Young (1970) argues that:

"with frequent (continuous) examinations the student is under continuous tension, never quite free from worry until the course is completed. On the other hand, ideally, he keeps up with his work schedule and progresses steadily. Non-ideally, students wait until the evening before a scheduled examination, before cramming hastily. Experience indicates that many of these 'crammers' fail the course; although some do well both in the course and later, after graduation" (p.9).

The traditional examination is associated with the problem of some students having the tendency to become emotionally disturbed prior to the examination and the consequent effect on reliability. Laing and Williams (1968) quoted figures for university students following a three-year course which show that consultations with the university health service increased during the finals that year. In that year 19 per cent of the students reporting to the service displayed psychological symptoms and in 6 per cent of these cases, examinations were diagnosed as the principal causative factor. However, no comparable figures for school children can be found but, Hoste and Bloomfield (1975) say that the same phenomenon may exist at

school level. Palmer (1970) has suggested that continuous assessment could alleviate some of this stress. Some other writers hold the opinion that some individuals may find CA more stressful than a once-only examination. For example, Barbara Cowell (1972) in a letter to the Times Educational Supplement wrote:

'To me, comparing assessment with examinations is like comparing months of nagging toothache with the short sharp pain of having a tooth removed'.

Laing and Williams (1968) included in their list of the advantages of CA the suggestion that it promotes depth of study. A student is encouraged in his reading and thinking to consider greater detail and to take several viewpoints into account. He has time to reflect on what he has written and the opportunity to change it. However, to some students this might be a disadvantage, for example, Cowell (1972) argues that in the case of a candidate who had the least tendency towards an obsessional or perfectionist personality the assessment method would bring this into full flower.

Contrary to Laing and Williams' opinion also, Young (1970) writes that "Continuous assessment tends to lead to disjointed comprehension, since, generally, once a topic has appeared in a set question, it will not appear again in a later examination" (p.9). Young argues further on this issue that since the student knows that any single examination is only one of several, he is tempted to gamble and only prepare himself for those questions which he imagines will be set. But, if a student should have an 'off day' for a particular examination,

the over-all evaluation of his work is not as adversely affected with continuous assessment as it would be, for example, if the examination were at the end of his course.

Many other writers have commented on the effect of CA on both the teacher and the pupil. (see Chalmers and Stark 1968, Palmer 1970, Alec Clegg 1972, Cowell 1972, Njoku Egwatu 1986). Palmer 1970 writes: 'The demands on the teacher are much greater. He must have more initiative in clarifying his objectives, greater diligence and care in his record keeping. He will also spend more time moderating the work of colleagues" (p.57). Chalmers and Stark (1968) confirm this and write that teachers operating a CA scheme and their students "commented upon the increased load which has to be borne. The teacher has to devote much more time to organising, supervising and marking the work, the students to the preparation of reports" (p.155).

Young argues that "when a teacher has to write several examinations during a year, he may tend to get a bit hurried and write poorly phrased questions which not even he could answer satisfactorily. The conscientious teacher can learn from such errors, and the more questions he writes, the more opportunity he has to practise in setting well-formed questions.

Obviously, the more examinations that are set, the greater the time which must be spent in grading them" (p.13).

Apart from the above authors, several other authors question the competence of all teachers in the skills of assessment. Fairbrother (1972) writes that:

"successful examining requires time and know-how, and if these are not made available to teachers then examinations may stagnate...." (p.210).

Morrison (1970) comments that little attention has so far been given to the kinds of assessment skills it might be desirable for teachers to acquire, and is known about how teachers might be trained effectively in various skills.... (p.96) [and] ....up to now assessment skills of teachers have been viewed rather narrowly in terms of skills in the design and application of formal examining techniques' (p.99).

The effect of CA on students and teachers has been the subject of many publications. The beneficial effect of informing the student of his current progress is frequently mentioned because it is thought that both teacher and pupil have the information and incentive to improve their performances. This particular effect of CA on teachers and students is given as one of the reasons for the introduction of CA in Nigerian schools as shall be seen later in the discussion of rationale for the advocacy of CA in Nigeria.

But there is another side to this. Pidgeon (1971) assembled evidence to suggest that pupils tend to perform in schools according to the expectations of their teachers, parents and other pupils. A pupil who is given a series of low assessments early in a course may adopt a 'C-stream mentality' rather than attempt to improve his performances. On this note Sir Alec Clegg (1972) writes:

'Another force which leads to gross inequalities and much waste of human potential is the way <sup>we</sup> wield the weapon of



success and failure. We are lavish in our praise of success, acknowledging the good that it can do, but we all too often completely ignore the damage that can be done by insensitively plunging a child time and again into failure' (p.34).

More recently Egwatu, a Nigerian, in an article titled "Continuous Assessment the plague of our school system" in Daily Star, January 17, 1986, criticizes continuous assessment thus:

"the policy encourages and exposes the pupils to examination malpractices. How can a child be convinced against of resorting to foul means when he knows that the malifarious tests conducted every week determine his success in the class? The danger is that he will carry this to his adulthood. ....too much freedom is given to the teacher. The fact that class work has 60% shows that a child could pass well even without taking the end of term examination. As a human being, the teacher could at times be sympathetic to a particular child. Similarly a 'wise' parent could collude with a teacher to achieve an end. A lazy and tired teacher could award marks indiscriminately to the children without tests" (p.8).

Continuous assessment, besides affecting pupils and teachers' work may also affect their relationship. There is strong support for the opinion that teacher-pupil interaction may be drastically changed when the teacher adopts the additional role of assessor. Taylor (1971) argues that CA "complicates the relationship between tutor and student and encourages the latter's efforts to make the relationships reciprocally influential" (p.26). In effect the students will look for ways to influence the tutor's judgement. Simon (1970) in confirmation writes that:

"It becomes increasingly clear that those who knuckle under the grading system and learn what reality is all about.... are the ones who reap the rewards. Those who question the system or resist it often get flunked out, neatly and sometimes finally" (p.398).

There is a danger that individual children may constantly force themselves upon the teacher's attention. This may have an effect on the assessment. Some pupils are determined to impress and so dominate a class to the advantage of their assessment. A child with a more reticent personality and equal ability may go unnoticed and perhaps be given an average mark.

Some authors (Eggleston 1967a,b, 1972, Christopher 1972; Yeoman, 1972; Eggleston and Holford, 1971) maintain that if a candidate stays in a school for the whole course, the information about his attainment in a subject is far greater than can be obtained, for example, in two three-hour examinations. An increase in the size of the sample of the candidate's work increases the reliability of the assessment. Spreading the period of assessment over several months or years evens out the variation due to extraneous sources. The pupils' result is likely to be nearer their 'true' performance (i.e. more reliable) than that produced by an examination at one point in time.

Conversely, movements of teachers and pupils cause an inevitable break in continuity. A student who moves into a continuously assessed scheme from an examination scheme has less work to present and the result may be less reliable. A pupil moving from a continuously assessed scheme to a course with a final examination may have to change his style of learning.

Another issue that is related to the issue of continuity is the case of privately entered candidates who clearly cannot

be continuously assessed. Christopher (1972) noted that:  
"school examinations do not exist solely for school candidates. Every year large numbers of private candidates enter for the G.C.E. examinations. These candidates do not attend schools and school assessment procedures cannot therefore be applied to them, but their needs must continue nevertheless to be met" (p.4).

Several writers (Eggleston and Holford 1971, Eggleston 1971, Laing and Williams 1968, Mathews 1969, Eggleston and Holford 1970) see that CA which samples all the skills and abilities in the curriculum, as the most valid form of assessment possible. What they are saying is that CA is a more valid form of assessment than conventional examinations because it can sample a wider range of the skills and abilities inherent in a course of study.

Eggleston and Holford (1970, 1971) argue that the validity of CA can be increased by virtue of the breadth of subject material which can be sampled. Palmer (1970) however, warns that CA 'does not necessarily ensure a valid assessment. The teacher needs to define his objectives with some exactness and then to gauge what is being measured and in what proportions" (p.57).

There is also, the claim that the emphasis on memory, which is a feature of conventional examinations, is less with CA (Sullivan, 1971), and there is a chance to assess such desirable attributes as originality. But Mathews (1969) writes that:

"It is relatively easy to award a mark for the written outcome of a piece of practical work; it is much more difficult to award a mark for abilities and attitudes which can only be assessed by direct observation of students at work" (p.207).

It is claimed by some writers that CA is susceptible to cheating. Evidence of this is shown from what Egwatu (1986) has said above. Also, Laing and Williams (1968) report that: "In one college of education, 'an instant essay factory' was discovered, but the college did not give up continuous assessment" (p.11).

Palmer (1970) comments that with CA:

"Malpractice (copying and plagiarism) is easier to get away with" (p.57).

In confirmation of the claim by Egwatu (1986) and others, Allen (1972) says that in assessment involving project work:

"there is tremendous pressure on a parent or elder brother or sister to give a helping hand.... studies in fact tend in some cases to become family ventures" (p.225).

Though much has been said both for and against CA, the importance of CA is still being emphasised by the burgeoning interest in CA by both the developed and developing nations. For example, in Tanzania continuous assessment has been an integral component of the student assessment scheme in all O-level and A-level subjects since 1976. Njabili (1985) reports that the main purpose of having a continuous assessment scheme as an integral component of assessment procedures in the Tanzanian education system is to eliminate/minimize the element of risk associated with a single examination, and to give a valid indication of student achievement, because it is felt that no student who works conscientiously should fail.

Equally in Nigeria, a host of advantages have been given for the introduction of CA into her education system. These are discussed fully elsewhere in this chapter under the sub-heading 'Rationale for CA in Nigeria'.

In England and Wales there is the integration of continuous assessment in the new schemes of work in the GCSE. Pressures for liberalisation of the examination system have produced changes in modes of examining in many countries. In some of these places, departmental, state or public examinations are being abandoned for CA. The policies adopted for CA in each place at any given time, depend on a host of factors peculiar to the nation's educational history, previous experiences, and social, sometimes political factors. As has been earlier mentioned, with CA, there is room for objective evaluation in analysing the merits and demerits.

## CHAPTER FOUR

### CONTINUOUS ASSESSMENT IN NIGERIA

#### Educational Assessment and its reform: The Nigerian Experience

The system of educational assessment in Nigeria has a history of its own which has grown up with her own political and social system. The Nigerian educational assessment began in the traditional society when efforts made to inculcate values and norms defined by the elders into the minds of youths and adults were assessed and constantly evaluated by the society. For instance, Fafunwa (1982) asserts that in traditional African Education "At the end of each stage, demarcated either by age level or years of exposure, the child was given a practical test relevant to his experience and level of development and in terms of the job to be done. This was a continuous assessment which eventually culminated in a 'passing out' ceremony or initiation into adulthood" (p.10).

Thus, educational assessment was a feature of traditional education in Nigeria. All educational programmes were carefully reviewed to discover whether they were meeting the objectives for which they were established. Thus, military training and fighting strategies were assessed, sometimes on the battlefield. As part of preparation for life, apprentices were carefully assessed to see if they were making progress in the acquisition of required skills.

Assessment was, however, a continuous process and was woven into the training programmes. There were fixed hours for

expecting questions or question papers. For society considered it imperative that everyone should be exposed to the values and norms established by the ancestors and tradition, and be prepared for life. In the process, skill was cultivated at home, at work, at play and at prayers (Majasan, 1967).

External pressures and influences from the Muslim and Christian worlds introduced a new dimension, as written assessment and impersonal evaluation systems were gradually adopted in the formal educational institutions. The Muslim and Christian missionaries introduced revolutionary changes in the principles and practice of assessment. Muslim teachers who taught their pupils the art of writing and of memorising passages of the Koran, posed questions, demanded instant answers and whipped defaulting learners. In the meantime, Christian missionaries had as from the mid-nineteenth century, established schools. Inspection was conducted. On such occasions, examinations were also conducted.

Further developments came with the establishment of a British Colonial rule in Nigeria. For colonial officials, recruited in large numbers, brought with them the practices of job recruitment, selection and assessment. By 1906 a Department of Education was established for Southern Nigeria. Soon the Department instituted various grades and types of examination including the Standard VI certificate examination. The City and Guilds of London Institute introduced its examination into Nigeria in 1930 and the Royal Society of Arts exams were first taken in the country in 1949. In 1953, the

School Commercial Certificate examination was introduced (but was discontinued in 1972). Other examinations conducted included the Royal Sanitary Institute Examination, London College of Music examinations, the London Matriculation Intermediate and final degree examinations of London University and the Junior, Preliminary and Senior examinations of the Cambridge and Oxford boards. As from 1952, the General Certificate of Education (G.C.E.) examinations were offered by private candidates in the country.

British Universities were invited to assess the level of knowledge acquired by Nigerians as from 1887, when the first London University examinations were held in Nigeria (Omolewa, 1976b). In 1910, Cambridge University was requested to assist, through its assessment processes, in the evaluation of the standard of secondary education in Nigeria (Omolewa, 1977). Cambridge, joined as from 1929 by Oxford University, established the preliminary, Junior and Senior School Certificate examinations to be taken after two, four, and six years of secondary education respectively (Omolewa, 1977). Oxford and Cambridge conducted the Matriculation Intermediate and Degree examinations.

The West African Examination Council (WAEC) founded in 1952 has been the single examination body for the secondary schools in Nigeria. The WAEC has come to assume a leading role in determining the educational pattern and progress in Anglophone West Africa since its establishment. Its certificates command respect not only within the former British



territories, but within the academic world as a whole. The WAEC School Certificate is equated with the United Kingdom General Certificate of Education (Ordinary Level) while the WAEC Higher School Certificate is equated with the United Kingdom General Certificate of Education (Advanced Level).

However, there have also been problems for the Council - problems of communication within and between offices of the Council, late release of results, a huge backlog of certificates not issued to candidates, administrative lapses, and an increasing number of irregularities at the Council's examinations (Nwana, 1982).

In effect, many Nigerians felt very dissatisfied with the events in the examination system at the end of the secondary school stage. For instance, the Report of the Study Committee on Education set up by the Federal Government of Nigeria (1970) observed that "The examinations at the end of the secondary school stage, if properly conducted do serve some useful purpose. But the conduct of this examination and the syllabus is narrow, restrictive and the public has lost confidence in the administration of the examination" (p.43).

The Federal Government of Nigeria through the Nigeria Educational Research Council began from 1969 an exercise, aimed at providing a suitable educational system for the country. The issue of educational objectives, curriculum and assessment were considered and recommendations were made. The Government finally published the document on the National Policy on Education in 1977 (Revised 1981). Under secondary education,

the document states that Junior Secondary Leaving Certificates will be based on the continuous assessment method (see Chapter One). It also states that the end of the Senior Secondary stage, a formal examination by WAEC will be given, but the performance during the three years will be weighed and taken into account for certification purposes, (Chapter One).

WAEC conducted the first final examination under the 6-3-3-4 system in 1988. According to the Nigerian Guardian, (November 26, 1985, p.1), a national daily, "WAEC was chosen, despite its present heavy work load, because it has already developed the facilities and capacities to implement the continuous assessment scheme of the new education policy".

It is therefore clear that Nigeria has begun another phase in educational assessment.

#### 4.2 The Rationale for Continuous Assessment in Nigeria

The first reason that one can give for the advocacy of continuous assessment in Nigeria education system may be inferred from the policy state (National Policy on Education, 1981, Section 7(7)) as we have seen earlier which stipulates that educational assessment and evaluation will be liberalised by basing them in whole or in part on continuous assessment of the progress of the individual. In several other places, the policy made references to the operation of CA in the different sectors of the educational system as already seen in Chapter One.

But many educationalists in Nigeria and even the Nigerian

Government have argued, quite independently of that policy, for the adoption of the strategy of CA in Nigerian schools. According to Levin and Simon (1974: 48) the starting point of research into an educational change is probably the people's "grievances with existing conditions, programs, schools, or the system". Many educationalists in Nigeria, e.g. Nwana (1982), Ipaye (1982), Nwigwe and Nwigwe (1983), Enyong (1978), Obasi (1985), and Ike (1981), were dissatisfied with the traditional examination system and also the Steering Committee on CA listed a number of weaknesses of the former system of assessment (see A Handbook on CA, 1985, pp.7-8).

Before the introduction of CA in Nigerian schools, the main mode of assessment of pupils was by means of the end-of-course examination, i.e. the one-shot examination at the end of primary, secondary and to some extent tertiary education. In between, there was the promotion examination which was taken at the end of each school year. This examination assessed children's level of attainment in all the subjects or courses studied during the year.

Clearly the formal examination was, for the most part, the dominant method of assessing students' progress in Nigeria. One problem with such an approach according to the Steering Committee on continuous assessment:

"is that assessment is then directed mostly to the 'thought' aspects of learning activities. Knowledge, understandings and other thinking skills acquired in various subjects of the school curriculum are evaluated and marks are awarded relative to the pupil's performance in the several subjects. Usually neglected in this procedure is the assessment of skills normally associated with both the character and the industry of the pupil.

Thus, when testing is used as an exclusive method of assessment, it may not be possible to get an overall picture of the person being assessed". (A Handbook on CA, 1985, p.7).

Another problem levelled against the traditional system of examination is that it puts emphasis on decisions at the end of the year, the term or course. One shortcoming of this practice according to the Steering Committee is that by the time a decision was made it was too late to help pupils improve on their learning because most of them would have gone on to other classes, courses or topics. As a result, the educational system (including the pupils, the teachers, the curricula and the administrators) was denied opportunity for meaningful growth. The Committee thinks it is unwise and unnecessary to deny the educational system this essential feedback.

A third weakness of the traditional system of examination in Nigeria, was to be seen in the manner which reports are sent to parents and guardians. In primary and secondary schools, the common practice was to add raw scores, as given by different teachers, find an average and give the student a rank among his classmates. The problem with this was that marks obtained in different subjects or given by different teachers may not have equal weights. Thus, some students might be downgraded unnecessarily in rank because of a combination of subjects which they take.

Another issue associated with the manner in which reports were presented to parents and guardians is that information provided was usually scanty. At best there were marks or

letter grades indicating attainment in different subjects, an overall average which did not indicate much, or indicated a false rank based on this average. All of these were geared to the cognitive domain of knowledge. The Committee noted that in primary and secondary schools there might be a statement on the conduct of the student which was just one aspect of what would be introduced as reporting in the affective domain. The practical skills of the student or what is called the psychomotor domain was generally ignored (Ipaye, 1982).

As alleged by Ipaye (1982), Nwana (1982) and many other educationalists in Nigeria, as a result of Nigeria relying rather too heavily on the one-shot, end of course examinations, many children resorted to devious means of cheating and other malpractices during examinations. For example, Nigeria witnessed so many exam leakages that people euphemistically referred to it as "EXPO". The National Steering Committee bemoans this situation thus:

"'Expo' which has crept into the practice of assessment in this country as a symbol of national disgrace and poverty of the state of record-keeping. There is therefore, definite need for change of practice".

(A Handbook on Continuous Assessment, 1985, p.8)

The examination malpractices gave rise to more discontent about examinations. The need to modify the examination and assessment procedure thus became more strongly felt. According to Nwana (1982), cheating took such forms as leakage of the questions several weeks or months before the examination was held and obtaining extra help during the examination. In one notorious instance of leakage according to Nwana also, the

questions were so widely circulated by the 'underworld' that the results of a large administrative area, involving well over two hundred secondary schools, had to be cancelled. The control and complete eradication of these examination leakages was the most trying problem faced by the WAEC, because it was a fundamental issue on which the validity of its certificates and result sheets depended.

Nwana noted that another problem which complicated the issue of examination leakages was "The availability of forged WAEC certificates showing faked grades" (Nwana, 1982, p.193).

Nwana throws more light on this issue by saying that:

"The typical West African is over-conscious of examinations, and tends to believe implicitly in the certificates and paper qualifications so necessary for admission into a higher institution of learning, employment or promotion. ....Leakages and forgery are the most serious irregularities of the WAEC examinations, but they are not as frequent as the now numerous methods employed by candidates to obtain extra help during examinations..... Some candidates copy answers already written by others.... In some centres, candidates' scripts show that they have answered the same questions in the same order and written the same answers.... Written answers have even been known to be introduced by fraudulent invigilators themselves with the aim of aiding the candidates (Nwana, 1982, pp.194-5).

The gravity of the irregularities at public examinations had caused so much concern that the Nigerian Federal Military Government included in its 1973 Decree No 27 on the WAEC, sections relating to penalties for examination offences. Also in 1984, another decree - Decree 20 spelt out further penalties for offenders.

It can therefore be seen from all these that it was imperative for a reform of Nigeria's assessment system.

However, apart from the weakness of the former system of assessment the Steering Committee on CA argue that the advocacy of CA arose from the belief that it would:

- (a) give the teacher greater involvement in the overall assessment of his or her pupils;
- (b) provide a more valid assessment of the child's overall ability and performance;
- (c) enable teachers to be more flexible and innovative in their instruction;
- (d) provide a basis for more effective guidance of the child;
- (e) provide a basis for the teacher to improve his or her instructional methods, and
- (f) reduce examination malpractices.

(A Handbook on CA, 1985, pp.3-4).

The above arguments for the advocacy of CA in Nigeria by the Steering Committee on CA and others and the merits of CA (Chapter 3) provided a strong base and rationale for the advocacy of CA not only in Nigeria but also in the educational systems of other countries. The function of the rationale for CA as mapped out by the Steering Committee on CA is to give meaning to the assessment reform. It expresses certain value positions which the country is prepared to stand by in public explanation.

#### 4.3 Continuous Assessment in Nigeria: Past and Present Continuous Assessment: Past

What is envisaged in terms of continuous assessment is not completely new in most schools in Nigeria. What could be new is the method of co-ordinating, recording and using the scores obtained. Also new is the proposal to integrate affective and psychomotor measures with cognitive measures in deciding the pass/fail, promote/do not promote, certify/do not certify dichotomy. This is clearly shown in the National Steering Committee on Continuous Assessment's definition of CA detailed earlier in Chapter 3.

Before the implementation of CA in Nigeria (i.e. before the 1984/85 session in Imo State), some primary schools in Nigeria issued weekly report cards to their pupils. This practice gave a record of the child's academic attainments in a few subjects, as well as on materials learnt during the week, thereby giving parents and guardians some idea of the child's progress week by week. Usually, some teachers recorded performances in English and arithmetic (mathematics), some went up to three subjects. The performances on these subjects could also be recorded on the Progress Chart. Some schools preferred to complete the reports fortnightly rather than weekly. Though this practice approximates to aspects of what is now called continuous assessment, the weekly or fortnightly scores contributed in no way to the overall assessment at the end of the term or year. Furthermore, only casual remarks were made on the child's behaviour and often the word 'satisfactory' was



put against columns requesting information on conduct. On this Nwigwe and Nwigwe (1983) comment thus:

".... records of the pupils' performances in internal examinations are not kept beyond that particular year or class...

.... Headmasters/mistresses know very well that the promotion exams, classwork and projects done by the pupils, and marks awarded for their assignments, do not contribute a pin to the result of these external examinations" (p.7).

However, in some secondary schools, the practice was slightly different. A number of secondary schools did not depend completely on the end of term examination results while reporting the child's academic achievements and when deciding whether to promote the child or not. Such schools gave a number of tests during the term and the percentage of the tests for the term's work was calculated and reflected when reporting the total academic achievement at the end of the term/year. In effect, this practice watered down to some extent a complete reliance on a single end of term/year examination in those schools that added the test scores to the end of term examination scores. It must be noted that before the implementation of CA (still that is before 1984/85 session in Imo State) CA never contributed in any way towards certification in any Nigerian secondary or primary schools. According to Item 4.23 of the Federal Government Views on the Implementation Committee's Blueprint on "The Federal Republic of Nigeria National Policy on Education" (1979).

"(a) The first outputs from the Junior Secondary course will occur in 1985.....

(b) The first outputs from the Senior Secondary will occur in 1988" (Item 4.23).

As already been shown the first outputs from the Junior Secondary Schools in Imo state was in 1987 and the first outputs from the Senior Secondary will be 1990. This is because Imo State started implementing the CA scheme in 1984/85 session (see Appendix 2 i.e. A letter from the Imo State Ministry of Education to the researcher).

It has already been mentioned also that the National Policy on Education in Paragraph 99, sections 2 and 3 respectively stipulates that at the end of the first three years following primary education the Junior Secondary School Leaving Certificate will be based on State examination and continuous assessment method. The Certificate will be issued by the Headmaster; at the end of the second three years course, (Senior Secondary), a formal examination will be given but performance during the three years will be weighed and taken into account for certification purposes.

However, the practice of using test scores was not uniform in terms of how many tests to give within the term. As Nwigwe and Nwigwe (1983) have said earlier, projects, class essays were rarely taken into consideration. Ipaye (1982) therefore observes that in effect the students tended to see the within-term tests as additional examination periods and many teachers were not thoroughly committed to the spirit and letter of such an innovative practice.

Ipaye also noted that only mere remarks were given by the house master/mistress and the principals on the behaviour of

the child, and such remarks according to Ipaye had little or no impact on computing the achievement scores of the child.

### Continuous Assessment: Recent Proposals

"Educational assessment and evaluation will be liberalised by basing them in whole or in part on continuous assessment of the progress of the individuals"  
(National Policy on Education, 1981, Section 1, Para 7(7))

When in 1979, the Educational Evaluation Unit of the Federal Ministry of Education started on the implementation of the continuous assessment as part of the National Policy on Education, the National Steering Committee on Continuous Assessment was set up and they produced a handbook on continuous assessment. According to the committee:

"This book certainly points to the direction which we must follow for a successful integration of continuous assessment into the method of examining in schools as envisaged in the National Policy on Education".  
(A Handbook on Continuous Assessment, 1985, p.v.)

The primary aim of the book, is to present in a concise and straight forward manner, among other things, the concept of continuous assessment as to be practised in Nigerian schools. Thus, the present practice of CA reported in this study is that which has been outlined by the Steering Committee on Continuous Assessment in A Handbook on Continuous Assessment (1985).

In the implementation of CA the child's daily performance is regularly graded and summarised periodically and then recorded. In a given term, these periodic records are summarised twice and reflected as termly summaries. At the end of term, the end of term examination is also given and scores

here added to the scores obtained from the total of the two termly summaries using a given weighting system. This gives a record of academic achievement for the term. Also, the child's behaviour and out of class performances are rated along given criteria/characteristics by a number of teachers who interact with the child in strategic places or situations. A summary of their ratings for the term is obtained and may be stated in scores. The score is also added to the scores obtained from the academic work using a given weighting. In most cases the psychomotor and affective domains are rated on a five-point scale, (A Handbook on CA 1985, p.99). These scores on academic, behavioural and performance (i.e. cognitive, affective and psychomotor domains) then represent the CA for the child during that term and are recorded in the Teacher's Class/School Record Book.

The process described above for the first term is repeated for the second and third terms. The overall summary for the year, incorporating all the recorded scores from the first to the third term represent the child's achievement scores for the year. Equally, the work of each term contributes to the entire year's work according to given weighting/ration. That is:

- (i) The termly summaries incorporate assessment of work done periodically
- (ii) The work assessed will not necessarily be test only, it will include projects, essays, assignments, homework etc.
- (iii) The end of term scores may incorporate scores from the affective and psychomotor areas.

- (iv) The termly summaries are combined in given proportions  
This is called weighting.

At the secondary school level, the report sheets issued at the end of the term should provide for:

- (i) the two termly summaries. For this purpose each form master should keep a marks book into which is recorded the scores of the periodic tests. The average of these scores from the termly summaries for respective halves of the term.
- (ii) the end of term examination scores
- (iii) The average of (i) and (ii) referred to as overall
- (iv) Scores on the social and physical development/activities (i.e. affective and psychomotor scores).

Ibid, p.33.

In weighting, each term's work should be assumed to constitute 100 as maximum scores. Out of this, for a given term, the two termly summaries should contribute a proportion, the end of term examination should constitute a proportion and the affective and psychomotor scores should constitute a proportion. As far as the writer knows no proportion has been worked out yet, the practice varies but for illustration purposes, Ipaye (1982) says that for one term it is something like this:

CA = 40% (shared equally for the two  
termly summaries)

Affective/Psychomotor = 10% (if quantified)

End of term's Exams = 50%

Total = 100%

This could be the weighting for each term but the entire year's work has to be weighted too, each term contributing certain proportions.

However, like the term's weighting, Ipaye (1982) uses hypothetical proportions because there are no agreed proportions yet. This is for illustration purposes, also bearing in mind that the entire year's work will be scored out of 100.

1st term	25%
2nd term	35%
3rd term	40%
Total	100%

The score for each student in each term is calculated using the weighting so as to obtain the overall score for the year. However, what is used in weighting is not necessarily the raw scores. For the CA exercise, the T-Score is recommended (A Handbook on CA, 1985).

The child's score each year is recorded in his/her Cumulative Record Folder (CRF) and at the end of the course, these scores are used as necessary.

The suggested weights for combining school assessment with scores on final examinations (FE) at the end of Junior and Senior Secondary Schools by the Steering Committee on CA are as

follows:-

(a) Junior Secondary School Level

First year	10%
Second year	20%
Third year	30%
Final Exam (State)	40%

(b) Senior Secondary School Level

First year	10%
Second year	20%
Third year	30%
Final year (WAEC)	40%

Ibid p.30.

It is felt that the weight should increase progressively so that test taken earlier in the course carry less weight than those taken towards the end. In summary, the operation of CA involves a continuous assessment of the child's work by means of periodic tests, assignments, essays, homework and projects. These, graded periodically will be summarised twice every term and these termly summaries together with the end of term examination will form in given proportions, the child's CA scores for the term. This is repeated for each term at the end of the year, the ratios are worked out to obtain a single score for the child - this represents the performance score at the end of the course - four or three years thence. In each case, both cognitive and non-cognitive aspects are taken into consideration (Ibid, pp.98-100).

### Continuous Assessment at the State Level

The main purpose of CA beyond the school level is to monitor the progress of aggregates of students - age groups, grade levels, geographical groups e.g. urban/rural, and also to monitor the performance of students at important public examinations. Again, according to the Steering Committee on CA "The first involvement of state government in Continuous Assessment is to ensure that the capacity to improve the programme at the school and local levels is generated. This, it will do by mounting the necessary workshops by serving as a clearing house of instruments and by acting as consultants about matters of implementation". (p.91).

Also, part of the CA work at the state level is the standardization of various instruments "Since there will be criterion referenced testing as the main form of testing, a Continuous Assessment programme the state should have empirically derived criterion performance scores for various instructional objectives at different levels of the school system" (Ibid. p.92). However, in terms of assessment, these demands have never been met anywhere in the developed world let alone in a developing nation.

### Continuous Assessment at National Level

At the national level the most important thing according to the Steering Committee is deriving a nationally acceptable standard and reputation for whatever certificate emerges from the practice of CA.; the nation is more concerned with



obtaining national indices of the performance of the educational system. Broadly, the objective of CA at the national level is that of monitoring. Because so much hope is placed on education in solving many of the national problems in Nigeria, its effectiveness is therefore of public concern. However, the Steering Committee on CA did not suggest how the nation should perform the above functions towards CA. The questions - how can the nation derive a nationally acceptable standard and reputation for whatever certificate emerges from the practice of CA and how does the nation obtain national indices of the performance of the educational system, are yet to be answered.

The objectives of a National Continuous Assessment can be summarized as:

- (a) to formulate competences expected of Nigerian children of different age or school grade level in different school activities
- (b) to undertake national surveys as to the degree of attainment of these competences.
- (c) to prepare strategies for arresting any observed unacceptable trends.
- (d) to provide leadership in such matters as constructing instruments for Continuous Assessment with comprehensive 'normative' data. (Ibid, pp.93-94).

### Continuous Assessment of Educational Progress at the National Level

At the national level a programme of Continuous Assessment of Educational Progress (CAEP) is being suggested. The CAEP programme being suggested by the Steering Committee is a goal-oriented approach to assessment. Specific objectives and goals are defined and exercises are written which determine how well those goals are being met. In CAEP, the objectives or goals represent a kind of standard which is considered desirable to achieve. The exercises, if they are good, tell us that the extent to which the goals are being achieved. We will also know what students know or can do. We can then say in an objective way whether indeed standards are falling or rising or static.

#### 4.4 The Problem of National Standards and Control

In the Implementation of CA, Nigeria identifies comparability of standards, and record-keeping and the continuity of records as two major problems facing the system of CA (A Handbook on CA, p.4). In this section of the thesis, the intention is to review some pertinent literature on comparability and records of achievement with a view of drawing from it what is relevant to CA in Nigeria. In Britain, external examining boards have given considerable emphasis to comparability (Forrest 1971, Forrest and Smith 1972, Nuttall and Wilmott 1972, Nuttall et al 1974, Bardell et al 1978, Forrest and Vickerman 1982). However in a country where eight

examination boards exist, one is not surprised to find them very keen to establish comparability. This section first concentrates on three related and important issues of comparability, the meaning and purpose of comparability in Examinations, the different aspects of comparability and then finally the various methods employed to investigate comparability.

### Comparability

The G.C.S.E. The National Criteria (DES, 1985, p.21) says that comparability in relation to examination is concerned with the extent to which the same grades in different examinations represent the same or equivalent levels of performance. More recently, the Black Report (DES, 1988, Para 5) argues that "the scales or grades should be capable of comparison across classes and schools if teachers, pupils, and parents are to share a common language and common standards: so the assessments should be calibrated or moderated".

Thus in Nigeria, or anywhere else, examiners may be comforted if pass-rates vary little from school to school, state to state, subject to subject and from year to year, since this indicates consistency in the judgement being made each year. However, if the standard of candidates entering the examination improved over the years, one would expect to see an increase in pass-rates. In reality, we find that pass-rates do change. Judgements made by the examiners might produce different percentages of candidates getting a particular grade

(especially in the JSS Exam which is the sole responsibility of each State Ministry of Education).

Standards can also be considered in terms of the subject being examined. Suppose, for instance an A grade is awarded only to the top 10% of candidates (norm referenced exam), then if the syllabus and/or the exam changes, but the candidates remain the same, e.g. 16 year olds, then this top % - A can be seen as one kind of consistency of standards. Similarly if grade A is awarded only to candidates who can show specific skills (criteria referenced exam) then if the candidates change, but the tasks or skills they are required to demonstrate for a given syllabus and exam stay unchanged, this can be seen as another kind of consistency of standards. It is necessary that while the above changes occur the exam standards are kept consistent from year to year. Individuals who pass are soon to face the demands required by the employers, Joint admission and matriculation board (JAMB) and other Admission Registrars of higher and further education. In cases like these, selection is done mainly on the basis of the individual's exam results, therefore, it is not fair that entries to higher education or getting a job are done on the basis of an inconsistent judgement made in the first place. Such inconsistencies would make the same task require different achievers. This may occur in a situation where two candidates have attempted the same subjects with different schools or states. If, for example, one candidate got A,B and C grades in three subjects, and the other got B,C and D grades in the same

subjects, then it is sensible to conclude that the first candidate is better than the second one only if we can validly establish that the standards of the two states/schools are comparable in the subject concerned. However, if we are able to point to one state/school and show in a scientific way that it is lenient, then we can see that our preference for the first candidate is not fair and not valid. In the UK, a number of studies concerned with inter-board comparability have been conducted (e.g. Bardell et al 1978) and it might be comforting to the boards involved, that these studies, in general, found little or no variations in standards.

Certainly, if comparisons are going to be made between individuals on the basis of exam performance, then comparisons ought to have a common basis.

Another situation may emerge when two candidates have sat for different subjects with WAEC. (Consider what might happen if they both then applied for a job that requires, say, 4 O-levels, and their grades were as follows:

Subject	Maths	English	Integrated Science	Social Studies
grade	B	B	B	B
Subject	Maths	English	Integrated Science	Igbo
grade	B	B	B	C

If specific subjects are not required then the employer would expect application forms that contain many combinations of four subjects. Consequently the employer would generally treat the same grade in different subjects as being the same standard.

It follows from this that a grade B in Social Studies is better than a grade C in Igbo. So, if there is no particular requirement for a Social Studies or an Igbo qualification, then he is likely to select the first candidate. The question is whether he actually made a fair choice.

Again, if comparisons are to be made between two people on the basis of exam performance, then such comparisons ought to have a common basis. From the above example several questions can be asked:

1. Was the teaching of Igbo worse than that of Social Studies?
2. Was the Igbo candidate's ability lower than that of Social Studies?
3. Was the Igbo subject matter more difficult than Social Studies?
4. Was the marking (grading) of Igbo harder than Social Studies?

These questions are still valid if both candidates took both Social Studies and Igbo and did better in Social Studies than in Igbo. Another question therefore is whether the two candidates were equally motivated.

However if the Social Studies and Igbo examination is taken by a large group of candidates, and if the examination in Igbo is comparable to Social Studies, there is no reason then why the mean average grade in Igbo should be different from that in Social Studies. Motivation, ability, and teaching differences would in the end cancel out. The proposition that

the Igbo subject matter could be more difficult than the social studies subject matter need not necessarily be reflected in the examination. (Nuttall, et al 1974; Forrest and Vickerman 1982).

### Aspects of Comparability

G.C.S.E: The National Criteria (DES, 1985) defines four aspects of comparability of standards and these are comparability

- a) between alternative versions of the same subject provided by a board (or group of boards) in the same year;
- b) between examinations in different years in the same subject provided by the same board (or group of boards)
- c) between the examinations of different boards (or groups of boards) in the same subject;
- d) between different subjects provided by the same board (or group of boards) p.21.

### Moderation

The process of determining comparability is called moderation. For instance, the Black Report (DES 1988) construes moderation as the process of checking comparability of different assessors' judgements of different groups of pupils. According to the Report the term can also refer to a procedure for determining a single set of marks or ratings when two sets are available for the same pupils on the same profile components, e.g. one set from a teacher's course assessments

and one from a national test. A related definition of the above definition of moderation is also given by the DES (1985, p.6). The General Criteria, which construes moderation as a:

"process of aligning standards between different examinations, different components and different centres or teachers responsible for the assessment of their own candidates".

The DES further defines the role of the examining groups in the following terms:

"The Examining group must.... scrutinize and approve schemes of marking; ensure that suitable guidance in the way of assessment criteria, written instructions, group discussions, trial markings and training.... is given to teachers.... All systems of moderation of internal assessments must make clear the Examining Groups' right to take such action as it thinks necessary to bring internal assessments into line with general standards...." (DES, 1985, p.7) .

### Functions of Moderation

Cohen and Deale (1977) pointed out that some people argue that in internal assessment, total reliance should be placed on the professional competence and integrity of the teacher, who knows far more about his pupils than any external examiner or moderator can hope to learn in the course of a short visit or by the scrutiny of a few pages of script. This is perhaps, an extreme view, though one which, in principle, we would not disagree. Nevertheless, there are a number of other factors which must be taken into consideration.

First, as regards the integrity of the professional judgements of the teachers, the majority of teachers could be scrupulously honest in making assessments of their pupils'



attainments, however, even with the best of intentions, it is possible that a 'halo' effect, for example, may cause a teacher to misjudge a pupil (Deale, 1976). On the other hand, there may also be, as in any profession, a few whose standards are not of the highest. It is essential that moderation should be seen to be capable of detecting and correcting any unfairness or malpractice that may occur. As regards this, therefore, DES (1985), GCSE: The General Criteria warns that:

"Schemes of moderation should include procedures which will act as a deterrent against bias, prejudice or malpractice (DES, 1985, p.7).

Moderation, therefore, has an important function by safeguarding the standards of the examination, it also protects the interest of the candidates and indeed, those of the teachers who might otherwise be open to accusations of unfairness or bias.

Secondly, though it is accepted that the teacher is in the best position to know his own pupils' strengths and weaknesses and thus to prepare a mark list for his own teaching groups, he is not well placed to know how their standards of work compare with those of pupils in other schools. The role of moderation in adjusting standards of grading between schools is again of great importance in a nationally certified examination.

### Methods of Moderation

Nuttall et al (1974) employed five methods for investigating inter-subject comparability. These are: The Regression method, the guideline method, Analysis of Variance,

Subject pairs analysis and using a reference test. However, the National Curriculum, Task Group on Assessment and Testing (The Black Report, DES 1988) argues that three methods of moderation are in common use and these are described briefly below.

They are - scaling on a reference test; inspection by visiting moderators, and group moderation bringing teachers together to discuss their assessments (Para 65).

Each differs in its relative emphasis on communication and control.

Scaling on a reference test: Scaling assumes that performance on the test is a better guide to the average and spread of the performances in a class than are the teacher's assessments and so the teacher's marks are adjusted - scaled - to bring them into line with the marks on the reference test. The validity of the technique depends upon the reference test reflecting precisely the same features as the teacher's ratings. The degree of the correlation between the two components can be taken as a indication of the extent to which they are measuring the same thing.

Moderation by inspection: According to GCSE: The General Criteria (DES, 1985), moderation by inspection (or re-assessment) involves the use of at least one person appointed by the Examining Group from outside the centre, who inspects at least some of the internally-assessed work to establish whether or not the original assessments are in line with general standards and, if they are not, to provide an indication of the

changes which are needed to bring the centre's assessment into line.

Group Moderation: In group moderation the general aim would be to adjust the overall teaching rating results to match the overall results of the national tests; if the group were to have clear and agreed reasons for not doing this, these should be reported to the LEA and eventually to the body responsible for operating the national assessment system. Such reports should lead to a new scrutiny for possible defects in the tests if enough agreed discrepancies were to be found. The emphasis is on communication through discussion and exchange of samples at a meeting. It is the favoured approach when examination boards scrutinise their own standards. It is the moderation method recommended most by the National Curriculum: Task Group on Assessment and Testing (Black Report) (DES, 1988). They have this to say:

"We recommend that group moderation be an integral part of the national assessment system. We recommend that it be used to produce the agreed combination of moderated teachers' ratings and the results of the national test" (para 77)

Subject Pair Analysis: Another method relevant to this study is subject pair analysis. Other things being equal, there should be no reason why, for a group of candidates sitting for two subjects, similar grades in both subjects should not be the same, i.e. the distribution of grades in one subject has the same shape as in the other subject. On the basis of this assumption, analysis of grades awarded is undertaken and differences are attributed to differences in standards in the

two subjects. In effect adjustment in standards are sometimes being made.

Conclusion: Cohen and Deale (1977) have advised that:

"there is no single 'best' method and that the method of moderation should be closely matched to the requirements of the subject rather than the scheme of assessment in any particular subject should be constrained to fit a single method of moderation" (p.44).

Also, Torrance (1987) has warned that "the key feature for .. moderation procedures would be maintaining regular and continuing contacts with and between schools.... rather than merely sampling and in effect re-marking coursework products as a one-off exercise at the end of the course", (pp.139-140).

However, the above arguments point to the need for moderation of examination results in Imo State in particular, and Nigeria in general if examination certificates are to be acceptable to the general public, more especially since the weighting of either the JSS Leaving Certificate by the State or the GCE 'O' level certificate by WAEC comprises 60% of CA and only 40% of State or WAEC examination. In effect, it is apparent that some form of moderation of the CA must occur so that the examining board can state with confidence that standards of assessment between one school and another have been scrutinized and adjusted where necessary and also to ensure that a level of performance which gains a grade 3 in one school or even state is not rewarded with grade 2 or grade 4 in another. In Nigeria also, one can understand why it is important to do so when unemployment is high and getting a job

or admission to further or higher education is very competitive.

#### 4.5 Records of Achievement

Having discussed the problem of comparability, the second problem identified by the Nigerian government in the implementation of CA which might be worth discussing in the British context is Records of Achievement. Again, the aim is that Nigeria might draw from the discussion those relevant facets in record-keeping and the continuity of records to suit her own system since she admits that record-keeping and the associated recording is a problem in her implementation of CA.

According to Sutton (1988):

"for those attempting to find ways of recording and reporting the achievements of young people, the publication in July 1984 of Records of Achievement: a statement of policy by the DES marked a turning point" (p.255).

A summary of the DES statement is thus presented below.

- 1) Records of Achievement should be provided for all students leaving compulsory schooling (No. 14)
- 2) The purposes of recording achievement are four-fold
  - i) recognition of achievement
  - ii) motivation and personal development
  - iii) (evaluation) curriculum organisation
  - iv) (producing) a document of record (No. 14)

These purposes overlap to some extent.

The DES/Welsh office (1984) warns that if the first three purposes are to be properly fulfilled schools will need to set up internal arrangements for the compilation of records

throughout a pupils' period of secondary education which will involve all the teachers concerned and allow for appropriate discussion between teacher and pupil. Arrangements will also be needed towards the end of a pupil's time at school for preparation of the short summary document of record envisaged in purpose of IV above.

- 3) The summative record should contain "information other than academic success which throws light on personal achievements and characteristics" and "evidence of attainment in academic subjects and practical skills, including any graded results in public examinations (No. 17).
- 4) The process should commence with the start of the student's secondary school career, and should take as its basis some record of achievement during the primary school (No. 35).
- 5) The student should be centrally involved with the compilation of the record, through regular discussion with the teacher/tutors (No. 36).
- 6) The final record should contain only positive information and be owned by the student (Nos. 11 and 40).
- 7) The summary documents of records should be based on national guidelines, which would provide for a common format (No. 31).
- 8) Other issues which the statement says that need to be considered include the arrangements for storing and retrieving data in connection with records and for

transferring records when young people move from one school to another. (No. 39).

As Broadfoot (1986) observes, the DES has instituted a programme of nine pilot schemes in some twenty-two authorities in England and Wales, on the basis of which it hopes to draw up national guidelines for records of achievement before the end of the decade. "Records of achievement thus rank alongside GCSE as one of the major assessment initiatives of this decade...." (p.169).

One of the unresolved problems left by the DES statement involved the notion of the record of achievement itself. Individual teachers and departments have always recorded students' achievement, but the difficulty lies in visualising how the collated record might actually look. To fulfil its formative purpose, it should be specific, diagnostic, intelligent to the student, and capable of recording both cognitive and non-cognitive development. To fulfil summative purposes. it must be concise and easily assimilable by, for instance, a Youth Training Scheme Officer, Further Education admission tutor or employer. One major concern is the resolution of these inherent contradictions of purpose. Another involves the place of evidence in the record where the need for conciseness leads inexorably towards systems of simplistic gradings which all those committed to the principles of recording achievement have been trying to avoid. A third is to ensure that the centrality of the student in both process

and product of recording achievement is maintained and not lost under a mountain of teacher-based documentation or sophisticated computerisation.

The National Curriculum, Task Group on Assessment and Testing (1988) is aware that in particular the moderation and national testing required by the national curriculum could furnish a basis for accreditation and validation for some components of the records of achievement. These in turn provide a means of recording achievement through the secondary years and thus they "therefore recommend the use of Records of Achievement as a vehicle for recording progress and achievement within the national assessment system" (Para. 162).

The above discussion underlines the importance and purpose of records of achievement especially for a system that operates CA. If the implementation of CA in Imo State is to be effective and meaningful, there must be a meticulous keeping of accurate records on each pupil since these pupils are expected to be cumulative from class to class and from school to school.



## CHAPTER FIVE

### THEORIES AND MODELS OF CURRICULUM INNOVATION

#### 5.1 Introduction

This chapter examines the literature on theories and models of curriculum innovation which includes among other things the process, planning, models, strategies and problems of curriculum innovation. These models and theories of curriculum innovation show how careful diagnosis of needs, specificity of objectives, detailed organizational planning and development of competences and materials, can be instrumental in the success of innovative projects such as CA. Thus, it is hoped the literature review of curriculum innovation will provide models for the analysis of the process of implementation of CA in Nigeria.

#### 5.2 The Process of Innovation

Many writers discuss and describe stages or processes or phases in the planning, development and implementation of innovations. Carlson (1965), for example, sees an innovation as having a life-cycle:

"An educational innovation has a natural history and, in a sense, a life cycle. The full account of its invention, development and promotion, adoption, diffusion and demise, along with an account of the problems encountered and solutions developed in introducing and maintaining the innovation in specific setting and the unanticipated consequences growing out of its use" (p.4).

According to Bishop (1986, p.4) most innovations go

through something approaching these logical phases:

1. There is some problem, some dissatisfaction, some need, that requires attention.
2. Some possible solutions are considered.
3. A particular solution (Innovation) is selected as being the most likely to meet the problem.
4. This optimum solution is trialled and evaluated.
5. If promising, the solution is implemented on a wider scale.
6. The solution is absorbed into the system, it is institutionalised.

The initial phase (the problem) may arise from a recognition that the present stage of affairs is unsatisfactory, that there are unresolved problems or unsatisfactory needs and which it is hoped some innovation will solve or at least ameliorate. Otherwise, why introduce any innovation?

Having identified the real problem, the next phase involves considering possible solutions bearing in mind the economic, social and cultural limitations. The change agent must constantly keep in mind the context in which the solution, the innovation, the educational change, will be applied. He must consider the peculiarities of the user system and its likely response to any innovation.

From the possible solutions the change agent (e.g. a Government Planning Unit, a Ministry, a Headmaster etc.) will

select that solution, innovation, educational change, that it considers will best achieve the desired results with the greatest effectiveness and at reasonable cost.

The next task of the change agent is to develop and introduce this innovation, this optimum solution, into the client/user system on a trial basis to assess the relevance and effectiveness of the innovation.

Next is the implementation phase. For effective planning and execution of an innovation, the implementation phase should be regarded as a distinct process from an earlier 'trial' phase. Implementation entails new and distinctive issues and problems that call for new and distinctive approaches.

The final test for the manager (change agent) of an innovation process, assuming a decision to proceed with the innovation has been taken, is to take steps to stabilize or institutionalize the innovation, that is, get it absorbed and structurally integrated into the system. To do this he must make provision for continuing maintenance of the innovation, and for ensuring that the innovation can be adapted to meeting changing needs.

### 5.3 CA and the Process of Innovation In Nigeria

It may be pertinent here to illustrate the process of educational innovation with a consideration of the CA scheme. Many educationalists have described CA as an innovation in Nigeria (e.g. Ipaye 1982, Turton 1983, Nwigwe and Nwigwe 1983). The justification for describing it as such rests on the

following:

1. A specific problem has been identified: As described in Chapter Three, the whole of the Nigerian educational system was suffering from the aches and pains of the examination system which included among other things examination malpractices, certificate racketeering and certificate forgery, and lack of relevance to the needs of the nation.
2. Possible solutions have been considered: Among the possible solutions considered include: the introduction of vocational and pre-vocational subjects, CA which takes account of the students' performance in all the domains of behaviour and certification being based on CA and final examinations.
3. A particular (optimum) solution has been selected: CA is now advocated.
4. A Steering Committee on CA was set up under the chairmanship of Shofolahan. Another committee was set up later and this committee, headed by Professor Yoloye produced 'A Handbook on CA' in 1985 'which acts as a training guide to teachers'.
5. CA is now being implemented on a national scale.
6. It is hoped that if all goes well, the CA scheme will be absorbed (i.e. institutionalized) into the educational system.

A recognition of the existence of stages and of the activities associated with each stage in the process of innovation according to Nicholls (1983) is said to encourage the innovator to realise the magnitude of the task, to carry out monitoring over a period of time and to provide support of various kinds for the teachers involved when and where necessary. The extent to which these have occurred in CA will be considered later.

Related to the process of innovation is the planning of innovation. The problems of innovation are said to be very complex and nowadays can no longer be solved by mere intuitive judgement or educated guesses. If innovation is not to be a hit or miss affair it must be planned. Evidence from Havelock and Huberman (1977), shows that careful planning is resorted to far less than is imagined. This results in a waste of scarce resources, stress, disenchantment and ultimately failure of innovation. President Nyerere (1969) of Tanzania coined the phrase "to plan is to choose". In essence, planning is an exercise in forecasting. As innovation is a risky affair Bishop (1986) says that the effective planner (change agent) minimises the risks not only by anticipating as many future events as possible, but also by providing 'fail-safe' mechanisms to cover unforeseen events and in this way help to nip in the bud any potential disaster, for a good plan allows any imperfections that occur to be remedied easily.

Bishop (1986) affirms that whether an innovation is implemented on a wide scale depends on at least three factors:

1. The political climate, in a national sense and in an institutional or local sense;
2. Whether there is sufficient 'energy' in the form of material and human resources to sustain it (any proposal that adds to costs is generally viewed unfavourably);
3. Its place in the general array of priorities.

The CA scheme in Imo State which forms the basis of this study is examined along each of these dimensions.

#### 5.4 Models of Curriculum Innovation

Though every innovation is unique, attempts have been made to construct models of innovation, that is, to generalise about the way that innovation occurs. Such analyses provide the theoretical background upon which overall policies or strategies may subsequently be based with the aim of accelerating the process of change. Models may be regarded as general rules, strategies take into account the situation within which the model will be applied.

Havelock (1969, 1971) studied some 4,000 cases of innovation and concluded that the principal models of dissemination and utilisation of knowledge used by most people can be grouped into three perspectives. Firstly, research, development and diffusion; secondly, social interaction; and thirdly, problem-solving. Having identified the three models, Havelock goes on to argue that the three can be synthesised in a linkage model which incorporates important features of them

all. These models are so well known that they will not be reviewed in detail here (see Havelock, 1969, 1971 and Nicholls 1983).

Many authors have criticised Havelock's models of innovation (Holt 1980, Becher and Maclure 1978 and Nicholls 1983). For example, Becher and Maclure (1978) point to the spurious assumption of the RDD model that knowledge is something that could be delivered in packages or shipped out from some central point to an eager client at the periphery. Holt (1980) argues that the emphasis on the 'givers' rather than the consumers of innovation accounts for the RDD's unpopularity amongst English teachers.

The models identified by Havelock are said not to exist in the educational field in a 'pure' form, in the sense that all the characteristics associated with each are present, and also an educational innovation may be associated with more than one model.

Working quite independently, Schon (1971) distinguishes three similar models of the dissemination of innovation, namely:

1. the centre-periphery model
2. the proliferation of centres model, and
3. the periphery-centre or shifting centres model.

Equally, these Schon's models are so well known that they will not be reviewed in detail here. (see Schon 1971).

### 5.5 Strategies of curriculum innovation

The decisions which concern the way in which innovation is to be introduced to the teachers who are to be involved with it and the way in which the innovation is to be developed and sustained according to Nicholls (1983) are likely to have profound effects on the extent to which the innovation is successfully implemented. To him, a study of strategies will suggest the major approaches that might be taken. He says that the term strategy is borrowed from the military field where it means the science and art of planning and directing operations against an enemy. A strategy for innovation, therefore, implies a planned and systematic attack on a problem, or as Miles (1964c) puts it, 'a general set of policies underlying specific action steps ("tactics") expected to be useful in achieving the durable installation of an innovation' (p.648). Bishop (1986) sees the term 'strategy' as

"all the available procedures and techniques used by individuals and groups at different levels of the educational system to attain desired objectives. A strategy is a deliberate attempt to engineer innovation" (p.15).

A number of strategies for innovation have been identified and there is a high degree of agreement among them. One common element in all the strategies is the conscious utilisation and application of knowledge, whether of things or of people, the latter being used to help to understand the behaviour of individuals and groups. Frequently, the adoption of an innovation involves both. One of the most comprehensive analysis of strategies for innovation is that offered by Chin



and Benne (1976) who identify three major groups of strategies:

1. empirical - rational
2. normative - re-educative, and
3. power - coercive

Underlying the empirical-rational group of strategies is the assumption that man is rational and that he will follow his rational self-interest once this is revealed to him. An innovation is usually suggested by someone who knows both its possible effects and the individual group or organisation that will be affected by the innovation.

Normative-re-educative strategies are based on the assumptions which can be made about human motivation. Change in pattern of practice or action, according to this view, will occur only as the persons involved are brought to change their normative orientations to old patterns and develop commitments to new ones.

The Power-Coercive strategies involve the use of the power structure of the system to bring about change. They emphasise political and economic sanctions and the use of moral power.

However, Dalin (1973) says that it is inappropriate to describe a specific approach to innovation as either empirical - rational, normative - re-educative, or power - coercive, but rather as influenced by all three, depending on which stage of the process is being considered. Nicholls (1983) lends more support to this by arguing that the choice of strategy or strategies by an innovator will depend not only on the merits

of the strategies themselves, but also on the nature of the innovation, the teachers who are to be involved with it and the school into which it is to be introduced and in practice more than one approach is likely to be used.

At this point, some of the strengths and weaknesses of the practical applications of these strategies are worthy of consideration. The empirical - rational strategies have the appeal of simplicity and ease of use. Teachers are intelligent and rational human beings and the innovator finds it reasonable to assume that if he indicates to them the advantages and merits of the innovation they will be willing to accept and implement it. Teachers however, like other human beings, are not always rational and at times characteristics other than rationality determine their behaviour. The fact that many educational innovations exist which can be shown to offer certain advantages but which are not taken up by teachers, suggest that empirical-rational strategies are not appropriate in all cases.

With normative-re-educative strategies, their advocates maintain that lasting and self-sustained innovation can be achieved through their use. There is some evidence to support these claims, particularly when outside consultants are used (see e.g. Schmuck and Miles 1971). But Nicholls (1983) argues on the other hand that they (the strategies) are both time consuming and difficult and require knowledge and skills that might not be present in all schools and so might initially necessitate some form of external support.

Power-coercive strategies, like the empirical-rational have the attraction of simplicity and ease of use in those cases where the innovation is supported or proposed by the headteacher. Probably the greatest problem associated with the use of these strategies is that lack of real commitment or even opposition by teachers to the innovation.

Havelock and Huberman (1977) argue that there are some strong temptations to follow a power strategy of innovation in developing countries. Among these are (1) the need for co-ordination of effort; (2) the necessity of overcoming inertia; and (3) efficiency.

According to Havelock and Huberman, of these the need for co-ordination may be the strongest argument and is used, for example, to defend the rather high degree of centralization in the successful ACPO Project in Columbia (see Brumberg 1975).

For efficiency, it is often imagined that a project can be moved along faster if laws are enacted or edicts promulgated by those in positions of power. Sometimes and for some things this works quite well, but it probably works least well for complex innovations. Lallez (1974) for example, in his study of the IPAR project in Cameroon, found that there was almost complete reliance on an administrative hierarchical approach of some aspects of the reform. No allowance was made for the fact that the inspectors had a traditional attitude opposed to the spirit of reform and that time was required to bring about change regardless of rules and laws. According to Dalin (1973) even in developed countries the efficacy of a power strategy is

probably over-rated.

However, the model of innovation adopted in Nigeria with CA may be said to be similar to that of The National Curriculum in Britain, that is, a Power-Coercive strategy where the educational systems rely on administrative and legal process.

### 5.6 Problems of Curriculum Innovation

There is some evidence to suggest that attempts by teachers to innovate have not always been successful, in spite of considerable innovative activity (Gross et al, 1971; Bealing 1972; Nicholls 1979; Tura 1983; Ivase 1983; Bishop 1986).

Observers offer several reasons for this state of affairs. Some believe that knowledge of planned organisational change is limited (Miles 1964a; Bennis 1966; CERI 1973). Others believe that there is insufficient knowledge of the implementation of innovations (Hoyle, 1970; Gross et al, 1971). Some argue that it is lack of attention to what is known about the processes of innovation that results in failure (Guba, 1968;; McLaughlin, 1976; Nicholls, 1979).

To recognise the problems in advance, according to Bishop (1986) is to decrease the likelihood of failure. Bishop points out that the study of the literature of innovations, both in developed and in developing countries reveals that:

- i) innovations usually fail;
- (ii) barriers to innovation invariably emerge;
- (iii) resistance to change seems universal;

- (iv) change, if any, is usually transitory;
- (v) Willingness to change appears related to conditions in society
- (vi) change may or may not be rational (Bishop 1986).

The fact about educational innovations, indeed about any innovations, is that most of them fail. As Adams and Chen (1981) point out, at least 70 per cent of educational innovations die before they achieve their stated purpose. As they say: "the road to educational development is strewn with the debris of shattered innovations" (p.274). Bhuntin Attagara of Thailand bears this out:

"how often has unrestrained excitement at the start of a project ended up, three or five years later and one or ten million dollars later, as just another project."  
(Bhuntin Attagara, 1971, p.84).

Havelock and Huberman (1977) point out that:

"many of the educational innovations in developing countries involve a 'major system reformation'. In spite of large investments and expectations, few of these innovations appear to make a major dent at the national level in the educational or training problem which they were designed to solve. They appear in many respects to be giant pilot projects.

(Havelock and Huberman, 1977 p.15).

Not only is the road to educational reform rough; the costs of travelling it are high. And when innovations fail scarce resources have been wasted.

Watson (1967) suggested several years ago that few people welcome a totally unchanging environment. If people appeared to resist change, it must be because the natural human drive for newness and excitement was being counteracted by opposing forces. He concluded that such forces acted on both

personality and institutional dimensions. The major personality factors antagonistic to change were: the tendency of any organism to return to equilibrium after a disturbance; to prefer the familiar and habitual; to stick with coping strategies previously found successful; to discount ideas that conflict with established attitudes; to emulate the values and behaviour of past or present authority figures; to distrust one's own power to bring about change; to identify change with seduction and moral decay; to believe that imperfection is all we desire; and to yearn for the good old days. Resistance in social systems appeared to Watson to rest on the conformity of groups to established norms; apprehension of side effects and loyalties and rejection of "outsiders" who advocated change (Watson, 1967).

Resistance to change is seen by many writers as a frequent and strong phenomenon among members of an organisation (see e.g. Argyris 1967; Johns 1973 and Jones 1969). Overcoming this resistance is considered to be a major task in the process of change, with the resisters often cast in the role of villain. In some instances resisters are contrasted with innovators. Reichart (1968), for instance, depicts innovators as those who respond to a challenge, while those teachers who view change as a break in their routine which does not conform to the pattern of their usual behaviour regard it with suspicion or even reject it outright.

Many years ago, Lippitt et al (1958) note that resistance may emerge at the beginning of a change process or after it is

underway, or both. They see resisters as being afraid, ignorant, as feeling inadequate, or as clinging to existing satisfactions. Later, similar conclusions are drawn by Owen (1973) who points out that resistance is not something simple. He describes it as a mixture of ignorance and misunderstanding or "of a belief that things from an earlier time which were already outmoded can still survive" (p.85). Other factors mentioned by Owen include fear, the heavy burden of work associated with innovation and the desire of some teachers from time to time, to take the easy way out.

Argyris (1967) commenting on thirty-two major changes in large organisations in which he played a research and consultancy role, notes the widespread nature of resistance and the length of time it persists. He says that:

"after three years there were still many people fighting, ignoring, questioning, resisting, blaming the re-organisation without feeling a strong obligation personally to correct the situation" (p.53).

Barnes (1967) points out that either 'innovators' or 'resisters' might be rational and reasonable while the other is not.

Many other writers have in their studies found out other problematic aspects of curriculum innovation. For instance, Pratt (1980) discussed sources of barriers to innovation. According to Pratt, the specific barriers that occur in educational institutions appear to have five main sources. The first is absence of motivation for change, and the other four are related to the issue of motivation - vulnerability,

inadequate resources, lack of clarity about the innovation and scepticism concerning the value of the change itself. To Pratt, even the consent of teachers to an innovation does not necessarily indicate that they understand the change. It has been found out that teachers who are supposedly implementing a new curriculum, sometimes cannot even identify its main features (Fullan and Pomfret, 1977).

There is some evidence in the literature that many education systems have had series of reforms in recent years as a result of economic, social and political development. In some cases there had been too many innovations within a short period and teachers refer to most as frivolous. However, this may be a wrong way of describing attempts to improve learning, but the rate at which new ideas are introduced into the schools makes one wonder whether all of them are rational, and indeed, necessary. Some may argue, as did Nisbet (1975), that innovation has become something of a "bandwagon", that is, something cheap and gimmicky, undertaken without careful planning and adequate resources to see it through. This appears to be a fair description of the situation in the Nigerian education sector where a catalogue of reforms have been attempted in recent years. The Technical Training Crash Programme, the Universal Primary Education, both of which were introduced in 1976, serve as examples of these innovations most of which have already petered out in the aftermath of the country's dwindling economy.

Highlighting the problems of innovation is not intended to



discourage attempts at educational development. Nor would it be right to look at it as a kind of burden. It could be argued that it is a means of survival in a rapidly changing environment. "Without innovation our schools will be like the dinosaur, unable to survive because it was unable to adapt". (Malcolm, cited in Open University, 1976, p.12).

Nisbet (1975) enumerates four waves of difficulties which every innovation has to face: problem of extra workload, loss of confidence, confusion and the threat of backlash. It seems obvious that introduction of a new dimension to an already existing order often brings about increased workload, as staff put in additional hours to gain a better understanding of the new ideas. This problem is often ignored at the initial period when everybody is excited by the whole idea of the innovation. It becomes apparent soon after the novelty phase has given way to a more realistic and firm working arrangement.

The resultant misunderstanding and disagreement (if any) soon develops into lack of confidence and confusion which may generate anxiety in those who implement the change, and suspicion of the motives behind the new ideas. It would be difficult to carry out innovation if the 'consumers' have any doubts about its desirability. Fear and concern for status on the part of teachers contribute to local resistance to change especially when such changes seem to threaten the established roles. Owen (1968) comments:

"When change threatens (or appears to threaten) the values of those affected, the resistance to change will be greater and the difficulty in introducing change will be

greater too". (p.20).

The authorities may decide to force the innovation upon the users as a means of eliminating their resistance. This technique, although quite legitimate may result in what Owen describes as 'overt' compliance at the same time as 'covert' resistance. He rightly suggests that every reform should be introduced with the mutual co-operation of both the innovators and the users, with much attention being paid to persuasion rather than force. Change takes time and money. Substantial amounts of money can be required for re-training of existing staff and recruitment of new ones, purchase of text books and other materials. At times there is lack of patience on the part of some reformers who want to get quick results without allowing the innovation sufficient time to succeed. Verma (1980) for example, found that teachers who were involved in the Humanities Curriculum Project in the UK were frequently pressurised by unrealistic expectations about curriculum innovation, that is, that a programme must succeed in a traditional way.

It has been said that curriculum innovation implies changing people's familiar order of doing things. For this reason, it should be introduced in a gradual and systematic manner. And for it to be an improvement on the existing practice, parents, teachers and students should become committed to ensuring its success. (Hoyle, 1969).

Some researchers suggest some barriers or negative influences to successful implementation of innovation as more

important than others. For instance, lack of any institutionalized change agent and lack of information, were two of the most important barriers to change suggested in a study reported by Carlson (1965).

Thus, it may be misleading to think of some barriers or constraints as always being of greater influence than others, since different researchers suggest alternatives as being "most important".

Stenhouse (1975) maintains that:

"The first constraint upon the school's capacity to change is restriction of resources..... I believe that the most important barrier is that of control..... Curricular changes, in so far as they imply changes in the nature of educational knowledge threaten the teacher's control habits and thus threaten control".

(Stenhouse, 1975, pp.166-167).

Stenhouse identifies other constraints to innovation as parental and social opinion, the professional identify of teachers, the possibility of conflict due to changes in the social order of the staff, complex organizational arrangements (e.g. the timetable) and possible political conflicts resulting from changes in the status of groups, or individuals (Stenhouse, 1975, pp.167-177).

### 5.7 Groups which resist change in school

Alaezi (1984) writes that:

"The history of educational change in Nigeria is littered with innovations which never had their intended impact partly as a result of the over-ambitious and underplanned nature of the changes originally proposed and, in large measure, as a result of the negative attitudes of those who are supposed to participate in such changes" (p.166).

Thus, the writer thinks it worthwhile to consider and discuss those who participate or resist educational change, reviewing their major influence in educational change.

Dalin (1971), identifies the groups which resist change in the school as: the teachers' group, the parents' group, the students, and the administrators and politicians.

Teachers - As already discussed, a number of the conditions of innovations are considered to be a threat by the teachers. Several innovations require a new role of the teacher, others require supplementary education in discipline. Often this means extra work and, possibly, extra expenses. Equally, teachers have the ultimate power as individuals because they are the last link in any chain of implementation. Also their power to influence educational policy through their organisation is considerable. Teachers can always structure policy-making agenda and bring issues to the fore (Cobb and Elder, 1972). The most important recent change in the power structure of education in Imo State is the ability of the State wing of the Nigerian Union of Teachers not just to create issues or block implementation, but also to bias policy decisions (e.g. the Imo State NUT's 1982 opposition to the proposition to hand over schools to their former proprietors).

The adoption of collective bargaining in education, in which the teachers through their unions can negotiate over questions of salary, class size, in-set provisions, teaching tools and many other educational issues, may more than any other single factor, change the nature of the educational

policy-making process.

Parents - Resistance to change in the school by the parents' group according to Dalin is often related to the fact that the school appears to act as a selection mechanism for further education and for professional careers. Thus, in the eyes of the parents, a most important role of the school is to ensure that at least some children acquire the necessary qualifications. In Nigeria and in many other countries there is a strong climate of competition in schools. Competition to enter the several 'closed courses' in the universities and other institutes of higher education has an effect downwards through the educational systems; and innovations that threaten the achievement of proper qualifications for the 'closed courses' will therefore be regarded with suspicion. The same is naturally true of innovation in which examination forms and kinds of testing are changed. Also, many parents claim that young children in particular must be protected from too many variations in the structure which might create insecurity and physical and emotional difficulties.

Students - Students often use many of the same arguments against changes that their parents have used. It may be true that students are generally the last to be considered in bringing about educational change because, for example, they bring little to the 'fray' but their ability to react strongly against educational issues which they do not like cannot be

ignored. Where students have disagreed with educational policies they have often succeeded, through strikes and other forms of protest, in making the authorities change their minds.

## CHAPTER SIX

### The IMPLEMENTATION OF EDUCATIONAL INNOVATIONS

#### 6.1 Introduction

This chapter reviews pertinent literature on implementation of innovation. Though every innovation is unique, attempts have been made in the literature to generalise about the way implementation occurs. Such generalisations provide the theoretical framework upon which the implementation of CA will be analysed.

#### 6.2 Defining and Measuring Implementation

There are enormous definitional and methodological problems involved in considering which criteria and methods to use to assess whether an innovation has been implemented. Implementation studies tend to display one out of two main orientations as observed by Fullan and Pomfret (1977). In the predominant orientation, which is also the orientation of this study on implementation of CA, the main intent is to determine the degree of implementation of an innovation (CA) in terms of the extent to which actual use of the innovation corresponds to intended or planned use. For instance, CA is introduced into Nigerian educational system with the hope of rectifying the defects of the end-of-course examination (see Chapter Three), Chapter 7 of this study examines to what extent CA and examination constitute different modes of assessment, that is, whether CA is achieving its objectives. However, this type of

orientation in other studies is sometimes referred to as the fidelity of implementation. The other main orientation which involves analyzing the complexities of the change process vis-a-vis how innovations become developed/changed etc. during the process of implementation is called mutual adaptation as has been in the Rand Studies (Berman and Pauly, 1975).

Among the studies with a fidelity perspective there are:

1. those that focus on organisational change, e.g. Gross et al, (1971); and
2. those that examine specific curriculum innovations (e.g. Hall and Loucks, 1976).

One of the earliest and clearest examples of an attempt to measure the degree of implementation of an organizational change is provided by the case study of an inner-city elementary school by Gross et al (1971) in trying to implement a major change role of the teacher. The conclusion of the study is that, despite the teachers being positively disposed to accept major organizational changes in the school when the innovation was presented to them, this was a case of a failure to implement a major innovation. In their discussion of the study, Gross et al suggested that because of prior formulations, studies so far available have concentrated their attention on the changes required of the teachers but have given little thought to the changes required of administration. They have usefully pointed also to the undue emphasis placed on the organizational members' initial resistance to change as an



explanation of the failure of innovation efforts. They have stressed the importance of viewing the implementation of organizational innovations not as an event but as a process that involves an interrelated set of conditions that can shift over time - for example, the acceptance or clarity of a change proposal.

Fullan and Pomfret conclude that the studies from Gross et al (1971) and others illustrate two key points:

1. They indicate some of the possible ways of conceptualizing and measuring the degree of implementation of organizational aspects of change;
2. They clearly demonstrate that there are definite variations in the degree to which the same innovation is implemented by different individuals and organizations, and the degree to which some components of an innovation are implemented more effectively than others.

### 6.3 The Determinants of Implementation

The studies reported by Fullan and Pomfret (1977) provide support in their analysis of determinants of implementation. The various factors in Fullan and Pomfret's analysis can be organized into four broad categories, each containing a number of specific variables.

#### 1. Characteristics of the Innovation

- (a) Explicitness
- (b) Complexity

There are some good overall summaries of the role attributes of innovations in relation to acceptance of the change (see Giacquinta, 1973, pp.181-183).

However, concerning explicitness, Fullan and Pomfret (1977) reported that Gross et al (1971, pp.123-129) found that the majority of teachers in their case study were unable to identify the essential features of the innovation they were using. They cited other studies (e.g. Charters and Pellegrin, 1973; Downey et al, 1975) where the innovations were described in abstract global terms with consequent ambiguity on the part of teachers as to what the change entailed behaviourally.

There appear to be two ways to address this problem. One is to call for greater specification of the implementation characteristics by sponsors or developers of innovation. An alternative way is to set up procedures for continually moving toward greater explicitness during initial implementation. These two approaches are not necessarily mutually exclusive and the analysis by Fullan and Pomfret of the research indicates that increased emphasis on both are needed. In England, the Humanities Curriculum Project employed a combination of the two. Havelock and Huberman (1977) observed that in developing countries (including Nigeria), given the disequilibrium between the objectives of many projects and the capacity of the educational and administrative systems to service so many and such various components, a great number of logistical problems are encountered and:

"There is a resulting lack of clarity in the structure for

making decisions within the project...." (p.17).

However, given the vagueness of many educational innovations, the lack of attention to how new roles could be established and the subsequent frustrations of would-be-users, it is evident that some process of developing greater explicitness or specification is necessary for implementation to occur.

The second innovation characteristic is the degree of complexity or difficulty in using the innovation. It is likely that complexity affects explicitness, that is the greater the complexity, the more difficult it is to be explicit about the operational characteristics of the innovation. Researchers and practitioners in change situations should be oriented to addressing continuously the program explicitness and degree of complexity of educational innovations that they are attempting to use. This leads to the question of what strategies and tactics that have been to affect implementation.

## 2. Strategies and Tactics

From their analysis of research Fullan and Pomfret (1977) observe that the following strategies and tactics are important for implementation:

- (a) in-service training
- (b) resource support (time, materials)
- (c) feedback mechanisms that stimulate interaction and problem identification, and
- (d) participation in decision-making.

In-service training - Fullan and Pomfret argue that:

"..... it appears that intensive in-service training (as distinct from single workshops or pre-service training) is an important strategy for implementation." (p.373).

Resource support - this concerns the provision of time, materials and other facilities during implementation. Lack of time and inadequate materials were identified as barriers to implementation by Gross et al (1971) and Downey et al (1975).

Feedback mechanisms - these are supposed to function as means of identifying problems encountered during implementation in order to provide support for addressing such problems. Some researchers cite the absence of the feedback networks during implementation as a critical problem (Charters and Pellegrin, 1973).

Participation - This in innovative process by those who are expected to implement the new programme is widely thought to be an effective strategy and a paramount importance (Berman and McLaughlin, 1976).

### 3 Characteristics of Adopting Unit

In answering the question 'What are the characteristics of adopting units that have effective implementation?' Fullan and Pomfret (1977) can only briefly outline three kinds of issues that were evident in their review:

1. the nature of the process of adoption and self-selection,
2. The organizational process characteristics of adopting units, and

3. the demographic characteristics of adopting units and their immediate environments,

From their review they found that the only study that does examine adoption in relation to implementation is the Rand research. The researchers identified two contrasting types of adoption process that characterized the numerous projects they investigated - opportunism and problem-solving (Berman and McLaughlin, 1976, p.351). Projects characterized by opportunism involved a response to the availability of funds and evidenced little local commitment, while the problem-solving mode emerged from locally identified needs. The nature of this adoption decision and process "continued to play a pervasive role in the implementation", with the problem-solving mode leading to greater changes as a result of the innovation (Berman and McLaughlin, 1976, p.35). If the Rand research is accurate, it would make a great difference whether the adoption decisions were made on an opportunistic or a problem-solving basis.

In considering organizational process characteristics that are found to be related to implementation, Fullan and Pomfret (1977) observed that several studies suggest that the existing "organizational climate" of adoption units plays a critical role in whether and how implementation occurs. Many would even claim that the organizational capacities of the adoption unit are more important for implementation than the product (innovation). Berman and McLaughlin (1976) found that high

morale of teachers at a school, active support of principals, and general support of superintendents all increased the chances of teacher change and perceived success. (See also Berman and Pauly, 1975).

Though demographic factors may be correlated with those already discussed, it may be necessary to mention rural-urban and individual characteristics of staff separately as basic demographic characteristics of adopting units and their environments.

There is very little research that examines the relationship of rural-urban differences to implementation, although Downey et al (1975) report large differences in adoption of innovations between urban centres and rural areas.

It is inferred by Lukas and Wohlleb (1973) that not all teachers have the same propensity to implement any given innovation. Age and level of education per se do not appear to relate to effective implementation (Evans and Scheffler, 1974).  
Downey et al (1975)

"conclude that basic teacher preparation (and development) is another critical factor in the implementation, non-implementation, or misimplementation of the new program" (p.19).

#### **4 Macro Socio-political Factors**

Fullan and Pomfret (1977) claim that the political context of the implementation of innovative programmes can seriously affect the operation of the three sets of factors just identified (i.e. the characteristics of the innovation,

strategies and characteristics of the adoption unit). Thus, by macro socio-political factors they refer to the role of political agencies outside the adopting organization. These range from local school system boards, local government, and community agencies to national and federal organizations. At the macro level the following types of factors appear to have significant impact on degree of implementation: design issues of reform, incentive systems, the role of evaluation, and political complexity.

House (1974, p.73) argues that the personal costs for teachers of trying innovations are often high, and that there is little indication that the innovations are worth the effort. Equally, the specific disincentive reward system for teachers is compounded by other factors such as lack of teacher involvement in change decisions, inadequate understanding by planners of the complexities and difficulties of implementation to name a few.

In discussing the role of evaluation, Fullan and Pomfret, conclude that in particular the political context may inhibit the process of identifying the problems of implementation. They argue that it is unlikely that teachers and other users will feel free to discuss problems of implementation if sponsors and/or their own immediate superiors are strong advocates of the innovation, if the emphasis is on rapid pay off and measurement of outcomes, and if there are minimal support systems to aid implementation. Put another way, it is politically naive to expect open discussion of problems of

implementation in most large scale programmes.

The sheer political complexity of implementing large-scale federal programmes is well-documented by Pressman and Wildavsky (1973) in a case study of the failure of a federally sponsored urban renewal programme to establish several projects designed to create jobs. They suggest that the lack of plans to link policy and implementation is critical. Even when participants agree with the goals of the proposal (i.e. adopt it) there are many reasons why they fail to implement it. The authors recommend that implementation becomes more of a focus in change programmes, and that more direct links be established between policy and implementation (Pressman and Wildavsky, 1973). Hargrove (1975) reinforces these points in a detailed analysis of implementation as "the missing link" in social policy.

#### 6.4 Costs and Rewards of Implementation

As already noted earlier in this study research on implementation has identified a number of factors that present barriers to innovations and put limitations on their success (see also Doyle and Ponder, 1977; Brown and McIntyre, 1978; Havelock and Huberman 1977) but Brown (1980) observes that little has been developed in the way of productive theory about the conditions that would be likely to lead to the desired changes. She notes that the possibility of being able to establish a general prescriptive strategy for effective implementation of curricula innovations is remote because



innovations are of many different kinds and given situations into which an innovation is to be introduced will vary in both major and subtle ways from all the others.

However, any attempt at educational reform is only likely to be successful if teachers are both willing and able to accept new ideas about their work and able to implement them in their teaching, (Brown 1980). That implies that the effectiveness of an innovation depends on the extent to which 'rewards' to teachers involved in implementing the desired change can be maximised and the extent in which the 'costs' can be minimised. And we can expect that principle to hold according to Brown regardless of whether innovations are developed centrally and disseminated to schools or arise from school or teachers' initiatives.

#### 6.5 Implementation of Curriculum Innovation: The Nigerian Experience

Some Nigerian educationalists (Tura 1983, Ivase 1983, Fafunwa 1984, Yoloye 1984) have looked at the implementation aspect of innovation in Nigeria and have reached almost the same conclusion: innovation in Nigeria is characterized by lack of proper planning and lack of adequate resources among other things.

In Nigeria, a major objective of the educational policy at the start of the 1960s was to provide school places sufficient to permit every child to have access to at least a few years of primary school. In effect, Nigeria maintained Universal

Primary Education (U.P.E.) as a serious and explicit goal. Thus, 'U.P.E.' was introduced. Tura (1983) observes that efforts to expand and equalize educational opportunities face many constraints. According to him the most obvious one is lack of resources - not only financial, but also physical and human. Next, geographical and demographic conditions - vast distance, high density population, unsuitable environment, and poor communications - make the construction of schools, the supply of books and equipment, and the provision of qualified teachers a difficult and costly task.

Ivase (1983) states that the introduction of 'U.P.E.' in the whole of Nigeria in 1976 was the third attempt at this system of education in the country. In 1958, the Eastern Region of Nigeria introduced U.P.E. in the schools and this lasted only for one year because by 1958 rising costs had forced the government to reintroduce fees in the schools. But before then, in 1955, the then Western Regional Government of Nigeria had introduced a scheme of Universal Primary Education (U.P.E.) The Western regional government projected that there would be 492,000 to be enrolled in the first year of primary school. Instead of that number that was projected 800,000 were enrolled. The projected number of teachers in 1954 was 17,000, this rose to 27,000 in 1955. The expenditure on education increased from 2.2 million in 1954 to 5.4 million in 1955.

Thus, Ivase concluded that four factors have stood prominently as the main causes of failure in innovation in Nigeria: The factors are:

- (i) Lack of adequate and proper planning
- (ii) Lack of finances and the mismanagement of the scarce finances
- (iii) Inadequate trained and the poor quality of untrained manpower.
- (iv) Lack of incentives for the manpower and the political situation in the country

(p.67).

Fafunwa (1984) highlights some factors militating against implementation of the National Policy on Education. He states:

"We also mentioned earlier that the first major error made by the federal Military Government in the implementation of the national policy on education was its lack of foresight, for they failed to realise that time was needed for adequate preparation in launching such a gigantic U.P.E. Programme. (p.7).

Fafunwa still asserts that another factor contributing to poor implementation of the national policy on education is finance. To him the states were using lack of federal funding as an excuse. It is obvious that the new constitution handed primary and secondary education back to the states. The new revenue allocation also increases states' grants and these grants took into consideration the states' responsibilities for primary and secondary education, unlike the era of the military government when the federal government financed primary and teacher education and allocated less revenue to the states:

"Even when the states submitted their proposal for implementing Year 1 of the Junior Secondary, more than half of the nineteen states inflated the figures by more than 300% of the actual cost." (Fafunwa 1984, p.8).

Yoloye (1984) expresses the situation thus:

"The fate of the new national policy is still very much in the balance. The chances are that it would be implemented for the most part but its form would be modified considerably by political, economic and social factors". (p.20).

Nwagwu (1981) bemoans the situation thus:

"Good policies have been produced by the various governments but the method and spirit of implementation have been slow, haphazard and grudging", (p.85).

From this background of research literature the intentions of the present study are as follows:

1. To document those phases of the "life cycle" through which CA has passed.
2. To identify, describe and comment upon the effectiveness of the strategies by which this innovation has been introduced.
3. To identify the nature of any constraints which appear to militate against the implementation of CA, including the development of resistance to it.
4. To characterize the causes and effects of any such resistance.

The analyses which are undertaken follow the guidelines identified by Fullan and Pomfret (1977) and Doyle and Ponder (1977).

## CHAPTER SEVEN

### STATISTICAL ANALYSIS OF THE 1987 JSS FINAL EXAMINATION (FE) AND CONTINUOUS ASSESSMENT (CA) SCORES FOR 1984-1987 IN SECONDARY SCHOOLS IN IMO STATE, NIGERIA

#### 7.1 Aim

In Chapter Four, the rationale for the introduction of CA was discussed. The Nigerian educational system before the introduction of CA was frequently criticised as being too much orientated towards external examinations. Many Nigerian educationalists saw the introduction of CA as the long awaited change. For instance, Turton has this to say:

"At last the system has been liberated from a pupil assessment based only on a simple final, backward looking examination which assessed only one aspect of a pupil, that is his 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 a person's worth in life.

(Turton 1983, p.9-10).

The assumption is that CA with its many techniques tests wider attributes of performance than the external examination. In other words, CA is a different mode of assessment from the final examination.

This study seeks to determine using the CA scores for the first three years and the 1987 JSS examination the extent to which CA and FE in Imo State secondary schools constitute separate modes of assessment.

Another important objective of this chapter is to compare the CA scores over the three years in different subjects and in the same subjects. This is because the way in which a test performs may or may not match the expectations of the

examiners. The examiners may be comforted if pass-rates vary little from year to year, since this could indicate consistency in the judgement being made each year. It is reasonable in large entry subjects to assume that the overall standard of candidates remains fairly constant from year to year, provided the examination has not changed - unchanging pass-rates indicate consistency of standards.

Other things being equal, there should be no reason why, for a group of candidates sitting for two subjects, similar grades in both subjects should not be the same, i.e. the distribution of grades in one subject has the same shape as in the other subject. (Nuttall 1974, Forrest and Vickerman, 1982).

On the basis of these assumptions this study intends to examine the relationship (if any) between:

1. The CA scores and FE grades to determine if CA and FE are testing different attributes of student performance
2. The same subjects in the three years of CA, and
3. Different subjects in the same year.

## 7.2 Analysis of CA scores and FE - a review

A number of accounts of assessment schemes generally have been published but so far a comparison of CA scores and Final Examination results has not been the subject of much research.

Hoste and Bloomfield (1975) compared grades awarded for one of the 1972 CSE examining boards in Yorkshire, using examination method (EM), and CA method (CAM). Using Test-100

to make a comparison between EM scores and CAM scores for eight subjects they reported higher correlations between Test-100 with EM scores than test-100 with CAM scores for all the subjects, with values ranging from 0.41 to 0.64, and 0.02 to 0.57 for boys; and from 0.34 to 0.70, and from 0.16 to 0.46 for girls, for EM and CAM respectively. For the boys, they reported higher correlation coefficients for EM than CAM in all subjects with the exception of physics. For the girls, however, while this was still true of mathematics and the sciences the correlations of test score and grades in English, geography and history were similar, 'almost similar' for both EM and CAM. The authors, after considering estimates of severity and leniency of grades awarded for girls and boys, concluded that there was no evidence that standards were different for candidates when grades were awarded by EM and CAM.

Njabili (1988) in her study used a multitrait-multimethod matrix (Pearson Correlation coefficient) and factor analysis to demonstrate that CA is a unique mode of assessment, different from FE, using the results of a public examination, the 1983 Tanzanian O-level biology examination. The FE components were Theory and Practical while the CA components were Exercises, Tests, Projects. The results of her study showed that the intercorrelations between the different components were of different orders, suggesting that the components were dissimilar. The correlations between the project component with every component of the Theory and Practical examinations

were consistently low with values ranging from 0.023 to 0.273 only. The common traditional components of the Theory examination, showed low correlations with every component of CA with values ranging from 0.273 to 0.356 and 0.023 to 0.262 for the essay and true-false components of the FE respectively.

From her factor analysis of the examination, and CA scores, Njabili reported some evidence that certain aspects of CA were functioning as separate modes of assessment, others were not.

More specifically worthy of note and related to this study is that made by Turton (1986) of the Institute of Education, Ahmadu Bello University, Zaria, Nigeria. Turton conducted a three year study at the Demonstration Secondary School, Ahmadu Bello University, Zaria with the first group to follow the junior secondary course (1983-6). Turton investigated the relationship between the FE and CA scores. His results showed a generally high level of correlation between the CA scores gathered over the three year period, and the end of course examination conducted by the Ministry of Education, Kaduna State, Nigeria. He found a correlation coefficient (Pearson Correlation Coefficient) of 0.90 in Mathematics, 0.82 in Integrated Science, 0.82 in English, and 0.67 in Social Studies. From these results Turton concluded that the CA system produced results of high consistency and that the correlation analysis yielded a highly satisfactory conclusion which fully justified the confidence reposed in the system. Turton was convinced that these results demonstrated that a



simple yet effective system of CA can produce valid results which serve as a sound predictor of pupil performance far more sound, in fact, than the 'Mock' examinations which have consistently failed to correlate with the results of 'real' examinations (Turton, 1986).

However, it could be argued that high correlations between CA scores and FE scores in Turton's study suggest that the CA system and FE were measuring the same facets of attainment and the same constructs (Njabili, 1988). If CA and FE are different methods of assessment, testing different aspects of pupil attainment they would be expected to show low correlations.

### 7.3 DATA COLLECTION

The main sources of data are the CA raw scores for the first three years (1984-7) of the implementation of CA programme in secondary schools in Imo State, and the results of the first junior secondary school leaving examination conducted by the Ministry of Education, Owerri, Imo State in 1987 in four core subjects of Mathematics, English, Integrated Science and Social Studies. A detailed explanation of what FE score is and how it is produced from CA is given in Chapter Four.

A formal application was made to the Chief Registrar, Imo State Examination Development Centre, Owerri, requesting the CA scores and the FE results from ten schools. The ten schools were selected at random from the list of schools with the help of the officials from the Examination Development Centre. A

total of 300 students were selected for the investigation, 30 from each school. Thus, the CA scores and the FE results of the same students were used for the study so as to make comparison between CA scores and FE results to justify the technical use of CA as we noted earlier, but to maintain anonymity the writer collected the data by examination numbers only.

The marks from CA and FE results were transferred to coded sheets to facilitate the preparation of computer data for computer analysis.

#### 7.4 DATA ANALYSIS

Data were analysed through Pearson Product-Moment Correlation Coefficient and the Factor: Principal Axis factor (PAF): Varimax rotated subprogrammes of the Statistical Package for the Social Sciences (SPSS) run at the University of Hull Computer Centre. According to Townsend and Burke (1975, p.56) 'The usual way of computing the correlation of two measures is to use the Pearson Product-Moment Method'. Lyman (1978) argues that correlation coefficients are widely used in testing to express reliability where two sets of scores for the same test are correlated.

The Subprogramme Pearson Product-Moment Correlation Coefficients is defined by the formula below:

$$r_{xy} = \frac{\sum (X - \bar{X}) (Y - \bar{Y})}{NSxSy}$$

where  $r_{xy}$  = Product-Moment Correlation Coefficient

$\Sigma$  = "add the values of"

$X$  = raw score on variable  $X$

$\bar{X}$  = Mean of variable  $X$

$Y$  = raw score on variable  $Y$

$\bar{Y}$  = mean of variable  $Y$

$N$  = Number of pairs of scores

$S_x$  = Standard deviation of variable  $X$

$S_y$  = Standard deviation of variable  $Y$

(Lyman, 1978, p.58)

High correlations occur between tests measuring the same abilities or aspects of knowledge and low correlations occur between tests measuring different abilities or aspects of knowledge. Positive correlation means that the two items are so related that a high score on one side is usually accompanied by a high score on the other. Negative correlation, on the other hand, means that a high score on one measure is likely to be accompanied by a low score on the other measure (Townsend and Burke, 1975).

First the Factor programme was run to extract the initial principal factors, their Eigenvalues and their corresponding proportion of variance. Then upon varimax rotation, the rotated factor matrix emerges and it is the rotated factor analysis with Eigenvalues greater than unity indicating that the factor(s) are statistically significant which are discussed mainly in this study.

In factor analysis tests which measure the same constructs should load highly on the same factor, tests which measure different constructs should on the other hand load highly on different factors, and high intercorrelations between components are an indication that the components are measuring the same traits. On the other hand, low intercorrelations are an indication that the components are measuring different things. Therefore if CA and FE constitute different methods or are measuring different traits, they should load differently on the factors, and if CA over the three years in the four subjects are measuring different traits, they should also load differently on different factors.

#### 7.4 DATA PRESENTATION

Table 7(01)

Means and standard deviations of FE grades and CA scores for three years in four core subjects

Variable	Mean Score	Standard deviation	Mean of Mean Score for 3 years
Maths 1	45.047	16.026	
Maths 2	40.960	16.197	41.179
Maths 3	37.530	17.611	
Eng 1	54.110	15.327	
Eng 2	52.487	15.167	50.490
Eng 3	44.873	14.865	
Int Sc 1	49.943	18.808	
Int Sc 2	53.407	16.387	50.480
Int Sc 3	47.993	17.276	
Soc Std 1	51.643	17.037	
Soc Std 2	52.423	16.982	50.280
Soc Std.3	46.767	17.596	
Maths FE	6.953	1.774	
Eng FE	6.617	1.441	
Int Sc FE	6.820	1.339	
Soc Std FE	5.280	1.883	

Note: In this table and in all the tables in this chapter, the CA Scores for the three successive years are represented by '1' for 1984/5, '2' for 1985/6, '3' for 1986/7 in the four subjects.

For the Final Examination results FE is used to represent the results e.g. Maths FE, Eng FE, Int Sc FE, and Soc Std FE. The FE results are reported in stainine grades with '1' being the highest and '9' being the lowest.

Table 7(01) shows the means, and standard deviations of the marks for each subject over the three years. In all the

four subjects the lowest mean scores are in the third year of CA and in three of the four subjects there is a progressive decline from year one to three. This could be due to a number of different factors - the courses were becoming more difficult for the students, deterioration in teaching; the 'halo' effects whereby teachers' expectations of the children increase from their early years. It is also worthy of note that the means of the mean scores of the subjects are similar except in Mathematics which is lower. This raises a lot of queries about assessment in mathematics which needs further investigation, and also, perhaps underlines the frequent finding that mathematics is 'difficult'.

**7.5a Intercorrelations (Pearson Correlation Coefficient) of the Components of Mathematics Scores in both CA (1984-7) and FE (1987)**

Table 7(02)

Intercorrelation (Pearson Correlation Coefficient) of the components of Mathematics scores in both CA and FE grades.

	Maths 1	Maths 2	Maths 3
Maths 1	1.000		
Maths 2	.439	1.000	
Maths 3	.278	.460	1.000
Maths FE	.442	.504	.479

Table 7(02) shows results of analysis in Mathematics CA scores over the three years and the results of correlations in Mathematics between the CA scores in the three successive years and the FE results. The table shows intercorrelations between

CA scores for the three years and FE grades with values ranging between 0.278 and 0.504. The intercorrelation between Maths 1 and Maths 3 is the lowest (0.278). Townsend and Burke (1975, p.58) argue that "Generally anything up to .30 (or -.30, which represents the same degree of relationship) is not much of a correlation". They argue further that if there is a correlation of .46 between the scores in Science and those in English, there is a bit of relationship, although we do not know what it means, if anything. But if the correlation is .46 for two reading test scores, even if given in successive years, there is something wrong. "Two reading tests on a class of 35 students should certainly agree by at least .60" (Townsend and Burke, 1975, p.59).

Thus correlation of between 0.278 and 0.460 in CA scores over the three years could be said to be low suggesting that something is wrong with the CA techniques. It means little relationship exists between all the CA test scores. However the intercorrelation between Maths FE and the CA scores in Mathematics is not as low as the correlation between the CA scores (Maths) over the years suggesting a stronger relationship. There is bound to be a relationship between FE and CA scores since FE is contributed to by CA scores, so there is some correlation with CA with itself in FE, though the correlation is not high.

In effect, it could be argued that there may have been real differences between CA instruments over the years, there may have been differences between CA techniques and FE

techniques since there exists a low correlation and there may have been variability from person to person, that is, the testing instruments evoked varying responses because of differences in content or differences in people. Correlation does not tell us which. What we know is that the low intercorrelation between CA scores in Mathematics suggests that either different aspects of performance are being measured in different years or else the things are being measured unreliably by the CA techniques and the FE assessments.

7.5b Intercorrelation (Pearson Correlation Coefficient) between CA Scores (1984-7) and FE (1987) in English

Table 7(03)

Intercorrelations (Pearson Correlation Coefficient) of the Components of English in CA Scores and FE grades

	Eng 1	Eng 2	Eng 3
Eng 1	1.000		
Eng 2	.555	1.000	
Eng 3	.502	.630	1.000
Eng FE	.541	.591	.609

Table 7(03) shows that the intercorrelation in English between Eng FE and CA Scores ranges between 0.541 and 0.609 suggesting that CA and FE in English are testing somewhat different abilities or aspects of knowledge, although there are some things in common. The common thing could be the element of CA in FE (see Chapter Four). The correlation between the FE and CA scores could be said not to be as low as one would have



expected if CA and FE constitute different modes of assessment, the common element of CA in both notwithstanding.

Equally, the correlation with values ranging between 0.502 and 0.630 with CA scores in English in the three years shows that the CA techniques in English in the three years are testing somewhat different abilities or aspects of knowledge. From this, therefore, one might conclude that the CA techniques seem not to be very encouraging in assessment of English. That is, since the correlations are not very high, suggesting not very strong relationships, either different aspects of performance are being measured in different years or else the same things are being measured unreliably.

7.5c Intercorrelations (Pearson Correlation Coefficient) of the Components of the Integrated Science between CA Scores (1984-7) and FE results (1987)

Table 7(04)

Intercorrelations (Pearson Correlation Coefficient) of the Components of Integrated Science in CA Scores and FE grades

	Int Sc 1	Int Sc 2	Int Sc 3
Int. Sc 1	1.000		
Int. Sc 2	.427	1.000	
Int. Sc 3	.486	.615	1.000
Int. Sc FE	.424	.571	.606

Table 7(04) shows that a slightly higher correlation exists between Int Sc FE and Int Sc 3 (0.606), suggesting a slightly higher relationship which could be as a result of the

fact that the FE is contributed to by CA scores. The intercorrelations between FE and CA scores in Integrated Science, generally, show a slightly higher relationship which as already noted could be accounted for by the element of CA, in FE, nevertheless with correlations ranging between 0.424 and 0.606 one can argue that the correlations in most cases are not as low as one would have expected if both constitute different modes of assessment.

With CA, most of the intercorrelation between the assessment scores in (Table 7(04) in Integrated Science are low which suggests that the CA scheme is testing different performances in different years or else again the measurement techniques must have been unreliable since the CA scores fail in most cases to correlate with at least 0.60 over the years (Townsend and Burke, 1975).

7.5d Intercorrelations (Pearson Correlation Coefficient) of the Components of Social Studies between CA Scores (1984-7) and FE results (1987)

Table 7(05)

Intercorrelation Coefficient (Pearson Correlation Coefficient) of the components of Social Studies in CA Scores and FE results

	Soc Std 1	Soc Std 2	Soc Std 3
Soc Std 1	1.000		
Soc Std 2	.539	1.000	
Soc Std 3	.524	.641	1.000
Soc Std FE	.600	.559	.553

Table 7(05) shows that the intercorrelations between FE and CA scores in Social Studies are between 0.553 and 0.600; suggesting that there exists a relationship between CA and FE in assessment of Social Studies; in other words, CA and FE are testing slightly different aspects of social studies or different abilities in Social Studies.

CA scores in the three years have correlations ranging between 0.524 and 0.641 suggesting that there is a higher relationship especially between Soc Std 3 and Soc Std 2 with a correlation of 0.641. It also suggests that there are some slight similarities in the test scores over the three years.

Another thing worthy of note is that in the table (Table 7(05)) the intercorrelations between the CA Scores and between CA Scores and FE are fairly similar suggesting again that FE and CA might be testing the similar aspects of performance or that the same things are being measured unreliably.

**7.5e Correlation Coefficients (Pearson Correlation Coefficient) of the CA Scores in the four subjects in the first year of CA**

**Table 7(06)**

**Intercorrelations (Pearson Correlation Coefficiency) of CA Scores in the four core subjects in the first year of CA (1984/5) in Imo State**

	Maths 1	Eng 1	Int Sc 1
Maths 1	1.000		
Eng 1	.377	1.000	
Int Sc 1	.401	.337	1.000
Soc Std 1	.332	.526	.522

Table 7(06) shows that intercorrelation between the four core subjects in the first year of the Implementation of CA ranges between 0.337 and 0.526. From Table 7(06), with a correlation of 0.526 between Eng 1 and Soc Std 1 and a correlation of 0.522 between Int Sc 1 and Soc Std 1 there are some relationships between these scores. With a correlation of 0.377 between Eng 1 and Maths 1, they could be said to be measuring different things which in any case, may not be surprising. With correlations of 0.401 between Int Sc 1 and Maths 1, 0.332 between Soc Std 1 and Maths 1 and 0.337 between Int Sc 1 and Eng 1 they could be said to be measuring different abilities or aspects of knowledge respectively.

**7.5f Correlation Coefficient (Pearson Correlation Coefficient) of the components of the CA Scores in the four subjects in the second year of CA in Imo State**

**Table 7(07)**

**Intercorrelations (Pearson Correlation Coefficient) of CA Scores in the four core subjects in the second year of CA (1985/6) in Imo State**

	Maths 2	Eng 2	Int Sc 2
Maths 2	1.000		
Eng 2	.479	1.000	
Int. Sc 2	.466	.556	1.000
Soc Std 2	.345	.613	.629

Table 7(07) shows the intercorrelations between the subjects in the second year of the CA scheme in Imo State.

Apart from Maths 2 and Soc Std 2 which have a correlation of 0.345, the rest have correlations of above 0.46 between them, (0.466 to 0.629). With correlations of above 0.46, it means that there are relationships between the subjects which suggest that to some extent they are testing similar skills in the second year of CA.

7.5g Correlation Coefficient (Pearson Correlation Coefficient) of the components of the CA Scores in the four subjects in the third year of CA in Imo State

Table 7(08)

Intercorrelations (Pearson Correlation Coefficient) of CA Scores in the four core subjects in the third year of CA (1986/7) in Imo State

	Maths 3	Eng 3	Int Sc 3
Math 3	1.000		
Eng 3	.546	1.000	
Int Sc 3	.541	.473	1.000
Soc Std 3	.591	.592	.538

Table 7(08) shows the correlations between the CA scores in the four subjects in the third year of CA. With correlations ranging between 0.473 and 0.592 it means that there exists a bit of relationship between the subjects. But the relationship could not be said to be very high or very low. One may be tempted therefore to conclude that the matrix of intercorrelations from this table verifies that all the four different subjects are testing slightly different abilities or

aspects of knowledge although there are some similarities in the third year of CA in Imo State.

7.5h Correlation Coefficient (Pearson Correlation Coefficient) of the Components of the FE results in the four subjects in 1987

Table 7(09)

Intercorrelations (Pearson Correlation Coefficient) of the 1987 JSS FE grades in Imo State

	Maths FE	Eng FE	Int Sc FE
Maths FE	1.000		
Eng FE	.345	1.000	
Int Sc FE	.543	.600	1.000
Soc Std FE	.648	.578	.694

Table 7(09) shows the result of correlation coefficient of the components of the FE results in the four subjects in 1987. The correlations range between 0.345 and 0.694. With a correlation of 0.345 between English and Mathematics it suggests that they have a slight relation and therefore are measuring to a great extent different things, which may not be surprising. But with a correlation of above 0.50 between all the other subjects, it means that somehow a stronger relationship exists between them, suggesting that in a way they are testing the same abilities or aspects of knowledge. One should have thought that the strongest relationship between the subjects would have been between Mathematics and Integrated Science (since both are

Sciences) but surprisingly the strongest relationship is between Social Studies and Integrated Science (0.694).

Table 7(10) summarises the respective intercorrelations between all CA components for the 3 years and the 1987 JSS FE results.

Table 7(10)

Summary Table of Correlation Coefficient (Pearson Correlation Coefficient) between all CA Scores and FE results

	Maths	Eng	InSc	Scst	Math	Eng	InSc	Scst	Math	Eng	InSc	Scst	Math	Eng	InSc	Scst
	1	1	1	1	2	2	2	2	3	3	3	3	FE	FE	FE	FE
Maths 1	1.000															
Eng 1	0.377	1.000														
Int Sc 1	0.401	0.377	1.000													
Soc St 1	0.332	0.526	0.522	1.000												
Maths 2	0.439	0.365	0.386	0.412	1.000											
Eng 2	0.308	0.555	0.403	0.516	0.479	1.000										
Int Sc 2	0.340	0.547	0.427	0.516	0.466	0.556	1.000									
Soc St 2	0.438	0.520	0.383	0.539	0.345	0.613	0.629	1.000								
Maths 3	0.278	0.420	0.290	0.454	0.460	0.584	0.413	0.422	1.000							
Eng 3	0.167	0.502	0.337	0.459	0.345	0.630	0.524	0.444	0.546	1.000						
Int Sc 3	0.326	0.415	0.486	0.492	0.532	0.501	0.615	0.456	0.541	0.473	1.000					
Soc St 3	0.288	0.459	0.321	0.524	0.301	0.613	0.528	0.641	0.590	0.592	0.538	1.000				
MathsFE	0.422	0.366	0.261	0.372	0.504	0.271	0.328	0.289	0.479	0.147	0.505	0.257	1.000			
Eng FE	0.358	0.541	0.483	0.560	0.411	0.591	0.534	0.532	0.415	0.609	0.481	0.499	0.345	1.000		
In ScFE	0.435	0.448	0.424	0.585	0.481	0.554	0.571	0.552	0.527	0.446	0.606	0.574	0.543	0.600	1.000	
Sc SdFE	0.418	0.462	0.446	0.600	0.399	0.451	0.503	0.559	0.466	0.291	0.588	0.553	0.648	0.578	0.694	1.000

7.5i Comparison of the within and between mean intercorrelations of all the CA scores for the three years in all the subjects

To investigate the degree of consistency or inconsistency of CA in each of the four core subjects over the three years in measuring the different traits of attainment within and between mean intercorrelations of the CA scores in these subjects were calculated. The within-subject mean intercorrelation coefficient is the mean of the intercorrelations between results for different years in each subject, that is, for example, the mean of the correlation between Maths 1 x Maths 2; Maths 1 x Maths 3; and Maths 2 x Maths 3.

The between-subject mean intercorrelation is obtained by first calculating the mean of the intercorrelation of the subject component with the components of other subjects in the same year (e.g. Maths 1 with Eng 1, Int Sc 1 with Soc Std 1; Maths 2 with Eng 2; Int Sc 2 with Soc Std 2; Maths 3 with Eng 3; Int Sc 3 with Soc Std 3); and then calculating the mean of these three means.

Fisher's Z transformation was used in calculating the means of correlation coefficients (McCall, 1980).



Table 7(11)

The within and between mean intercorrelations of all the CA scores for the three years in all the four core subjects

Subject	Within Subject Mean Intercorrelation	Mean of Between Subject mean Intercorrelation of all the subject components
Maths	0. 419	0. 493
Eng	0. 639	0. 555
Int Sc	0. 567	0. 549
Soc Std	0. 648	0. 587

Table 7(11) shows that for English, Integrated Science and Social Studies, the between-subject mean intercorrelations are lower than the within-subject mean intercorrelations suggesting that these subjects are consistently measuring different traits of attainment each of which has some dimension which is characteristic of that subject. The extent of this is, however, limited as can be seen from the similarity of the within-subject and between-subject mean intercorrelation coefficients. In the case of Mathematics the between-subject mean intercorrelation is higher than the within-subject mean intercorrelation suggesting that Mathematics is inconsistent in measuring the different traits of attainments over the years.

### 7.5j Factor Analysis of CA Scores and FE Results

The data for the factor analysis are the same data used for the correlation coefficient analysis, that is, the raw scores from the CA for the first three years of the scheme, and the 1987 JSS results in the four subjects.

For the analysis of the CA scores and FE results, first, the factor programme was run to extract the initial principal factors, their eigenvalues and their corresponding percentage of variance. Two initial principal factors with eigenvalues greater than unity were extracted from the sixteen variables. The two factors, their eigenvalues and corresponding proportion of variance are shown in Table 7(12).

Table 7(12)

Eigenvalues and corresponding variance for the initial principal factors with eigenvalues greater than unity extracted by the factor analysis of all CA scores and FE results

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage
1	8. 048	50. 3	50. 3
2	1. 396	8. 7	59. 0

Upon rotation two factors emerged with only Factor 1 having an eigenvalue greater than unity and accounting for 47.5 per cent of the variance, indicating that this was the only statistically significant factor. (see Table 7(13).

Table 7(13)

Eigenvalue and corresponding variance for the varimax rotated factor matrix of all the CA scores and FE results

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage
1	7.600	47. 5	47. 5
2	1.000	6. 2	53. 7

If the CA component of Maths, English, Social Studies and Integrated Science constitute separate modes of performance they should load on different factors. Also, if CA and FE constitute separate modes of performance or assessment they should, upon factor analysis constitute separate factors with CA loading highly on one factor and FE loading highly on a factor.

However, the emergence of one statistically significant factor upon factor analysis of the CA scores and FE grades seem to suggest that CA and FE do not constitute separate modes of performance or assessment and that both are testing general ability. They do not measure different traits in this context. Furthermore, a close study of Table 7(14) shows that the items of the CA scores and FE results load highly on the two factors for all the subjects. In other words, there seems to be no unique demand being made by the variables. That is, none of the subjects or FE is making a unique demand on the students.

Table 7(14)

Factor Loading by the Varimax rotated factor matrix of the CA scores for the three years and the FE results

	Factor 1*	Factor 2
Maths 1	.224	.528
Eng 1	.534	.336
Int Sc 1	.401	.406
Soc Std 1	.564	.455
Maths 2	.339	.541
Eng 2	.766	.267
Int Sc 2	.633	.391
Soc Std 2	.640	.364
Maths 3	.533	.407
Eng 3	.800	.072
Int Sc 3	.497	.557
Soc Std 3	.713	.279
Maths FE	.061	.825
Eng FE	.642	.386
Int Sc FE	.511	.626
Soc Std FE	.385	.722

\*Note: It is only Factor 1 that is statistically significant.

7.5k The Factor analysis of the CA Scores on the four Core Subjects for the three successive years (1984-7)

The factor programme for the CA scores was run first to extract the initial principal factors, their eigenvalues and their corresponding proportion of variance.

Two initial principal factors with eigenvalues greater

than one (unity) were extracted from the twelve variables and these are shown in Table 7(15).

Table 7(15)

Eigenvalues and corresponding variance for the initial principal factors with Eigenvalues greater than unity extracted by the factor analysis of the CA scores for the three years

Factor	Eigenvalue	Percentage of Variance	Cumulative Per.
1	6.092	50.8	50.8
2	1.105	9.2	60.0

Upon rotated factor analysis two factors emerged with only factor 1 having an eigenvalue greater than unity and accounting for 46.9 of the percentage variance, indicating that it was the only statistically significant factor (see Tables 7(16) and 7(17)).

Table 7(16)

Eigenvalues and corresponding variance for the varimax rotated factor matrix of the CA scores for the three years

Factor	Eigenvalue	Percentage of Variance	Cumulative Per.
1	5.626	46.9	46.9
2	.591	4.9	51.8

Table 7(17)

Factor loadings by the varimax rotated factor matrix of the CA scores for the three years

	Factor 1	Factor 2
Maths 1	.130	.618
Eng 1	.524	.420
Int Sc 1	.251	.596
Soc Std 1	.498	.511
Maths 2	.301	.582
Eng 2	.723	.361
Int Sc 2	.553	.513
Soc Std 2	.571	.458
Maths 3	.631	.293
Eng 3	.750	.181
Int Sc 3	.502	.525
Soc Std 3	.764	.247

Items which load most highly on a particular factor are those which are most accurately assessing the aspect of performance represented by that factor. Thus, the extraction of a single statistically significant factor, from the varimax rotated factor analysis could be interpreted to mean that the CA throughout the three years (1984-7) in all the subjects is just measuring general ability (Hoste, 1982b), and the subjects as assessed by the use of CA techniques seem not to be making any unique demand on the students.

## 7.6 Summary and Conclusion

Overall, the intercorrelations reported in Tables 7(02), 7(03), 7(04), and 7(05) of CA scores in the different subjects over the three years are generally low especially in Mathematics (Table 7(02)). The results of the intercorrelation coefficient of the same subject in the three different years seem to suggest that all is not well with the implementation of CA in Imo State, for they 'should have all been at least 0.60'. In other words, in all the subjects, especially in Mathematics, it could be argued that CA technically has not been implemented in the first three years.

The intercorrelations between the subjects in the different years are reported in Tables 7(06), 7(07) and 7(08). The intercorrelations generally could not be described as very low or very high. Therefore it could be said that to some extent all the different subjects with the CA scheme are measuring the same things though there are dissimilarities.

Tables 7(02), 7(03), 7(04), 7(05) and 7(11) show the intercorrelations between CA scores and FE results with values ranging between 0.147 and 0.694. Bearing in mind that tests which measure the same abilities or aspects of knowledge correlate highly with each other and tests which measure different abilities have low intercorrelations with each other, it cannot be said that CA and FE in this study are measuring different things since most of the intercorrelations between the CA scores and FE results are above 0.46 (Table 7(10)). Conclusively, it may be argued that to a great extent,

the CA and Fe are not testing different abilities or aspects of knowledge or performance or constitute different modes of assessment as shown from the results of the Product-Moment Correlation Coefficient.

The results of the varimax rotated factor analysis reported in Tables 7(15), 7(16) and 7(17) of CA scores show the emergence of only one statistically significant factor which could be interpreted to mean that CA in all the subjects in the three years is only measuring general ability. If the four different subjects had constituted different constructs, more significant factors would have emerged.

Furthermore, the results of the varimax rotated factor analysis on CA Scores and FE results reported in Tables 7(12), 7(13) and 7(14) also show the emergence of one significant factor. If CA and FE constitute different constructs or were testing different abilities or were different modes of assessment more than one significant factor would have emerged with FE and CA loading highly on different factors.

Equally, the pattern of loading by the subjects on the factors show that none of the subjects in CA or FE is making any unique pattern of demands on the pupils.

At this point one might conclude that both FE and CA are not different modes of assessment or testing different abilities or aspects of knowledge. It can also be argued that in this case the implementation of CA in Imo State seems not to have resulted in the assessment of different attributes of performance than those which were tested on the conventional



examination paper. This, taken together with the possibility identified earlier that CA may not be reliable, casts considerable doubt on the extent of implementation of the philosophy and practice of CA identified in the National Policy of Education (1981) and A Handbook on CA (1985).

## CHAPTER EIGHT

### RESEARCH DESIGN AND METHODS

#### 8.1 Introduction

This chapter is concerned with the planning and design of the empirical study. This includes methods of gathering data, the designing of the measuring instruments, description of the measuring instruments, sampling procedures, pilot testing of the measuring instruments, administration of the measuring instruments and also the reliability and validity of the measuring instruments used in collecting data are discussed.

The main purpose of the study is the exploration of the determinate factors that facilitate or hinder the successful implementation of CA in secondary schools in Imo State.

To the writer's knowledge, so far no studies on the implementation of CA in secondary schools in Imo State, Nigeria have been undertaken. From the evaluation findings it might be possible to inform the governments of Nigeria (State and Federal) and other educationalists in Nigeria about:

1. Further provisions that may need to be made regarding time, financial, and material resources.
2. Inset provision
3. Those factors constituting 'barriers' to the Implementation of CA (if any)
4. The factors facilitating the implementation of CA in Imo State.
5. The opinions of parents, students, teachers and

principals on the vocational issues associated with the move towards CA.

Teachers in secondary schools in Imo State are chosen firstly, because this study is based on secondary schools in Imo State, secondly, because it is thought that the success or otherwise of the CA scheme, and indeed any curriculum project in secondary schools in Imo State or anywhere else depends heavily on the teachers who directly execute and implement the project at the classroom level. In effect, to assess the scheme, it is necessary to get the viewpoints of the teachers involved.

The principals of secondary schools and educational administrators are chosen for this study because it is thought that they are people with in-depth knowledge of the settings in which the implementation of CA occurs. They are in many cases the originators as well as the executors of innovation projects. Also, they have years of experience and varied ways of formalizing it that shed light on the change process.

The educational administrators are the policy makers and would be responsible for financing and monitoring the implementation of CA and thus their views are valuable.

Parents and students were chosen because in a democratic society, the views of parents and students are strong forces in shaping and influencing school policies. According to Claire Pratt (1982):

".... the only way in which education can improve is for parents to want it to improve"  
(quoted in Bush and Kogan, 1982, p.107).

The study of opinions and attitudes has been particularly relevant to this study and as such to assess the scheme of CA the views of the above subjects are undertaken for they are the principal participants of the implementation of CA and as such they were included in the sample.

## 8.2 Methods of data gathering

For this study on the implementation of CA, because of the diversity of information sought and the fact that each data gathering tool has its own particular weaknesses or bias, a battery of instruments was used, each supplementing the other to generate more adequate data.

This strategy is supported by Lin (1976, p.203) where he states that:

"to obtain precise and generalisable data, the multi-method approach to data collection is most desirable.... because the more the multimethods differ, the more the confidence a researcher has in the found relationship".

In this study therefore, a survey method approach has been adopted using the following instruments to collect data:

1. Teachers' questionnaire
2. Principals' questionnaire
3. Students' questionnaire
4. Parents' questionnaire
5. Educational Administrators' interview schedule
6. Students' achievement Tests. (See Chapter Seven)

A survey approach has been preferred to other approaches in this study because of the following reasons:

- 1) It enables one to collect data from a large number of persons within a time limit. According to Ndagi (1984) it involves using questionnaires and sometimes interview tests, and generalising from the results of the sample to the population from which it is drawn.
- 2) The survey approach is thought to befit the exploratory nature of this study in which the question to be answered is "what are the factors facilitating or hindering the implementation of CA in Imo State?" The replies are not to be confined to the factors associated with implementation in other parts of the world but are to include all those phenomena observed and investigated which are peculiar to Nigeria, with a view to establishing patterns that might lead to successful implementation of CA. It is obvious that in implementing CA in Imo State secondary schools, influences from the wider political and educational environment would also be encountered which would need to be observed and where appropriate incorporated into the final framework.  
Bailey (1978) describes this method as a means of answering the question "What is happening?" The writer is asking a similar question about the implementation of CA in Imo State, Nigeria.
3. A survey method which is a type of descriptive study is primarily concerned with portraying the present - the

status quo of the phenomenon or problem being researched in; describing currently existing conditions and opinions held which is what this study is doing.

Best (1981) sums it up when he writes:

"a descriptive study describes and interprets what is it is concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident or trends that are developing. It is primarily concerned with the present...."  
(Best, 1981, p.93).

Cohen and Marion (1985, p.94) describing the survey method as the most commonly used descriptive method in educational research gave the various purposes of survey as:

- (a) describing the nature of existing conditions;
- (b) identifying standards against which existing conditions can be compared;
- (c) determining the relationships that exist between specific events.

### **8.3 Designing the Measuring Instruments**

In the absence of any already available standard measuring instrument that could be used or which could be modified to enable the author to collect pertinent information the research instruments used in this study had to be devised by the writer.

Furthermore, it was considered appropriate to construct a new instrument for other reasons. First of all, education in Nigeria as already described in Chapter One is essentially

bureaucratized or centralized functionally, Britain and U.S. (the birth places of implementation studies) operate relatively decentralized school systems. Even within Nigeria itself, there exist subtle differences between the states in educational matters. For example, in some states, the school boards are virtually the sole and autonomous 'buyers' of teachers' services, while in some others, the school boards still compete with the voluntary agencies, or the two at least complement each other in the recruitment and selection of teachers.

To make meaningful recommendations on which the successful implementation of CA would be carried out the writer decided that it would be helpful to know what the teachers, principals, students, parents and educational administrators in Imo State thought about the implementation of CA. To this end the questionnaires were constructed for the teachers, principals, students and parents and the interview schedule was constructed for the educational officials.

The questionnaire as a measuring instrument was preferred to other instruments for gathering information from the teachers, principals, parents and students firstly, because the information sought on these subjects on the implementation of CA is factual, and secondly, because of the large number of the subjects involved it was thought the easiest means of collecting the information that could cover a wide range of activities in a limited period by a single researcher.

On the other hand, the interview schedule was used to collect information from the education officers. This approach was chosen because the number of respondents is small and only a detailed examination of their views would have brought about the kind of information sought.

However, both questionnaire and interview methods are fraught with some disadvantages. The questionnaire can be rigid and inflexible, often the subject gives a response which he perceives to be socially acceptable, a response influenced by the "acquiescence tendency", the subject might agree or disagree with all or most questions. There is also the probability of "extreme biases" emerging with the subjects using or avoiding extremes in answering the questions, and there could be loss of meaning in interpretation. The interview method on the other hand is recommended for its flexibility and for its suitability for deeper probing of issues involved in the study. If a question is not clear to a respondent, it can be rephrased. An interviewer can observe both what the respondent says and how he says it. It is very useful in collecting personal information, attitudes or beliefs and it is particularly useful in probing for additional information if the need arises. Nevertheless, the interview has many disadvantages such as biased responses that could result from the interviewer's personal characteristics (e.g. his facial expressions) his form of reference and the type of leading questions he adopts.

The ideal approach would therefore be that which



incorporates both the pen-and-paper questionnaire method and the interview method which provides a very effective survey programme by combining the unique strengths and weaknesses of both methods as Dunham and Smith (1979) recommend: "the unique strengths and weaknesses of both interview and questionnaires suggests that a combination of the two techniques provides the most effective organizational survey program" (pp.15-15)

#### **8.4 Description of the Measuring Instruments**

A brief description of each of the measuring instruments of the main research follows:

(Full details are shown as Appendices 3,4,5,6 and 7).

##### **The Teacher's Questionnaire**

The teacher's questionnaire which was newly designed for this study has six parts. The first part elicits information regarding the respondents' biographic information such as sex, educational qualification, years of teaching experience, school location and teaching subjects.

The second part of the teacher's questionnaire comprises thirty items which are meant to ascertain from the respondents the extent to which problems are perceived in the implementation of CA in secondary schools in Imo State. The items in this section were devised on the basis of information obtained from the review of pertinent literature, from the educational background of the study, from personal experience and from discussions with some postgraduate students of the

University of Hull who are teachers in Nigeria, and who were thought to have in depth knowledge on the implementation of CA in Nigeria. The section is particularly relevant to this study for it attempts to gather within broad topic areas what appeared to be the most frequently listed problems, difficulties or 'barriers' or 'constraints' encountered in the implementation of educational innovations. This section probes the possible historical, political, economic, procedural, social, psychological, and geographical factors which might be relevant.

The third section of the teachers' questionnaire has nine items based on the national objectives of CA in Nigeria. They are taken from the Federal Government of Nigeria's Handbook on CA and they indicate the rationale for CA. Teachers are asked to rate how far they agree with these objectives. This is to enable the writer to get to the heart of the question - Why CA? The assumption also is that unless the teachers are in agreement with the criticisms against the previous examination practices, with which they have been involved over the years, they can not identify with the rationale for introducing CA into the school system. And unless they identify with the rationale they cannot be expected to have a sense of commitment to the practice and implementation of CA and may therefore not participate effectively in it. Thus, this section is designed to investigate the attitudes of the teachers towards the rationale for introducing CA.

Part four seeks information on the availability and use

of guidelines, assessment techniques as outlined in the Handbook, issues relating to the detailed mechanisms for implementing CA and the teachers' disposition towards the overall conduct of CA, that is, whether CA is favourable or unfavourable, whether CA should stop or continue. The items on availability and use of guidelines are important because guidelines especially at these early stages will prove to be the most valuable assets for increased implementation. Teachers require guidance and assistance provided from the State Education Department. The items on assessment techniques are meant to give information on the use of the techniques by teachers as prescribed by the Federal government of Nigeria in the Handbook.

Part five seeks information on the provision of INSET, Teachers' capability to effect the implementation of CA will to a large extent depend on the quality and nature of initial and In-service teacher education for CA.

The sixth and final part has fourteen items designed to assess the teachers' assessments and degrees of their perceived satisfaction or dissatisfaction with their job. The assumption is that the ability of teachers to implement CA or any other educational innovation will depend on their levels of professional preparation, social and financial status and their working conditions.

In parts three and six of the teacher's questionnaire a five-point rating format of the Likert type was adopted in spite of its susceptibility to response-set. However, if it

is carefully designed the problem of response-set can be averted. The five-point scale measuring the degree of agreement and disagreement, satisfaction and dissatisfaction was employed in these parts for certain reasons. This scale allowed the percentage responses for each individual statement to be obtained and it was possible to report percentage responses by combining the two outside categories - strongly agree and agree, disagree and strongly disagree; strongly satisfied and satisfied, dissatisfied and strongly dissatisfied. This made it possible for the researcher to know the total score for each respondent and a discussion for each item.

Secondly, it was possible to indicate the highest and lowest answered response rubrics of each individual respondent. This was possible because the scale enabled respondents to mark the items on the opinionnaire. The investigator was then able to give an overall picture of the degree of agreement and satisfaction.

### The Principals' Questionnaire

The principals were asked to give similar background information and opinions to those of the teachers. But in addition they were asked specifically to give their views on the number of teachers involved in in-service education for teachers, the overall orientation for principals, teachers and parents for CA, the availability of resources and other

support services from the government for the implementation of CA.

### The Students' Questionnaire

The students' questionnaire sought biographic information about the students such as age, sex, class (in school) boarder or day student, parents' level of education and occupations. Students were then asked to rate their performance for methods of assessment and certificates, overall performance of CA, opinions about the prevocational and vocational issues in the new system of education in Nigeria, their teachers' role as far as CA is concerned, their opinions on the objectives of CA and students' involvement with educational policies and provision. Teachers attach a lot of importance to their relationship with their students. Since one of the basic 'rewards' a teacher might get from implementing an innovation is improvement of the relationship with his students, teachers may not implement any change that will strain rather than improve that relationship (see Brown 1980, Pratt 1980, Stenhouse 1980).

### The Parents' Questionnaire

Parents were also asked to provide background information on sex, state, occupation and number of children in secondary schools. Then they were asked to rate the re-education of parents on CA, vocational issues, the major objectives of CA and the functions of CA pursued by schools, the possible

constraints that might be encountered in the implementation of the CA scheme and finally their views and opinions about the overall conduct of CA.

In the questionnaires, the subjects were presented with statements and asked to take a position on them by putting a tick in the appropriate responses box. Thus, the questionnaire to a great extent was constructed on the closed-form. It is much easier to quantify information collected with a closed-form questionnaire and the closed-form questionnaire generally makes for greater coverage and more systematic tabulation. On the other hand, the writer thought that there might be a need for the respondent to clarify his position with regard to some of the items, thus, she provided spaces for comments at the end of each major section of the teachers', principals', and parents' closed-form questionnaires.

(see appendices 3,4,5, and 6 for the questionnaires)

### The Interview Schedule

The administrators were not asked for background information. The administrators were asked to rate the state involvement in certain issues connected with the implementation of CA (e.g. INSET provision, availability of resources, rewards for teachers, evaluation of the CA scheme, feedback from schools, and the rating of the state level constraints that might hamper the smooth implementation of the CA scheme. (see Appendix 7).

Each of the measuring instruments was accompanied by a brief letter. The letter in simple language showed the title of the study, the investigator's name and institution.

Then it explained the purpose of the study as well as the need for carrying it out. Finally it assured the respondents that all information obtained from them would be treated with confidence. (see Appendix 8).

#### 8.5 The Size of the Sample and Sampling Procedure

It would have been impossible for a single researcher to collect survey data from all the teachers, students, principals, parents and educational administrators in Imo State. Before a decision was made with regards to the number of subjects who would be included in the sample, several issues were taken into consideration: the resources available for data collection (e.g. time) the type of data sought and the nature of statistical analysis of the data after collection.

However, the researcher is aware of the advantages of properly selected samples. Researches like Ross (1978) dealt with the problem - issues of sample selection. Ross (1978) sees the advantages of properly selected samples as:

- a) reduced costs;
- b) reduced requirements for specialized equipment and personnel;
- c) greater accuracy due to closer supervision of data gathering procedures;

d) greater speed in data collection and analysis.

The concept of theoretical sampling proposed by Glaser and Strauss (1967) was particularly relevant to this study. The concept involves seeking out people and situations which are likely to be particularly revealing or fruitful with respect to the phenomena in which one is interested. Stubbs (1978) saw this sampling approach as:

"a way of gathering suggestive and rich data, in as pure a form as possible, and with as little time wasted as possible. The research chooses groups of situations that will help to generate to the fullest extent the properties of his theoretical categories" (p.242).

The researcher, bearing in mind that "sample size is far less important than sample representativeness" and that "no data are sounder than the representativeness of the sample from which they were obtained no matter how large the sample" (Fox, 1969, pp.346-351) a stratified sampling technique was adopted as a precision-increasing technique. All together there were 442 secondary schools, and 11,360 teachers in secondary school in Imo State in 1984/85 before this study started in 1986.

Krejcie and Morgan (1970) recommend 379 as an appropriate sample size from a population of about 20,000 to 30,000. Thus a sample of 30 secondary schools representing about 7.0% of the 442 secondary schools in Imo state and a sample of 300 teachers out of 11,360 teachers were considered adequate samples for this study. It was arbitrarily decided to select the students in a ratio of 3 students to 1 teacher. That



meant selecting 30 students and 10 teachers from a school and since there were 30 schools it meant again 900 students and 300 teachers. Equally since there was a principal in a school a total of 30 principals from the 30 schools were selected for the sample. It was not possible to select predetermined numbers of individual respondents according to age, sex, teaching subject or rural/urban location because there was no list from which to locate individuals within these categories. All 21 local Government Areas of Imo State were covered since it is a state-wide study.

The twelve parents selected were randomly selected from among parents with children in secondary schools who were not teachers. The sample for the interview consisted of the two top most individuals in the implementation of CA in Imo State, one from the State Schools Management Board and one from the Ministry of Education each of whom were supposed to be at the centre of events in terms of the Implementation of the CA scheme. (These details are summarised below).

Sample

<u>Description</u>	<u>Total No.</u>
No. of schools (at least 1 per LGA)	30
Teachers (10 from each school)	300
Principals (1 from each school)	30
Students (30 from each school)	900
Parents	12
Administrators	2

RESPONSE

	<u>No. Sent</u>	<u>No Returned</u>
Teachers' Questionnaire	300	300
Principals Questionnaire	30	30
Students Questionnaire	900	895
Parents Questionnaire	12	10
Administrator Interview Schedule	2	2

8.6 Pilot Testing of the Measuring Instruments

The pilot testing of the measuring instruments was undertaken in order to find out:-

- (a) the approximate time it would take to fill in the questionnaires
- (b) if there were ambiguities in the wording of the questions
- (c) any questions which should be omitted or which needed to be modified
- (d) suitability of the respondents and sampling

- (e) to establish reliability
- (f) any further suggestions to improve the data coding and data analysis procedures

For the pilot testing, the instruments were administered to a sample of individuals similar to those of the main investigation between September and November 1986. Six schools from Orlu Zone were used for the pilot test. Orlu Zone was chosen for the pilot test because it has a reasonable balance of rural and urban schools and for convenience.

The pilot testing materials were administered to the respondents by the researcher. The data coding and tallying of the pilot study was manual. Data analysis at this stage was purely descriptive and computed with the aid of a calculator. After the preliminary analysis of the data, minor alterations and additions were made to the measuring instruments. Some statements were also reworded for clarity.

### **8.7 Administration of the Measuring Instruments**

The main fieldwork was carried out between October and December 1987. The administration of the measuring instruments was done personally by the writer.

But before the main investigation was carried out the writer made a formal application to the Ministry of Education, Imo State backed with a letter from her supervisor to enable her to elicit co-operation from the respondents. The Ministry of Education then wrote to the schools urging them to co-

operate with the researcher. The writer did not start until she received a reply from the Ministry of Education, Imo State granting her permission to carry out her research (see Appendix 9).

Because of bad roads and the fact that the investigator distributed and collected the questionnaires in each school in a day, she could only on the average cover one or two schools in a day. In each school the principal assigned the guidance counsellor to work with the researcher. The students' questionnaire was always started first. The 30 students were assembled in a classroom after being randomly selected. They normally took about one and a half to two hours to complete the questionnaires. While they were filling in the questionnaires the teachers and principal's questionnaires would be given out to them to fill in as well. At the end, the researcher with the help of the guidance counsellor collected the questionnaires back from the respondents.

The interviewees were contacted personally as well as with a letter formally requesting them to take part in the study. On the whole the interviewees were quite willing to take part in the study and did not object to the researcher using an audio tape and using the subsequent information derived from the interviews. The approach adopted in interviewing was essentially one whereby the investigator asked a question and the respondent gave the answer. The whole interview for an individual was carried out in one session. Efforts were made to encourage the respondents to

give as much information as possible. During the interview the writer used some non-verbal responses to demonstrate interest in the interview and she made efforts to listen, take notes and minimise interruptions.

### 8.8 Reliability and Validity

Two important constructs in educational measurement are those of validity and reliability. (see Chapter Three). Validity refers to the extent to which an instrument measures what it is supposed to measure. Reliability, on the other hand, is the extent to which a measuring device is consistent in measuring whatever it measures. These qualities are especially important in educational research. (McCall, 1980).

Validity - There are four main types of validity

1. Content validity - which refers to the degree to which a test or other measuring instrument samples the content area which is to be measured.
2. Predictive validity - which refers to the extent to which a test can predict future performance of individuals. One says a test has predictive validity when it can effectively indicate how a person will do on a later task.
3. Concurrent validity or congruent validity - which refers to the relationship between scores on a measuring instrument and a criterion available at the same time.
4. Construct validity - which refers to the extent to which

a test reflects constructs presumed to underline the test performance and also the extent to which it is based on theories regarding these constructs (Youngman, 1979).

Crocker (1974) upholds the method of ascertaining the content and construct validity of instruments through professional experts. He feels that:

"Validity is checked by finding the relationship between what we have measured and one or more of the following:

- (a) actual figure performance
- (b) expert opinion
- (c) results of another test of known and accepted validity" (p.46).

Similarly Thorndike and Hagen (1969) argue that:

"judgement and evidence join together in the validation exercise" (p.177).

In this study it was appropriate to consider the content validity of the measuring instruments. The measuring instruments were distributed to ten Nigerian teachers who were undergoing post-graduate courses in the School of Education, University of Hull in 1986. These people were chosen because they possessed a detailed knowledge of the education system in Nigeria and were very familiar with the recent developments in CA and the debate surrounding them. From discussions and suggestions with these teachers some additions were made to the measuring instruments. For example, they suggested the inclusion of items 29 and 30 in the section titled 'Possible constraints' in the Teachers and Principals questionnaires

because they felt that there were not enough vocational schools and that the parental/social background of students may affect the rating of students in the implementation of CA.

Since these judges all agreed that the items in the measuring instruments reflected what the study had set out to do, content (face) validity was assumed to have been established.

Reliability - Measuring instruments need to be reliable. There are several techniques which can be applied to estimate the reliability of a measuring instrument. These are:

1. Test-retest method: This method is a measure of stability of the measuring instrument in terms of consistency over time. This method compares results obtained from applications of a test on two different occasions. If the same version of the test is used a test-retest reliability coefficient is produced by correlating the pairs of scores.
2. Equivalent forms (Parallel test forms): This method is a measure of stability and equivalence which can be determined by administering two different but equivalent forms of a measuring instrument.
3. Internal Consistency: Frequently, reliability has to be assessed from a single application of a test and then an internal estimate is required. The most obvious solution is to split the test into two comparable halves, and then to correlate scores on these. Unless some good reason prevents it, the odd and even numbered items can be

separated and the correlation between them becomes the split-half reliability (Youngman 1979).

However, estimating the reliability of questionnaires and interviews creates special problems since repeated measures on subjects are extremely difficult to obtain. Even when retesting is possible it is usually very expensive. Reliability of factual questions can be evaluated through internal checks. In the case of attitude or opinion questionnaires the basic assumption is that the questions in a given scale are measuring attitudes or opinions to the same phenomenon. With that assumption, a good method of checking the reliability of attitude or opinion questionnaires is to compute some index of internal consistency like the split-half or coefficient alpha. (Youngman, 1979). This has been done on those sections of the teachers' questionnaire where a Likert design was employed and from which weighting scores could be applied and analysed. Cronbach's alpha coefficient has been computed for the 300 teachers and 30 principals who filled in the questionnaire. See Tables 8(01) and 8(02) below.

Table 8 (01): Cronbach's Alpha Coefficients for the results of different section analyses for Teachers' Questionnaire (N=300)

Section	No of Items	alpha
Section 2 - Possible Constraints	30	.7909
Section 3 - National Objectives of CA	9	.6510
Section 6 - Teachers' Views on their job	14	.6393



Table 8(02) Cronbach's Alpha Coefficients for the results of different section analyses for Principals' Questionnaire (N=30)

Section	No of Items	alpha
Section 3 - Possible Constraints	30	.821
Section 4 - National Objectives	9	.802

In the two tables, using Cronbach's alpha coefficient the correlations were between .6393 and .8205. Cohen and Marion (1980) suggests that "when correlations are around 0.40 crude group prediction may be possible and that correlations ranging from .65 to 0.85 make possible group predictions that are accurate enough for most purposes" (pp.138-139). On this basis these sections of the questionnaire can be accepted as being reliable.

Even when concerning the minimum level of reliability required, there is none which can be established to fit all occasions. It is however well known (Youngman 1979, Cohen and Marion, 1980) that decisions about individuals require higher reliabilities (coefficients above 0.75) than decisions regarding the average characteristics of a group (coefficients as low as 0.50). In view of these suggestions again, these questionnaires could be accepted as reliable instruments. Also matrix correlations (Youngman 1979) were calculated on these sections of these questionnaires. The interrelationships among the sections were found to be generally low (see Tables 9(29), 9(30), 9(31), 9(44) and 9(45). Correlations ranging from 0.20 to 0.35 show according

to Cohen and Marion (1980, pp.138-9) only very slight relationships, thus indicating the relative independence of the items so analysed. Therefore, it can be claimed that different and distinct facets of CA issues are being measured in this study.

Furthermore, the structure of the instrument may also affect the degree of reliability. Techniques for enhancing the reliability of instruments typically focus on how to write good questions and on accuracy in coding and tabulating data. In this study, to assess the reliability of the measuring instruments some built-in cross-checking was done using particular probe questions presented in slightly different forms in different sections of the questionnaires. For example in the Teachers' Questionnaire, item 18 in Section 2 and Item 5 in Section 4 are both testing availability of guidelines, Item 14 in Section 2 and Item 1 in Section 5 are both testing INSET provision. From analyses these items show no marked discrepancies.

Equally, to increase the response rate of the measuring instruments the researcher administered all the measuring instruments personally following a carefully designed direction for the instruments' administration, with little or no variation from school to school and in each school she made sure that the questions were answered in an atmosphere free from distractions. She collected the measuring instruments immediately after, thus ensuring a high response rate. This was why she covered one or two schools a day. Furthermore,

all the schools used were contacted by the State Ministry of Education on behalf of the investigator thereby ensuring co-operation and rapport and as Borg and Gall (1983) noted, contacting respondents before administering the test has been found in several studies to increase response rate.

The investigator distributing the questionnaires personally and staying on with the respondents to complete them had the disadvantages of involving travelling time and expenditure and relatively few respondents can be covered by the method but the merits are many:

1. The investigator was certain the tools reached the respondents;
2. There was no opportunity for respondents to collude with each other and thereby falsify or doctor their responses;
3. The investigator was in full control of how long the data collection exercise would last because she planned beforehand what places to go to, when to go to those places and how long it would take her.
4. There was a very high percentage of questionnaire return rate - 100% for teachers, 100% for principals, 99% for students.

The very rare case of non-return by some students could only be attributed to a respondent wilfully or otherwise walking away with the questionnaire.

5. It gave the opportunity for the respondents to obtain clarification for questions they had some doubts about.

However, the investigator was aware that her physical presence around and pressing to obtain responses might create an examination-type atmosphere which normally many students dread, thus, she would leave them for a while whilst they were filling the questionnaires to administer the teachers' and principals' questionnaires in each school.

## CHAPTER NINE

### DATA PRESENTATION AND INTERPRETATION

This chapter includes description of each of the following:

1. Statistical techniques
2. Data producing sample
3. The scoring techniques
4. Presentation of results

#### 1. Description of statistical procedures

The statistical procedures chosen in this study were influenced by two major factors:

1. the type of data obtained from the research instruments and
2. the type of research questions asked.

The questions asked in the survey measuring instruments were mainly descriptive and associative statements. According to Dyer (1979) descriptive questions:

"Aim at identifying the characteristics of an individual a group several subgroups a phenomenon, a system or an object" (p.141).

Thus, the descriptive questions asked in this survey sought information to identify the characteristics of administrators, teachers, principals, students, and parents as groups and subgroups about their views on the implementation of CA in Imo

State, Nigeria. From the analysis of results attempts are made to see if these groups differ in their opinions significantly regarding their views on implementation of CA. Dyer also asserts that associative questions "focus on the pattern of the degree of association or covariance between two or more variables". (p.141).

However, these descriptive and associative questions allow two main types of statistics to be used - descriptive and inferential statistics. Descriptive statistics show the frequency distribution of the subjects' responses on every item. This analysis shows the responses of the sample as well as the responses of the various groups. From this, frequency distribution of the percentages of the subjects at various levels of perception as well as the means and standard deviations of their score are calculated. The advantage of the descriptive statistics is that they enable the use of one or two numbers, for example, the mean and the standard deviation to represent all the individual scores of subjects in the sample.

But since descriptive statistics oversimplify the data distorting one's understanding of how individual respondents performed in the study inferential statistical techniques are used to make inferences from sample statistics to the population parameters (McCall 1980). Also, the choice of inferential statistics depends on the nature of the data to which the test is being applied. For example, for discrete and nominal data such as those relating to the variables of sex,

years of teaching experiences, class (in school), the chi-squared test is applied. Contingency tables are computed for these tables by means of cross-tabulations. Nie et al (1975) define cross-tabulation as a joint frequency distribution of cases according to two or more classificatory variables. The display of the distribution of cases by their position on 2 or more variables is the chief component of contingency table analysis and is perhaps the most commonly used analytic method in the social sciences. These joint frequency distributions can be statistically analysed by certain tests of significance, for example, the chi-squared statistics to determine whether or not the variables are statistically independent, and these distributions can be summarized by a number of measures of association such as the contingency coefficient, phi, Cramer's V and Pearson Corr, which describe the degree to which the values of one variable predict or vary with those of another (Nie et al 1975 p.218).

This study uses chi-square to show the relationship of the sub-groups' responses. The use of this test enables the writer to decide reasonably whether some factor other than chance (Sampling Error) accounts for the apparent relationship and also to show how reliable the writer can infer that the phenomena observed in a limited group will also occur in the unobserved larger population of concern from which the sample was drawn.

Youngman (1979) argues that chi-square is only a measure of the amount of deviation from random expectation in a table.

Should the obtained value be sufficiently high for the null hypothesis to be rejected it would follow that the data exhibited tendencies for certain joint responses to predominate, and that the size of chi-square cannot be interpreted as an indication of the degree of association, only that a relationship exists. Nie et al (1975) explain that:

"part of the reason is that the sample size and table size have an influence upon chi-square" (p.224).

Therefore in order to determine the nature of association among the various items of this study correlation matrices were computed on the continuous ordinal data which were derived from the variables. The use of such a correlational technique helped not only to ascertain whether or not there were any relationships among the variables or sets of data but also to find out the direction and magnitude of such relationships.

Also, a factor analysis of the 'Possible Constraints' section of the Teachers' Questionnaire was done. A detailed analysis of the Teachers' Questionnaire is considered to be important because the teachers are the people who implement the CA Scheme in the classroom. They are in the best position to know what factors are constituting problems and those that are not.

Further, any item, such as those on the 'Possible Constraints' list of the Teachers' and Principals' Questionnaires represents a combination of meanings both to the person who developed the item and to the respondent; the shades of meaning may also be different for different



respondents, so that what seemed 'obvious' as an interpretation when the item was drafted may turn out to be the least salient aspect of the item upon later analysis. Most items have several meanings which can only be separated when we see how a group of people respond to the whole set. When responses to different items are compared, certain items may begin to cluster together, in other words, certain respondents tend to respond identically to sets of items. It is then possible to examine the apparent verbal content of these clusters of items searching for common elements which can then be used to label the underlying dimension to which they appear to be responding.

## 2 Data Producing Sample

As already discussed in the previous chapter, two educational officers were interviewed, and also a total of 1,242 questionnaires were distributed to the four different types of respondents selected for this study. 1,235 of the questionnaires were completed and returned. See the table below.

Table 9(01) Data Producing Sample (QUESTIONNAIRE)

Sample Group	No distributed	No Returned	%
1 Principals	30	40	100
2 Teachers	300	300	100
3 Students	900	895	99
4 Parents	12	10	83.3
Total	1242	1235	99.4

### 3 The Scoring Technique

Most of the questionnaire items were assigned numerical values. These values were printed on the questionnaires and respondents were asked to take a stand as it related to them in each case (see the Questionnaires in the appendices 3, 4, 5 and 6 for details.)

As the survey could not be hand tallied adequately because of the number of respondents and time limit, all the data in all the questionnaires were coded and computerized using the Statistical Package for the Social Sciences (SPSS) at the University of Hull Computer Centre.

### PRESENTATION AND DISCUSSION OF RESULTS

The order of presentation adopted in the analysis is as follows:

- (a) Presentation of findings from the Teachers' Questionnaire
- (b) Presentation of findings from the Principals' Questionnaire
- (c) Presentation of findings from the Students' Questionnaire
- (d) Presentation of findings from the Parents' Questionnaire
- (e) Presentation of findings from the Administrators' Interview Schedule

Preamble: One problem which readers may have with this chapter and the next chapter is the negative impression which is always left when one concentrates on 'barriers' rather than 'facilitators,' 'weaknesses' rather than 'strengths,' or 'what

went wrong' rather than 'what went right' as often is the case with studies on implementation.

However, to overcome this difficulty the writer tries in the later chapter to indicate ways to overcome the 'barriers'.

Furthermore, because of the many tables produced some of the tables are in the appendices.

## 9.4 PRESENTATION AND DISCUSSION OF RESULTS

### A TEACHERS' QUESTIONNAIRE ANALYSIS

The teachers' biographic information which had been collected is summarised in Table 9(02)

TABLE 9(02)

Teachers' Biographic Data (N = 300)

		FREQUENCY	PERCENTAGE
SEX	Male	204	68.0
	Female	96	32.0
Educational Qualif.	Grad Cert. with Teaching Qual.	111	37.0
	Grad. without Teaching Qual.	30	10.0
	Teachers' Cert.	137	45.7
	Others	22	7.3
Years of Teaching Experience	1 - 5 years	88	29.3
	6 - 10 years	107	35.7
	11 - 15 years	58	19.3
	Above 15 years	47	15.7
School Location	Rural	250	80.0
	Urban	50	20.0
Teaching Subjects	Science	142	47.3
	Arts	129	43.0
	Both	19	6.3

#### A1 POSSIBLE CONSTRAINTS

In order to find out what factors inhibit the successful implementation of CA, teachers' opinions on the major constraints were sought. Constraints are viewed as factors which inhibit the extent to which an ideal state of affairs can be achieved. They set limits to the best efforts in achieving stated objectives and aims of a given programme.

Response distribution of the Teachers' Questionnaire on items 1-30 reveals that nine out of the thirty items have response rates of between 78.7% and 50.0% in the 'Major problem' category. In the 'No problem' category only one item - cooperation from School Heads, has a response rate of 50.0% or above (58.7%) (Table 9(03)).

A rank ordering of the percentage scores reveals the items over which the teachers perceive the greatest problems (Table 9(03)). Where the teachers perceive the greatest problems are with factors which are far beyond the control of both the classroom teacher and the Headteacher, e.g. lack of financial support, inadequate provision of INSET, lack of material support, parental/social background of students, insufficient number of vocational schools, unavailability of guidance counsellors and guidelines, and lack of comparability of standards (Table 9(03 and 9(04)).

**Table 9(03)**

Ranked frequency distribution of responses of teachers on perception of possible constraints (barriers) to the implementation of CA (N = 300)

VARAIABLES	NO PROBLEM		MINOR		MAJOR		MEAN	STD DEV
	FREQ	%	FREQ	%	FREQ	%		
1. Financial Support	26	8.7	38	12.7	236	78.7	2.700	.620
2. Provision of INSET	31	10.3	77	25.7	192	64.0	2.537	.676
3. Material Support	28	9.3	81	27.0	191	63.7	2.543	.660
4. Social Background	35	11.7	82	27.3	183	61.0	2.493	.696
5. Voc. guid. of Students	38	12.7	94	31.3	168	56.0	2.433	.708
6. No. of Voc. Schools	65	21.7	71	23.7	164	54.7	2.330	.810
7. Accurate Uniform Records	50	16.7	89	29.7	161	53.7	2.370	.754
8. Comparability	52	17.3	95	31.7	153	51.0	2.337	.756
9. Avail. of Guid. Counsellors	79	26.3	71	23.7	150	50.0	2.237	.842
10. Avail. of Guidelines	66	22.0	91	30.3	143	47.7	2.257	.796
11. Students' Absenteeism	35	11.7	134	44.7	131	43.7	2.320	.673
12. Co-operation from JAMB	111	37.0	68	22.7	121	40.3	2.033	.880
13. The Affective Report	69	23.0	112	37.3	119	39.7	2.167	.775
14. The Psychomotor Report	70	23.3	113	37.7	117	39.0	2.157	.775
15. Co-operation from State	65	21.7	120	40.0	115	38.3	2.167	.758
16. Teachers' Expertise	81	27.1	107	35.8	111	37.1	2.100	.796
17. Administrative Support	74	24.7	121	40.3	105	35.0	2.103	.767
18. Co-operation from Parents	90	30.0	112	37.3	98	32.7	2.027	.792
19. Avail. of Time	65	21.8	136	45.6	97	32.6	2.107	.731
20. Use of Cum. Record	87	29.0	126	42.0	87	29.0	2.000	.763
21. Co-operation from Exam Board	82	27.3	136	45.3	82	27.3	2.000	.741
22. ANNUAL Report	105	35.1	125	41.8	69	23.1	1.880	.755
23. Entering Marks	109	36.3	123	41.0	68	22.7	1.863	.757
24. Marketing Exercises/Tests	103	34.3	133	44.3	64	21.3	1.870	.736
25. Weekly Report	92	30.7	149	49.7	59	19.7	1.890	.702
26. Academic Progress Report	129	43.0	129	43.0	42	14.0	1.710	.698
27. Preparation of Test	127	42.3	134	44.7	39	13.0	1.707	.685
28. Preparation of Exercises	120	40.0	143	47.7	37	12.3	1.723	.670
29. Co-operation from Sch. Heads	176	58.7	89	29.7	35	11.7	1.530	.696
30. Teacher/Pupil Relationship	141	47.0	128	42.7	31	10.3	1.633	.664

The lower the mean the less is the problem perceived

Table 9(04)

CONSTRAINTS: MAJOR PROBLEM CATEGORY FOR TEACHERS

(N = 300)

	<u>Frequency of response</u>	<u>%</u>	<u>Mean</u>	<u>STD DEV</u>
Financial Support	236	78.7	2.70	.620
Provision of INSET	192	64.0	2.537	.676
Material Support	191	63.7	2.543	.660
Parental/Social Background	183	61.0	2.493	.696
VOC guidance	168	56.0	2.433	.708
No. of VOC Schools	164	54.7	2.330	.810
Accurate Uniform Records	161	53.7	2.370	.754
Comparability	153	51.0	2.337	.756
Availability of Guidance Cllr.	150	50.0	2.237	.842
Availability of Guidelines	143	47.7	2.257	.796
Students' absenteeism	131	43.7	2.320	.673
Cooperation from JAMB	121	40.3	2.033	.880
The Affective Report	119	39.7	2.167	.775
The Psychomotor Report	117	39.0	2.157	.775
Cooperation from State	115	38.3	2.167	.758
Teachers' Expertise	111	37.1	2.100	.796
Administrative Support	105	35.0	2.103	.792

Where the teachers perceive less problems are with factors within their control and interpersonal relationship e.g. Weekly Report, Progress Academic Report, entering marks on CA record forms, preparation of tests, preparation of exercises, cooperation from School Head, and teacher/pupil relationship (see Table 9(05)).

TABLE 9(05)

CONSTRAINTS 'NO PROBLEM' CATEGORY FOR TEACHERS    N = 300

	<u>Frequency of response</u>	<u>%</u>	<u>Mean</u>	<u>STD DEV</u>
Cooperation from School Heads	176	58.7	1.530	.696
Teacher/Pupil Relationship	147	47.0	1.633	.664
Academic Progress Report	129	43.0	1.710	.698
Preparation of Test	127	42.3	1.707	.685
Preparation of Exercises	120	40.0	1.723	.670
Entering Marks on CA Forms	109	36.3	1.863	.757
Annual Report	105	35.1	1.880	.755
Marking Exercises and Tests	103	34.3	1.870	.736



In order to understand and interpret this section more fully, (Table 9(03)), the mean scores on the thirty items were added up and a further computation of their mean calculated to yield an overall mean score. The calculation yielded a mean of 2.10. The scale for interpreting the mean score is as follows:

1 = No problem

2 = Minor problem

3 = Major problem

This means that in general, with an overall mean of 2.10 the teachers are perceiving some problems in the implementation of CA. Also, a frequency distribution of the teachers' responses on those three-point scores reveals that in general, about 26.7% response rate is in the 'No problem' category, 35.9% is in the 'Minor problem' category, and 37.4% is in the 'Major problem' category. This shows that most of the response rates are in the 'major problem' category. In other words, the teachers are perceiving a lot of major problems in the implementation of CA.

The validity of this particular finding is confirmed with evidences from the principals' questionnaire (Table 9(35) and from the findings from the parents' questionnaire as we shall see later.

In order to find out if teachers' perception of problems is related to the background variables of sex, attendance of INSET, school location, years of teaching experience, or teaching subject, a chi-squared analysis was applied since the

data are nominal. It therefore allows us to test the difference between observed and expected or theoretical frequencies.

Sex of Respondents - Four items alone showed significance below the 0.05 probability level [ $P < 0.05$ ] with 2 degrees of freedom (df). (see Table 9(06) in Appendix. More female teachers perceive 'lack of material support', and 'unavailability of guidelines' as major problems. On the other hand, more male teachers perceive 'weekly report' and 'vocational guidance' of the students more as major problems.

Years of teaching experience of respondents - chi-squared analysis also shows that the teachers all perceive problems alike in all the items but cooperation from Examination Board and cooperation from JAMB irrespective of their years of experience. Cooperation from Examination Board and cooperation from JAMB showed significance below 0.05 level of probability with 6 degrees of freedom, (see Table 9(07) in appendix 10). But for these two items all the teachers with their varying degrees of experience perceive problems alike.

Attendance at INSET - chi-squared analysis reveals that there is no significant difference between those who have attended INSET and those who have not attended INSET in their perception of problems in twenty nine out of the thirty items. Availability of guidelines showed a probability level below 0.05 with 2 df. It is interesting to note that it is more of those who have attended INSET, (42 = 57.5%), who perceive 'unavailability of guidelines' as a major problem. An

explanation for this could be that it is those who have gone for INSET really see the need for guidelines. It could also mean that those who have not gone for INSET are doing exactly what they were used to (Table 9(08) in Appendix 10).

School location of respondents - The chi-squared analysis also reveals that in 27 out of the 30 items there is no significant difference between the perception of problems by the teachers from urban and those from rural areas. They all perceive problems alike in the 27 items. Preparation of tests, availability of Guidance Counsellors, and cooperation from JAMB showed significance below 0.05 probability level (see Table 9(09) in Appendix 10) with 2df. The analysis shows that more teachers from the rural area see cooperation from JAMB (44%) and availability of guidance counsellor (52%) as major problems. Conversely teachers from the urban areas perceive these items as 'No problems'. On the other hand more teachers from the rural areas perceive preparation of tests as less of a problem.

## A2 NATIONAL OBJECTIVES OF CA

Table 9(11)

FREQUENCY DISTRIBUTION OF TEACHERS' RESPONSES ON AGREEMENT/DISAGREEMENT WITH THE NATIONAL OBJECTIVES OF CA

CA:	Value	No.	%
1 Gives the teacher greater involvement in the child's overall assessment	A UN D	289 3 7	96.6 1.0 2.3
2 Provides a more valid assessment of the child's overall ability and performance	A UN D	270 12 17	90.3 4.0 5.7
3 Provides a basis for more effective guidance of the child	A UN D	262 27 10	87.6 9.0 3.3
4 Makes the students work harder (increases motivation)	A UN D	239 37 23	79.9 12.4 7.7
5 Provides a basis for the teacher to improve his/her teaching methods	A UN D	232 43 23	77.9 14.4 7.7
6 Enables teachers to be more innovative in their teaching	A UN D	225 46 28	75.3 15.4 9.4
7 Enables teachers to be more flexible in their teaching	A UN D	189 61 49	63.2 20.4 16.4
8 Reduces Examination Malpractices (e.g. cheating in exams and leakages of question papers)	A UN D	182 65 62	57.5 21.7 20.7
9 Improves Teacher/student relationship	A UN D	153 80 66	51.2 26.8 22.0

In order to find out if teachers in the secondary schools in Imo State who are implementing the CA do identify with the National objectives for CA, they were asked to rate their agreement or disagreement with the nine objectives (Items 31-39 in Appendix 3).

The mean scores for each of the nine items were calculated and a further computation of their mean was calculated to yield an overall score. The computation yielded a mean of 1.90. The following scale is used to interpret the mean scores:

- 1 = SA = Strongly agree
- 2 = A = Agree
- 3 = UN = Uncertain
- 4 = D = Disagree
- 5 = SD = Strongly disagree

Thus, the overall mean of 1.90 could be interpreted to mean a moderately favourable attitude i.e. 'Agreement' with the national objectives of CA. Table 9(10) in Appendix shows that most teachers 'strongly agree' with the statement that CA gives the teacher greater involvement in the child's overall assessment, provides a more valid assessment of the child's overall ability and performance, provides a basis for more effective guidance of the child, makes the students' work harder (motivates the student), and reduces examination malpractices. Most teachers 'Agree' that CA: enables teachers to be more flexible in their teaching, enables teachers to be more innovative in their teaching, provides a basis for the teacher to improve his/her teaching methods, and improves

teacher/student relationship. (Table 9(10)).

Further still, for more understanding of the teachers' agreement or disagreement with the national objectives for CA, the scale points on the agreement - disagreement continuum were collapsed from the original five to three (Table 9(11)). A rank ordering of the table on agreement or disagreement with the national objectives shows that most teachers 'agree' with all the national objectives, with the statement that CA gives the teacher greater involvement in the child's overall assessment coming top of the list and the statements that CA reduces examination malpractices, and improves teacher/student relationship coming last. (Table 9(11)).

### **A3 USE AND DESCRIPTION OF THE GUIDELINES FROM THE FEDERAL GOVERNMENT HANDBOOK ON CA (1985)**

The Federal Government recognises the importance of the Handbook on CA hence it has this to say:

"This book has been written in order to help in the training of teachers in these new skills and to serve as a basic reference text for all those who will be involved in the implementation of the policy" (p.5)

A frequency distribution of teachers' responses on the use of the guidelines from the Handbook on CA shows that a substantial percentage of the teachers sampled (43.3%) have 'never' used the book, 25.7% 'rarely' use it, while only 29.3% use it 'very often'. Most of those who use the book (60.8%) say that it is 'adequate,' 10.3% say it is too detailed, and 9.7% say it is 'too general' (Tables 9(12) and 9(13)).

Table 9(12)

FREQUENCY DISTRIBUTION OF TEACHERS' RESPONSES ON THE USE OF CA GUIDELINES FROM THE HANDBOOK (N = 300)

		Frequency	Percentage
How often do you make use of the guidelines from the Handbook on CA?	very often	88	29.3
	Rarely	77	25.7
	Never	130	43.3

Table 9(13)

FREQUENCY DISTRIBUTION OF TEACHERS' RESPONSES ON THE DESCRIPTION OF THE GUIDANCE GIVEN IN THE HANDBOOK FOR CA

		Frequency	Percentage
How would you describe the guidance given in the Handbook if you have used the book?	Too general	29	9.7
	Adequate	93	31.0
	Too detailed	31	10.3

A teacher who 'never' uses it has this comment:

"I have never heard of the Federal Government Handbook on Continuous Assessment, the Federal Government is yet to give us guidelines".

One is forced to conclude that most teachers have never used the handbook, and have no other guidelines from the government since they did not indicate any other criteria from the government which they use. The validation of this particular finding is confirmed with evidence from Table 9(04) where teachers rated availability of guidelines high in the "major problem category".

A teacher has this comment to make:

"The student result sheets have scales and skills to assess and I must tell you that from experience I know the skills and abilities to assess".

The above comment could be interpreted to mean that the teachers 'from experience' are doing what they were used to doing.

The conclusion is that despite the fact the Federal Government recognises the potential usefulness of the Handbook on CA as having "been written in order to help in the training of teachers in these new skills and to serve as a basic reference text for all those who will be involved in the implementation of the policy," most teachers have never used it and the guide to skills and abilities to assess could be either their personal experience over the years or the notes from the result sheets.



A4 Continuous Assessment Techniques

Table 9(14)

FREQUENCY DISTRIBUTION OF TEACHERS' RESPONSES ON USE OF THE  
VARIOUS CA TECHNIQUES (N = 300)

Assessment Techniques	Value Label	Frequency	Percentage
Tests and examinations	Very often	292	97.3
	Rarely	8	2.7
	Never	-	-
Projects	Very often	43	14.3
	Rarely	176	58.7
	Never	81	27.0
Observation of pupils' behaviour	Very often	146	48.7
	Rarely	124	41.3
	Never	30	10.0
Sociometric	Very often	34	11.3
	Rarely	116	38.7
	Never	150	50.0
Questionnaire	Very often	29	9.7
	Rarely	86	28.7
	Never	185	61.7

A frequency distribution of teachers' responses on the use of assessment techniques (Table 9(14)) reveals that almost all the teachers (97.3%) use tests and examinations 'very often' while only 2.7% use them 'rarely' and as expected no teacher indicated that he/she 'never' uses them. 14.3% of the teachers sampled use projects 'very often,' 58.7% 'rarely' use them and 27.0% 'never' use them.

A substantial percentage of the teachers (48.7%) use observation of pupils' behaviour technique 'very often' and almost an equal proportion (41.3%) use it 'rarely' and 10.0% never uses it. With sociometric and questionnaire techniques most teachers sampled (50.0% and 61.7% respectively) indicated that they 'never' use them.

The possible explanation for most teachers using Tests and Examinations 'very often' at the expense of other techniques recommended by the Federal Ministry of Education could be because these teachers as indicated by this study have not attended any INSET for CA and apart from that they have 'never' used the Handbook on CA where there are guidelines on the use of these techniques or more specifically it could be attributed to unavailability of guidelines as indicated by the teachers themselves (see Table 9(03)). It could therefore mean that the teachers in terms of techniques for assessment are doing exactly what they were used to doing before the introduction of CA. This disregards the fact that for the first time in the history of education in Nigeria, teachers are to assess all the three Bloomian domains (Bloom 1964). One of

the major characteristics of CA is that it is comprehensive (Chapter 3). By this we mean that information regarding every aspect of student behaviour is required using different techniques, so as to arrive at a valid judgement of his total behaviour. Certain techniques are known to be appropriate in evaluating particular aspects of student behaviour. For instance, written tests are best suited for assessing cognitive behaviour while observation of the students could be used in evaluating affective or psychomotor behaviour.

The conclusion is that the non-use of certain techniques as reported in this study must mean that certain aspects of student behaviour are not adequately or totally assessed by the teachers.

#### **A5 Teachers' method of selection of exercise tests and projects**

A frequency distribution of teachers' responses on method of selection of exercises shows high response rate for use of almost all the methods - classwork exercise, class tests, practical exercises, term examination and test, and homework. And almost an equal proportion of teachers use or do not use practical tests. (Table 9(15)).

**Table 9(15)**

Frequency distribution of teachers' responses on their selection of exercises, tests and projects.

(N = 300)

Methods used in selection	Response	FREQ.	Percentage *	Valid % **	Cum %
CLASSWORK EXERCISE	YES	234	78.3	78.3	78.3
	NO	65	21.7	21.7	100.0
CLASS TESTS	YES	252	84.0	84.0	84.0
	NO	48	16.0	16.0	100.0
PRACTICAL EXERCISE	YES	189	63.0	63.2	63.2
	NO	110	36.7	36.8	100.0
PRACTICAL TESTS	YES	142	47.3	47.5	47.5
	NO	157	52.3	52.5	100.0
TERM EXAM & TEST	YES	279	93.0	93.0	93.0
	NO	21	7.0	7.0	100.0
HOMEWORK	YES	246	82.0	82.0	82.0
	NO	54	18.0	18.0	100.0
OTHERS	YES	56	18.7	19.0	19.0
	NO	239	79.7	81.0	100.0

\* Percentage is calculated from the ratio of respondents in the category relative to total number of respondents in the sample (N = 300)

\*\* Valid percentage is calculated from the ratio of respondents in the category relative to total number of respondents answering the item (N = 295)

However, a good majority of the teachers (73.3%) agree that there is a guide to abilities and skills to assess (Table 9(16)). 25.7% disagreed with the statement that there is a guide to abilities and skills to assess. It must be recognised that the proportion of those (25.7%) who feel that there is no guide to abilities and skills to assess is substantial.

Table 9(16)

Frequency distribution of teachers' responses on availability of guide which tells the abilities and skills to assess  
(N = 300)

		FREQ	PERCENTAGE	VALID %	CUM %
Is there a guide which tells you the abilities and skills to assess?	YES	220	73.3	74.1	74.1
	NO	77	25.7	25.9	100.0

## A6 AWARD OF MARKS

One of the distinctive features of the new National Policy on Education is its emphasis on Continuous Assessment (see Chapter 4).

"Educational assessment and evaluation will be liberalised by basing them in whole or in part on continuous assessment of the progress of the individual". (Para 7(7)).

In effect school-based assessment (i.e. assessment of coursework projects etc.) will play a significant part in almost all the examinations. In any examination, every candidate's work must be assessed using the same standards. This could be achieved by the examining groups undertaking all the marking but this could almost certainly reduce some of the advantages of using a school-based component and would in any case be prohibitively expensive and time consuming. It will be necessary to ensure that all teachers are marking to the same standards on the same scale of marks.

Table 9(17)

Frequency distribution of Teachers' responses on procedure for award of marks

(N = 300)

Procedure(s) used	FREQ	%	VALID %	CUM %
Impression marking	17	5.7	5.7	5.7
Marking Schemes	132	44.0	44.1	49.8
Both	150	50.0	50.2	100.0

A frequency distribution of teachers' responses on the award of marks (Table 9(17)) reveals that 5.7% of respondents use impression marking only, 44.0% use marking schemes only, and 50.0% use both marking schemes and impression marking; that means that most teachers use both. But since some teachers use impression marking only, it is necessary to check and if necessary adjust the marks of the teachers, at least in these early years of the new system of CA scheme. No wonder comparability of standards ranked high in the 'major problem' category (see Table 9(03)). The conclusion is that there is an urgent need for adequate moderation.

**A7 Parents/Teachers Association (PTA) should be consulted in all major school matters**

The response distribution on this item shows that most teachers (51.35) agree and foresee the need for PTA to be consulted in all major school matters (Table 9(18)). This support for participation of PTA in major school matters could be based on the understanding that the communities are doing much for the schools now e.g. - in buildings, financial assistance.

**Table 9(18)**

Frequency distribution of Teachers' responses on some major school issues (N = 300)

	VALUE LABEL	FREQ	%	VALID %	CUM %
PTA should be consulted should be consulted in all major school matters	YES	154	51.3	51.5	51.5
	NOT SURE	55	18.3	18.4	69.9
	NO	90	30.0	30.1	100.0
CA should test practical and academic performance	YES	288	96.0	96.3	96.3
	NOT SURE	9	3.0	3.0	99.3
	NO	2	.7	.7	100.0
Non-WASC subjects are not taken seriously by students	YES	197	65.7	66.1	66.1
	NOT SURE	68	22.7	22.8	88.9
	NO	33	11.0	11.1	100.0
Much emphasis on Paper qualification is the root of our ed. problems	YES	229	76.3	76.6	76.6
	NOT SURE	43	14.3	14.4	91.0
	NO	27	9.0	9.0	100.0
Teaching how to pass should be the teachers' main concern	YES	26	8.7	8.7	8.7
	NOT SURE	15	5.0	5.0	13.7
	NO	258	86.0	86.3	100.0



#### **A8 CA AND EVALUATION PROCEDURES**

"Should CA test performance in both practical and Academic work?"

Evidence from the study shows (Table 9(18)) strong support (96.0%) for CA to test performance in both practical and academic work. Perhaps the most important source of support for CA to test performance in both practical and academic work is that of the Federal Government in its policy statement. Also, the inclusion of psychomotor and affective domains in the assessment system demands that CA should test performance in practical and academic work. This really makes the practice flexible.

#### **A9 "Subjects that are not included in WASC Exams are not taken seriously by students"**

Another important factor in the teacher/student activities or in the evaluation procedures is the effect of society on education. The relationship between education and society lies in the fact that the former is a process that goes on within the latter. Although education could and in effect does influence people's knowledge, attitudes, and perceptions and hence has the potential to influence society most of the time its nature, purpose, and character are principally conditioned by society in its entirety in its various levels of community by aid of its polity, its culture, and its other specialized apparatus for enforcing conformity.

The Nigerian society is certificate orientated (see Nwana

1982, Obasi 1985). Any move away from this may meet with resistance. The society sees WASC/GCE O/Level Certificate as the key to success in life. This view is confirmed by the findings in this study where there is a strong support (65.7%) by the teachers that subjects that are not included in WASC are not taken seriously by students (Table 9(18)).

Further support for this finding is shown in the evidence from the teachers' responses on the statement that too much emphasis on paper qualifications is the root of all our educational problems (Item 59). 76.3% of the respondents agreed with this statement (Table 9(18)).

However, the conclusion is that unless the Nigerian society shifts emphasis on certification, the CA which we blindly hope is a panacea to all our assessment and educational problems may meet with resistance. The validity of the above finding is confirmed by the finding from the students' questionnaire that most students and their parents/guardians do not like the prevocation and the vocational subjects, and most students (Table 9(50) would not like to go into an apprenticeship system (Table 9(50). Undoubtedly, the implementation of CA and indeed any innovation is bound to be influenced by societal influences in Nigeria. This is based on the assumption that education is a resultant feature of social elaboration or sophistication.

Data from the teachers' questionnaire show that although too much emphasis on paper qualification is the root of our educational problems, most teachers (86.0%) disagree that

"teaching how to pass examinations should be the teacher's main concern". (Item 60 of Teachers' Questionnaire). The response distribution on this item shows that most teachers recognise their role as something far wider than didactic classroom instruction. This also points to the fact that while teachers are aware that teaching how to pass should not be their main concern, their efforts may be hampered by the fact that subjects that are not included in WASC exams are not taken seriously by the students, for the society sees WASC certificate as the key to the closed system of the selective entry through JAMB to the universities. In general, responses for these items show an appreciation of the dynamism and flexibility needed for the "teacher's new role" in assessment (see Chapter 3). Since teachers do not favour the view that teaching how to pass should be the teachers' main concern, this may be interpreted to mean that a good majority of them would want a situation where teachers would have such autonomy as to enable them to carry their role beyond the instructional level to include, for example, social objectives of education like teaching good social behaviour and other skills for "social advancement," as we have in our National Policy for Education (1981).

A10 THE OVERALL CONDUCT OF CA

Table 9(19)

<u>FREQUENCY DISTRIBUTION OF TEACHERS' RESPONSES ON THEIR DISPOSITION TOWARDS CA (N = 300)</u>					
	<u>Disposition</u>	<u>FREQ</u>	<u>%</u>	<u>Valid</u>	<u>Cum %</u>
Overall conduct of CA	Favourable	250	83.3	84.5	84.5
	Unfavourable	46	15.3	15.5	100.0
CA to stop or not	CA to continue	280	93.3	93.6	93.6
	CA to stop	19	6.3	6.4	100.0

The response distributions on both Items 61 and 62 measuring teachers attitudes towards the overall conduct of CA received 83.3% and 93.3% favourable response respectively (see Table 9(19). 83.3% are favourably disposed towards CA and even a higher proportion of 93.3% want CA to be continued. The validity of the favourable attitudes towards CA is confirmed by the favourable attitudes towards its objectives (see Table 9(11)).

However, Fullan and Pomfret (1977) have warned that such findings

"may only reflect an attitude of acceptance. It may not represent the possession of the knowledge and skills necessary to implement the curriculum behaviourally." (p.339) (see also Goodlad and Klein (1970)).

# A11 CA AND EXAMS

Table 9(20)

FREQUENCY DISTRIBUTION OF TEACHERS' RESPONSES ON WHETHER THOSE GRADED HIGHLY IN CA WILL SCORE HIGHLY IN FINAL EXAMS ( N = 300)

	Value	FREQ	%	VAL %	Cum %
Do you agree that	Yes	162	54.0	54.2	54.2
those graded	Not sure	121	40.3	40.5	94.6
highly in CA will	No	16	5.3	5.4	100.0
score highly in					
Exams later?					

Evidence from the teachers' questionnaire analysis shows that most teachers (54.0%) agree that those who are graded highly in CA will perform well in their final exams (Item 63). 40.3% are in the neutral group, and 5.3% disagree with the statement (see Table 9(20)).

This finding is in conflict with the findings that comparability of standards is a major problem as rated by teachers (Table 9(03)) and Principals (Table 9(35)) and from the administrators' interview schedule; and the fact that the parental/social background of the students has been found to affect the rating of the students by teachers and principals.

If comparability of standards is found to be affecting the implementation of CA, it means that there is the fear that some teachers may opt to award marks indiscriminately while some may stick to the standards. If parental/cultural background is found to affect students' ratings, it means that some students may be awarded high marks because of their social background or since the students do a lot of assignments (Table 9(40)) as part of CA, the academically educated parents may help their

children with the assignments and invariably these things will affect the coursework assessment of the child but may not guarantee the child doing as well in exams.

#### **A12 TEACHERS' VIEWS ON THEIR JOB**

To find out if teachers in secondary schools in Imo State who are implementing the CA are satisfied or dissatisfied with their job, they were asked to rate their satisfaction or dissatisfaction with certain aspects of their job (Items 72-85).

The mean scores for each of the 14 items were calculated and a further computation of their mean was calculated to yield an overall score. The computation yielded an overall mean of 2.7. The following scale is used to interpret the mean scores.

1 = V.Sat	= Very satisfied
2 = Sat	= Satisfied
3 = Un	= Uncertain
4 = Dissat	= Dissatisfied
5 = V.Dissat	= Very dissatisfied

Thus, the overall mean of 2.7 could be interpreted to mean a neutral attitude i.e. the teachers could not be said to be satisfied or dissatisfied with their job. The full Tables 9(21) and 9(22) are in Appendix 10.

A study of the items shows favourable attitudes towards the number of tests the teachers are required to do (76.3%), students' appreciation of the work the teacher is doing for them (72.7%), the amount of freedom the teacher has to use his

own judgement in assessment of pupils (72.7%), the teacher's teaching load (68.0%), the amount of time the teacher spends in record keeping and other clerical work in school (59.2%), opportunity to try out new ideas and techniques in teaching (58.7%), class size (57.0%), amount of clerical work (56.0%), and parent's appreciation of teachers' work for their children (48.0%).

On the other hand, the teachers sampled are dissatisfied with the instructional materials and equipment in their school (56.5%), this confirms the finding in Table 9(04) where availability of material support was ranked third in the order of major problems, the teachers are dissatisfied with the role of teachers in influencing school policies and practice (50.5%), the overall professional activities of the teachers' union (e.g. NUT) in my state (60.3%), the opportunity the teachers are given to participate in community affairs (Local state or national) (41.3%), teachers' chances for promotion (48.0%).

That Imo State's teachers do not perceive themselves as having effective participation may be because the state school heads underestimate the extent to which teachers wish to participate in school policies and practices. Sharma's (1963) research reveals the large extent to which teachers expect to be involved in school policies and practices.

The study of the job satisfaction of teachers in Primary and Secondary schools in Imo State, by Ejiogu (1980) has presented results which indicated a high degree of teacher

dissatisfaction and an inclination to leave the teaching job in the state. Among other things he found out that the teachers were dissatisfied with the scale of recognition and status, the curriculum and allied instructional services, with prospects for growth and advancement (promotion), and with central administrative policies and practices.

Some of his findings agree with the findings of this study. For example, though promotion enhances ones' earnings as well as entailing a more prestigious position, teachers in the state are dissatisfied with the lack of promotion prospects.

### **A13 INSET PROVISION**

The Federal Government of Nigeria recognised from the initial stage that the implementation of CA involves some problems as the writer has discussed in Chapter 3. The Federal Government recognises that:

"It is clear also that the teachers who will operate the system will need to learn new skills in order to effectively overcome these problems".  
(A Handbook on CA p.5).

The Federal Government notes that the implementation of CA means more to the teacher in the following ways:

- (i) "he requires more training in observation techniques and their uses.
- (ii) there must be frequent records of all that have been observed.....
- (iii) he must be capable of writing standard tests and



exercises.....

- (iv) he must mark more tests and exercises than formerly
- (v) he must keep accurate records of all tests and exercises." (Ibid p.12).

Evidence from the teachers questionnaire shows that although the Federal Government recognises the need for INSET, a very high percentage of the teachers sampled (75.6%) has not attended any INSET for CA's implementation. A very small percentage(24.4%) had attended INSET (Item 64) (Table 9(23)).

Table 9(23)

FREQUENCY DISTRIBUTION OF TEACHERS' RESPONSES ON INSET PROVISION FOR THE IMPLEMENTATION OF CA

	Value label	Freq	%	Valid %	Cum %
1 Attended INSET	Yes	73	24,3	24,4	24,4
	No	226	75,3	75,6	100,0
2 Did the course achieve its aim	Completely	5	1,7	6,5	6,5
	reasonably well	63	21,0	81,8	88,3
	Not at all	9	3,0	11,7	100,0
3 Level of treatment	Elementary	18	6,0	23,4	23,4
	About Right	46	15,3	59,7	83,1
	Too advanced	13	4,3	16,9	100,0
4 Was the course	Long Enough	12	4,0	15,6	15,6
	Too short	44	14,7	57,1	72,7
	About Right	20	6,7	26,0	98,7
	Too Long	1	,3	1,3	100,0
5 Were you satisfied	V.Sat,	4	1,3	5,3	5,3
	Satisfied	46	15,3	60,5	65,8
	Not sat,	26	8,7	34,2	100,0
6 Overall assessment	Useful	45	15,0	58,4	58,4
	Of some use	32	10,7	41,6	100,0
7 Involv, with INSET	Nominated	23	7,7	30,3	30,3
	Volunteered	25	8,3	32,9	63,2
	Post	23	7,7	30,3	93,4
	Other reasons	5	1,7	6,6	100,0

Table 9(24) shows the length of teaching experience of those who attended INSET, the chi-squared performed on the data shows that the more experienced teachers are those most likely to have attended INSET. ( $\chi^2 = 8.98$ ,  $df = 3$ ,  $P = .03$ )

Table 9(24)

DIFFERENCES IN ATTENDANCE OF INSET AMONG TEACHERS WITH DIFFERENT LENGTHS OF TEACHING EXPERIENCE AS ASSESSED BY CHI-SQUARE (N = 300)

<u>YEARS OF EXPERIENCE</u>	<u>ATTENDANCE OF IN-SET</u>	
	<u>YES</u>	<u>NO</u>
1 - 5 Yrs	13	75
6 - 10 yrs	34	72
11 - 15 yrs	12	46
ABOVE 15	14	33

<u>CHI-SQUARE</u>	<u>DF</u>	<u>SIGN</u>
8.97555	3	0.0296*

\* Significant at 0.05 level of probability

However, a high percentage of those who attended the course (81.8%) on INSET said the courses performed 'reasonably well' in achieving their aims, and 57.1% said the courses were too short, but 60.5% said they were satisfied, 34.2% said they were not satisfied at all. Again quite a good percentage of those who attended (58.4%) said the courses were useful and nobody said they were 'of no use'. Those who attended were either nominated by their principals (30.3%), or volunteered (32.9%), or because of the post they held (30.3%). They recommended INSET courses like workshops, seminars etc.

for teachers to facilitate the implementation of CA.

As Ipaye (1982) rightly observed, in the Nigerian educational system, the education of the teachers in measurement techniques and applications has been very limited. Many teachers go through their N.C.E. or Bachelor of Education Programme or even the Post Graduate Diploma in Education Programme without grasping well enough the basic concepts in measurement and methods of applying measurement techniques. With the introduction of CA in the educational system, this obvious lack in some of our teacher education programmes will begin to take its toll unless urgent steps are taken to correct or to remedy the lack.

Analysis of results using chi-square shows that there is no significant difference between sexes in attendance of INSET (see Table 9(25)).

Table 9(25)

DIFFERENCES BETWEEN MALE AND FEMALE TEACHERS IN ATTENDANCE OF INSET FOR THE IMPLEMENTATION OF CA AS ASSESSED BY CHI-SQUARE (N = 300)

SEX	ATTENDED YES	IN-SET NO	$\chi^2$	DF	SIGN
MALE	52	151	0.31231* <sup>I</sup>	1	0.5763
FEMALE	21	75	0.49423*	1	0.4820

\* Not significant at 0.05 probability level

<sup>I</sup> The value of  $\chi^2$  when Yates correction is applied

Factor Analysis of the 'Possible Constraints' section of the Teachers' Questionnaire

For this analysis, the subprogramme FACTOR: Varimax of SPSS of the Hull University Computer Centre was used. (Nie et al 1975). The factor programme was run first to extract the initial principal factors, their eigenvalues, and corresponding proportion of variance for the 'possible constraints of the Teachers' Questionnaire'. Nine initial principal factors with eigenvalues greater than unity were extracted (Table 9(26) which accounted for 60% of the shared variance among the 30 items.

Table 9(26)

EIGENVALUES AND CORRESPONDING VARIANCE FOR THE INITIAL PRINCIPAL FACTORS WITH EIGENVALUES GREATER THAN UNITY EXTRACTED BY THE FACTOR ANALYSIS OF THE 'POSSIBLE CONSTRAINT' SECTION OF THE TEACHERS' QUESTIONNAIRE

<u>Factor</u>	<u>Eigenvalue</u>	<u>Pct of variance</u>	<u>Cumulative Percentage</u>
1	4.815	16.1	16.1
2	2.582	8.6	24.7
3	2.176	7.3	31.9
4	1.899	6.3	38.2
5	1.538	5.1	43.4
6	1.419	4.7	48.1
7	1.299	4.3	52.4
8	1.154	3.8	56.3
9	1.111	3.7	60.0

Upon rotation four factors emerged with eigenvalues greater than unity accounting for 31.3% of the shared variance (Table 9(27)).

Table 9(27)

EIGENVALUES AND CORRESPONDING VARIANCE FOR THE VARIMAX ROTATED  
FACTOR MATRIX OF THE 'POSSIBLE CONSTRAINTS' SECTION OF THE  
TEACHERS' QUESTIONNAIRE

<u>Factor</u>	<u>Eigenvalue</u>	<u>Pct of variance</u>	<u>Cumulative Percentage</u>
1	4.298	14.3	14.3
2	2.094	7.0	21.3
3	1.613	5.4	26.7
4	1.395	4.6	31.3

The loading pattern of the items on all nine factors is shown in Table 9(28). The factors have also been identified and the four significant ones are discussed below. The resulting four factors are identified in Table 9(28) and are the ones fully discussed below.

**Table 9(28)**

VARIMAX ROTATED FACTOR MATRIX FOR THE COMPONENTS OF 'POSSIBLE CONSTRAINTS' OF THE TEACHERS' QUESTIONNAIRE. ONLY LOADINGS GREATER THAN 0.30 ARE SHOWN AND THEIR CORRESPONDING SUMMARY LABELS

FACTOR	Summary label and items	Factor Loadings	Eigen- values	% of Variance	Cumulative %
1	<u>PRACTICE OF CA AND TIME</u>				
	Preparation of Exercises	.721	4.298	14.3	14.3
	Preparation of Tests	.713			
	Marking Exercises and Tests	.611			
	Entering Marks on CA Record forms	.472			
	Availability of Time	.392			
2	<u>PROFESSIONAL GUIDANCE/ STANDARDS</u>		2.094	7.0	21.3
	Comparability of Standards	.616			
	Accurate Uniform Records	.582			
	Teachers' Expertise	.525			
	Availability of Guidance Counsellor	.439			
	Availability of guidelines	.402			
	Provision of INSET	.306			
3	<u>REPORTING/AMOUNT OF WORK</u>				
	Use of Cumulative Records	.676	1.613	5.4	26.7
	Academic Progress Report	.652			
	Weekly Report	.594			
	Annual Report	.415			

FACTOR	Summary Label and items	Factor Loadings	Eigen- values	% of Variance	Cumulative %
4	<u>CO-OPERATION OF BOARDS</u> Cooperation from State Educ. Cooperation from Exam Board Administrative Support Cooperation from Head of School	.759   .752  .343  .312	1.395	4.6	31.3
5	<u>TECHNICAL REPORTS</u> The Psychomotor Report The Affective Report The Annual Report	.775  .698  .400	.999	3.3	34.7
6	<u>SUPPORT (MATERIAL/ FINANCIAL</u> Availability of Material Support Availability of Financial Support Availability of Admin. Support	.719  .702  .364	.944	3.1	37.8
7	<u>RELATION TO PUPILS</u> Cooperation from parents Teacher-pupil relationship Parental/Social Background of Studies	.586  .497  .459	.776	2.6	40.4
8	<u>VOCATIONAL EDUCATION</u> Vocational guidance of students Cooperation from JAMB	.573  .474	.606	2.0	42.4
9	<u>MARKING</u> Marking Exercises and Tests Teachers' Expertise	.392  -.406	.523	1.7	44.2



**Constraint Factor 1: Practice of CA and Time**

The first constraint factor is the most important and seems to be the most complex of the four significant factors, explaining the most variance (14.3%) and including 5 items with loadings above 0.30 (Table 9(28)). The effective implementation of CA and its practice tend from the analysis of teachers' responses to revolve around 'availability of time' for teachers to prepare exercise, tests, mark these tests and exercises and enter the marks on CA record forms. It may be worth mentioning that while 45.6% and 32.6% of teachers rate 'availability of time' as minor and major problems respectively only 21.8% rate it as 'no problem' (Table 9(03)). Thus it could be said that unavailability of time for teachers has been a major constraint on the implementation and practice of CA by teachers. The set of items in Factor 1, taken together, indicates the difficulties which the implementation process is bound to encounter when there is inadequate planning of innovation and inadequate consideration of implementation at the planning stage. What is really being suggested is that the planners of CA have failed to take into consideration the fact that teachers need extra time to prepare for new curricula and their lessons. Phenomena associated with Factor 1 are very often reported in the literature. (see Chapters 5 and 6).

**Constraint Factor 2 - Professional Guidance and National Standards of CA**

The second factor, explains 7.0% of the variance and contains the largest number (6) of items with loading above 0.30 (Table 9(28)). The items in Factor 2 point to the importance of comparability of standards through effective moderation methods, the provision of INSET and guidelines. These items also received 'major' problem ratings from over 37% of the teachers (Table 9(03)). The teachers implementing CA also need professional guidance in order to keep accurate records of achievement, for the thousands, perhaps millions of the students.

**Constraint Factor 3 - Reporting and Amount of Work**

It was suggested that Factor 1 was something that planners of CA could have done something about before the implementation; Factor 3 at least in part is related to Factor 1 and even Factor 2. A lot of time is required for the reporting and practice of CA and in most cases this also requires professional guidance of teachers which has been found wanting in the implementation of CA. The items which formed this cluster are shown in Table 9(28) and collectively they account for 5.4% of the variance. If the 'Reporting' and keeping of accurate records of achievement seem to be problematic, then it is possible that the results may not be comparable.

Constraint Factor 4 - Cooperation of the Administrative Boards

The items in this cluster account for 4.6% of the shared variance. Cooperation from the various boards must go together. What is really being suggested is that little heed has been paid to the process of innovation which is stressed in Chapter 5, particularly to the fact that innovation is a problem of system change and system building which must start with a thorough appreciation of the existing connections and the existing bases for social cohesion and organization. Cooperation from the Head of School is reported as constituting 'no problem' by teachers (Table 9(05)) but the effective implementation of CA needs the support of all who are concerned, these are the State Education Board, the Exam boards and the heads of schools.

## B THE PRINCIPALS' QUESTIONNAIRE ANALYSIS

The Biographical information about the principals which had been collected is summarised in Table 9(32).

Table 9(32)

### PRINCIPALS' BIOGRAPHIC DATA

		FREQ	%
1	SEX		
	Male	19	63,3
	Female	11	36,7
2	Educational Qualification		
	Grad, with teaching qual,	24	80,0
	Grad, without Teaching qual	2	6,7
	Teachers Cert	4	13,3
3	Years of Teaching Experience		
	1- 5yrs	-	-
	6-10yrs	2	6,7
	11-15yrs	7	23,3
	Above 15yrs	21	70,0
4	Teaching Subjects		
	Science	9	30,0
	Arts	17	56,7
	Both	3	10,0
5	School Location		
	Rural	25	83,3
	Urban	5	16,7

**B.1 CA: RE-EDUCATION OF TEACHERS AND PRINCIPALS (INSET)**

Questionnaire Items 1-9 in the Principals' questionnaire deal with the issue of teachers' and principals' orientation for the implementation of CA. Item 1 was specifically included to discover if the principals have attended any INSET in the area of CA since the introduction of CA. The response distribution shows that an overwhelming majority of the principals sampled (80.0%) have not attended any INSET for CA. Only 20.0% have attended any form of INSET - e.g. seminars, conferences for principals and workshops. 63.3% of those who have not attended indicated their willingness to attend if given such an opportunity. As one principal commented:

"The success of continuous assessment lies in the provision of INSET by the Nigerian Government"

The response on Item 2 shows that a majority of the respondents (53.3%) feel that they do not have regular conferences about the implementation of CA while only 33.3% say they do have regular conferences. (see Table 9(33)).

Table 9(33)

FREQUENCY DISTRIBUTION OF PRINCIPALS' RESPONSES ON PROVISION OF INSET FOR CA

	VALUE	FREQ	%	VALID %	CUM %	MEAN	STD.DEV
1a Attended INSET for CA	YES	6	20,0	20,0	20,0		
	NO	24	80,0	80,0	100,0		
1b Would you like to attend ?	YES	19	63,3	79,2	79,2		
	Not Sure	2	6,7	8,3	87,5		
	NO	3	10,0	12,5	100,0		
2 Regular Conferences of CA	YES	10	33,3	33,3	13,3		
	Not Sure	4	13,3	13,3	46,7		
	NO	16	53,3	53,3	100,0		
3 Is INSET Necessary ?	YES	29	96,7	96,7	96,7		
	Not Sure	-	-	-	-		
	NO	1	3,3	3,3	100,0		
4 Any 'Rewards' for INSET?	YES	3	10,0	10,0	10,0		
	Not Sure	2	6,7	6,7	16,7		
	No	25	83,3	83,3	100,0		
5 Are the teachers professionally oriented for Implementation of CA?	YES	3	10,0	10,0	10,0		
	Not Sure	6	20,0	20,0	30,0		
	NO	21	70,0	70,0	100,0		
6 No. of Teachers who had attended INSET in your school	0	7	23,3	23,3	23,3		
	1	5	16,7	16,7	40,0		
	2	5	16,7	16,7	56,7		
	3	5	16,7	16,7	73,3		
	4	3	10,0	10,0	83,3		
	5	1	3,3	3,3	86,7		
	6	1	3,3	3,3	90,0		
	8	2	6,7	6,7	96,7		
	23	1	3,3	3,3	100,0		
7 Do Teachers Enjoy Inset?	YES	23	76,7	76,7	76,6		
	Not Sure	6	20,0	20,0	96,7		
	NO	1	3,3	3,3	100,0		
8 Use of the Handbook	Often	16	53,3	53,3	53,3		
	Rarely	8	26,7	26,7	80,0		
	Never	6	20,0	20,0	100,0		
9 Description of Handbook	Too General	4	13,3	21,1	21,1		
	Just Adequate	11	36,7	57,9	78,9		
	Too Detailed	4	13,3	21,1	100,0		

A huge majority of the principals sampled (96.7%) agreed that it is necessary for teachers to attend INSET for CA. This really begs the question of INSET provision which has been identified by teachers (Table 9(03)) as a 'major problem'. A high proportion of the principals (83.3%) said that there are no 'rewards' for INSET.

70.0% of the respondents feel that generally speaking the teachers are not professionally orientated for the implementation of CA.

Analysis of Item 6 (Table 9(33)) shows that from the principals' responses in seven schools no teacher had attended INSET for CA, in five schools only one had attended in each of them, in another five schools 2 had attended in each; and only in one school had twenty three teachers attended INSET. This means that in the thirty schools with an average of about 770 teachers only fifty two teachers had attended INSET for CA. This particular finding supports the finding from the teachers questionnaire which gives the proportion of those who have attended INSET as 24.3% and those who have not gone as 75.3% (see Table 9(23)) and the fact that the teachers ranked provision of INSET second in the order of 'major problems'. In spite of this a majority of the respondents (76.7%) feel that teachers enjoy going for INSET if given the opportunity. 53.3% of the respondents said that they use the Handbook on CA 'often'; 26.7% said they 'rarely' use it, and 20.0% 'never' use it. Those who 'never' use the Handbook did not comment on what other criteria they use. For the

description of the Handbook 4 (13.3%) said it was 'too general,' 11 (36.7%) said it was adequate, and 4 (13.3%) said it was 'too detailed'.

From this Table (Table 9(33)) it might be right to conclude that most principals like most teachers have never attended any INSET for CA, though most of them are aware of the necessity and importance of the INSET for the implementation of CA and would want to attend. Equally, there are no 'rewards' (e.g. salary increment, promotions etc.) for attending INSET for CA. Though there are no such rewards, teachers 'enjoy' attending INSET. Only a very small proportion of teachers have attended INSET and the principals feel that the teachers are professionally not orientated towards the implementation of CA.

In other words, lack of and insufficient INSET and orientation for CA have been identified as a factor against the successful implementation of CA by both principals and teachers.



## B2 PRINCIPALS : POSSIBLE CONSTRAINTS

The response distributions on Items 10-39 on the 'possible constraints' in the principals' questionnaire shows that the principals feel that they are perceiving many constraints in the implementation of CA. (see Table 9(34)).

Table 9(34)

RANKED FREQUENCY DISTRIBUTION OF PRINCIPALS' RESPONSES ON PERCEPTIONS OF 'POSSIBLE CONSTRAINTS' (BARRIERS) TO THE IMPLEMENTATION OF CA.

	NO PROBLEM			MINOR			MAJOR			Mean	STD DEV
	Freq	%	Val %	Freq	%	Val%	Freq	%	Val%		
1. INSET	1	3.3	3.3	5	16.7	16.7	24	80.0	80.0	2.767	.504
2. Material Support				7	23.3	23.3	23	76.7	76.7	2.767	.430
3. Financial Support				7	23.3	23.3	23	76.7	76.7	2.767	.430
4. Vocational Guidance	2	6.7	6.7	7	23.3	23.3	21	70.0	70.0	2.633	.615
5. Uniform Records	2	6.7	6.9	9	30.0	31.0	18	60.0	62.1	2.552	.632
6. Teachers' Expertise	1	3.3	3.3	12	40.0	40.0	17	56.7	56.7	2.533	.571
7. Compatibility	3	10.0	10.3	9	30.0	31.0	17	56.7	58.6	2.483	.688
8. Social Background	4	13.3	13.3	9	30.0	30.0	17	56.7	56.7	2.433	.728
9. Guidance Counsellors	7	23.3	23.3	4	13.3	13.3	19	63.3	63.3	2.400	.855
10. The Psychomotor Report	7	23.3	24.1	7	23.3	24.1	15	50.0	51.7	2.276	.751
11. The Affective Report	5	16.7	17.2	11	36.7	37.9	13	43.3	44.8	2.276	.841
12. Students' Absenteeism	1	3.3	3.3	20	66.7	66.7	9	30.0	30.0	2.267	.521
13. No. of Voc Schls	10	33.3	33.3	3	10.0	10.0	17	56.7	56.7	2.233	.935
14. Availability of Guidelines	7	23.3	23.3	11	36.7	36.7	12	40.0	40.0	2.167	.791
15. Cumulative Record	9	30.0	31.0	9	30.0	31.0	11	36.7	37.9	2.069	.842
16. Weekly Report	6	20.0	20.7	15	50.0	51.7	8	26.7	27.6	2.069	.704
17. Co-op from state Educ	6	20.0	20.0	18	60.0	60.0	6	20.0	20.0	2.000	.643
18. Co-op from Parents	11	36.7	36.7	9	30.0	30.0	10	33.3	33.3	1.967	.850
19. Marking Exercise/Tests	8	26.7	26.7	15	50.0	50.0	7	23.3	23.3	1.967	.718
20. Entering Marks on Forms	10	33.3	33.3	12	40.0	40.0	8	26.7	26.7	1.933	.785
21. Preparation of Tests	9	30.0	30.0	14	46.7	46.7	7	23.3	23.3	1.933	.740
22. Co-op from Jamb	14	46.7	46.7	5	16.7	16.7	11	36.7	36.7	1.900	.923
23. Admin. Support	10	33.3	33.3	13	43.3	43.3	7	23.3	23.3	1.900	.759
24. Availability of Time	12	40.0	40.0	10	33.3	33.3	8	26.7	26.7	1.867	.819
25. Preparation of Exercises	12	40.0	40.0	11	36.7	36.7	7	23.3	23.3	1.833	.791
26. Academic Prog. Report	14	46.7	48.3	11	36.7	37.9	4	13.3	13.8	1.655	.721
27. Co-op from Exam Board	14	46.7	46.7	13	43.3	43.3	3	10.0	10.0	1.633	.669
28. Annual Report	14	46.7	48.3	12	40.0	41.4	3	10.0	10.3	1.621	.677
29. Teach/Pupil Relat.	14	46.7	46.7	14	46.7	46.7	2	6.7	6.7	1.600	.621
30. Co-op from Head	27	90.0	90.0	3	10.0	10.0	-	-	-	1.100	.305

Overall mean = 2.120

A rank ordering of the items reveals that thirteen out of the thirty items have response rates of between 80.0% and 40.0% in the major problem category. Eleven of these items in the 'major problem' category have response rates of 50.0% and above. (see Table 9(35)). Table 9(35)

MAJOR PROBLEM CATEGORY FROM PRINCIPALS' RESPONSES  
(RANKED) (N = 30)

	<u>Frequency</u>	<u>%</u>	<u>Mean</u>	<u>STD DEV</u>
1 INSET	24	80.0	2.767	.504
2 Material Support	23	76.7	2.767	.430
3 Financial Support	23	76.7	2.767	.430
4 Voc Guidance	21	70.0	2.633	.615
5 Avail. of Guidance Counsellor	19	63.3	2.400	.855
6 Uniform Records	18	60.0	2.552	.632
7 Comparability	17	56.7	2.483	.688
7 Social/Parental Background	17	56.7	2.433	.728
7 No. of VOC Schls	17	56.7	2.233	.935
7 Teachers' Expertise	17	56.7	2.533	.571
11 The Psychomotor Report	15	50.0	2.276	.751
12 The Affective Report	13	43.3	2.276	.841
13 Availability of Guidelines	12	40.0	2.167	.791
14 Cumulative Record	11	36.7	2.069	.842

Table 9(36)

NO PROBLEM CATEGORY FROM PRINCIPALS' RESPONSES ON 'POSSIBLE  
CONSTRAINT' (N = 30)

	<u>Frequency</u>	<u>%</u>	<u>Mean</u>	<u>STD DEV</u>
1 Cooperation from Headteachers	27	90.0	1.100	.305
2 Teacher/pupil relationship	14	46.7	1.600	.621
3 Annual Report	14	46.7	1.621	.677
4 Cooperation from Exam Board	14	46.7	1.633	.669
5 Academic Progress Report	14	46.7	1.655	.923
6 Cooperation from JAMB	14	46.7	1.900	.923
7 Preparation of Exercises	12	40.0	1.833	.791
8 Availability of Time	12	40.0	1.867	.819

On the other hand, in the 'No problem' category, only one item - Item 39 - 'cooperation from Headteachers' has a response rate of 50.0% or above (90.0%) as rated by the principals themselves. It is not surprising though to note that this item is so rated by principals as well as teachers. As Becker (1970) observes

"Teachers believe they ought to cooperate to defend themselves against authority attacks and to refrain from directly endangering the authority of another teacher. [They] develop a sense that they share a similar position and common dangers and this provides them with a feeling of collegiality that makes them amenable to influence in these directions by fellow teachers" (p.161).

This finding is all the more relevant in a centrally bureaucratized system such as that of Imo State schools in which authority is confined to the top. The other items rated highly in the 'No problem' category by the principals are teacher-pupil relationship, Annual Report, cooperation from examination board, academic progress report, preparation of exercises, cooperation from JAMB, and availability of time. Table 9(36)).

A close observation of Table 9(34) shows that where the principals' perceive the greatest problems are with factors which are far beyond their control, e.g. Provision of INSET, provision of material support, financial support, comparability of standards among schools, social/parental background of students, availability of Guidance Counsellors, number of vocational schools, and availability of guidelines. Where the principals perceive the least problems are with interpersonal relationships e.g. cooperation from headteachers, and teacher-

pupil relationships, and with factors within the grasp of the teachers e.g. Academic Progress Report, preparation of exercises, annual report, and entering marks on CA record form.

It must be concluded that from Table 9(35) that something must be wrong with the way things are being handled by educational policy makers within whose jurisdiction lie those factors which are outside the teachers' and principals' control in the implementation of CA scheme.

A chi-squared analysis was conducted to examine if the principals' perception of problems was related to biographical variables - years of teaching experience , sex , attendance to INSET.

Full details of the analysis are shown in Tables 9(37) to Table 9(39) in Appendix 10. None of the variables proved to be significant, indicating uniformity in the views of the constraints held by the principals.

### B3 DISPOSITIONS TOWARDS CA

The principals' responses on Items 49-51 show that most principals feel that teachers' responses to CA are favourable (56.7%), that parents' responses to CA are favourable (60.6%), and that students' responses to CA are favourable (56.7%) too. (Table 9(40)).

Table 9(40)

FREQUENCY DISTRIBUTION OF PRINCIPALS' RESPONSES ON CERTAIN ISSUES OF CA (N = 30)

	1 YES			2 NOT SURE			3 NO			Mean	STD dev
	Freq	%	Val%	Freq	%	Val%	Freq	%	Val%		
Teacher											
Teachers responses favourable	17	56,7	56,7	8	26,7	26,7	5	16,7	16,7	1,600	,770
Parents responses favourable	18	60,0	60,0	8	26,7	26,7	4	13,3	13,3	1,533	,730
Students responses favourable	17	56,7	56,7	9	30,0	30,0	4	13,3	13,3	1,567	,728
CA is a threat to Teachers	3	10,0	10,0	11	36,7	36,7	16	53,3	53,3	2,433	,679
CA is a threat to Autonomy	7	23,3	23,3	11	36,7	36,7	12	40,0	40,0	2,167	,791
Parents can interpret CA reports	5	16,7	16,7	13	43,3	43,3	12	40,0	40,0	2,233	,728
Your responsibilities are clear	22	73,3	73,3	3	10,0	10,0	5	16,7	16,7	1,433	,774
Principles were consulted for CA	6	20,0	20,0	17	56,7	56,7	7	23,3	23,3	2,033	,669
Principles are consulted	1	3,3	3,3	11	36,7	36,7	18	60,0	60,0	2,567	,568
More testing than teaching	6	20,0	20,0	4	13,3	13,3	20	66,7	66,7	2,467	,819

Response distributions from Items 59 and 60 reveal that a large majority of the principals (83.3%) are favourably disposed towards CA and almost all of them (96.7%) want CA to continue (Table 9(41)). The difference in the percentage of those who want CA to continue and those who are favourably disposed towards CA could be explained in the fact that though some want it to continue they think that the scheme faces a lot of problems which need immediate solutions; or in other words they might think that the practice needs improving upon.

Table 9(41)

FREQUENCY DISTRIBUTION OF PRINCIPLES' RESPONSES ON DISPOSITION TOWARDS CA (N=30)

<u>CA is:</u>	<u>Freq</u>	<u>%</u>	<u>Valid%</u>	<u>Cum%</u>	<u>Mean</u>	<u>Std Dev</u>
Favourable	25	83.3	83.3	83.3	1.167	.379
Unfavourable	5	16.7	16.7	100.0		
CA to continue	29	96.7	96.7	96.7	1.033	.183
CA to be stopped	1	3.3	3.3	100.0		

**B4 CA: Threat to Teachers**

Response distributions to Items 52 and 53 reveal that a substantial proportion of the teachers (53.3%) say that CA does not pose as a threat to the professional ability of the teachers; however, responses to Item 53 reveal that while 23.3% of the respondents say that CA is a threat to teachers' autonomy, 36.7% are 'not sure' and 40.0% say it is not a threat to the teachers' autonomy. (see Table 9(40)). It is interesting to note that in spite of the fact that the teachers are perceiving a lot of problems in implementing CA, analysis of the principals' questionnaire reveals that CA does not pose a threat to their professional ability or to their autonomy.

**B Parents can read and interpret the new report sheets of their children sent to them since 1984/85 school year**

Replies to Item 54 (Table 9(40)) reveals a split of opinions between those who are 'not sure' whether parents can read and interpret the results of their children and those who feel that parents can not read and interpret the results of their children. 43.3% are 'not sure' while 40.0% feel that parents cannot read and interpret the results of their children. The proportion of those that feel that parents can not read and interpret the new report sheets of their children sent to them since the introduction of CA is quite high.



**B6 The Principals' responsibilities towards CA are clear to them**

The process of implementing CA within schools is a complex one and it is difficult to deny the central role of the principal in this process. Not only is he the person who is most likely to introduce the innovation into the school (Reid 1981) but it is alleged that, once the change has been introduced, the headteacher is in the best position to anticipate problems and to set forces in motion to minimise and overcome them (Gross et al, 1971). In particular, it is the principal who is concerned with decision making in the school which can support teachers' innovative efforts.

Clearly, the views expressed here seem to indicate very strongly that the Headteachers/Principals' role is an essential prerequisite in the adoption and implementation of innovations insofar as it has the potential for influencing considerably the likelihood of change within the school setting (see also Fullan 1972, and Stenhouse 1975). In effect it is expected that his responsibilities should be clear to him.

Response distribution to Item 55 (Table 9(40)) shows that a comfortable majority of the respondents (73.3%) feel that their responsibilities towards CA are clear to them.

**B7 Principals: Consulting**

Response distributions to Items 56 reveal that a low percentage of principals (20.0%) agreed that they were consulted when decisions were being taken by the Federal

Government to introduce CA into schools. 56.7% were 'not sure,' and 23.3% said that principals were not consulted. The explanation for 56.7% not being sure whether principals were consulted or not might be that the decision to introduce CA was taken in the 1969 curriculum conference (see Chapter One) and during this time, Imo State (then part of Eastern Region) was engaged in a civil war (Nigerian - Biafran war) with other parts of Nigeria. The whole of the then 'Biafra' which Imo State was part of was cut off from other parts of Nigeria for thirty months.

Item 57 shows that a majority of the principals (60.0%) feel that they are not consulted when decisions about educational policies are being made. (see Table 9(40)).

At this point one is forced to conclude from this study that principals are not consulted when decisions about educational policies are being made in Nigeria.

#### **B8 Teachers and Testing**

Principals were asked whether in their opinion they feel that with CA teachers are doing more testing than actual teaching. Replies to this item shows that most principals (66.7%) feel that teachers are not doing more testing than actual teaching. (see Table 9(40)).

# B9 National Objectives

Table 9(42)

FREQUENCY DISTRIBUTION OF PRINCIPALS' RESPONSES ON THEIR PERCEPTIONS OF NATIONAL OBJECTIVES OF CA (N=30)

	Value	Freq	%	Val%	Cum%	Mean	Std Dev
1 CA gives a more valid assessment of the child	SA	23	76,7	76,7	76,7	1,233	,430
	A	7	23,3	23,3	100,0		
2 CA greatly involves the teachers' in the overall assessment of the child	SA	21	70,0	70,0	70,0	1,300	,466
	A	9	30,0	30,0	100,0		
	UN	-	-	-	-		
	D	-	-	-	-		
	SD	-	-	-	-		
3 More effective guidance of the child	A	12	40,0	40,0	96,7		
	UN	1	3,3	3,3	100,0		
4 CA makes students work harder	SA	13	43,3	43,3	43,3	1,567	,504
	A	17	56,7	56,7	100,0		
5 CA enables teachers to be more innovative	SA	8	26,7	26,7	1,933	,740	
	A	17	56,7	56,7	83,3		
	UN	4	13,3	13,3	96,7		
	D	1	3,3	3,3	100,0		
6 CA reduces Exam malpractices	SA	13	43,3	43,3	43,3	1,933	1,048
	A	10	33,3	33,3	76,7		
	Un	3	10,0	10,1	86,7		
	D	4	13,3	13,3	100,0		
7 CA enables the teacher to improve his teaching method	SA	10	33,3	33,3	33,3	1,967	,850
	A	12	40,0	40,0	73,3		
	Un	7	23,3	23,3	96,7		
	D	1	3,3	3,3	100,0		
8 CA improves teacher/student relationship	SA	6	20,0	20,0	20,0	2,200	,847
	A	14	46,7	46,7	66,7		
	UN	8	26,7	26,7	93,3		
	D	2	6,7	6,7	100,0		
9 CA enables the teacher to be more flexible in teaching	SA	7	23,3	24,1	24,1	2,201	,902
	A	11	36,7	37,9	62,1		
	UN	9	30,0	31,0	93,1		
	D	2	6,7	6,9	100,0		

Overall mean = 1,756

Table 9(43)

FREQUENCY DISTRIBUTION OF PRINCIPALS' AGREEMENT/DISAGREEMENT WITH THE NATIONAL OBJECTIVES OF CA (N = 30)

	VALUE	FREQ	%	Val.%	CUM%	Mean	STD DEV
1 CA gives a more valid assessment of the child	A	30	100,0	100,0	100,0	1,233	,430
	UN	-	-	-	-	-	-
	D	-	-	-	-	-	-
2 CA involves the teachers more in the assessment of the child	A	30	100,0	100,0	100,0	1,300	,466
	UN	-	-	-	-	-	-
	D	-	-	-	-	-	-
3 CA gives more effective guidance of the child	A	29	96,7	96,7	1,467	,571	
	UN	1	3,3	3,3	100,0		
	D	-	-	-	-		
4 CA makes students work harder	A	30	100,0	100,0	100,0	1,567	,504
	UN	-	-	-	-	-	-
	D	-	-	-	-	-	-
5 CA enables teachers to be more innovative	A	25	83,3	83,3	83,3	1,933	,740
	UN	4	13,3	96,7			
	D	1	3,3	3,3	100,0		
6 CA reduces Exam malpractices	A	13	76,7	76,7	76,7	1,933	1,048
	UN	3	10,0	10,0	86,7		
	D	4	13,3	13,3	100,0		
7 CA enables the teacher to improve his teaching method	A	22	73,3	73,3	73,3	1,967	,850
	UN	7	23,3	23,3	96,7		
	D	1	3,3	3,3	100,0		
8 CA improves teacher/student	A	20	66,7	66,7	66,7	2,200	,847
	UN	8	26,7	26,7	93,3		
	D	2	6,7	6,7	100,0		
9 CA enables the teacher to be more flexible in teaching	A	18	62,0	62,1	62,1	2,207	,902
	UN	9	30,0	31,0	93,1		
	D	2	6,7	6,9	100,0		

The lower the mean the stronger the agreement with the National Objective.

Responses to questionnaire Items 40-48 (Table 9(42)) reveal that a good majority of the respondents agree with all the National Objectives of CA. The scale for interpreting the scores is as follows:

- 1 = SA = Strongly agree
- 2 = A = Agree
- 3 = UN = Uncertain
- 4 = D = Disagree
- 5 = SD = Strongly disagree

With an overall mean of 1.76. Table 9(42) shows that the principals agree with the national objectives of CA. In other words, there is a general agreement by the principals for the rationale (National objectives) for the CA.

The scale points on the agreement - disagreement continuum were collapsed from the original five to three and the items were ranked (see Table 9(43)). This table shows that all the principals sampled (100.0%) agree that CA gives a more valid assessment of the child's overall ability and performance, 100.0% agree that CA gives the teacher greater involvement in the child's overall assessment, 96.7% agree that CA gives more effective guidance of the child, 100.0% agree that CA makes students work harder. No principal disagreed with the above four objectives. The item with the highest proportion in the disagreement category is 'CA reduces examination malpractices' (13.3%).

From these findings one is forced to conclude that generally the principals agree with the rationale for introducing CA.

C ANALYSIS OF THE STUDENTS' QUESTIONNAIRE

The biographical information about the students which have been collected is summarised in Table 9(46) in the Appendix.

C1 VIEWS ON CA BY STUDENTS

Analysis of data from the students' questionnaire on Item One shows that a substantial proportion of the students (70.5%) prefer CA plus end of course examinations to any other form of assessment, which is the current practice. (Table 9(47)).

Table 9(47)

FREQUENCY DISTRIBUTION OF STUDENTS' RESPONSES ON THE TYPE OF ASSESSMENT THEY PREFER (N=885)

<u>Type of assessment</u>	<u>FREQ</u>	<u>%</u>	<u>VAL%</u>	<u>CUM%</u>
CA only	147	16,6	16,6	16,6
End of course (Final exams) only	114	12,9	12,9	29,5
CA plus final exams	624	70,5	70,5	100,0
OTHERS	-	-	-	-

The students (93.0%) agree that CA encourages students to work harder (Table 9(48)).

Table 9(48)

FREQUENCY DISTRIBUTION OF STUDENTS RESPONSES TO SOME ISSUES CONNECTED WITH CA (N=885)

	YES				NOT SURE				NO			
	FREQ	%	VAL%	CUM%	FREQ	%	VAL%	CUM%	FREQ	%	VAL	CUM%
1. CA Motivates Students	822	92,9	93,0	93,0	38	4,3	4,3	97,3	24	2,7	2,7	100,0
2. Too many Tests & assignments	671	75,8	76,1	76,1	129	14,6	14,6	90,7	82	9,3	9,3	100,0
3. CA Reduces Exam-Mal	381	43,1	43,1	43,1	249	28,1	28,2	71,3	254	28,7	28,7	100,0
4. Report Sheets are hard to interpret	244	27,6	27,6	27,6	261	29,5	29,5	57,1	379	42,8	42,9	100,0
5. Students Views are considered	399	45,1	45,1	45,1	244	27,6	27,6	72,7	242	27,3	27,3	100,0
6. Teachers work harder now	639	72,2	72,2	72,2	129	14,6	14,6	86,8	117	13,2	13,2	100,0

Equally a comfortable majority (72.2%) of students feel that teachers work harder with the introduction of CA (Item 7). However responses from Item 3 on the students' questionnaire reveal that most students (76.1%) feel that with CA students do far too many tests and assignments. On the other hand, principals' questionnaire Item 58 reveals that most principals feel that teachers do not do more testing than actual teaching. (Table 9(40)). One might then conclude that while students feel that they are doing far too many tests and assignments this does not prevent the teachers from doing actual teaching, and this supports the finding that with CA both teachers and students work harder.

A substantial proportion of the students (43.1%) feel that CA reduces examination malpractices, although there is an equal split between those who feel that it does not reduce examination malpractices and those who are 'not sure' it does or does not. Equally, a substantial proportion (42.9%) feel that the report sheets are not hard to interpret.

Also, a substantial proportion of students (45.1%) feel that students' views are considered when major decisions are taken about their education since the introduction of CA. This finding is interesting in the sense that from the writer's opinion the success or failure of pre-vocational and vocational aspect of CA will apart from the degree of public/government support depend largely on the nature of the management and decision-making arrangements by both teachers, students and parents in the school.



C2 DISPOSITION TOWARDS CA

Response distributions on Item 8 reveal that most students (88.7%) feel that CA is fair and also a very high proportion (89.9%) want CA to continue. (see Table 9(49)).

Table 9(49)

FREQUENCY DISTRIBUTION OF STUDENTS' RESPONSES ON DISPOSITION TOWARDS CA (N=885)

	VALUE	FREQ	%	Valid%	CUM%
How would you describe CA?	fair	785	88.7	88.7	88.7
	unfair	100	11.3	11.3	100.0
Would you want CA stopped or to be continued?	CONTINUE	796	89.9	89.9	89.9
	STOP	89	10.1	10.1	100.0

### C3 PRE-VOCATIONAL AND VOCATIONAL ISSUES

Nigeria has made a commitment to a major expansion of vocational education from a stated belief that the output of vocational education will better serve the interests of national development. In the new National Policy on Education, the Federal Government plans that:

The junior secondary school will be both pre-vocational and academic, it will be free as soon as possible and will teach all the basic subjects which will enable pupils to acquire further knowledge and develop skills.... Students who leave school at the junior high school stage may then go on to an apprenticeship system or some other scheme for out-of-school vocational training.....  
(Federal Republic of Nigeria, 1981 p.17).

The debate on the academic/vocational mix is by no means new. The Phelps-Stokes enquires into education, which took place all over Africa in the 1930s are a good example of a colonial attempt to vocationalize education and of local resistance to this form of education. To a large extent, the vocational element in the school curriculum has historically been associated with less intellectually able pupils in primary and secondary schools (Urevbu, 1984, p.224).

The last point is echoed by the Federal Government when she said that:

"The junior secondary school will be terminal for those who do not have the aptitude for the more academic subjects of senior secondary school and the emphasis at this stage would be both pre-vocational and academic".  
(National Policy on Education (1981).

Table 9(50) shows the students' responses to aspects of pre-vocational and vocational education. Item 10 reveals that a good majority of respondents prefer grammar school to other

types of secondary school and Item 11 shows that a large majority of students sampled (78.8%) prefer to get WASC/GCE 'O' level certificate to all other types of certificates.

Table 9(50)

FREQUENCY DISTRIBUTION OF STUDENTS' RESPONSES ON CERTAIN ISSUES OF PRE-VOCATIONAL AND VOCATIONAL EDUCATION (N=885)

	VALUES	FREQ	%	VAL%	CUM%
Which type of sec sch do you prefer?	Grammar	503	56.8	56.8	56.8
	Commercial	43	4.9	4.9	61.7
	Technical	306	34.6	34.6	96.3
	Others	33	3.7	3.7	100.0
		885	100.0	100.0	
What type of certificate would you like to get at the end of your sec school course?	Fed Trade Test	49	5.5	5.5	5.5
	City & Guilds	122	13.8	13.8	19.4
	WASC/GCE O/L	696	78.6	78.8	98.2
	JSS ONLY	15	1.7	1.7	99.9
	OTHERS	1	.1	.1	100.0
Do you feel that the prevocational subjects are likely to increase your future job prospects?	Yes	600	67.8	67.8	67.8
	Not sure	195	22.0	22.0	89.8
	No	90	10.2	10.2	100.0
You do not like the prevocational subjects	yes	300	33.9	33.9	33.9
	Not sure	142	16.0	16.0	49.9
	No	443	50.1	50.1	100.0
Your parents/ guardians do not like the pre-voc subjects	Yes	204	23.1	23.1	23.1
	Not sur	314	35.5	35.5	58.5
	No	367	41.5	41.5	100.0
You would like to go into apprenticeship system	Yes	248	28.0	28.0	28.0
	Not sure	171	19.3	19.3	47.3
	No	466	52.7	52.7	100.0

Further still, Item 12 reveals that a good proportion of the respondents (67.8%) agree that the pre-vocational and vocational subjects are likely to increase their future job prospects. Though most students believe that vocational and pre-vocational subjects are likely to increase their future job prospects Item 13 reveals that a substantial number of them (50.1%) feel that they do not like these subjects, and Item 14 reveals that a further substantial proportion (41.5%) feel that their parents/guardians do not like the pre-vocational subjects. Responses from Item 15 reveal that most students would not like to go into an apprenticeship system.

One explanation for the 'rejection' of vocational education is given by Bray (1981):

"....people deliberately rejected vocational training since they were aware that the only path to 'real' jobs lay through an academic career" (p.109).

As Urevbu (1984) observes, the best employment is obtainable only through academic learning and when the elite, the top Federal Government officials, advocate vocational expansion it is often for other peoples' children rather than their own. The attitudes of those actively seeking academic education will only change when the rewards from vocational training improve relative to those from academic education. No wonder then these students and their parents 'reject' vocational subjects. These data are consistent with the earlier popular belief that African parents would reject practical action curriculum in favour of an academic curriculum. (Hurst 1981; Saunders 1982).

#### C4 Teacher's Role

Table 9(51) summarises the students' responses to those items dealing with students' perceptions of teachers. The majority of students (54.0%) confirm the principals' view that since the introduction of CA teachers do not do more testing than teaching.

Table 9 (51)

FREQUENCY DISTRIBUTION OF STUDENTS' RESPONSES ON THEIR VIEWS ABOUT TEACHERS IMPLEMENTING CA (N=885)

DO YOU FEEL THAT	VALUE	FREQ	%	VAL%	CUM%	MEAN	STD DEV
Since the introduction of CA teachers do more testing than teaching	YES	304	34.4	34.4	34.4	2.197	.920
	Not Sure	102	11.5	11.5	45.9		
	No	478	54.0	54.0	100.0		
In your opinion teachers have enough time for teaching since the introduction of CA scheme	Yes	533	60.4	60.4	60.4	1.574	.775
	Not sure	193	21.8	21.9	82.2		
	No	157	17.7	17.8	100.0		
Teachers are keeping accurate records of you	Yes	706	79.8	80.0	80.0	1.282	.605
	Not sure	105	11.9	11.9	91.8		
	No	72	8.1	8.2	100.0		
Teachers are respected more since the introduction of CA	Yes	383	43.3	43.4	43.4	1.768	.763
	Not sure	321	36.3	36.3	79.8		
	No	178	20.1	20.2	100.00		
If a student misses classes the teacher gives him extra time to catch up	Yes	151	17.1	17.1	17.1	2.536	.769
	Not sure	108	12.2	12.2	29.3		
	No	624	70.5	70.7	100.0		
Students do a lot of assignments as part of CA	Yes	748	84.5	84.5	84.5	1.236	.586
	Not sure	65	7.3	7.3	91.9		
	No	72	8.1	8.1	100.0		
Students parental background may affect the teachers rating of them	Yes	266	30.1	30.1	30.1	2.003	.778
	Not sure	349	39.4	39.5	69.6		
	No	269	30.4	30.4	100.00		

Item 17 reveals that most students (60.4%) feel that teachers have enough time for teaching since the introduction of CA, and equally Item 18 reveals that a comfortable majority (80.0%) believe that the teachers are keeping accurate records of them. This finding is in line with the statement from the Federal Government (1985) which states that "For continuous assessment to be meaningful, there has to be meticulous keeping of accurate records on each pupil". (A Handbook on CA p.4). But since these records are expected to be cumulative from class to class and from school to school, there is need for uniformity in the kinds of records kept and the format for keeping such records. There is therefore the problem that the educational system must expect several thousands, perhaps millions, of teachers to keep accurate records with a more or less uniform format.

Thirdly, the fact that a child even within the same level of education may move from one school to another, for example, if the parents are transferred to another town demands that a mechanism must be evolved to ensure that the records of the child from one school can be transferred to another without removing those records from the first school. However, data analysis from the teachers' questionnaire (see Table 9(03) and the principals' questionnaire (Table 9(34)) reveal that lack of accurate uniform records has been identified by both teachers and principals to be a major problem in the implementation of CA.

Item 19 seeks to find out if the introduction of CA has a

positive or negative effect on teacher/pupil relationship. Replies to this item shows that quite a substantial proportion of students (43.4%) feel that teachers are respected more with the introduction of CA. 36.3% are in the neutral group and 20.2% feel that teachers are not respected more now. An explanation for the teachers being respected more with the introduction of CA could mean that with CA the teachers are involved more in the assessment of the child and certification of the child is now based also on CA; then it follows naturally that the child must be more aware of the role of the teacher in his overall assessment.

Analysis of response from Item 20 shows that majority of the students (70.7%) feel that if a student misses classes the teacher does not give him extra time to catch up.

Replies to Item 21 reveal that a high majority of students (84.5%) agree with the accusation that students do a lot of assignments as part of CA.

Replies to Item 22 - students' parental background may affect the teachers' ratings of them show that there is almost an equal split between those who think that it is true (30.1%) and those who think it is not (30.4%), 39.5% are neutral. Analysis from the principals' questionnaire (Table 9(36) and the teachers' questionnaire (see Table 9(04)) reveal that the parental/social background of the students poses as a major problem to the implementation of CA.

## **C5 NATIONAL OBJECTIVES OF CA**

Just like the teachers and principals the students agree with the rationale for CA. The following positive responses to CA were made, that CA

- (1) encourages students to work harder (92.3%)
- (2) will reduce examination malpractices (53.1%)
- (3) makes students more cooperative rather than competitive (45.1%)
- (4) makes students do a lot of 'self-teaching' (78.8%)
- (5) Improves student/teacher relationship (62.7%)
- (6) provides a more valid assessment of the students' overall ability and performance (78.5%)
- (7) provides a basis for more effective guidance of the student (69.0%)

The rationale for CA could therefore be said to be clear to the students (Full details in Table 9(52)).



Table 9 (52)

FREQUENCY DISTRIBUTION OF STUDENTS' RESPONSES ON THE NATIONAL OBJECTIVES OF CA (N=885)

<u>DO YOU FEEL THAT CA</u>	VALUE	FREQ	%	VAL%	CUM%	MEAN	STD DEV
Encourages students to work harder	Yes	817	92,3	92,3	92,3	1,130	,469
	Not sure	21	2,4	2,4	94,4		
	No	47	5,3	5,3	100,0		
Will reduce exam nal practices	Yes	470	53,1	53,1	53,1	1,736	,854
	Not sure	179	20,2	20,2	73,3		
	NO	236	26,7	26,7	100,0		
Makes students more co-operative rather	Yes	399	45,1	45,1	45,1	1,843	,849
than competitive	Not sure	225	25,4	25,5	70,6		
	No	260	29,4	29,4	100,0		
Makes students do a lot of 'self teaching'	Yes	696	78,6	78,8	78,8	1,296	,613
	Not sure	113	12,8	12,8	91,6		
	No	74	8,4	8,4	100,0		
Improves your relationship with your teacher	Yes	555	62,7	62,7	62,7	1,537	,760
	Not sure	185	20,0	20,9	83,6		
	No	145	16,4	16,4	100,0		
Provides a more valid assessment of your	Yes	695	78,5	78,5	78,5	1,281	,580
overall ability and performance	Not sure	131	14,8	14,8	93,3		
	No	59	6,7	6,7	100,0		
Provides a basis for more effective guidance	Yes	610	68,9	69,0	69,0	1,403	,653
of you	Not sure	192	21,7	21,7	90,7		
	No	82	9,3	9,3	100,0		

## C6 The School

This section involved perceptions of students to certain school dimensions. (see Table 9(53)). A substantial proportion of the respondents (46.3%) feel that students are <sup>never</sup> consulted when decisions about their education are being made. Equally, a majority of the students (55.9%) feel that the students' views are considered when major decisions are taken within schools.

Furthermore, a majority of students (68.1%) feel that there is/are guidance counsellor(s) in their schools. This is at variance with the findings from the teachers' and principals' questionnaire analyses (see Table 9(04) and Table 9(36) respectively) where unavailability of guidance counsellors has been identified as a major problem by both teachers and principals.

Replies to Item 33 reveals that a majority of students (58.6%) feel that their schools hold P.T.A. meetings regularly.

Table 9 (53)

### FREQUENCY DISTRIBUTION OF RESPONSES ON CERTAIN SCHOOL MATTERS (N=885)

	VALUE	FREQ	%	VAL%	CUM%	MEAN	STD DEV
Students are never consulted when decisions about their education are being made	Yes	410	46,3	46,3	46,3	1,864	,879
	Not sure	185	20,9	20,9	67,2		
	No	290	32,8	32,8	100,0		
Students' views are considered when major decisions are taken within schools	Yes	495	55,9	55,9	55,9	1,715	,868
	Not sure	147	16,6	16,6	72,5		
	No	243	27,5	27,5	100,0		
There is guidance counselling in my school	Yes	603	68,1	68,2	68,2	1,537	,830
	Not sure	87	9,8	9,8	78,1		
	No	194	21,9	21,9	100,0		
My school holds P.T.A. meetings regularly	Yes	519	58,6	58,6	58,6	1,704	,889
	Not sure	109	12,3	12,3	71,0		
	No	257	29,0	29,0	100,0		

#### D PARENTS' QUESTIONNAIRE

There were six males and four females who answered the parents' questionnaire. They were all 36 years and above and each of them had at least two children in the secondary school.

Surprisingly, the parents who completed the questionnaire felt that they all could interpret the results of their children on the new result sheets for CA. But there is a split of opinions between them on whether they have received any information from the school government or the media on the interpretation of the new result sheets. While four parents say 'Yes' they have received information, two say they are not sure, and four say 'No'. One respondent wrote that:

"A guide for interpreting the results is given at the foot of the result sheet."

As to whether they feel that they receive enough feedback from the schools of their children since the introduction of the CA scheme, the majority (6) of them say they are not sure. Three said 'No' and one said 'Yes'.

Unanimously, the ten parents agree that parents do not take part in decisions about curriculum development, and also they feel that parents should be consulted when decisions about their children's education are being made. This is not a surprise because of the high premium parents place on the education of their children especially in Imo State. They all agree that effective communication and cooperation among teachers and parents could improve the successful implementation of CA. Eight out of Ten feel that P.T.A. should

be consulted in all major school matters and two feel that they are not sure if P.T.A. should be consulted.

The majority (6) say they rarely attend P.T.A., (3) say they never attend P.T.A., and only one says that he attends P.T.A. regularly. Most parents therefore 'rarely' attend P.T.A.

Asked through which channel of communication the parents first heard about the CA scheme, Eight parents say through the mass media, e.g. TV, Radio, Newspapers, one person says through his child and one says through P.T.A. meetings.

There is divided opinion on the type of certificate the parents would want their children to get at the end of their secondary course. Four say 'WASC/GCE 'O' level, four again say GCE 'O' level with technical bias, and two say City and Guilds, nobody specifies 'other' things. Thus, like their children, parents prefer the WASC/GCE 'O' level to other types of certificates. The parents or their children (students) have not shown any liking for the JSS leaving certificate.

Most (6) parents like their children (students) prefer the 'grammar' type of secondary school. Two prefer technical, and one vocational and one commercial school.

Eight out of ten parents are aware that the pre-vocational and vocational subjects will help their children to find jobs easily. Two are not sure if this is so.

A majority of the parents (9) would not want their children to go into an apprenticeship system. No parent says that he would want his child to go into an apprenticeship.

This is contrary to government's expectation. But as we have already seen, this finding is consistent with the earlier popular finding from Hurst (1981) and Saunders (1982), that African parents would reject a practical action curriculum in favour of an academic curriculum.

Though most parents are aware that the pre-vocational and vocational subjects will help their children to get jobs, most of them (8) would not want the vocational and pre-vocational subjects for their children. Only Two parents say they want them.

The majority of parents (7) say that they are not sure if the vocational subjects are better for girls. Two parents say 'Yes' and one says 'No'.

Surprisingly, most parents sampled (7) feel that most parents may not favour sending their children to vocational schools. All the parents feel that after the secondary school course they would like their children to do a further course, preferably university.

Like the teachers, principals, and students, the parents too agree with the national objectives (rationale) for CA. They agree that CA gives the teacher greater involvement in the child's overall assessment, provides a more valid assessment of the child's overall ability and performance, enables the teacher to be more flexible in his teaching, enables the teacher to be more innovative in his teaching, provides a basis for more effective guidance of the child, provides a basis for the teacher to improve his/her teaching methods, reduces

examination malpractices, makes students work harder, and improves teacher/student relationship.

On the perception of constraints, the result of the parents' questionnaire seems to confirm the teachers' and principals' findings that there are a lot of 'major problems' on the implementation of CA. The parents rated sixteen out of the twenty four items on this section as major problems. The items rated very low in the major problem category are those rated low by both teachers and principals and they include preparation of exercises by teachers, preparation of tests by teachers, teacher/student relationship, marking exercises and tests by teachers, cooperation from the head of school, cooperation from State Education Commission, and from Examination Board and cooperation from parents.

## **E ANALYSIS OF THE INTERVIEW SCHEDULE**

### **DISPOSITION TOWARDS 6-3-3-4 and CA**

The educational administrators feel that most people in the country are favourably disposed towards the 6-3-3-4 system of education with its CA system. They too are favourably disposed towards the systems. They strongly uphold that the new educational system would not function properly without CA.

### **OBJECTIVES**

The educational administrators agree with the national objectives of CA. They agree that CA: gives a more valid

assessment of the child's overall ability and performance, and provides a basis for more effective guidance of the child.

### DECISION-MAKING

The interviewees were not very sure whether or not teachers were consulted in the decision-making stage of the National Policy on Education. They said that principals of schools and Ministry of Education officials were invited to participate in the decision-making. They felt that teachers must have been represented through their organisations, through their unions, e.g. NUT, through association of principals of secondary schools, and association of Headmasters. They felt that students would not enter into the decision-making and educational planning. They felt also that parents are involved in planning not as a body but through the principals who would get the decisions through to P.T.A. They felt that most of those on the panel whether NUT officials, principals, Headmasters, or education officials are parents.

In conclusion, the Ministry of Education officials do not see the need to invite the P.T.A., students, and teachers to take part in decision-making or in education planning since the principals and Ministry of Education officials are there to represent them.

## CONSTRAINTS

The interviewees felt that the decision-makers in the planning state of the National Policy (of CA) failed to take a lot of things into consideration for the smooth implementation of CA. For example:

- (1) They did not consider how the system could be monitored. They felt that there should be some means for ensuring some national standards both in the area of public examinations as in the CA. Thus they see comparability of standards as a major obstacle in the implementation of CA.
- (2) Accurate record keeping: record keeping was not considered in the planning. 'Nobody thought of how to manage the raw scores from CA and from public examination'.
- (3) There is also the problem of load of work for the teacher, the demand on his time, and the heavy responsibility on him, all suggesting that the teacher must be attitudinally, physically, mentally, and professionally prepared to accept operating the system.
- (4) INSET: The interviewees felt that the teachers need a lot of INSET to operate the system.
- (5) They felt that the system needs more money (finance) and material than the government had provided. They see that there is an urgent need for computers.
- (6) Vocational Issue: The interviewees confirmed the findings from the teachers, principals, and parents' questionnaires that there are not enough vocational schools. They felt



also that some parents and students would 'reject' the vocational schools.

- (7) They felt that there are not enough trained technical staff for the pre-vocational and vocational subjects.

### EVALUATION OF CA

The interviewees see the need for the evaluation of the CA programme. The evaluation of the CA programme as narrated by an interviewee is as follows:

Each year, the Evaluation Unit based in Kaduna invites all the States' Ministry of Education for evaluation of the programme. There, the state representatives say how far they have gone with CA and what their constraints are. Each state gives a review of what they have been doing about CA, their system of evaluation, how many times the students are tested, how the marks are scored, so that other states will learn. There is a sort of interaction between the states.

According to an interviewee:

"As far as CA is concerned, the Federal Government has been very generous in trying to get the schools to know what it is and how to operate the system, but the problem is that many states do not even care about CA.... I can mention about two states that never for once sent in any representatives".

The interviewee explained that what happened was that between 1979-1983 there was a civilian regime in Nigeria and these states who were not sending representatives to the seminars for evaluation of CA thought that by operating 6-3-3-4 system which CA is part of they were obeying the Federal Government

which was controlled by an opposing political party. They saw it as promoting the interest of another political party.

It is worthy to note that the CA scheme in Nigeria started in 1982 but Imo State started in 1984/85 session.

### **THREAT**

The interviewees feel that teachers look on CA as a threat to their professional ability.

"They look at the magnitude of the work and are scared" They feel that the teachers have large class sizes and are not adequately trained in CA techniques to handle the programme.

### **SUMMARY OF FINDINGS**

The analysis and interpretation of data derived from this study (Chapter 9) have led to the following conclusions:

- (1) There is little evidence to show resistance from all the sub-groups - the teachers the principals the students the parents and the educational administrators.
- (2) All the sub-groups are favourably disposed towards CA.
- (3) All the sub-groups agree with the rationale for introducing CA.
- (4) Where the teachers and principals perceive few problems are over areas where and which they feel their immediate control can be exercised, eg. in co-operation from school heads, teacher-pupil relationship, preparation of test and exercise, marking exercises and tests, and entering marks on CA forms.

- (5) The greatest problems are seen as being in those areas over which immediate control cannot be exercised. Here there is need to rely on external support agencies.

Where provision of external support is regarded as inadequate is in the following areas:

(6) Inadequate Provision of RESOURCES

(6a) INSET - Most teachers and principals sampled have not attended any INSET

(b) The number of teachers who have attended INSET in the schools is very low.

There are no regular conferences on CA for principals

The principals recognise that the teachers are professionally not able to implement CA.

Lack of teachers' expertise has been identified by teachers, principals, and parents as constituting a major problem

(c) Inadequate provision of financial support has been rated as a major problem

(d) Inadequate provision of material support has been also rated as a major problem

(e) Unavailability of guidelines is seen as a major problem

(f) Shortage of technical teachers poses a problem

(g) There is not enough time for teachers to practise CA.

(7) Vocational issues pose problems:

(a) Unavailability of Guidance Counsellors is seen to pose problems

- (b) There are inadequate numbers of vocational schools
- (c) Students and parents reject pre-vocational and the vocational subjects and the apprenticeship system
- (d) Students and parents choose the 'grammar' type of secondary school in preference to all others, including the vocational
- (e) Students and parents prefer the WASC/'O' level certificate to all others

(8) Monitoring of CA

- (a) There is the problem of comparability
- (b) There is the problem of accurate uniform records
- (c) There is no regular feedback from the schools to the administrators and vice versa about CA
- (d) Evaluation of CA programme is only done on a national level by State Ministry of Education officials

(9) Reporting

The non-cognitive domains and cumulative records are constituting problems

- (10) The uncooperative attitude from JAMB is constituting a problem

Participation

- (11) Teachers, parents, principals, and students are not consulted when decisions about educational policies are being made
- (12) Subjects that are not included in WASC Exams are not taken seriously by students and too much emphasis on paper qualifications is a recurring educational problem

- (13) Parents rarely attend P.T.A. meetings
- (14) Students feel that they do far too many tests and assignments as part of CA

**Personal Barriers**

- (15) Most teachers and principals are dissatisfied with the instructional role of teachers in influencing national policies, activities of NUT, opportunity to participate in decision-making, and most especially the lack of chances they have for promotion.
- (16) There is great need for moderation of examination scores
- (17) The majority of the teachers have never used the guidelines from the Handbook on CA.
- (18) Most teachers use tests and examinations very often to the detriment of some other techniques of CA.

## CHAPTER TEN

### DISCUSSION OF THE FINDINGS AND THEIR IMPLICATIONS AND SYNTHESIS WITH DOCUMENTARY EVIDENCE

#### IN-SERVICE EDUCATION OF TEACHERS (INSET)

As noted in Chapters Five and Six, many curriculum projects throughout the world include an INSET component to familiarise teachers with new approaches, content, materials, and techniques and to "persuade" them that the proposed changes are justified.

In Nigeria, the INSET component of curriculum development has further dimensions. The rapid expansion of education in the post-independence years through the Universal Primary Education (UPE) has resulted in the employment of large numbers of teachers whose education and training by comparison with Western counterparts are inadequate in both quantity and quality (Fafunwa 1984). INSET has been and continues to be an urgent necessity independent of curriculum change.

Evidence from this study shows that although the Federal Government recognises that CA poses certain significant problems for those implementing it, as already discussed (Chapter Nine), most teachers and principals have not attended any INSET directed towards the implementation of CA. In the section of the questionnaire on 'possible constraints,' the principals and teachers rate inadequate provision of INSET

first and second respectively on the order of major problems.

In the Nigerian educational system, the education of teachers in measurement techniques and applications has been very limited (Ipaye 1982). Also, the findings from the parents' questionnaire and the interview schedule confirm that lack of and inadequate provision of INSET is a major barrier in the implementation of CA.

Analysis of the principals' questionnaire shows that no teacher had attended any appropriate INSET in seven out of the thirty schools sampled, and regrettably the principals feel that the teachers are not professionally orientated for implementing CA, and that there are no 'rewards' for attending INSET. These findings make the claim by teachers that the practices of CA (e.g. preparation of tests and exercises, marking exercises and tests, and use of academic progress report) constitute little or no problem highly questionable, more especially since it is revealed that unavailability of guidelines and teachers' expertise pose major problems. Furthermore, these findings assume also that the claims made by principals that 'CA does not pose a threat to the teacher's professional ability and to his autonomy' to be highly questionable. This is also because lack of teachers' expertise has been found to pose problems for teachers in the implementation of CA, and autonomy is based on the professional's expertise, but as we see, this is a major problem.

The teachers expressed a desire for INSET. The administrators believe training encourages confidence through

familiarity and experience. INSET training is not only an important concomitant of curriculum development in a developing country like Nigeria, it is also one of the determinants of the extent of change. As Williams (1978) notes:

"the amount of INSET which can be afforded is a major consideration in determining how much progress can be attempted in the move towards newly developed methodologies. The new curriculum will make new demands on the teacher. The INSET training he receives will enhance his ability to cope with new demands. There is therefore a relationship between the amount of INSET and the extent of change which the new material can incorporate" (p.317).

One of the first tasks of the curriculum developers should have been to determine how much INSET would be possible. Assessment in the non-cognitive domains, the procedures for grading and scoring, and the new techniques for test construction all make new demands on the teachers and principals. In effect, since this is the case, the assumption must be that since most teachers and principals have not attended any INSET and have not received any guidelines, and are aware that the teachers are not professionally orientated towards the implementation of CA, and that the teachers' expertise poses a major problem, they [the teachers and principals] are doing exactly what they used to do in test construction, scoring, and grading, before the introduction of CA.



Finance - Inadequacy of level of financial support

Evidence from the questionnaires and the interview schedule has revealed that lack of funds constitutes a major barrier to the implementation of CA in secondary schools in Imo State.

The Ministry and Board of Education officials interviewed said that there is urgent need for a control computer unit both on state level and LGA level. A number of things are lacking which all centre on unavailability of financial support from the Federal Government. This situation is confirmed in a paper presented by the present Federal Minister of Education in a Seminar of the Committee of Vice Chancellors in Owerri, Imo State (1987) where he states that:

"It is rather worrisome that we have not in this country worked out a viable means of financing education or of financing the student. Welfarism, mischievous political sloganeering of "Free education at all levels," lack of resoluteness, fluctuating policies and general planlessness have all contributed to put us into serious difficulties. It is clear that we will always face shortage of funds, if we had clear policies and had faithfully agreed on them, or even developed a broad national consensus, the shortages would prove more manageable. This is obviously an area which is very controversial, in that people do not wish to pay unless they have to, but where we need to have enduring policies urgently." (p.6).

The problem of finance is echoed in a recent article in a national magazine - Newswatch June 13, 1988 titled "6-3-3-4: Problems Galore: Finance and manpower shortage conspire to bog down new educational system". It states that:

"The issues that tend to threaten the smooth transition include: The lack of financial means by the states to implement it, acute shortage of technical manpower, and workshop accommodation to house the various types of

technical machines and equipment". (p.16).

The Chairman of the Implementation Committee of the National Policy on Education summed it up when he said that the states are "caught between the devil and the deep blue sea" (Ibid p.17). Undoubtedly, the problem of finance cannot be brushed aside in the implementation of CA. Lack of financial resources is seen as almost hopelessly limiting and distorting the implementation of CA. According to some Nigerian educationalists (e.g. Shofolahan, 1987) we all know that the National Policy on Education was conceived at a time of economic affluence (oil boom), born in time of oil glut, and is being nurtured in time of economic depression (oil doom). This is not new, it is true of a number of national projects such as new states, new Federal capital, major constructions, industrial expansion and the basic health scheme.

According to Havelock and Huberman (1977), there has been much discussion in recent years of the possibility and even the necessity of looking at innovation projects in 'hard' economic terms to make a more thorough accounting of true costs. They gave a number of reasons why financial facts and estimates are problematic when it comes to educational innovation projects especially in developing countries these include:

1. Some of the most important inputs are not quantifiable and are rarely included in cost estimates.
2. Volunteered or shared services or manpower are rarely accounted as 'costs' even though these may constitute the principal resources.

3. The same applies to the utilization of space, facilities or equipment that would otherwise remain idle for part or all of the time.
4. A question related to financing which is confusing for the economic evaluation of educational projects especially in developing countries is the basic 'opportunity cost' question: 'What else would be done with these people, these facilities, these materials, if these projects did not exist?' As often as not the answer may be 'nothing'.
5. Further mitigating the value of cost-analysis in developing countries is the fact that cost data are harder to come by in such countries as a by-product of their very lack of development. It may be that stricter financial accountability is an important attribute of 'development,' but it does not follow that this attribute should precede others.
6. Finally, it also appears that cost accounting may be most difficult for the most innovative type of educational projects (e.g. CA). (Havelock and Huberman 1977).

However, it could be inferred from the statement by the Minister of Education above and from studies on implementation in Nigeria (see Ndahi 1979, Tura 1983) that lack of funding is the rule rather than the exception and sometimes it leads to strange anomalies. For example, the UPE that was introduced in Eastern Region in 1957 lasted for one year. In effect, from January 1958 only Infant Classes I and II were non-fee paying, while fees were reintroduced in standards I to VI.

According to Ukeje (1966):

"This unfortunate decision was said to have been necessitated by the financial crisis which arose at the end of 1957 as a result of the UPE scheme" (p.71).

There are a lot of witnesses to lack of financial support for the implementation of CA as we have seen and indeed no evidence has been obtained during this research that any funding was identified for implementation of CA by either the State or Federal Government. Neither the empirical work nor the documentary research provided any evidence of funding the implementation of CA.

#### Shortage of Material Resources - Instructional Materials Computers etc.

Evidence from the analysis of the questionnaires and the interview schedule reveal that shortage of materials is constituting a barrier to the implementation of CA in Imo State. 76.7% of the principals reported lack of material support as a 'major problem'. 63.7% of the teachers equally reported it as a major problem. Evidence from the parents' questionnaire shows that the parents feel that shortage of material support is a major problem. The educational administrators also commented on the lack of material support. Most teachers are dissatisfied with the instructional materials.

In a detailed study of progress made so far in the new system, Sunday Times, March 29 1987, reporters in a coverage of ten states came face-to-face with bureaucratic blunders now

impairing the take-off of the new system. The blunders include abandonment of equipment meant for teaching of technical education, inadequate staffing of schools, insufficient accommodation, lack of books, non-provision of workshop and slipshod orientation of technical education teachers (Sunday Times, March 29 p.9).

Because of the burgeoning problems Oluwole Fagbemi former president of All-Nigerian Conferences of Principals of Secondary Schools (ANCOPSS) has surmised that the system was not properly planned before it was initiated. A Lagos school teacher asked "And how can you enter a student for woodwork when he has never seen a chisel?" (Newswatch, June 13 1988, p.17).

From the interview with the administrators, it was noted that there is need for filing cabinets, even electronic calculators, transport, but above all, there is an urgent need for Central Computer Units at state level and at LGA level to aid in the processing of school records and final examinations. They believe that with the computer, several methods of equating school records could be applied. The computer may be used in creating/developing efficient storage and retrieval system for the massive amount of information coming from various sources. However, since these tasks cannot be done manually, the unavailability of computers means that the implementation of CA is practically impossible.

### Participation in Decision-Making

Evidence from the principals' questionnaire shows that most principals were 'not sure' if principals were 'consulted' when decisions were being made by the Federal Government to introduce CA into schools. However, an overwhelming majority of the respondents feel that generally principals are not consulted when decisions about educational policies are being made.

Evidence from the interview shows also that the educational administrators too were not sure if teachers and principals were invited in the decision-making of the CA, but felt that they must have been represented through their various organisations and Unions, for example, Nigerian Union of Teachers and Association of Principals of Secondary Schools. At this point, it must be emphasised that teachers are dissatisfied with the activities of the NUT in Imo State and the opportunities they (teachers) are given to participate in community affairs (Local, State or National).

Evidence from the parents' questionnaire shows that 100% of the respondents feel that parents as a body (PTA) were not consulted in the decision-making of the National Policy on Education. They feel that they should have been invited/consulted when decisions about their children's education were being made. They all (parents) agreed that effective communication and co-operation among teachers and parents could improve the successful implementation of CA. But the administrators did not see the need for consulting the

parents in decision-making at the national level. They felt that the principals would relate the decisions through PTA meetings to the parents. But as we have seen, the principals are not consulted during the decision-making and parents 'rarely' attend PTA meetings. So the conclusion is that parents are left out of the decision-making process.

As Wagenaar (1978 p.613) observes, good parental involvement in schools will encourage teachers and the ancillary staff of the schools to devote their time and energy to quality services as opposed to "organisational self-perpetuation".

The administrators did not see the need for the students to be involved in decision-making. Numerous writers including Dalin (1971), Becher and Maclure (1978), Stenhouse (1975) and Pratt (1980), identify the characteristics of the pupil body as a major influence on curriculum development.

Participation in decision-making is seen by many writers as a means of overcoming resistance to change (e.g. Argyle 1967, Johns 1973, Pratt 1980). This is related to the power-equalization concept (Leavitt 1965) from which it is argued that members of an organisation will show resistance to an innovation unless they have been involved in its formulation.

In summarising the literature on participation, Bennis (1963) concludes that it is not clear how likely or under what circumstances participation will improve work satisfaction, increase productivity or stimulate organisational innovation.

Doyle and Ponder (1977) argue that failure to acknowledge

teacher decision-making does not however neutralize its impact on change efforts. Although the mechanisms of an innovation project may cause teacher judgement to remain dormant, the ultimate fate of an innovation would seem to depend upon their decisions. According to them, this feature may explain why schools typically revert to conventional practices as the interest and intensity of an innovation project begin to decline. Havelock (1969), however, maintains that participant involvement "may be accepted as a general 'law of innovation'" (pp.10-83).

The assumption now is that since the 'users' of CA were not involved in the decision-making, they may continue with their conventional practices of assessment as the interest and intensity of the CA project begin to decline.

### Shortage of Manpower

From the interviews with the educational administrators manpower shortage has been shown to constitute a barrier to the implementation of CA, especially the shortage of teachers of technical subjects.

There are many similar findings (see Hamza in a paper presented at the 10th annual Seminar of the Committee of Vice-Chancellors, March 1987; Godfrey Ubaka, Sunday Times March 29 1987 p.9).

According to Oghuma Edokpayi and Asueliman in an article in the National Magazine, Newswatch, June 13 1988,

"Shortage of qualified teachers has become more apparent both for the integrated practical courses in arts, skills



and trades, and also for the more theoretical ones. Thus most secondary schools can hardly teach mathematics, physics, chemistry, biology, agricultural science, metal works, technical drawings, woodwork, automechanics, and Nigerian languages" (p.17).

They said that at the end of 1977 it was conservatively estimated that only about four per cent of all the technical staff required to implement the programme were available. Idris Ahmed, Kano State Director of Education, explained that shortages are created by the high turnover in the teaching profession. "We are recruiting, training and losing teachers at a speed faster than we are financially able to cope with," some teachers say the profession amounts to "leaving school to go back to school" (Newswatch, June 13, 1988 p.17).

The high rate of teacher turnover could also mean that since most teachers are dissatisfied with a number of things in the teaching profession which includes above all the lack of chances they have for promotion, they must leave the teaching job to find 'better jobs' elsewhere. At this point it is doubtful how the system can work with the acute shortage of manpower. The high rate of teacher turnover no doubt could be affecting assessment in the non-cognitive domains and the record-keeping aspect of the CA scheme.

### The Non-cognitive domains

The Federal Government in the Handbook on CA defines CA as "a mechanism whereby the final grading of a student in the cognitive, affective and psychomotor domains of behaviour systematically takes account of all his performances during a

given period of schooling" (p.8).

One of the new things in CA in Nigeria is that for the first time in the history of education, assessment is being extended to both psychomotor and affective domains. Analysis of the questionnaire responses shows that both affective and psychomotor assessment have been reported by teachers and principals to constitute major problems. Since the teachers and principals who are implementing the CA have not attended any INSET and have no guidelines, and have had no knowledge of the assessment of the non-cognitive domains before the introduction of CA, the assumption is that they are bound to be experiencing some difficulties in the implementation of CA in these domains.

### The Diploma Disease

Evidence from the teachers' questionnaire shows that subjects that are not included in WASC are not taken seriously by students, and our over-emphasis on paper qualifications is the root of all our educational problems. In Nigeria, education is widely regarded as almost synonymous with passing examinations (Nwana, 1982). Parents, students, and teachers place a strong emphasis on this because special privileges are conferred on certificate holders. As the population at large regards education as an investment, the emphasis is directly reflected in the content of the curriculum and teaching approaches and the resultant certificates which are passports to the universities. This could have a direct relationship

with the new assessment system which is hoped will among other things, de-emphasize examinations reduce examination malpractices and has the added characteristic of being guidance-orientated. But it is doubtful how CA will reduce examination malpractices and be guidance-orientated when there is still such strong emphasis placed on obtaining WASC certificates.

**Lack of Comparability of Standards of Students' Performances across Schools:**

Most teachers (50.1%) and most principals (56.7%) rate lack of comparability of standards of students' performances across schools<sup>as barrier.</sup> The administrators and parents commented on the lack of comparability of standards of students scales or grades across classes and schools. These findings confirm earlier government fears in this area. The government realises that with the lack of comparability of standards there are bound to be:

- (a) differences in the quality of tests and other assessment instruments used in different schools, and
  - (b) differences in the procedures for scoring and grading the various assessment instruments in the various schools
- (A Handbook on CA p.4).

The single national examination by WAEC provided some basis for comparing the quality of students' performances across secondary schools. Because of its disadvantages, the single national examination has come under attack in recent years and

it is in this connection that weighting of subject paper scores has been proposed. However, in spite of its disadvantages, the method is somehow still acceptable since all candidates take the same examination. With the CA system, the school records of the students are based on tests which differ from school to school, it is therefore inappropriate to add together scores obtained from different examinations, taken under different conditions using different criteria. There is no common standard.

An appropriate method of combining scores in the CA system must correct for the variations across schools. Furthermore, if examination certificates are to be acceptable to the general public, it is apparent that some form of moderation of internal assessment must be employed so that the examining board can state with confidence that standards of assessment between one school and another have been scrutinized and adjusted where necessary. There is therefore an urgent need for development of effective means of standardisation and moderation by all concerned with the implementation of CA.

#### Lack of accurate Record Keeping

From analysis of results, lack of accurate uniform record keeping has been found to be constituting a major problem to the effective implementation of CA. 62.1% of the principals perceive it as a major problem, 53.7% of the teachers perceive it as a major problem. The administrators and parents see it as a major problem. Again, these findings confirm the

government fear that record-keeping and the continuity of records constitute a major problem in the implementation of CA. But for CA to be meaningful, there has to be meticulous keeping of accurate records on each pupil. This is an important aspect of the CA scheme. From the records of the cumulative record cards parents will be adequately informed about the child's progress and they can at a glance compare the child's progress at different periods, since these have been accumulated in the card. Without these records, the administrators observe that "they would be comparing garbages".

#### Award of Marks

The findings that most teachers use both marking schemes and impression while some use marking schemes alone and some use impression marking alone, have led to the suggestion to adjust the marks of the teachers at least in these early years of CA, (Chapter Nine), especially since it has been noted that some form of biases have crept into the system, and since there is not sufficient supply of guidelines and INSET. But even with a continuing programme of INSET, it is unlikely that all teachers will be precisely marking to the same standards on the same scale of marks. Trained markers marking to well-defined mark schemes with the interpretation agreed beforehand at standardisation meetings do not reach total agreement. Therefore, it is improbable that a greater level of agreement could be reached where rather more loosely defined marking

guidelines and minimal training are available. In effect, once more there is a great need for effective moderation.

### Social and Cultural Barriers

The teachers and principals sampled felt that the social/parental background of the students may affect the rating of them by the teachers. Students' questionnaire analysis has revealed that "students do a lot of assignments as part of CA". Most of the assignments are known to be done at home. The implication could be that students from academically educated homes have an edge over others as their parents or older siblings may help them with their work. Another implication is that those students whose parents are top government functionaries could be scored highly because of their background by the teachers. Recently, Professor Yoloje of the Institute of Education, University of Ibadan observed that:

"There may also be personal biases in compiling the grades produced" (Daily Times, June 1 1988, p.1).

However, even with the best of intention it is possible that 'halo' effects may cause a teacher to misjudge a pupil. At this point it may be necessary to point out that effective moderation is again needed to detect and correct any unfairness or malpractice that may occur. Davidson (1982) acknowledges that most textbooks on educational and psychological measurement at least acknowledge that educational testing is a

practice complicated by the social and cultural background of students.

### Personal Barriers

The teachers sampled were shown to be dissatisfied among other things with the role of teachers in influencing school policies and practices, the overall professional activities of NUT in Imo State, the opportunity the teachers are given to participate in community affairs, unavailability of time and above all with the lack of chances they have for promotion.

Equally, analysis of the principals' questionnaire shows that there are no 'rewards' for teachers' attendance for INSET for CA.

From the reviews of literature studies of Pratt (1980) and others, teachers will not implement any changes unless there are adequate 'rewards' to accrue from it. Brown (1980) argues that the ways in which the innovative teacher might be 'rewarded' are varied. They could be related to improving day-to-day features of the teacher's job such as providing more time for lesson planning, making more resources available and developing materials. Alternatively, 'rewards' could accrue through giving increased status or a more active part in decision-making. And finally, there are material 'rewards' in the form of financial benefits or promotion.

However, one thing seems certain and that is that any innovator will have to take account of the balance between the 'rewards' offered to those implementing CA and the 'costs' that

are imposed; only if the scales tip on the side of the former is there likely to be incentive for change.

### Vocational Issues

One of the characteristics of CA as we have seen in Chapter Three is that it is intended to be diagnostic, especially in regard to those children with learning difficulties. Such children can be identified either by their poor performance in tests or by day-to-day observation by staff. Such children could then be sent to vocational schools or to apprenticeship systems as the case may be. This is on the assumption that assessment provides the information upon which many decisions are based and these decisions include pupils' decisions affecting their attitude to their work, personal, curricular and vocational choices, and teachers' decisions about among other things curriculum and guidance. Since CA is guidance-oriented, information obtained is used to guide the students' further development.

However, the implementation of CA with its diagnostic and guidance-orientation may well prove to be problematic as those who are academically unable would still 'reject' vocational and pre-vocational schools and the apprenticeship system and would rather opt to continue in the 'grammar' type of secondary school to get the WASC/GCE O/level certificates.

Analysis of the students' questionnaire has shown that a good majority of respondents prefer a 'grammar' school to other types of secondary school.



The majority of students sampled prefer to get WASC/GCE O level certificates to all other types of certificates. Most students feel that they do not like the pre-vocational and vocational subjects, and most students feel that their parents/guardians do not like the pre-vocational and vocational subjects. Equally, most students would not want to go into apprenticeship system.

Analysis of the parents' questionnaire shows that the parents like their children prefer the 'grammar' type of secondary school. Most of the parents would not want their children into apprenticeship system. Most parents sampled would not want the pre-vocational and the vocational aspect for their children. The majority of the parents feel that after secondary school courses they would want their children to do a further course.

What these findings mean is that CA will only be implemented in part because the diagnostic and guidance-orientation of it will surely meet with resistance. Parents and students will always resist going to vocational schools and to an apprenticeship system. As we noted in Chapter 9, the 'best' employment is obtainable only through academic learning, and when the elite, the top Federal Government officials advocate vocational expansion it is often for other people's children rather than their own.

Most students and parents are favourably disposed towards CA with its characteristics as long as decisions on the students do not warrant sending them to vocational school or to

an apprenticeship system because they [the students and the parents] would 'reject' them.

### Evaluation of the Programme

Discussion with the educational administrators (see Chapter Nine) has revealed that the evaluation of the scheme of CA is done once a year on a national basis by representatives from state ministries of education. The state representatives discuss the practice of CA in each of their states. Teachers and principals of schools are not involved in the 'evaluation' programme. Thus, in view of the magnitude of the demands of the CA scheme and its educational importance one might reasonably expect to find plans for an evaluation strategy to have been fairly well developed. But from the findings of this study, it could be said that there is as yet no effective programme of evaluation and monitoring of the CA scheme based on data.

Havelock and Huberman (1977) observe that innovative projects in developing countries of which Nigeria is one, are often characterized by (a) a great number of unexpected outcomes, particularly in the short term and (b) longer term outcomes which are less durable or widespread than those projected in the objectives. These two phenomena are largely due to a disequilibrium between the goals of the educational system and its internal capacity to achieve those goals in the manner or the time allotted. The changes desired are often too great or required in too short a period for the procedures and

resources available to service them.

The usefulness of monitoring the results of an innovation is not only to inform others. It is also useful to inform oneself in order that:

- (a) more information be available to improve the project in its next phase,
- (b) the innovation can be compared to other possible options and,
- (c) that decisions can be made on the extension or generalization of the innovation to other settings. In developing countries where resources are scarce and procedural infrastructure limited in its capacity these three functions, in particular the last two, are especially crucial.

Hence, considering the educational importance of CA, its careful evaluation would appear to be indispensable, and it is worrying to find that no strategy is evident which embarks on a systematic collection of experiences from the key areas involved in the schools.

## CONCLUSION

CA has been seen by all as a panacea to all our educational ills. The teachers, the principals, the students, the parents and the administrators are all favourably disposed towards the scheme. They agree with the national objectives. But from the findings and discussions, 'there are cracks in this ivory tower'. All is not well with the implementation of CA as we have seen.

The assumption is that the reformers must have assumed that CA once adopted would automatically be implemented and easily become an integral part of the system, ignoring the untidiness and uncertainties of implementation.

The state of affairs is described recently in a front page of a national daily, Daily Times, June 13 1988, entitled "CA a Sham: All is not well with 6-3-3-4". CA which in the Junior Secondary School is the yardstick for promotion of pupils in the Senior Secondary School under the 6-3-3-4 education system is said to be still a sham by guidance and counselling experts from Universities.

These experts agreed in reaction to a paper presented by Professor Yoloze that all was not well with CA in schools:

"The don had identified three major problems of compiling scores from different assessments, that of accurate record-keeping, levels of assessment instruments and the grading procedure. There may also be personal biases in compiling the grades produced" (p.1).

## CHAPTER ELEVEN

### CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

Chapters seven and nine presented the analysis of the survey data. In Chapter Ten the findings of the survey were discussed as well as their implications in association with those drawn from the documentary data collected. The main thrust of this final chapter is to summarise the findings, draw conclusions and make recommendations for further research/investigation and to identify those policy decisions which if taken would lend further support to the implementation of CA.

It is important to reassert here that this study is essentially exploratory. It relates to the implementation of CA in secondary schools in Imo State, Nigeria. It relates also to various perceptions, including those of principals, teachers and students in secondary schools, Ministry and Board of Education officials and parents, and is based on the premise that these are significant in the extent to which they influence the degree of implementation of the innovation. This study is not intended therefore to test predetermined hypotheses but is designed to tease out important factors and to help clarify issues which might contribute to the understanding of the change process and the implementation process as it relates to CA in Imo State, Nigeria.

### CA's Major Constraints

The perceptions of teachers, principals, students, parents and educational administrators which have been reported and discussed earlier in the previous chapters highlight the major constraints hindering the successful implementation of CA. These are:

1. Lack of INSET
2. Lack of material support e.g. instructional material and computers
3. Inadequacy of level of financial support
4. Non-participation of teachers principals and parents in decision-making
5. Shortage of manpower
6. Problem of evaluating the non-cognitive domains
7. There is still strong emphasis placed on certificates (paper qualifications) which may reduce the chances of CA achieving its objectives (e.g. CA reducing examination malpractices and being guidance-oriented)
8. There is the problem of comparability of standards of students' performance across schools.
9. There is the problem of lack of accurate and uniform record keeping
10. There is an urgent need to develop a means of moderating CA scores.
11. There are social and cultural barriers - the teachers and principals sampled feel that the social/parental background of the students may affect the ratings of them

by the teachers

12. There is lack of motivation (e.g. promotion) and 'rewards' for teachers implementing CA
13. There is lack of formative evaluation and feedback
14. The parents and students have 'rejected' the vocational and the pre-vocational subjects and the idea of an apprenticeship system which in turn makes the idea of CA being diagnostic and guidance-oriented an uphill struggle in the implementation of CA in Imo State.

These insufficiencies, lack of 'rewards' and motivations and discouragements must by implication suggest that CA to a great extent is not being implemented as intended (Chapter Seven).

Havelock and Huberman (1977 pp.226-240) identified six factors which militate against successful implementation of innovation in developing countries. These are:

1. Under-estimating the process of innovation
2. Personality conflict and personal motivation
3. Underdevelopment (inadequate resources and capacities)
4. Financial problems
5. Opposition from key groups
6. Poor social relations

Most of these barriers and many more have been shown to occur in this study. Thus, we see a series of constraints operating against the innovation so that it has little chance of being implemented as planned. In these circumstances, CA cannot realistically meet its objectives. Havelock and Huberman (1977) observe that bottlenecks and barriers to

innovation in developing countries are attributable to inadequate planning and failure to take into account the nature of the system into which the innovation is being introduced. The implementation of CA in Imo State could be said to be an example of this phenomenon.

### Practical Implications

The implications of the findings have been discussed previously in Chapter Ten, thus, in this section only a general view of the implications of the findings is given.

Though there is little or no resistance to CA and generally every sub-group is favourably disposed towards it, the teachers are not 'behaving' as planned. That is, the teachers favour the continuance of the CA scheme but are unable to implement the scheme as planned and in the form in which it was designed. Therefore, they transform the innovation (CA) into a practice which they have already explored and had success with - something familiar (the conventional system of examination).

Most if not all of the major constraints which have been identified are beyond the control of the teachers, principals students and parents. In this sense, therefore, the constraints hindering the implementation of CA can be linked directly to inadequacies in the planning process. It is a known fact that many popular and promising projects have floundered on the rocks of poor planning, organization or teaching. This appears to be true of CA in Imo State, Nigeria.



Considerable amounts of time, energy and resources therefore appear to have been invested in the change with little effect. The most obvious implication for those involved in the promotion, administration, organisation and management of this kind of educational change is a requirement that they attend to the means by which all concerned with the implementation of CA might acquire an understanding of the nature of the CA scheme. Innovators obviously need to communicate the central ideas contained within the change to those responsible for its actual implementation, although in doing so they need to recognise the following points. First, they themselves need to hold a clear grasp of the ideas underlying the innovation. This aspect is probably self-evident yet this study points to there being weaknesses in this direction. Second, innovators need to be aware that there are two elements associated with CA which although inter-related are different in kind. It should not have been assumed that an investment in terms of resources and INSET designed for the early stages of moving towards CA would have been sufficient or appropriate to effect and sustain the adoption and implementation of CA even with the 'oil boom'. Third, it should not have been assumed that even where communication in terms of INSET and provision of guidelines among other things had taken place, those implementing the innovation would perceive the innovation in the same way as the innovators intended. The innovators, i.e. the federal and state governments need to recognise the importance of developing and

operating workable feedback mechanisms and formative evaluation mechanisms to ensure that difficulties can be highlighted, analysed and steps taken to resolve any problems which arise. Formative evaluation and feedback mechanisms have not been built into the implementation of CA in Imo State.

One important issue here is the role which INSET and provision of guidelines can play in developing both the theoretical and practical ideas associated with CA. It is not the intention here to understate the value of INSET but to question the appropriateness and amount of that provided to date as far as CA in Imo State secondary schools is concerned. The development of teacher understanding and skills cannot be left to chance, nor to the expectation that the administrators and principals will make adequate provision in this direction. It had been the expectation of the Steering Committee on CA that by the time the series of workshops on CA had ended, every school would have had at least one teacher who would have attended the training workshop and would therefore be capable of training his or her colleagues in schools. Not every school up till the stage of the empirical work of this study in 1987 - five years after the expected introduction of CA in Nigeria, had got 'at least one teacher' trained for CA. The implementation of CA requires more than one day workshops and teachers being trained at the rate of one per school. It requires innovators to evaluate the context in which the change takes place and to develop INSET strategies which are appropriate for the needs of those concerned.

There seems to have been major deficiencies in the planning process. Firstly, the federal and state governments of Nigeria failed to analyse sufficiently the situation into which they wished to introduce a particularly complex innovation. They took no steps to ascertain whether those implementing the CA had a clear understanding of it and of the practical implications associated with it, or whether they had the necessary knowledge, skills and abilities to implement CA. Additionally, in wishing to introduce CA throughout the schools, they gave complete responsibility to the teachers for the award of marks and there was no provision for the teachers' marks to be calibrated or moderated. The effects of these deficiencies were that the teachers were put in the position of implementing an innovation of which they had insufficient knowledge and inadequate skills.

In effect, in spite of tremendous effort and considerable goodwill by all the sub-groups towards CA, difficulties arose, and most of these problems were beyond the control of the teachers, principals, students and even the parents.

However, it must be realized that the National Policy on Education (1981) was based on the recommendations of the 1969 National Curriculum Conference which mapped out a policy framework for the philosophy for Nigerian Education. From the review of available evidence about the Curriculum Conference, it is apparent that the new policy was introduced as an 'act of faith,' as a manifestation of educational arm chair speculation based on a variety of perceptions and opinions of people from

'all walks of life'. It was not based on a systematic and comprehensive empirical investigation of the needed social and educational outcomes. Such studies, in any case, are few in number and fragmentary in form.

The findings from this study suggest that certain conditions which have been discussed in the review of literature and which were likely to lead to successful implementation of CA were not there. The degree to which an innovation is implemented is a function of the extent to which certain necessary conditions are present during the period of attempted implementation. These conditions include:

- 1 the degree to which there is a clear understanding of the innovation;
2. the extent to which members of an organisation have the capabilities necessary to carry it out
3. materials and other resources should be available
4. organisational arrangements should be compatible with the innovation
5. staff must be willing to expend the time and effort required even if the above conditions are present.

The extent to which the above conditions are present is a function of the performance of management. It is the responsibility of management to create and/or maintain these conditions.

Those initiating innovations in schools need to recognise the complexities of most innovations. Many involve teachers in fundamental changes in their traditional roles which may cause

feelings of insecurity which can sometimes reveal themselves in a number of ways. Many teachers might not be able to make the changes without some form of re-educative activities. This was the case here. It is necessary to recognise that the act of initiating or introducing an innovation even when it is accepted willingly by all, is insufficient. Development and implementation of an innovation are both processes which need to be monitored and supported throughout. The Nigerian Federal Government, for what seemed to be good reasons, initiated the introduction of CA and though recognising that the implementation would pose certain major problems to the teachers gave full responsibility to them for its implementation, presumably assuming that they would be able to overcome those problems. Unfortunately, they (the governments) provided neither a strategy for identifying how to overcome these problems nor did they provide the material resources which were necessary to operationalise such a strategy.

### Recommendations

Regrettably, the educational system in Imo State is facing many problems in the implementation of CA as revealed by the findings of this study.

One important issue which is highlighted by the empirical research findings and which has been extensively discussed in this study is the lack of INSET provision for those implementing CA. Relevant INSET programme should be designed even now as an integral part of continuing teacher education since CA is an integral part of assessment system. The universities, teacher training colleges and colleges of education should design programmes to incorporate techniques of CA for their students and serving teachers who need retraining in assessment techniques. The educational administrators should also be involved in the training and retraining of teachers for CA. The particular link in CA between the administrators and the teacher training institutions should be a strong one, especially during these early stages of CA. The methodologies recommended to teachers for CA should be developed by discussions by the administrators, the lecturers and at times the teachers. Apart from training in techniques and other practices of CA, the other problems that must be solved through training are:

1. that of establishing comparable standards of assessment which are reliable and valid
2. that of appropriate techniques of combining scores from different sources especially in the case of transfer

students

3. that of effective record keeping and reporting.

Regular workshops, conferences and seminars on the basis of CA in which the administrators, lecturers and CA specialists participate in educating those implementing CA would be of great value in implementing CA. It is also necessary for the government to provide those implementing the CA with a detailed guideline on the workings of the system.

The need for effective formative evaluation and feedback mechanisms has been emphasised. There is need for regular supervision of schools on CA by administrators, regular discussions by teachers and administrators, and regular 'returns' from the schools to the administrators, at least at this early stage of CA. Teachers and principals who are implementing the CA and are familiar with the problems and possibilities of the programme should be involved in the evaluation and not just a handful of administrators who know little or nothing of the CA scheme. An effective formative evaluation would increase the possibility that the energy, efforts and commitment were directed towards a profitable end rather than misdirected. There must also be an adequate communication system between the schools and the administration in which conflicting viewpoints can be discussed frankly.

Further issue related to this study and highlighted by the findings is the problem of lack of accurate uniform record keeping. However, as soon as there is adequate funding for the scheme and teachers and guidance counsellors are adequately

trained to keep the records in a uniform manner, may be throughout the state, for easy access to information and other references, then this may cease to be a major problem.

Equally, the problem of comparability and the various moderation methods proposed to bring about comparability have been discussed extensively in a previous Chapter. In Imo State, the examiners' immediate task should be to ensure that suitable measures are taken to achieve comparability of standards and to see that agreements are reached and put into practice regarding future examinations. This is the direct responsibility of the Imo State Exams Development Centre. Planning the CA scheme ought to take into account information from two areas. The first one ought to be previous candidates' examination results in earlier years. The second one ought to be the kind of questions set in examination papers in previous years. The information and data thus gathered forms the basic guideline on which the examiners' decisions could be based. There is also a great need for inter-subject comparability. At present, entries to universities in Nigeria are based on student's final score added from the subjects he has taken in the JAMB examination. Prospective law students, for instance, are chosen from those who have opted to do law and have taken any three JAMB subjects plus English in the JAMB examination and who have at least credits in any five subjects (English included) in WASC GCE 'O' level. Among those chosen, it is highly probable that the wrong people are accepted since they could have qualified by obtaining their five credits and final



scores in JAMB mainly from subjects that are 'lenient'. This situation arises partly as a result of lack of comparability between different subjects. If the present system is allowed to continue, the danger is that we will fail to produce the right calibre of qualified manpower from the universities since the wrong calibre of students are admitted.

Thus, it is necessary for both the state and federal governments to explore immediately the numerous methods of moderation reported (Chapter Four) and then to start to apply them where appropriate. No one method is known to suit all subjects. The merits of comparability of standards cannot be overlooked if the JSS certificates and WASC certificates are to have national and international currency.

The type of strategy adopted in implementing CA is closely related to the Power-Coercive strategies. But in the case of CA it has been found out that in the decision-making process the teachers, students and parents were left out. Many countries are now doubting the effectiveness of such 'top-down' (Power-coercive) approaches for changing curriculum, methods of assessments and teaching methods (Bishop 1986). The relationship between change agents and users must be characterized by respect and cooperation rather than by coercion and compliance. Planned change is more acceptable when a policy of assent rather than compliance is adopted.

The teachers and the teachers' body (e.g. NUT) should be involved in the formulation of policies. Parents should also be allowed a say in the education of their children both at the

policy formulation level and at the school level. The PTA should be strengthened as formalism for reducing potential conflict between teachers and parents, more especially in the professional guidance of the CA of the students. The 'rejection' of vocational subjects and the apprenticeship system all point to the need for students to be involved in decisions about their education. Perhaps, in this case, students and their parents in accepting or rejecting the vocational subjects need some 'further education' from those in authority to understand the need for them.

The reasons for 'rejection' of the vocational subjects have been discussed earlier and they all point to the fact that if the CA scheme is to achieve its objective towards the vocational guidance of the student in its implementation, we need to bear in mind the realities of the Nigerian academic education system and the job market. The solutions as we can see are those of educational re-thinking, breaking the bounds of conventional thinking by finding unconventional answers to problems. Furthermore, the government needs to provide more schools and vocational/technical teachers, for it is the writer's belief that no amount of philosophy will make a programme of vocational education progressive where there are not enough vocational schools and teachers to control and co-ordinate the learning activities.

The government should also endeavour to train and allocate guidance counsellors to schools to help with the 'guidance' aspect of CA.

One of the findings of this study is that teachers are not satisfied with their prospects for promotion and the opportunity to participate in policy decisions. The present promotion system which is based on a seniority list is not very encouraging, especially for young men and women with drive, initiative and ambition. An adequate staff appraisal system which rewards merit should be designed.

If the problems in the implementation of CA are to be overcome, there must obviously be substantial adjustment and adaptation by both the educational system and the society. Education as it is in Nigeria requires assistance from almost every sector of national activity and in many cases considerable help also from sources beyond their national boundaries.

The implementation of CA coincides with a very bad period of economic recession in Nigeria. Education demands greater financial resources but finance especially at the present time in Nigeria is extremely difficult to obtain. Education's share of the national income has already reached a point that impinges on the proper provision for other sectors of national concern necessary for the balanced development of the economy such as communications and health. Consequently, the decisions which have to be made are essentially decisions about the social allocation of scarce resources, about the choice between competing demands upon public expenditure and about the reconciliation of the requirements of education with the other economic and social needs of the people. Of course, no one

will deny that the Federal and state governments allocate huge portions of their annual budgets to education. In spite of such apparently fair allocations of funds for educational services in Imo State, the state does not seem to be fulfilling its financial obligations towards the implementation of CA in particular. Perhaps, it might be proper to explore alternative sources of educational funding in Imo State. At this point the writer is advocating the re-introduction of "Education-rates" (see West Africa, April 21 1980 p.717) where every taxable male adult pays about ₦10 - ₦20 and female adult pays about ₦5 - ₦10. (It is not sensible to convert the Naira to the pound since the Naira fluctuates so often these days). If everybody cooperates and the proceeds are actually spent on education, the CA scheme will get its fair share of the funds and then it may be possible to provide INSET, purchase the material resources (e.g. computers, guidelines, books among other things) needed for the implementation of CA.

#### Suggestions for further research

The study has revealed a variety of major problems hindering the successful implementation of the CA scheme in Imo State secondary schools. Some of these findings need further investigation. Equally, in view of the shortcomings and limitations of the empirical research in this crucial area the author would like to suggest that investigations be carried out to examine:

1. The type of moderation method that best suits each subject

with minimal allocation of time and other resources.

2. What types of INSET (internal or external) that will help the teachers immediately in implementing CA with minimum spending from the government.
3. How assessment of the non-cognitive domains of learning might be conducted.
4. How to improve the feedback and evaluation mechanisms for implementing Ca.
5. The validity and reliability of the CA instruments in more detail.

## Conclusion

The life history of the CA programme has been described and analysed from the time of the proposal for its introduction until it was introduced in Imo State in 1984/5. The problems and difficulties encountered by those implementing it have been identified and from the empirical findings it has been shown that CA as it was envisaged was not fully implemented despite a strong support for the innovation being shown by all the subgroups. Recommendations have been made on the findings.

Substantial adjustment and adaptation need to be made by the educational administrators, those implementing the CA and the society as a whole. Educational reform not only needs the material reform that money can buy such as buildings and equipment and more and better learning materials, it also demands a full share of the country's manpower to raise its quality, efficiency and productivity. Above all, it needs what money alone can not buy - ideas and courage, determination and a new will for self-appraisal reinforced by a willingness to explore and change. On the other hand, money wisely spent on education is investment. The society or nation for instance invests wisely if that system is objective in judging its own performance, if it continuously examines the living testimony of its own product in order to determine what has been accomplished well, poorly or not at all - and then corrects itself in the light of the evidence. The educational planners of such a self-aware system should be able to identify and deal with mistakes before the errors harden into habits able to

resist even the stoutest methods of eradicating them.

In effect, the implementation of the CA scheme will only be a success if all concerned are willing to correct the errors before it is too late.

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Appendix 1  
6-3-3-4 System of Education

The National Policy on Education (1981) Section 4 Subsection 19 stipulates that:

- (1) Government plans that secondary education should be of six-year duration and be given in two stages, a junior secondary school stage and a senior secondary school stage; each stage being of three-year duration.
- (2) Where possible, the two types of schools will be under the same roof; in any case, the separate junior high school complements the senior high school even when it is located in a different place.
- (3) Concerning the rate of transition from primary to secondary, the Third National Development Plan recommended 70 per cent which would include admission to craft schools and vocational centres as well as into Junior Secondary Schools. The target to be aimed at by all states should be 100 per cent enrolment.
- (4) The junior secondary school will be both pre-vocational and academic, it will be free as soon as possible and will teach all the basic subjects which will enable pupils to acquire further knowledge and develop skills.

The curriculum should be structured as follows:

Core Subjects	Pre-vocational Subjects	Non-Vocational Electives
Mathematics	Woodwork	Arabic Studies
English	Metalwork	French
Nigerian Languages (2)	Electronics	
Science	Mechanics	
Social Studies	Local Crafts	
Art and Music	Home Economics	
Practical Agriculture	Business Studies	
Religious and Moral Instructions		
Physical Education		
Pre-Vocational Subjects (2)		

In selecting two Nigerian languages students should study the language of their own area in addition to any of the three main Nigerian languages, Hausa, Ibo and Yoruba, subject to availability of teachers.

- (5) Students who leave school at the junior high school stage may then go on to an apprenticeship system or some other scheme for out-of-school vocational training.
- (6) The senior secondary school will be for those able and willing to have a complete six-year secondary education. It will be comprehensive but will have a core-curriculum designed to broaden pupils' knowledge and outlook. The core-curriculum is the group of subjects which every pupil must take in addition to his or her specialities.

A. Core subjects

1. English Language
2. One Nigerian language
3. Mathematics
4. One of the following alternative subjects -  
Physics, Chemistry and Biology
5. One of Literature in English, History and Geography
6. Agricultural Science or a vocational subject

The core subjects are basic subjects which will enable a student to offer arts or science in Higher Education.

B Electives

Every student will be expected to select 3 of those subjects depending on the choice of career up to the end of the second year and may drop one of the non-compulsory subject out of the 9 subjects in the last year of the Senior High School Course

Biology	Bible Knowledge
Physics	Islamic Studies
Chemistry	Arabic Studies
Additional Maths	Metal Work
Commerce	Electronics
Economics	Technical Drawing
Book-Keeping	Woodwork
Type writing	Auto-mechanics
Shorthand	Music
History	Art
English Literature	French
Geography	Physical Education
Agricultural Science	Health Science
Home Economics	Government, etc.

- (7) The sixth form as at present constituted will be abolished. Pupils will go direct from secondary to university. (National Policy On Education, 1981, pp.16-18).

Appendix 2

GOVERNMENT OF IMO STATE OF NIGERIA

Telegrams:

Telephone:

Your ref: .....

Our ref: MOE/EPRC/RR.175/Vol.I/  
(All replies to be addressed to the Permanent  
Secretary.)



MINISTRY OF EDUCATION  
EDUCATIONAL PLANNING, RESEARCH  
& CURRICULUM DIVISION

OWERRI

29th May, 1986

Mrs. V.A. Obasi  
Institute of Education  
The University of Hull  
173 Cottingham Road  
Hull, HU 5 2 EH  
England.

Madam,

Information on Continuous Assessment

I am directed to acknowledge receipt of your letter dated 9th May, 1986 and to advise you on the issues you raised.

Imo State started the 6-3-3-4 programme of which Continuous assessment is a part, from the 1984/85 school year. We are now completing the 2nd year of the programme. Consequently, we have not graduated any students in either the Junior or Senior Secondary. However, in answer to your questions:

1. At the moment, the weights recommended for Continuous assessment and final examination are 60% and 40% respectively. There is no decision yet about senior secondary.
2. As I stated above, Continuous Assessment started with the 1984/85 school year.
3. For Imo State, the first graduation from Senior Secondary schools will be in 1990. WAEC will conduct the Senior Secondary School Certificate examinations but definite policy has not been arrived at, as to the weights for Continuous Assessment and examination.
4. It is not possible to supply you with the raw scores for Continuous assessment and final examination for the years requested, even if we had them. They are strictly confidential documents in the first place. Secondly, what you are asking for runs into millions of scores. You did not specify the class or the subject, or even the number of schools.

Please be assured that we are willing to help provided your request is specific and within reach.

Yours faithfully,

*C.C. Nwagwu*  
C.C. Nwagwu, Ph.D. (Alberta)  
for Permanent Secretary.

Appendix 3

TEACHERS' QUESTIONNAIRE

**PART 1:                      PERSONAL INFORMATION**

Please put a tick (✓) in the appropriate box as it relates to you in each item

A Sex (1) Male

(2) Female


B Educational Qualification

(1) Graduate with teaching qualification

(2) Graduate without teaching qualification

(3) Teachers Certificate and diploma

(4) Others - please state


C Years of Teaching Experience

(1) 1 - 5 years

(2) 6 - 10 years

(3) 11 - 15 years

(4) Above 15 years


D Your School Location

(1) Rural

(2) Urban

(3) Both


E Please state your teaching subject(s)

(1)

(2)

F Level of School in which you are teaching

(1) JSS Only

(2) SSS Only

(3) Both


**PART 2:**

**POSSIBLE CONSTRAINTS**

To what extent do you feel the following issues pose problems in implementing continuous assessment. Please put a tick (✓) in the appropriate place as it relates to you in each case.

ISSUE	1	2	3
	No Problem	Minor	Major
1 <u>Availability of time</u>			
2 <u>Availability of administrative support</u>			
3 <u>Material support</u>			
4 <u>Financial Support</u>			
5 <u>Preparation of Exercises</u>			
6 <u>Preparation of tests</u>			
7 <u>Marking exercises/tests</u>			
8 <u>Entering marks on CA records forms</u>			
9 <u>Co-operation from Head of School</u>			
10 <u>Student absenteeism</u>			
11 <u>Co-operation from State Educ. Comm.</u>			
12 <u>Co-operation from Exam Boards</u>			
13 <u>Availability of Guidance Counsellors</u>			
14 <u>Provision of in-service training for teachers</u>			
15 <u>Teacher/pupil relationship</u>			
16 <u>Co-operation from parents</u>			
17 <u>Teachers' expertise</u>			
18 <u>Availability of guidelines from the Government</u>			
19 <u>Comparability of standards amongst Schools</u>			
20 <u>Accurate uniform record keeping</u>			
21 <u>Use of cumulative Record Card</u>			
22 <u>Use of Weekly Report</u>			
23 <u>Academic Progress Report</u>			
24 <u>The Affective Report</u>			
25 <u>The Psychomotor Report</u>			
26 <u>Over all Annual Report</u>			
27 <u>The idea of Vocational Guidance for Students</u>			
28 <u>Co-operation from JAMB Office</u>			
29 <u>Number of Vocational Schools</u>			
30 <u>Parental/Social background of Students</u>			

**PART 3 NATIONAL OBJECTIVE - CA = Continuous Assessment**

Below is a list of reasons given for advocating CA in schools in Nigeria. Most of them are from the Federal Government Handbook on CA (1985). They indicate the rationale for CA. How far do you agree with these objectives? Please indicate your view by placing a tick (✓) in the appropriate box using the following key:

1 = SA = Strongly Agree

2 = A = Agree

3 = U = Uncertain

4 = D = Disagree

5 = SD = Strongly Disagree

	1	2	3	4	5
OBJECTIVES	SA	A	U	D	SD
<u>Continuous Assessment:</u>					
31 Gives the teacher greater involvement in the child's overall assessment					
32 Provides a more valid assessment of the child's overall ability and performance					
33 Enables teacher to be more flexible in their teaching					
34 Enables teachers to be more innovative in their teaching					
35 Provides a basis for more effective guidance of the child					
36 Provides a basis for the teacher to improve his/her Teaching methods					
37 Reduces examination malpractices (e.g. cheating in exams and leakages of question papers)					
38 Makes the students work harder (i.e. increases student motivation)					
39 Improves Teacher/Student relationship					



PART 4:

CONTINUOUS ASSESSMENTS

How often do you make use of the CA guidelines from the Federal Government Handbook on CA (1985)?

- 40        (1) Very Often  
          (2) Rarely  
          (3) I have never used it


If you never use it, what criteria other than the Handbook on CA by the Federal Government do you use? Briefly describe, Please

.....  
.....

- 41        How would you describe the guidance given in the Handbook for CA, if you have used the Handbook?

- (1) Too general  
(2) Adequate  
(3) Too detailed


Comment, please.....  
.....

Below is a list of continuous assessment techniques. Please indicate how often you use them by putting a tick (✓) in the appropriate box

		1	2	3
	Assessment Techniques	Very Often	Rarely	Never
42	Tests and examinations			
43	Projects			
44	Observation of pupils' behaviour			
45	Sociometric (i.e. a way of analysing) the acceptances or rejection made by every member of a group on other members			
46	Questionnaire (for evaluating attitudes e.g. pupils' interests, work habits and home backgrounds)			

The CA record forms shows places for recording marks for exercises, tests and projects done by students. How do you select these exercises, tests and projects? Please put a tick (✓) in the appropriate box if you use the method in selection

- 47 Classwork exercise of ongoing work
- 48 Class tests specially prepared
- 49 Practical exercise of ongoing work
- 50 Practical tests specially prepared
- 51 Term examination/Test
- 52 Home Work
- 53 Others

Comment, please.....  
.....

- 54 Is there a guide from the Federal or State Government or even from Exam Boards which tells you the abilities and skills to measure or assess?

(1) Yes

(2) No


If 'No', how do you determine the abilities or skills to assess?

Comment, please.....  
.....

- 55 Marks can be awarded by the use of marking schemes or by impression marking. What procedure(s) do you use to award marks to the students. Please put a tick (✓) in the appropriate box as it relates to you.

(1) Impression marking only

(2) Marking schemes only

(3) Both


		1	2	3
		Yes	Not Sure	No
56	The P.T.A. (Parents/Teachers Assoc.) should be consulted in all major school matters			
57	Continuous Assessment should test performance in both practical and academic work			
58	Subjects that are not included in WASC Exams are not taken seriously by students			
59	Too much emphasis on paper qualification is the root of our educational problems			
60	Teaching how to pass exams should be the teacher's main concern			

61 How would you describe the overall conduct of CA (e.g. fairness to pupils, teachers, parents)

(1) Favourable

(2) Unfavourable

Comment, please.....

.....

62 In your opinion should CA continue or should it be stopped

(1) CA to continue

(2) CA to be stopped

Comment briefly, please.....

.....

63 Do you feel that those graded highly in your schools In CA will get high scores in the final exams by state and WASC?

(1) Yes

(2) Not Sure

(3) No

Comment, please.....

PART 5            EVALUATION OF IN-SERVICE EDUCATION FOR  
TEACHERS FOR CONTINUOUS ASSESSMENT

64     Have you attended in-service education for teachers for CA since the introduction of CA in schools?

(1) Yes

(2) No


If 'Yes' please answer the following questions put a tick ( ) in the appropriate box as it relates to you. If 'No' please turn to part 6

65     Did the course achieve its aims

(1) Completely

(2) Reasonably well

(3) Not at all


66     Considering the aims of the course, what was the level of treatment

(1) Elementary

(2) About right

(3) Too advanced


67     Was the course

(1) Long enough

(2) Too short

(3) About right

(4) Too long


68     Were you satisfied with the general organisation (Admin.) of the course?

(1) Very Satisfied

(2) Satisfied

(3) Not Satisfied


69     What is your overall assessment of the course?

(1) Useful

(2) Of some use

(3) Of no use


70 How did you become involved with the IN-SET course?

(1) Nominated by principal

(2) Volunteered

(3) Because of the post you hold

(4) Other reasons (specify please)


71 What further IN-SET activities (Seminars, short courses, workshops etc.) would you like to have for teachers towards CA?

Comment and specify please

PART 6

PRESENT VIEWS

Please indicate how you feel about the following aspects of the job of a teacher. Please fill in the column using the following key for each statement.

Keys:

- |               |                     |
|---------------|---------------------|
| 1 = V. Sat    | = Very Satisfied    |
| 2 = Sat       | = Satisfied         |
| 3 = U         | = Uncertain         |
| 4 = Dissat    | = Dissatisfied      |
| 5 = V. Dissat | = Very Dissatisfied |

		1	2	3	4	5
		V Sat	Sat	U	Dissat	V Dissat
72	The instructional Materials and equipment in my school					
73	The number of pupils in my class (i.e. class size)					
74	The opportunity I am given to participate in community affairs (local State or national)					
75	The chances I have for promotion					
76	The amount of freedom I have to use my own judgement in assessment of pupils					
77	The role of teachers in influencing school policies and practice					
78	My teaching load (i.e. the number of lessons and periods per week)					
79	Parents appreciation of my work with their children					
80	The opportunity I have to try out new ideas and techniques in teaching					
81	The overall professional activities of the teachers' union (e.g. NUT) in my state					

	1	2	3	4	5
	V				V
	Sat	Sat	U	Dissat	Dissat
82	My students' appreciation of the work I am doing for them				
83	The amount of clerical work (e.g. filling forms and report sheets for students) I am required to do				
84	The number of tests I am required to give my students per term				
85	The amount of time I spend in record keeping and other clerical work in the school				

Appendix 4

PRINCIPALS' QUESTIONNAIRE

PART 1:

PERSONAL INFORMATION

Please put a tick (✓) in the appropriate box as it relates to you in each item

A Sex (1) Male

(2) Female


B Educational Qualification

(1) Graduate with teaching qualification

(2) Graduate without teaching qualification

(3) Teachers certificate and diploma

(4) Others - please state


C Years of Teaching Experience

(1) 1 - 5 years

(2) 6 - 10 years

(3) 11 - 15 years

(4) Above 15 years


D Your School Location

(1) Rural

(2) Urban


E Please state your teaching subject(s)  
(1)

(2)

F Level of School in which you are Teaching

(1) JSS Only

(2) SSS Only

(3) Both




**PART 2: CONTINUOUS ASSESSMENT: RE: EDUCATION OF TEACHERS**

Please put a tick (✓) in the appropriate box as it relates to you in each case

1. Have you attended any in-service training course in the area of Continuous Assessment in the last few years?

(1) Yes

(2) No


If 'Yes' please state course attended. If 'No' would you like to have such an opportunity

(1) Yes

(2) Not Sure

(3) No


Comment, please.....

.....

2. Do principals have regular conferences about the implementation of Continuous Assessment?

(1) Yes

(2) Not Sure

(3) No


Comment, please.....

.....

3. Do you feel that it is necessary for teachers to attend in-service training courses (e.g. seminars, workshops etc.) for Continuous Assessment?

(1) Yes

(2) Not Sure

(3) No


4. Have the teachers any 'rewards' (e.g. salary increment, promotion etc.) for attending in-service education of teachers' courses?

(1) Yes

(2) Not Sure

(3) No


5. Generally speaking, are the teachers properly oriented (professionally) for the implementation of Continuous Assessment?

- (1) Yes
- (2) Not Sure
- (3) No


Comment, please.....

.....

6. How many teachers in your school have gone for in-service training courses for Continuous Assessment?

Give number, please  
or a tough estimate


7. In your opinion do you think that teachers 'enjoy' going for in-service training courses?

- (1) Yes
- (2) Not Sure
- (3) No


8. How often do you make use of the Federal Government Handbook on Continuous Assessment?

- (1) Often
- (2) Rarely
- (3) Never


9. How would you describe the guidance given in the Handbook for Continuous Assessment?

- (1) Too general
- (2) Just adequate
- (3) Too detailed


Comment briefly, please.....

.....

.....

.....

**PART 3:**

**POSSIBLE CONSTRAINTS**

To what extent do the following issues pose problems in implementing Continuous Assessment Schools. Please put a tick (✓) in the appropriate box as it relates to you in each item

		1	2	3
		No Problem	Minor	Major
10	<u>Availability of time</u>			
11	<u>Availability of Administrative support</u>			
12	<u>Material Support</u>			
13	<u>Financial Support</u>			
14	<u>Preparation of exercises</u>			
15	<u>Preparation of tests</u>			
16	<u>Marking exercises/tests</u>			
17	<u>Entering marks on Continuous Assessment record forms</u>			
18	<u>Co-operation from principals</u>			
19	<u>Student absenteeism</u>			
20	<u>Co-operation from State Educ. Commission</u>			
21	<u>Co-operation from Exam Boards</u>			
22	<u>Availability of Guidance Counsellors</u>			
23	<u>Provision of in-service training for teachers</u>			
24	<u>Teacher/Student relationship</u>			
25	<u>Co-operation from parents</u>			
26	<u>Teachers' expertise</u>			
27	<u>Availability of guidelines from the Government</u>			
28	<u>Comparability of standards among schools</u>			
29	<u>Accurate uniform record keeping</u>			
30	<u>Use of cumulative record card</u>			
31	<u>Use of weekly Report</u>			
32	<u>Academic Progress Report</u>			
33	<u>The Affective Report</u>			
34	<u>The Psychomotor Report</u>			
35	<u>Overall Annual Report</u>			
36	<u>The idea of vocational guidance for students' schools</u>			
37	<u>Co-operation from JAMB</u>			
38	<u>Number of Vocational Schools</u>			
39	<u>Parental/Social background of students</u>			

**PART 4:**

**NATIONAL OBJECTIVES**

Below is a list of reasons given for advocating Continuous Assessment in schools in Nigeria. Most of them are from the Federal Government Handbook on Continuous Assessment (1985). They indicate the rationale for Continuous Assessment. How far do you agree with these objectives? Please indicate your view by placing a tick (✓) in the appropriate box using the following key:

- 1 = SA = Strongly Agree  
 2 = A = Agree  
 3 = U = Uncertain  
 4 = D = Disagree  
 5 = SD = Strongly Disagree

			1	2	3	4	5
		OBJECTIVES:					
		CA:	SA	A	U	D	SD
40	1	Gives the teacher greater involvement in the child's <u>overall assessment</u>					
41	2	Provides a more valid assessment of the child's overall ability and <u>performance</u>					
42	3	Enables teachers to be more <u>flexible in their teaching</u>					
43	4	Enables teachers to be more <u>innovative in their teaching</u>					
44	5	Provides a basis for more <u>effective guidance of the child</u>					
45	6	Provides a basis for the teacher to improve his/her teaching <u>method</u>					
46	7	Reduces examination malpractice (e.g. cheating in exams and <u>leakages of question papers</u> )					
47	8	Makes the students work harder (e.g. increases student <u>motivation</u>					
48	9	Improves teacher/student <u>relationship</u>					

**PART: 5**

**CONTINUOUS ASSESSMENT**

Please put a tick (✓) in the appropriate box as it relates to you in each case

	1	2	3
Do you feel that:	Yes	Not Sure	No
49 Teachers' responses to Continuous Assessment are favourable?			
50 Parents' responses to Continuous Assessment are favourable?			
51 Students' responses to Continuous Assessment are favourable?			
52 Most teachers look at Continuous Assessment as a threat to their professional ability?			
53 Most teachers look at Continuous Assessment as a threat to their autonomy			
54 Parents can read and interpret the new report sheets of their children sent to them since 1984/85 school year?			
55 Your responsibilities towards Continuous Assessment are clear to you?			
56 Principals were consulted when decisions were being taken by the Federal Government to introduce Continuous Assessment into schools?			
57 Generally, principals are consulted when decisions about educational policies are being made?			
58 In your opinion, with the new system of Continuous Assessment teachers do more testing than actual teaching			
59 How would you describe the overall conduct of Continuous Assessment (e.g. fairness to pupils, Teachers, Parents)			
(1) Favourable			
(2) Unfavourable			
60 In your opinion should Continuous Assessment continue or should it be stopped?			
(1) Continuous Assessment to continue			
(2) Continuous Assessment to be stopped			

Appendix 5

STUDENTS' QUESTIONNAIRE

PART 1:

PERSONAL INFORMATION

Please put a tick (✓) in the appropriate box as it relates to you in each item.

A. Name of School .....

B. Age ☐

C. Sex (1) Male ☐  
(2) Female ☐

D. Class ☐

E. 1. Boarder ☐  
Or  
2. Day ☐

F. Level of School (1) JSS only ☐  
(2) SSS only ☐  
(3) JSS and SSS ☐

G. Parental background and type of work Parents do (please tick ( ) as appropriate)

Education	Can't read & Write	Primary	Secondary	University
Father:				
Mother:				

Occupation of parents (e.g. Teacher, Farmer, Soldier, Lawyer, Doctor, Engineer, Jobless, Housewife, etc.)

Father (State it, please) .....

Mother (State it, please) .....

**PART 2:**                      **VIEWS ON CONTINUOUS ASSESSMENT**

1      What form of assessment do you prefer (tick one please)

- (1) Continuous Assessment only
- (2) End of course exams only  
(i.e. final exams)
- (3) Continuous Assessment plus end of  
course exams
- (4) Others (Specify, please)


Please tick as appropriate		1	2	3
Do you feel that:		Yes	Not Sure	No
2	Continuous Assessment encourages <u>students to work harder</u>			
3	With the new system of Continuous Assessment students do far too many <u>tests and assignments</u>			
4	Continuous Assessment will reduce examination malpractice (i.e. <u>cheating in exams, leakages of question papers etc.</u>			
5	<u>The Report sheets are hard to interpret</u>			
6	Students views are considered when major decisions are taken about the education since the introduction <u>of Continuous Assessment</u>			
7	Teachers work harder since the introduction of Continuous <u>Assessment</u>			

9      Generally speaking the overall conduct of Continuous  
Assessment is

- (1) Fair
- (2) Unfair


9      Should Continuous Assessment continue or should it be  
stopped

- (1) Continuous Assessment to continue
- (2) Continuous Assessment to be stopped


PART 3:                      ISSUES ON PRE-VOCATIONAL IDEAS

Please put a tick (✓) as it relates to you in the appropriate box

10      Which type of Secondary School do you prefer?

- (1) Grammar
- (2) Commercial
- (3) Technical
- (4) Others (Specify, please)


11      What type of Certificate would you like to get at the end of your secondary school course (Tick one please)

- (1) Federal Trade Tests
- (2) City and Guilds
- (3) WASC/GCE 'O' level
- (4) Other (Specify, please)


		1	2	3
Do you feel that		Yes	Not Sure	No
12	The pre-vocational and vocational subjects are likely to increase your future job prospects			
13	You do not like the pre-vocational subjects			
14	Your parents/Guardian do not like the pre-vocational subjects			
15	You would like to go into apprenticeship system			



**PART 4:**

**TEACHERS' ROLE**

Please tick the appropriate box as it relates to you in each case

		1	2	3
	<u>Do you feel that</u>	Yes	Not Sure	No
16	<u>Since the introduction of the Continuous Assessment teachers do more testing than teaching</u>			
17	<u>In your opinion teachers have enough time for teaching since the introduction of the Continuous Assessment Scheme</u>			
18	<u>Teachers are keeping accurate records of you</u>			
19	<u>Teachers are respected more since the introduction of Continuous Assessment</u>			
20	<u>If a student misses classes for a couple of days the teacher gives him extra time to catch up</u>			
21	<u>Students do a lot of assignments as part of Continuous Assessment</u>			
22	<u>Students parental background may affect the teachers' ratings of them</u>			

**PART 5:**

**OBJECTIVES**

Please tick the appropriate box as it relates to you in each item

		1	2	3
	<u>Do you feel that Continuous Assessment</u>	<u>Yes</u>	<u>Not Sure</u>	<u>No</u>
23	<u>Encourages students to work harder</u>			
24	<u>Will reduce exam malpractices</u>			
25	<u>Makes students more cooperative rather than competitive</u>			
26	<u>Makes students do a lot of 'self-teaching</u>			
27	<u>Improves your relationship with your teachers</u>			
28	<u>Provides a more valid (better) assessment of your overall ability and performance</u>			
29	<u>Provides a basis for more effective guidance of you</u>			

**PART 6:**

**THE SCHOOL**

Please tick (✓) the appropriate box as it relates to you in each case

		1	2	3
		<u>Yes</u>	<u>Not Sure</u>	<u>No</u>
30	<u>Students are never consulted when decisions about their education are being made</u>			
31	<u>Students' views are considered when major decisions are taken within schools</u>			
32	<u>There is/are guidance counsellor(s) in my school</u>			
33	<u>My school holds P.T.A. Meetings regularly</u>			

Appendix 6

PARENTS' QUESTIONNAIRE

PART 1: PERSONAL INFORMATION

Please put a tick (✓) in the appropriate box as it relates to you

State

Sex        (1) Male  
            (2) Female


Age        (1) Below 25  
            (2) 25 - 35  
            (3) 36 - 45  
            (4) 46 - 50  
            (5) Over 50


Number of children in Secondary School .....

Occupation .....

**PART 2:      RE: EDUCATION OF PARENTS: CA = Continuous Assessment**

Please put a tick (✓) in the appropriate box as it relates to you

		1	2	3
		Yes	Not Sure	No
1	Can you interpret the results of your child(ren) on the new result sheets for CA?			
2	Have you received any information from the school, government, or the media, on the interpretation of the new result sheets?			
3	Do you feel you receive enough feedback from the school of your child(ren) since the CA Scheme?			
4	Do parents take part in decisions about curriculum development?			
5	Do you feel that parents should be consulted when decisions about their children's education are being made?			
6	Could effective communication and co-operation among teachers and parents improve the successful implementation of CA?			
7	Should P.T.A. be consulted in all major school matters?			

8      I attend P.T.A. Meetings

(1) Regularly

(2) Rarely

(3) Never


Comment, please .....

.....

9      Through which channel of communication did you first hear about CA Scheme? Was it through any of the following:

(1) P.T.A. Meeting

(2) School where your child attends

(3) Our child

(4) Mass media e.g. TV, Radio, Newspapers

(5) Others (Specify)


**PART 3:**

**VOCATIONAL ISSUES**

Please put a tick (✓) in the appropriate box as it relates to you

- 1 The type of certificate which I would like my child to get at the end of his/her Secondary course is

- (1) Federal Trade Test
- (2) City and Guilds
- (3) WASC/GCE 'O' Level
- (4) J.S.S. Leaving Certificate
- (5) G.C.E. 'O' Level with technical bias
- (6) Other (Specify)


- 2 The form of secondary school which I prefer for my child is

- (1) Grammar
- (2) Commercial
- (3) Technical
- (4) Vocational
- (5) Other (Specify)


	1	2	3
	Yes	Not Sure	No
3 The pre-vocational and vocational subjects will help my child to <u>find a job easily</u>			
4 I would not want my child to go into <u>apprenticeship system</u>			
5 I do not want the vocational and pre- <u>vocational subjects for child</u>			
6 The vocational subjects are better for <u>girls</u>			
7 Most parents may not favour sending <u>their children to vocational schools</u>			

- 8 After the secondary school course I would like my child to:

- (1) Do a further course
- (2) Find a job
- (3) Go into private business
- (4) Others (Specify, please)


**PART 4: NATIONAL OBJECTIVES - CA = Continuous Assessment**

Below is a list of reasons given for advocating CA in schools in Nigeria. How far do you agree with these objectives. Please indicate your view by placing a tick (✓) in the appropriate box using the following key:

1 = SA = Strongly Agree

2 = A = Agree

3 = U = Uncertain

4 = D = Disagree

5 = SD = Strongly disagree

	1	2	3	4	5
CA:	SA	A	U	D	SD
1 Gives the teacher greater involvement in the child's overall assessment					
2 Provides a more valid assessment of the child's overall ability and performance					
3 Enables teachers to be more flexible in their teaching					
4 Enables teachers to be more innovative in their teaching					
5 Provides a basis for more effective guidance of the child					
6 Provides a basis for the teacher to improve his/her teaching methods					
7 Reduces examination malpractice (e.g. cheating in exams and leakages of question papers)					
8 Makes students work harder (i.e. increases motivation)					
9 Improves teacher/student relationship					

**PART 5**

**POSSIBLE CONSTRAINTS**

To what extent do you feel the following issues pose problems in implementing continuous assessment (CA). Please put a tick (✓) in the appropriate place as it relates to you in each case

		1	2	3
		No Problem	Minor	Major
1	<u>Availability of time for teachers</u>			
2	<u>Availability of administrative support for schools from the government</u>			
3	<u>Material support for schools</u>			
4	<u>Financial Support for Schools</u>			
5	<u>Preparation of tests by teachers</u>			
6	<u>Preparation of exercises by teachers</u>			
7	<u>Marking exercises and tests by teachers</u>			
8	<u>Entering marks on CA record forms by teachers</u>			
9	<u>Co-operation from the heads of Schools</u>			
10	<u>Student absenteeism</u>			
11	<u>Co-operation from State Ed. Commission</u>			
12	<u>Co-operation from Exam Boards</u>			
13	<u>Availability of Guidance Counsellors for schools</u>			
14	<u>Provision of in-service training course for teachers</u>			
15	<u>Teacher/student relationship</u>			
16	<u>Co-operation from parents</u>			
17	<u>Teachers' expertise</u>			
18	<u>Availability of guidelines from the government for teachers</u>			
19	<u>Comparability of standards among schools</u>			
20	<u>Accurate uniform record keeping by schools</u>			
21	<u>The idea of vocational guidance for students</u>			
22	<u>Co-operation from JAMB</u>			
23	<u>Number of Vocational schools</u>			
24	<u>Parental/Social background of Students</u>			

Appendix 7

INTERVIEW OUTLINE

Introduction

I am Mrs. Victoria Adaobi Obasi from the University of Hull, England. I am a research student. My research (study) is about the implementation of continuous assessment in secondary schools in Imo State, Nigeria. The purpose of the study is to ascertain to what extent the scheme is successfully being implemented. The present attempt is important not only to identify points of success on malfunction, but also to set guidelines and offer suggestions in order to assess the importance of continuous assessment in secondary schools in Nigeria.

This interview is part of my survey. I hope you will be free to discuss with me most of the issues affecting the implementation of the scheme in the state. Rest assured I am not going to quote you personally. What ever you say is strictly confidential. I shall merely add up all the opinions I hear from the participants as a group and summarize them in order to have a general overall picture of things as they affect continuous assessment in Imo State.

Although I shall be asking most of the questions, please feel very free to ask me questions or raise any issues which though important I might forget to mention.

Before we start, is there anything you want to ask or tell me with regard to the continuous assessment scheme in Imo State? Shall we then start, Thank you.



Interview Outline

1. What are your comments about the new educational system in Nigeria (i.e. the 6-3-3-4 system) of which continuous assessment is a part of?
2. What are your comments about the implementation of continuous assessment in secondary schools?
3. What do you consider to be the main objective of continuous assessment?
4. There is a wide spread feeling amongst the teachers that they are not always consulted when educational decisions are being made. Would you say this is true or false?
5. Before final decisions were reached to introduce the continuous assessment were any of the interest groups such as teachers, students, parents etc. consulted?
6. If 'Yes' at what stage and for what purpose?
7. To what extent do you feel the needs of the teachers and students were considered in planning the new system of assessment?
8. Do you feel that there is co-operation between educational administrators, on the one hand, and other professional bodies interested in education on the other hand in matters such as curriculum design and development, teacher training etc?

9. What in your view are the major defects (if any) of the new system of continuous assessment and how could these defects be corrected?
10. How would you like the success or failure of the Continuous Assessment scheme to be evaluated?
11. Are there plans to evaluate the Continuous Assessment Scheme?
12. What provisions are made for the IN-SET needs of the teachers in Imo state towards the implementation of Continuous Assessment?
13. How are the problems of comparability of standards among schools and accurate uniform record keeping going to be tackled?
14. Are there enough secondary schools in the State for the primary school turnover?
15. Are there enough vocational schools in the State?
16. What will happen if students and parents refuse vocational schools?
17. How do you get the feedbacks from schools about the implementation of Continuous Assessment in schools?
18. How often are the feedbacks on Continuous Assessment?

19. What do you do about monitoring and supervision of Continuous Assessment schemes in schools?
20. What problems do you feel might be encountered in the implementation of Continuous Assessment in secondary schools in the State?
21. Do you feel there is enough fund for the implementation of Continuous Assessment?
22. Do you feel that teachers are professionally able to implement Continuous Assessment in Imo State, Nigeria?
23. What suggestions would you give that will make Continuous Assessment more relevant and more interesting?
24. Additional Comments.

Thank you

## Appendix 8

### Instructions (questionnaire)

This study is about the implementation of continuous assessment in secondary schools in Imo State, Nigeria. The purpose of the study is to ascertain to what extent the continuous assessment is successfully being implemented in schools in Imo State. The present attempt is important not only for identifying points of success or malfunction, but also to set guidelines and offer suggestions in order to assess the importance of continuous assessment in secondary schools in Nigeria.

Quite a good number of researches on implementation of educational innovation have been conducted in Europe and America. Although such researches may be relevant to us in Nigeria, I feel that similar studies conducted in Nigeria will be more meaningful to us, especially as our system of education and cultural values differ from those of the Western industrialised countries.

Therefore, I am asking people in the State to tell me how they feel about various issues and problems affecting the assessment of students in secondary schools. You are very important to this research because you represent thousands of others who are not in my sample. I shall be very grateful if you could join me in this study by completing the attached questionnaire as honestly as you can. My purpose is to determine trends, constraints and successes and in no way do I

want to study individuals or individual schools. Everything you tell me will be strictly confidential. Your name will in no way be revealed in the reported finding. The results will appear largely in the form of statistical reports. For example I might say that 55% of female teachers hold one opinion while 10% of males hold an opposite opinion. These precautions to protect your individual identity are taken because I want you to be frank and sincere in filling out the questionnaire.

Most of the questions are concerned with your personal opinions. There are no right or wrong answers. What I want is just what you think. In other words the only right answer is the one that best expresses your personal feelings. If you are not quite certain what your answer should be please give me the choice that is closest to your opinion or the choice that appeals to you at the moment. Please answer all questions. The questions are not meant to be hard or tricky. Please remember also it is your opinion I am trying to find out about.

Thank you for your co-operation.

Yours sincerely

Victoria Adaobi Obasi  
School of Education  
University of Hull

Appendix 9

GOVERNMENT OF IMO STATE OF NIGERIA

Telegrams:

Telephone:

Your ref. \_\_\_\_\_

Our ref. NCE/EPAC/Vol. 175/Vol. I/  
(All replies to be addressed to the Permanent  
Secretary.)



MINISTRY OF EDUCATION  
EDUCATIONAL PLANNING, RESEARCH  
& CURRICULUM DIVISION

OWERRI

28th May, 1986

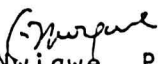
Mr. C.R. Brown  
Department of Educational Studies  
Applied Science & Mathematics Building  
The University of Hull  
173 Cottingham Road  
Hull, HU 5 2EH  
England.

Dear Sir,

Mrs. V.A. Obasi

I wish to acknowledge receipt of your letter dated  
9th April, 1986, in connection with Mrs. Obasi's research,  
and to assure you that she will get the assistance she  
asks for.

Yours faithfully,

  
C.C. Nwigwe, Ph.D. (Alberta)  
Head (E.P.R.C.)  
for Permanent Secretary.

**Appendix 10**

**ADDITIONAL TABLES**

**Table 9(06)**

Differences in perceptions of constraints on Implementation of CA held by teachers as assessed by chi-squared analysis  
(N = 300)

VARIABLES	NO PROBLEM		MINOR		MAJOR		CHI-SQUARED	DF	SIGN
	M	F	M	F	M	F			
1 AVAILABILITY OF TIME	44	21	94	42	65	32	0.12281	2	0.9404
2 ADMIN. SUPPORT	52	22	81	40	71	34	0.24451	2	0.8849
3 MATERIAL SUPPORT	25	3	54	27	125	66	6.46926	2	0.0394*
4 FINANCIAL SUPPORT	16	10	27	11	161	75	0.66687	2	0.7165
5 PREPARATION OF EXERCISES	86	34	97	46	21	16	2.89271	2	0.2354
6 PREPARATION OF TESTS	90	37	91	43	23	16	1.93997	2	0.3791
7 MARKING EXERCISES/TESTS	73	30	88	45	43	21	0.61605	2	0.7349
8 ENTERING MARKS	73	36	89	34	42	26	2.34126	2	0.3102
9 CO-OP FROM HEAD	120	56	64	25	20	15	2.52401	2	0.2831
10 STUDENT ABSENTEEISM	25	10	90	44	89	42	0.23232	2	0.8903
11 CO-OP FROM STATE EDUC	44	21	86	34	74	41	1.44917	2	0.4845
12 CO-OP FROM EXAM BOARD	59	23	92	44	53	29	1.02303	2	0.5996
13 AVAIL OF GUID. COUN.	53	26	42	29	109	41	4.08410	2	0.1298
14 PROVISION OF IN-SET	23	8	51	26	130	62	0.66439	2	0.7173
15 TEACHER/PUPIL RELAT.	92	49	92	36	20	11	1.54685	2	0.4614
16 CO-OP FROM PARENTS	58	32	73	39	73	25	2.82943	2	0.2430
17 TEACHERS EXPERTISE	58	23	73	34	72	39	0.98430	2	0.6113
18 AVAIL. OF GUIDE LINES	50	16	67	24	87	56	6.51897	2	0.0384*
19 COMPARABILITY OF STDS	36	16	58	37	110	43	3.21034	2	0.2009
20 UNIFORM RECORDS	37	13	59	30	108	53	1.00903	2	0.6038
21 CUMULATIVE RECORD	58	29	92	34	54	33	2.93433	2	0.2306
22 WEEKLY REPORT	52	40	109	40	43	16	8.03559	2	0.0180*
23 ACADEMIC PROG. REPORT	85	44	89	40	30	12	0.54882	2	0.7600
24 AFFECTIVE REPORT	53	16	73	39	78	41	3.20106	2	0.2018
25 PSYCHOMOTOR REPORT	50	20	76	37	78	39	0.50244	2	0.7779
26 ANNUAL REPORT	74	31	87	38	42	27	2.04995	2	0.3588
27 VOC. GUIDANCE	24	14	55	39	125	43	7.46645	2	0.0239*
28 CO-OP FROM JAMB	71	40	45	23	88	33	2.17751	2	0.3366
29 NO. OF VOC. SCHOOLS	48	17	47	24	109	55	1.30492	2	0.5208
30 SOCIAL BACKGROUND	21	14	59	23	124	59	1.62259	2	0.4443

\*Significant at 0.05 level of probability  
(df=2)



**TABLE 9(07)**

Differences in perceptions of constraints on implementation of CA held by teachers with different lengths of teaching experience as assessed by chi-squared analysis (N = 300)

	No Problem				Minor				Major				x <sup>2</sup> Value	SIGN
	1-5	6-10	11-15	Above 15yrs	1-5	6-10	11-15	Above 15yrs	1-5	6-10	11-15	Above 15yrs		
Avail of Time	21	23	10	11	43	45	26	22	24	38	22	13	3.19519	0.784
Admin Support	21	24	12	17	38	42	29	12	29	41	17	18	8.36231	0.212
Material Supp	12	7	5	4	28	30	13	10	48	70	40	33	6.29975	0.390
Fin. Support	11	10	4	1	13	12	7	6	64	85	47	40	5.27225	0.509
Prep of Ex.	40	42	18	20	39	56	28	20	9	9	12	7	8.05512	0.234
Prep of Tests	44	44	21	18	33	49	30	22	11	14	7	7	3.87719	0.693
Mkg Ex/tests	37	37	14	15	35	50	26	22	16	20	18	10	7.30038	0.294
Entering mks	39	40	15	15	31	47	23	22	18	20	20	10	9.47905	0.148
Coop. fm Head	47	62	39	28	32	31	13	13	9	14	6	6	4.07379	0.666
Stds Absent.	12	10	8	5	36	54	26	18	40	43	24	24	3.58496	0.732
Coop. fm St.Ed.	18	18	18	11	41	42	22	15	29	47	18	21	8.27103	0.218
Coop. fm Ex.Bd.	19	22	24	17	40	50	25	21	29	35	9	9	14.76421	0.022
Av. of Gd.Cllr.	25	22	18	14	17	28	16	10	46	57	24	23	4.86624	0.561
Prov. of INSET	8	12	8	3	24	24	15	14	56	71	35	30	2.64641	0.851
Tch/ppl relat.	46	52	25	18	33	42	28	25	9	13	5	4	4.67243	0.586
Coop. fm Parents	24	34	22	10	35	42	16	19	29	31	20	18	5.54528	0.476
Teachers Expt.	26	21	20	14	30	42	16	19	31	44	22	14	6.72496	0.347
Av. of Gd.lns	18	19	18	11	30	29	17	15	40	59	23	21	6.21463	0.399
Comp. of Stds	19	10	14	9	29	31	20	15	40	66	24	23	10.95168	0.089
Un. Records	16	12	16	6	30	29	14	16	42	66	28	25	10.50197	0.105
Cum.Records	30	28	17	12	34	46	25	21	24	33	16	14	1.90411	0.928
Wkly Report	23	28	25	16	46	58	26	19	19	21	7	12	8.73108	0.189
Ac. Prog. Rep.	40	42	29	18	33	51	25	20	15	14	4	9	6.16555	0.404
The Aff. Rep.	21	20	15	13	29	46	19	18	38	41	24	16	3.98930	0.678
The Psys. Rep.	27	19	14	10	28	41	24	20	33	47	20	17	6.00145	0.423
Annual Rep.	26	34	27	18	40	48	18	19	22	25	13	9	6.02168	0.420
Voc. Guid.	12	9	8	9	33	32	16	13	43	66	34	25	6.36675	0.383
Coop. fm JAMB	39	40	17	15	25	16	17	10	24	51	24	22	13.44319	0.036
No. of Schs	16	21	13	15	21	25	13	12	51	61	32	20	4.65091	0.589
Soc. Bck gnd	9	10	10	6	27	33	10	12	52	64	38	29	5.57869	0.472

\*Significant at 0.05 level of probability  
(df=6)

**Table 9(08)**

Differences in perceptions of constraints on Implementation of CA held by teachers who have attended INSET and those who have not attended INSET as assessed by chi-squared analysis (N = 300)

	NO PROB		MINOR		MAJOR		CHI-SQUARE	DF	SIGN
	IN-SET		IN-SET		IN-SET				
	YES	NO	YES	NO	YES	NO			
1 AVAIL. OF TIME	17	48	32	103	24	73	0.14415	2	0.9305
2 ADMIN. SUPPORT	19	55	31	89	23	82	0.55308	2	0.7584
2 MATERIAL SUPPORT	9	19	17	64	47	143	1.43238	2	0.4886
4 FINANCIAL SUPPORT	8	18	11	27	54	181	1.25456	2	0.5340
5 PREP. OF EXERCISE	32	88	35	107	6	31	1.68162	2	0.4314
6 PREP. OF TESTS	27	100	38	95	8	31	2.25201	2	0.3243
7 MARKING EXERCISES	25	78	27	106	21	42	3.93640	2	0.1397
8 ENTERING MARKS	23	86	28	94	22	46	3.11231	2	0.2109
9 CO-OP FROM HEAD	46	130	18	70	9	26	1.06258	2	0.5878
10 STUDENT ABSENTEEISM	7	28	32	101	34	97	0.54695	2	0.7607
11 CO-OP FROM STATE ED	14	51	33	87	26	88	1.07005	2	0.5857
12 CO-OP FROM EXAM BD	17	65	35	101	21	60	0.83151	2	0.6598
13 AVAIL. OF COUN.	19	60	18	53	36	113	0.04468	2	0.9779
14 IN-SET PROVISION	12	19	20	57	41	150	4.43412	2	0.1089
15 TEACHER/PUPIL RELAT.	32	109	32	95	9	22	0.62623	2	0.7312
16 CO-OP FROM PARENT	22	68	22	90	29	68	2.96179	2	0.2274
17 TEACHERS EXERTISE	19	62	32	75	22	88	2.94302	2	0.2296
18 AVAIL. OF GD LINES	17	49	14	77	42	100	6.13650	2	0.0465*
19 COMPARABILITY	12	40	19	76	42	110	1.90610	2	0.3856
20 UNIFORM RECORDS	9	41	20	68	44	117	1.99176	2	0.3694
21 CUMULATIVE RECORDS	24	63	32	93	17	70	1.68954	2	0.4297
22 WEEKLY REPORT	22	70	37	111	14	45	0.05506	2	0.9728
23 PROGRESS REPORT	31	98	32	96	10	32	0.04239	2	0.9790
24 AFFECTIVE REPORT	18	51	29	82	26	93	0.70531	2	0.7028
25 PSYCHOMOTOR REPORT	17	53	31	81	25	92	1.23587	2	0.5391
26 ANNUAL REPORT	24	81	32	92	17	52	0.26835	2	0.8744
27 VOC. GUIDANCE	9	29	27	67	37	130	1.41845	2	0.4920
28 CO-OP FROM JAMB	23	88	16	52	34	86	1.84818	2	0.3969
29 NO. of VOC. SCHOOLS	13	52	12	59	48	115	5.09591	2	0.0782
30 SOCIAL BACKGROUND	5	30	15	67	53	129	5.79558	2	0.0551

\*Significant at 0.05 level of probability

**Table 9(09)**

Differences in perceptions of constraints on implementation of CA held by both teachers from urban and rural areas as assessed by chi-squared analysis (N = 300)

	NO PROB		MINOR		MAJOR		$\chi^2$ (df=2)	SIGN
	R	U	R	U	R	U		
Availability of time	57	8	111	25	81	16	1.18152	0.5539
Administrative Support	62	12	95	26	93	12	4.10990	0.1281
Material Support	27	1	64	17	159	32	4.54708	0.1029
Financial Support	22	4	31	7	197	39	0.11837	0.9425
Prep. of Exercises	104	16	116	27	30	7	1.60003	0.4493
Prep. of tests	110	17	113	21	27	12	6.66439	0.0357*
Marking Exercises/Tests	86	17	116	17	48	16	4.64705	0.0979
Entering Marks	95	14	98	25	57	11	2.34392	0.3098
Co-op. from Head	147	29	75	14	28	7	0.34072	0.8434
Students Absenteeism	32	3	106	28	112	19	3.81802	0.1482
Co-op. from State Educ.	53	12	99	21	98	17	0.50468	0.7770
Co-op. from Exam Board	65	17	115	21	70	12	1.36657	0.5050
Avail. of Guid. Cllr.	58	21	61	10	131	19	7.66125	0.0217*
Provision of INSET	26	5	70	7	154	38	4.53827	0.1034
Teacher/pupil Relat.	121	20	105	23	24	7	1.56243	0.4579
Co-op. from Parents	76	14	94	18	80	18	0.31265	0.8553
Teachers' Expertise	66	15	91	16	92	19	0.44054	0.8023
Avail. of Guidelines	51	9	76	15	117	26	0.67493	0.7136
Comparability of Stds.	43	9	78	17	129	24	0.22442	0.8939
Accurate Uniform Rcds	43	7	75	14	132	29	0.52212	0.7702
Cumulative Record Card	73	14	111	15	66	21	5.57438	0.0616
Weekly Report	79	13	122	27	49	10	0.65632	0.7202
Academic Prog. Report	107	22	104	25	39	3	3.44053	0.1790
The Affective Report	56	13	92	20	102	17	0.83478	0.6588
The Psychomotor Report	59	11	89	24	102	15	2.99275	0.2239
Annual Report	89	16	103	22	57	12	0.25741	0.8792
Vocational Guidance	31	7	78	16	141	27	0.13558	0.9345
Co-op. from JAMB	88	23	53	16	110	11	8.61939	0.0134*
No. of Voc. Schools	57	8	56	15	137	27	1.91101	0.3846
Social Background	29	6	66	16	155	28	0.72966	0.6943

\*Significant at 0.05 level of probability

Table 9(10)

Frequency distribution of responses of teachers on agreement or disagreement on the National Objective of CA. (N=300)

CA:	VALUE	NO	%	MEAN	STD DEV
1 Gives the teacher greater Involvement in the child's overall assessment	SA	216	72.2	1.358	.730
	A	73	24.4		
	UN	3	1.0		
	D	-	-		
	SD	7	2.3		
2 Provides a more valid assessment of the child's overall ability & performance	SA	170	56.9	1.612	.907
	A	200	33.4		
	UNC	12	4.0		
	D	9	3.0		
	SD	8	2.7		
3 Enables teachers to be more flexible in their teaching	SA	58	19.4	2.375	1.049
	A	131	43.8		
	UNC	61	20.4		
	D	38	12.7		
	SD	11	3.7		
4 Enables teachers to be more innovative in their teaching	SA	81	27.1	2.077	.911
	A	144	48.2		
	UNC	46	15.4		
	D	26	8.7		
	SD	2	.7		
5 Provides a basis for more effective guidance of the child	SA	133	44.5	1.722	.803
	A	129	43.1		
	UNC	27	9.0		
	D	7	2.3		
	SD	3	1.0		
6 Provides a basis for the teacher to improve his/her teaching methods	SA	83	27.9	2.037	.904
	A	149	50.0		
	UNC	43	14.4		
	D	18	6.0		
	SD	5	1.7		

CA	VALUE	NO	%	MEAN	STD DEV
7 Reduces Examination Malpractices (eg. cheating and leakages of question papers)	SA	88	29.4		
	A	84	28.1		2.418
	UN	65	21.7		1.254
	D	38	12.7		
	SD	24	8.0		
8 Makes the students work harder (i.e. increases student motivation)	SA	128	42.8		
	A	111	37.1		1.873
	UN	37	12.4		.982
	D	16	5.4		
	SD	7	2.3		
9 Improves Teacher/Student relationship	SA	35	11.7		
	A	118	39.5		2.615
	UN	80	26.8		1.005
	D	59	19.7		
	SD	7	2.3		

Mean of Means = 1.90

The lower the mean the stronger the agreement with the statement

**Table 9(21)**

Frequency distribution of teachers' responses on how they feel about certain aspects of their job (N = 300)

		FREQ	%	VALID %	Mean	Std dev
1 Students appreciation	V.Sat.	108	36.0	36.1	2.067	1.079
	Sat.	110	36.7	36.8		
	Uncert.	43	14.3	14.4		
	Dissat.	29	9.7	9.7		
	V.Diss.	9	3.0	3.0		
2 No of tests	V.Sat.	98	32.7	32.7	2.143	1.165
	Sat.	131	43.7	43.7		
	Uncert.	17	5.7	5.7		
	Dissat.	38	12.7	12.7		
	V.Diss.	16	5.3	5.3		
3 Amount of freedom	V.Sat.	86	28.7	28.7	2.163	1.062
	Sat.	132	44.0	44.0		
	Uncert.	38	12.7	12.7		
	Dissat.	35	11.7	11.7		
	V.Diss.	9	3.0	3.0		
4 Teaching Load	V.Sat.	72	24.0	24.0	2.440	1.270
	Sat.	132	44.0	44.0		
	Uncert.	12	4.0	4.0		
	Dissat.	60	20.0	20.0		
	V.Diss.	24	8.0	8.0		
5 Class Size	V.Sat	69	23.0	23.1	2.605	1.266
	Sat.	102	34.0	34.1		
	Uncert.	18	6.0	6.0		
	Dissat.	98	32.7	32.8		
	V.Diss.	12	4.0	4.0		
6 Parents' Apprec.	V.Sat.	69	23.0	23.0	2.650	1.278
	Sat.	75	25.0	25.0		
	Uncert.	81	27.0	27.0		
	Dissat.	42	14.0	14.0		
	V.Diss.	33	11.0	11.0		

Table 9(21) continued...

		Freq	%	Valid %	Mean	Std dev
7 Opportunity to try out new ideas	V.Sat.	65	21.7	21.8	2.500	1.176
	Sat.	111	37.0	37.2		
	Uncert.	41	13.7	13.8		
	Dissat.	70	23.3	23.5		
	V.Diss.	11	3.7	3.7		
8 Amount of Time	V.Sat.	57	19.0	19.1	2.612	1.268
	Sat.	120	40.0	40.1		
	Uncert.	33	11.0	11.0		
	Dissat.	60	20.0	20.1		
	V.Diss.	29	9.7	9.7		
9 Amount of Clerical work	V.Sat.	51	17.0	17.0	2.590	1.149
	Sat.	117	39.0	39.0		
	Uncert.	50	16.7	16.0		
	Dissat.	68	22.7	22.7		
	V.Diss.	14	4.7	4.7		
10 Role of Teachers	V.Sat.	31	10.3	10.4	3.308	1.220
	Sat.	47	15.7	15.7		
	Uncert.	70	23.3	23.4		
	Dissat.	101	33.7	33.8		
	V.Diss.	50	16.7	16.7		
11 Cances for Promotion	V.Sat.	30	10.0	10.1	3.403	1.189
	Sat.	24	8.0	8.1		
	Uncert.	100	33.3	33.6		
	Dissat.	84	28.0	28.2		
	V.Diss.	60	20.0	20.1		
12 Activities of NUT	V.Sat.	29	9.7	9.7	3.577	1.323
	Sat.	44	14.7	14.7		
	Uncert.	46	15.3	15.3		
	Dissat.	87	29.0	29.0		
	V.Diss.	94	31.3	31.3		
13 Instructional Materials	V.Sat.	22	7.3	7.4	3.358	1.216
	Sat.	69	23.0	23.1		
	Uncert.	39	13.0	13.0		
	Dissat.	118	39.3	39.5		
	V.Diss.	51	17.0	17.1		

Table 9(21) continued...

		Freq	%	Valid %	Mean	STD DEV
14 Opportunity to participate	V.Sat.	19	6.3	6.4	3.261	1.092
	Sat.	50	16.7	16.7		
	Uncert.	106	35.3	35.5		
	Dissat.	82	27.3	27.4		
	V.Diss.	42	14.0	14.0		

The lower the mean the stronger the agreement with the statement



Table 9(22)

Frequency distribution of Teachers' responses on satisfied/dissatisfied with certain aspects of their job (N = 300)

		Freq.	%	Valid %	Cum %
1 Number of tests	Sat.	229	76,3	76,3	76,3
	Uncert.	17	5,7	5,7	82,0
	Dissat.	54	18,0	18,0	100,0
2 Students Apprec.	Sat.	218	72,7	72,9	72,9
	Uncert.	43	14,3	14,4	87,3
	Dissat.	38	12,7	12,7	100,0
3 Amount of freedom	Sat.	218	72,7	72,7	72,7
	Uncert.	38	12,7	12,7	85,3
	Dissat.	44	14,7	14,7	100,0
4 Teaching Load	Sat.	204	68,0	68,0	68,0
	Uncert.	12	4,0	4,0	72,0
	Dissat.	84	28,0	28,0	100,0
5 Amount of Time	Sat.	177	59,0	59,2	59,2
	Uncert.	33	11,0	11,0	70,2
	Dissat.	89	29,7	29,8	100,0
6 Opportunity to out new ideas	Sat.	176	58,7	59,1	59,1
	Uncert.	41	13,7	13,8	72,8
	Dissat.	81	27,0	27,2	100,0
7 Class size	Sat.	171	57,0	57,2	57,2
	Uncert.	18	6,0	6,0	63,2
	Dissat.	110	36,7	36,8	100,0
8 Amount of Clerical	Sat	168	56,0	56,0	56,0
	Uncert.	50	16,7	16,7	72,7
	Dissat.	82	27,3	27,3	100,0
9 Parents' Apprec.	Sat.	144	48,0	48,0	48,0
	Uncert.	81	27,0	27,0	75,0
	Dissat.	75	25,0	25,0	100,0
10 Inst. Material	Sat.	91	30,3	30,4	30,4
	Uncert.	36	13,0	13,0	43,5
	Dissat.	169	56,3	56,5	100,0
11 Role of Teachers	Sat.	78	26,0	26,1	26,1
	Uncert.	70	23,3	23,4	49,5
	Dissat.	151	50,5	50,5	100,0
12 Activities of NUT	Sat.	73	24,3	24,3	24,3
	Uncert.	46	15,3	15,3	39,7
	Dissat.	181	60,3	60,3	100,0

13 Opport. to partic.	Sat,	69	23,0	23,1	23,1
	Uncert,	106	35,3	35,5	58,5
	Dissat,	124	41,3	41,5	100,0
14 Chances for prom.	Sat	54	18,0	18,1	18,1
	Uncert,	100	33,3	33,6	51,7
	Dissat,	144	48,0	48,3	100,0

Table 9(29)

Correlation matrix of teachers' responses on 'Possible Constraints' section of their Questionnaire

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1.000													
2	.191	1.000												
3	.141	.302	1.000											
4	.022	.272	.494	1.000										
5	.339	.063	.048	.086	1.000									
6	.229	.065	.038	-.033	.605	1.000								
7	.267	.012	-.031	-.040	.312	.418	1.000							
8	.164	.032	.012	-.048	.250	.360	.487	1.000						
9	.025	.215	.053	.083	.036	-.003	.059	.104	1.000					
10	-.073	-.059	.028	-.069	.073	-.112	.056	.030	-.020	1.000				
11	.109	.315	.234	.209	.020	-.008	-.073	.051	.235	-.001	1.000			
12	.107	.262	.107	.086	.080	.112	-.051	.114	.174	-.045	.633	1.000		
13	.112	.203	.047	.153	.054	.113	.070	.025	-.007	-.079	.143	.244	1.000	
14	.112	.153	.201	.221	.028	.055	.036	.082	-.085	-.065	.184	.192	.279	1.000
15	-.015	.001	.037	-.034	.048	.056	-.012	.080	.111	.170	.114	.128	-.097	.084
16	-.129	.117	.107	.144	.180	-.038	.060	.070	.239	.222	.171	.132	-.037	-.015
17	.080	.117	.144	.108	.191	.197	-.089	.023	-.020	-.053	.132	.213	.299	.230
18	.155	.295	.141	.061	.140	.127	.010	.129	.106	-.104	.337	.328	.244	.185
19	.066	.114	.081	.108	.058	.101	.121	.119	-.022	-.101	.177	.176	.336	.254
20	.232	.149	.149	.133	.239	.202	.130	.237	.064	-.071	.204	.154	.277	.257
21	.079	.110	-.013	.086	.152	.247	.206	.282	.115	.033	.123	.114	.305	.170
22	.095	.146	.002	.109	.041	.171	.172	.197	.061	.077	.082	.149	.120	.157
23	.129	.132	.022	-.067	.111	.206	.146	.186	.129	.038	.105	.115	.108	.003
24	.116	.135	.082	.038	.151	.141	.057	.211	.034	-.153	.011	.101	.177	.180
25	.118	.097	-.006	.088	.100	.104	.073	.185	.031	-.114	.106	.137	.144	.171
26	.172	.157	.122	.098	.136	.190	.218	.209	.080	-.019	.093	.090	.150	.118
27	.044	.097	.035	.081	.003	-.017	.042	.026	-.076	-.001	.174	.221	.317	.280
28	-.059	-.001	.035	.131	.142	-.117	.034	.044	-.037	.077	.067	.129	.097	.035
29	-.010	.059	.073	.008	.007	.021	.065	.071	.007	-.051	.025	.075	.110	.149
30	-.095	.030	.030	.015	-.091	.007	.038	.075	.144	.117	.133	.095	.080	.022

\*The numbers (61-30) in this Table and Tables 9(30) and 9(31) correspond with the item numbers in the Teachers' Questionnaire (see Appendix 3)

15 16 17 18 19 20 22 23 24 25 26 27 28 29 30

1,000															
.255	1,000														
.010	.210	1,000													
.042	.046	.379	1,000												
.012	.030	.293	.215	1,000											
.053	.089	.358	.348	.412	1,000										
.007	.045	.145	.184	.094	.259	1,000									
.023	.177	.061	.089	.071	.130	.462	1,000								
.184	.164	.173	.157	.036	.179	.425	.424	1,000							
.056	.170	.221	.148	.259	.186	.241	.233	.305	1,000						
.009	.131	.123	.098	.293	.186	.172	.281	.155	.600	1,000					
.124	.039	.207	.164	.183	.228	.354	.267	.438	.385	.406	1,000				
.067	.070	.177	.121	.269	.114	.163	.293	.135	.222	.267	.134	1,000			
.098	.230	.102	.057	.143	.067	.005	.126	.038	.089	.004	.075	.287	1,000		
.038	.025	.150	.126	.199	.125	.044	.058	.029	.174	.131	.113	.182	.153	1,000	
.174	.294	.069	.015	.253	.118	.013	.061	.041	.062	.128	.034	.191	.168	.210	1,000

Table 9(30)

Correlation Matrix of Teachers' Responses on the Objective Section of Their Questionnaire

	31	32	33	34	35	36	37	38	39
31	1,000								
32	,222	1,000							
33	,166	,076	1,000						
34	,184	,235	,251	1,000					
35	,366	,136	,114	,167	1,000				
36	,139	,172	,179	,316	,341	1,000			
37	,003	,235	,127	-,005	,064	,170	1,000		
38	,306	,070	-,010	,128	,154	,133	,296	1,000	
39	,237	,140	,143	,209	,128	,148	,150	,291	1,000

Table 9(31)

Correlation Matrix of Teachers' Responses on their 'Present Views' section of their Questionnaire

	74	75	76	77	78	79	80	81	82	83	84	85	86	87
74	1,000													
75	,065	1,000												
76	,123	,081	1,000											
77	,115	,017	,156	1,000										
78	,064	,039	,038	,059	1,000									
79	,095	,120	,132	,162	,220	1,000								
80	,002	,212	,003	,040	,119	,192	1,000							
81	,134	,019	,154	,134	,056	,057	,032	1,000						
82	,171	,068	,101	,094	,051	,125	,035	,331	1,000					
83	,029	,112	,040	,137	,046	,144	,144	,053	,048	1,000				
84	,078	,015	,033	,166	,127	,069	,053	,436	,254	,030	1,000			
85	,044	,028	,006	,108	,272	,211	,303	,016	,061	,199	,185	1,000		
86	-,082	,149	-,111	-,009	,169	,192	,314	,213	-,163	,199	,058	,567	1,000	
87	,005	,062	,041	,080	,228	,232	,371	,063	-,070	,243	,126	,525	,568	1,000

Table 9 (37)

Differences among Principles with different years of teaching experience in their perceptions of constraints in implementing CA as assessed by Chi-squared analysis (N=30).

Problem>>	6-10yrs			11-15yrs			Above 15yrs			x <sup>2</sup> Value	DF	SIGN
	No	Min	Maj	No	Min	Maj	No	Min	Maj			
Availability of Time	-	-	2	3	3	1	9	7	5	6,21428	4	0.1837
Admin Support	-	1	1	4	1	2	6	11	4	4,63736	4	0.3266
Material Support	-	-	2	-	3	4	-	4	17	2,31588	2	0.3141
Financial Support	-	-	2	-	3	4	-	4	17	2,31588	2	0.3141
Preparation of Exercises	1	1	-	1	4	2	10	6	5	3,33565	4	0.5033
Preparation of Tests	1	1	-	2	3	2	6	10	5	0,86735	4	0.9292
Marking Exercises/Test	1	1	-	1	5	1	6	9	6	2,65561	4	0.6170
Entering Marks on Ca forms	-	2	-	2	1	4	8	9	4	7,28571	4	0.1215
Co-operation from Head	2	2	-	3	7	-	4	18	3	1,42857	2	0.4895
Students Absenteeism	-	2	-	1	3	3	-	15	6	5,28571	4	0.2592
Co-operation from State Education	-	2	-	2	3	2	4	13	4	2,22222	4	0.6950
Co-operation from Exam Board	2	-	-	3	3	1	9	10	2	2,59550	4	0.6276
Availability of Guidance Cllr.	1	-	1	4	1	2	2	3	16	7,98066	4	0.0923
Provision of INSET	-	1	1	1	1	5	-	3	18	5,08926	4	0.2783
Teacher/Pupil Relationship	-	2	-	4	3	-	10	9	2	3,2653	4	0.5744
Co-operation from Parents	1	1	-	3	2	2	7	6	8	1,37662	4	0.8482
Teachers' Expertise	-	-	2	1	3	3	-	9	12	5,0420	4	0.2830
Availability of Guidelines	-	-	2	2	4	1	5	7	9	5,1482	4	0.2724
Comparability of Standards	-	1	1	1	3	2	2	5	14	2,64457	4	0.6189
Accurate Uniform Records	-	1	1	1	1	4	1	7	13	1,84127	4	0.7649
Cumulative Record Card	1	1	-	1	1	4	7	7	7	3,51515	4	0.4756
Weekly Report	-	2	-	12	2	3	5	11	5	3,60764	4	0.4617
Academic Progress Report	-	2	-	4	1	1	10	8	3	4,44998	4	0.3485
The Affective Report	-	1	1	2	2	2	3	8	10	1,68805	4	0.7929
The Psychomotor Report	-	-	2	2	-	4	5	7	9	4,83991	4	0.3041
Annual Report	1	1	-	5	1	-	8	10	3	4,24150	4	0.3743
Vocational Guidance	-	1	1	1	2	4	1	4	16	2,10884	4	0.7157
Co-op from JAMB	2	-	-	4	-	3	8	5	8	4,677532	4	0.3223
Number of Vocational Schools	1	-	1	4	-	3	5	3	13	3,56723	4	0.4677
Parental/Social Background	-	-	2	3	1	3	1	8	12	8,53408	4	0.0739

Not significant at 0.05 level of probability

Table 9(38)

Differences in perceptions of constraints in implementing CA between male and female principals as assessed by chi-squared analysis (N = 30)

Problem>>>	MALE			FEMALE			$\chi^2$ value	DF	SIGN
	No	Min	Mai	No	Min	Mai			
Availability of Time	8	7	4	4	3	4	0,86124	2	0,6501
Administrative Support	5	9	5	5	4	2	1,15779	2	0,5605
							0,00000		
Material Support	-	4	15	-	3	8	0,15067	1	0,6979
							0,00000		
Financial Support	-	4	15	-	3	8	0,15067	1	0,6979
Preparation of Exercises	5	8	6	7	3	1	4,35376	2	0,1134
Preparation of Tests	4	9	6	5	5	1	2,89816	2	0,2348
Marking Exercises/Tests	4	10	5	4	5	2	0,88175	2	0,6435
Entering Marks on CA Forms	8	6	5	2	6	3	2,11722	2	0,3469
							0,00000		
Co-op, from Head of School	17	2	-	10	1	-	0,01595	1	0,8995
Students' Absenteeism	1	10	8	-	10	1	4,64115	2	0,0982
Co-op, from State Educ.	4	11	4	2	7	2	0,09569	2	0,9533
Co-op, from Exam Board	8	8	3	6	5	1	1,98591	2	0,3705
Avail. of Guidance Cllr.	3	2	14	4	2	5	2,44667	2	0,2942
Provision of INSET	-	3	16	1	2	8	1,86603	2	0,3934
Teacher/Pupil Relationship	10	7	2	4	7	-	2,62474	2	0,2692
Co-op, from parents	8	6	5	3	3	5	1,22662	2	0,5416
Teachers' Expertise	-	8	11	1	4	6	1,79848	2	0,4069
Availability of Guidelines	4	8	7	3	3	5	0,66271	2	0,7180
Comparability of Students	2	7	10	1	2	7	0,93774	2	0,6257
Accurate Uniform Records	2	3	14	-	6	4	6,37661	2	0,0412*
Cummulative Record Card	5	7	7	4	2	2	1,01138	2	0,6031
Weekly Report	2	11	6	4	4	2	3,47491	2	0,1760
Academic Progress Report	9	8	2	5	3	2	0,68882	2	0,7086
The Affective Report	4	7	8	1	4	5	0,57253	2	0,7511
The Psychomotor Report	5	4	10	2	3	5	0,33434	2	0,8461
The Annual Report	10	8	1	4	4	2	1,59900	2	0,4496
Vocational Guidance	2	3	14	-	4	7	2,52221	2	0,2833
Co-op, from JAMB	9	3	7	5	2	4	0,02983	2	0,9852
Number of Vocational Schools	8	2	9	2	1	8	2,00113	2	0,3677
Parental/Social Background	4	6	9	-	3	8	3,14945	2	0,2071

\*Significant at 0,05 level of probability



Table 9(39)

Differences between the Principals who have attended INSET for CA and those who have not in their perceptions of constraints as assessed by Chi-squared analysis (N = 30)

	No Problem		Minor		Major		$\chi^2$	DF	SIGN
	I	N	S	E	I				
	YES	NO	YES	NO	YES	NO			
Availability of Time	-	12	3	7	3	5	5.15625	2	0.0759
Administrative Support	1	9	3	10	2	5	1.02335	2	0.5995
Material Support	-	-	1	6	5	18	0.18634	1	0.6660
Financial Support	-	-	-	7	6	17	2.28261	1	0.1308
Preparation of Exercises	2	10	3	8	1	6	0.58983	2	0.7446
Preparation of Tests	2	7	3	11	1	6	0.18849	2	0.9101
Marking Exercises/Tests	3	5	2	13	1	6	2.09077	2	0.3516
Entering Marks on CA forms	3	7	3	9	-	8	2.81250	2	0.2451
Co-op. from Head of Sch.	6	21	-	3	-	-	0.83333	1	0.3613
Students' Absenteeism	-	1	3	17	3	6	1.56250	2	0.4578
Co-op. from State Ed.	-	6	4	14	2	4	2.22222	2	0.3292
Co-op. from Exam Board	3	11	1	12	2	1	5.33196	2	0.0695
Avail. of Guid. Cllr.	1	6	-	4	5	14	1.61654	2	0.4456
Provision of INSET	-	1	2	3	4	20	1.66667	2	0.4346
Teacher/Pupil Relat.	1	13	4	10	1	1	3.21428	2	0.2005
Co-op. from Parents	2	9	3	6	1	9	1.64773	2	0.4387
Teachers' Expertise	-	1	2	10	4	13	0.46569	2	0.7923
Avail. of Guidelines	-	7	3	8	3	9	2.30114	2	0.3165
Comp. of standards	-	3	2	7	4	13	0.87904	2	0.6443
Acc. Uniform Records	-	2	2	7	4	14	0.56039	2	0.7556
Cummulative Record Card	2	7	2	7	2	9	0.06793	2	0.9666
Weekly Report	-	6	4	11	2	6	1.98237	2	0.3711
Academic Progress Rep.	3	11	3	8	-	4	1.33865	2	0.5121
The Affective Report	1	4	3	8	2	11	0.51493	2	0.7730
The Psychomotor Report	2	5	1	6	3	12	0.44431	2	0.8008
Annual Report	3	11	3	9	-	3	0.92314	2	0.6303
Vocational Guidance	-	2	2	5	4	17	0.83333	2	0.6592
Co-op from JAMB	3	11	1	4	2	9	0.04058	2	0.9799
Number of Voc. Schools	3	7	1	2	2	15	1.67892	2	0.4319
Social Background	-	4	2	7	4	13	1.16013	2	0.5599

Not Significant at 0.05 level

Table 9(44)

Correlation Matrix of Principals' responses on 'Possible Constraints' section of the questionnaire.

	10	11	12	13	14	15	16	17	18	19	20	21	22
10	1.0000												
11	.1551	1.0000											
12	.2002	.6011	1.0000										
13	.3970	.2743	.6234	1.0000									
14	.1230	.0203	.1230	.1230	1.0000								
15	-.0157	.0717	.1616	.1616	.8640	1.0000							
16	.1678	.3939	.2514	.1393	.5965	.5797	1.0000						
17	.2546	.2580	.1355	.1355	.3726	.2946	.5629	1.0000					
18	.2193	.1214	.0730	.0741	.0741	.1848	.1739	.0463	1.0000				
19	.2521	.2295	.1447	.1447	.1160	.0496	-.0671	-.3659	.1808	1.0000			
20	.2834	.2327	.2937	.4248	.1540	.0811	.1534	.0076	.0190	.4029	1.0000		
21	.0317	.1637	.0718	.1943	.4159	.3055	.2667	-.0024	.0059	.3800	.5408	1.0000	
22	.1446	.1088	.0854	.0854	.2811	.3381	.0855	-.2043	.2305	.0339	.0999	.1600	1.0000
23	.1648	.0480	.2103	.0498	.2426	.3266	.1187	.1561	.1633	.1234	.1387	-.0432	.0430
24	.2966	.1642	.1441	.1441	.4192	.4666	.2013	.0915	.0443	.4648	.4922	.4131	.1636
25	.1554	.0511	.3562	.1667	.1627	.1683	.2278	.1014	.1194	.0998	.2661	.0213	.2769
26	.3150	.3402	.4101	.1235	.4465	.3402	.0471	.2954	.1319	.0693	.1444	.2346	.3640
27	.4099	.0767	.1003	.2042	.3198	.2570	.1942	.0828	.2315	.2484	.2792	.4311	.1753
28	.1826	-.0024	.0452	.0740	.3493	.3426	.1053	.0974	.2600	.1120	.2089	.0134	.3593
29	.0819	.0673	.1477	.1477	.5450	.3082	.2747	.0480	.0629	.0443	.0498	.1281	.3299
30	.0649	.0078	.1477	.0504	.4923	.2895	.3520	.2311	.1085	.0443	.4696	.3603	.0565
31	.0168	.0581	.0563	.0563	.5893	.4814	.2131	.1451	-.0339	.2356	.5622	.3555	.0550
32	.0369	.0204	.1804	.0667	.3863	.4812	.3832	.4470	.1654	.0227	.2648	.3368	.0908
33	.0630	.0283	.0075	.1017	.3178	.4771	.4733	.2358	.1799	.0715	.2070	.2670	.1486
34	.1072	.0311	.0067	.0908	.3895	.4826	.4809	.3206	.1607	.0639	.2184	.0177	.3422
35	.2227	.0532	.0794	.0794	.2690	.3674	.3335	.0589	.5342	.1966	.0320	.1739	.0594
36	.0333	.1719	.0455	.1774	.1501	.1710	.1869	.2334	.0256	.1126	.2184	.0177	.3422
37	.1985	.1613	.0459	.1317	.0646	.0071	.0566	.0104	.2238	.1062	.2515	.0757	.0983
38	.0534	.0296	.0391	.1263	.4231	.3828	.2490	.1170	.1690	.0472	.0732	.2230	.0142
39	.2722	.1183	.4361	.5484	.1775	.2702	.1724	.0784	.0380	.1561	.2793	.0100	.0812

The numbering in this Table (Table 9(44)) and Tables 9(45) correspond with the numbers in the Principals' Questionnaire (see Appendix 4)

22 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39

1,0000																
,2342	1,0000															
,2228	,0272	1,0000														
,3495	,2605	,0398	1,0000													
,0855	,4076	,0072	,2208	1,0000												
,5468	,4793	,1490	,2972	,3335	1,0000											
,2050	,2350	,0293	,0170	,3433	,4338	1,0000										
-,0429	,2585	-,0946	-,0818	,1463	,1871	,5301	1,0000									
,3450	,4712	,0040	,3456	,1752	,2978	,1524	,5341	1,0000								
,1538	,2259	,1520	,3910	,5259	,2037	,1163	,0994	,4006	1,0000							
-,0995	,4780	-,2047	,0487	,3552	,0095	,0312	,2512	,3682	,5118	1,0000						
-,6008	,3155	-,0412	,1073	,2559	,4435	,0951	,2243	,3893	,6929	,8367	1,0000					
,1389	,2898	,1598	,0064	,3688	,4074	,2564	,1728	,1319	,4543	,4942	,4415	1,0000				
,6008	,3155	,0412	,1073	,2559	,4435	,1818	,0517	,1435	,0165	,0026	-,2026	,0702	1,0000			
,0366	,0106	,2652	-,0606	-,3785	-,0019	,1162	,0523	,0626	-,0907	-,2291	-,2507	-,0434	-,1094	1,0000		
-,0333	-,3943	,2285	,1533	,1526	-,1047	,2592	-,2892	-,3462	-,0491	,0174	-,1651	,1277	,2612	-,1064	1,0000	
,1806	,2302	,5302	,2026	,2683	,2982	,0479	-,1636	,0119	,2121	,0201	-,0760	,2558	,2784	-,0619	,3378	1,0000

Table 9(45)

Correlation on Matrix of Principles' responses on " National Objectives' of CA"

40	1,0000								
41	,6667	1,0000							
42	,5164	,5960	1,0000						
43	,0626	,2705	,4428	1,0000					
44	,3920	,4101	,4368	,3230	1,0000				
45	,2360	,2417	,3957	,4429	,2146	1,0000			
46	,0981	,1140	,1639	,4387	,1694	,0055	1,0000		
47	,0052	,1844	,2105	,2910	,2253	,3438	,4699	1,0000	
48	,2764	,3383	,5870	,4637	,3124	,3159	,2494	,4663	1,0000

Table 9(46)

STUDENTS' BIOGRAPHICAL DATA

AGE	11	11	1.2	1.2	1.2
	12	28	3.2	3.2	4.4
	13	82	9.3	9.3	13.7
	14	120	13.6	13.6	27.2
	15	146	16.5	16.5	43.7
	16	235	26.6	26.6	70.3
	17	141	15.9	15.9	86.3
	18	89	10.1	10.1	96.3
	19	23	2.6	2.6	98.9
	20	10	1.1	1.1	100.0
SEX	male	408	46.1	46.1	46.1
	female	477	53.9	53.9	100.0
CLASS	1	61	6.9	6.9	6.9
	2	176	19.9	19.9	26.8
	3	35	4.0	4.0	30.8
	4	572	64.6	64.8	95.6
	5	39	4.4	4.4	100.0
BOARDER OR DAY STUDENT	BOARD	164	18.5	18.5	18.5
	DAY	721	81.5	81.5	100.0
	VALUE	FREQ	%	VAL%	CUM%
FATHERS EDUCATION	ILLITERATE	98	11.1	11.2	11.2
	PRIMARY	202	22.8	23.1	34.2
	SEC	271	30.6	30.9	65.2
	UNIVERSITY	305	34.5	34.8	100.0
MOTHERS EDUCATION	ILLITERATE	159	18.0	18.3	18.3
	PRIMARY	265	29.9	30.4	48.7
	SEC	294	33.2	33.8	82.4
	UNIVERSITY	153	17.3	17.6	100.0
FATHERS JOB	PROF/CIVIL	146	47.0	48.0	48.0
	NON PROF	450	50.8	52.0	100.0
MOTHERS JOB	PROF/CIVIL	249	28.1	28.8	28.8
	NON PROF	617	69.7	71.2	100.0