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**CURRICULUM THEORISING
FOR
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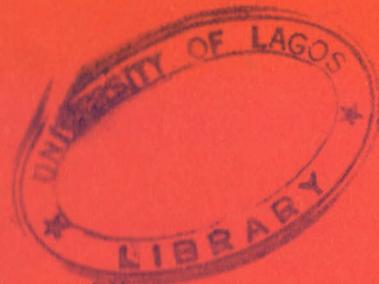
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BY

PROFESSOR KASALI AJIBADE ADEGOKE



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**CURRICULUM THEORIZING FOR
COMPETENCY**

An Inaugural Lecture Delivered at the University of
Lagos on Wednesday, 20th August, 2003.

By

PROFESSOR KASALI AJIBADE ADEGOKE

B.A. (Lagos); M.A. (Leeds); Ph.D. (Hull)

Professor of Curriculum Studies

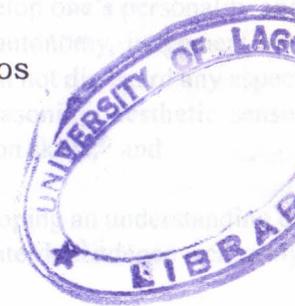
(Curriculum Theory and Geography Education)

Dean, Faculty of Education

University of Lagos, Akoka.

University of Lagos

2003



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CURRICULUM THEORIZING FOR

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INTRODUCTION

A curriculumist, whose preoccupation is the insatiable quest for worthwhileness in curriculum, has a natural interest in the art and science of curriculum development. He theorises for ‘knowing’ and ‘doing’ because a useful curriculum for balanced education must provide for the acquisition of knowledge, skills and attitudes and the use of these domains in ways which are relevant to the society and the learner. He conceives curriculum theories as a mixture of practical and theoretical styles of thinking.

Apart from the acquisition of knowledge, skills and attitudes, a balanced education must enhance capacities for creativity, increase capacity as producers and consumers and involve the exercise of creative skills as well as the competence to undertake and complete tasks. For a curriculum to be relevant in the 21st century, it must focus on the four pillars of learning as advocated by the Delor’s Report to UNESCO (1996) namely:

- i. **Learning to know:** “by combining a sufficiently broad general knowledge with the opportunity to work on a small number of subjects. This also means learning to learn, so as to benefit from the opportunities education provides throughout life;”
- ii. **Learning to do:** “in order to acquire not only an occupational skill but also, more broadly, the competence to deal with many situations and work in teams. It also means learning to do in the context of young people’s various social and work experiences (formal and informal);”
- iii. **Learning to be:** “so as to better develop one’s personality and be able to act with an ever greater autonomy, judgement and personal responsibility education must not disregard any aspect of a person’s potential: memory, reasoning, aesthetic sense, physical capacities and communication skills;” and
- iv. **Learning to live together:** “by developing an understanding of other people and an appreciation of interdependence – carrying

out joint projects and learning to manage conflicts – in the spirit of respect for the values of pluralism, mutual understanding and peace.”

All the four pillars constitute the UNESCO’s programming principles in the new concept of qualitative education. The implications of these frameworks are clear. The whole education system (pre school, primary, secondary, tertiary and teacher education) has a crucial role to play in bringing about true learning for empowerment, which transcends mere acquisition of knowledge.

Education, either as consumption goods or investment goods or both, is very highly susceptible to public debate. The vociferous call for re-examining the quality, relevance, standard, excellence, worthwhileness, efficiency, effectiveness, capability, empowerment and functionality of education in Nigeria started during the colonial period. It has since remained a recurring theme in Nigeria educational system (Adegoke, 1997).

Today the general impression is that the school system still fails to optimally foster such qualities as competent behaviour in any undertaking or situation. There is a general concern that the school system is not providing adequate education for the challenges of the 21st century. These challenges are manifold as we are now living in a ‘knowledge society’ which is being ushered in by the new information age. This means that targeted efforts in schools will involve more application of knowledge and competent approaches dealing with issues and problem solving.

Presently, schools reflect a pedagogy of poverty where teachers foster understandably low-level skills. The apparent failure of the school system to attain the expected quality is further compounded by an increase in anti-social behaviour such as violence, cultism, truancy, moral decadence, drug abuse, child abuse, sexual-harassment, examination malpractices, corruption, indiscipline, etc., thereby pointing to the urgency and exigency to create a new paradigm for educating all

young ones in both formal and non-formal settings, including the unreached, disadvantaged or others in difficult circumstances.

In other words, education in its widest connotation, should be more sensitive to external pressures in terms of individual and societal problems and aspirations and should not only be propelled by its own endogenous dynamics. The societal expectation is that education must increasingly play a greater pro-active rather than a merely re-active role. The individuals and the society become disappointed and disillusioned once education apparently fails to promote any of its perceived roles. Education is indeed a long-term process, with an irreducible plurality of roles through time and space. For example, education is among others, seen as an instrument for:

- engendering self reliance, empowerment and creativity
- enhancing cultural vitality
- facilitating social progress and equality
- fostering democratic values and individual success
- engendering scientific and technological advancement

Although there is abundant evidence of our tremendous efforts and achievement, particularly in growth rate, it is sad to note that we are still far from running an educational programme that optimally prepares its citizens for self reliance, creative empowerment and nation building (Atanda, 1989). In the same vein, Professor Babs Fafunwa at a stake holders conference on Curriculum Review for University Education in Nigeria held in Abuja, April, 23-24, 2001 lamented:

Let it not be said that we have too much schooling and too little education. We must therefore re-design the undergraduate curriculum in such a way as to make our graduates flexible, self-reliant, innovative, resourceful and job-oriented. It has been suggested that we should add a course in entrepreneurship to the curriculum for all undergraduates without exception (2001: 4).

The National Policy on Education also lends authenticity to the proposition to be stated later in this lecture. For example, one of the five national goals is a "a united and self-reliant nation" (NPE 1998:7). The document also states on page 8 that "the quality of education at all levels has to be oriented towards inculcating six values". The sixth one which is of particular relevance to this lecture is "the acquisition of competencies necessary for self reliance" as shown on page 8. On the same page, we can see the fourth of the four national education goals as "the acquisition of appropriate skills and the development of mental, physical and social abilities and competencies as equipment (tool) for the individual to live in and contribute meaningfully to the development of his society". On page 9 of the same document, "life-long education", "self-development", "self-fulfilment" and "self-learning" are indicated as some of the bases of the nation's educational policy.

It is also comforting to realise that what we are focusing on primarily in this lecture is likely to receive some reinforcement because it coincides partly with what the University of Lagos is trying to promote as Entrepreneurship and Governance.

PROPOSITION

The high levels of unemployment, the heaviest burden of which falls on young people, including higher education graduates is already a serious problem requiring concerted combating efforts. The growing army of the unemployed has enormous social and economic consequences, and it poses serious threats to the cohesion and stability of democratic societies. The government and other stakeholders will increasingly expect education and training to provide young people with alternatives to unemployment. No doubt there is much that education can do in terms of creatively empowering young people.

The title of this inaugural lecture rests on the bold proposition that purposeful competency curricular offering in an empowering teaching – learning milieu will engender acquisition of knowledge, skills and attitudes. It will enhance creativity, and increase capacities of the learners as producers and consumers. This inaugural lecture is based on the

cardinal belief that the more self-employed a person is, the more the person will experience fulfilment, achieve his or her potential, and become more socially responsible, caring and committed citizen. Hence, our thesis in this lecture is curriculum theorising for competency because a curriculum theorist should focus attention essentially on those fundamental issues that define the scholarly and public conversations regarding curriculum. However, the temptation must be resisted to consider competency curricular offering in particular and education in general as the panacea to unemployment. Because of this, we are mindful of some experimentation with a number of possibilities (Hopson and Scaly, 1981: 10-11):

Expansion and intensification of focused Government Funded Schemes like Poverty Alleviation Scheme, National Youth Service Programme, etc.

Reduction of the working hours in a week while keeping the same wage rates; this could double the number of jobs available.

Job-sharing, which makes it possible for a two-person team to share a job that is done by one person while keeping the normal wage rate or with some negotiated marginal reduction.

Abolition of overtime.

Expansion of sabbaticals.

Early retirement.

Part-time employment, etc.

At this stage we may have to digress a little and consider some pertinent aspects of the essence and nature of Curriculum theory – a new growth pole in education – in order to clarify one or two issues.



CURRICULUM THEORISING: HISTORY, FOUNDATIONS AND DOMAINS

Selected Historical Landmarks

Owing to constraint of time and space, we shall review only some of the historical landmarks (Ornstein and Hunkins, 1998).

The curriculum field has a long past but a short history. The review of its history is already fairly copious in curriculum literature. Perhaps, it is as old as education because there is no education without curriculum. The new focus on curriculum theorising evolved as a response to intense societal debate, various socio-economic and value changes and the apparent inability of the educational system to cope satisfactorily with ever increasing challenges.

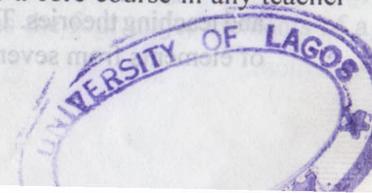
The publication of Franklin Bobbitt, *The Curriculum* can probably be cited as the starting point of modern theorising in curriculum. Bobbitt published *The Curriculum* in 1918, a work which according to Walker (1975: 264), is generally acknowledged as the first book directed solely to curriculum in all its perspectives. This main contribution is meant to bring to professional awareness a new specialisation in curriculum theorising and curriculum making.

In an attempt to compose a consensual statement on the nature of the field of curriculum, the National Society for the Study of Education (NSSE) published its two-volume Twenty-Sixth Yearbook entitled *The Foundation and Technique of Curriculum Construction* in 1930. Not many advances were made until 1949 when Ralph Tyler published *Basic Principles of Curriculum and Instruction*, a decade after Teachers' College of Columbia University had established a Department of Curriculum and Teaching in 1938. Furthermore, major textbooks on curriculum appeared and gave impetus to the emerging concepts and trends even for decades to come. Textbooks by Smith, Stanley and Shores (1957) and Taba (1962) became world acknowledged classics. The real breakthrough for the field came when the American public expectation and belief about education was shattered on October 4,

1957 with the Soviet Union's successful launching of Sputnik 1, the World's first artificial satellite. To the Americans, it was unimaginable that another country made this history. American schools automatically became the target of public criticisms. The government however reacted swiftly and got Congress to pass the National Defence Education Act which provided billions of dollars to support an "aggressive" curriculum in Mathematics, Science and Foreign languages in American schools. The 1960s saw various reactions including that of the child-centred paradigm led by Bruner what to the earlier subject-based paradigm. There were advances on various curricula in 1960s notably objectives, instruction, conceptual system and some abstract areas which heralded the use and acceptance of curriculum theory. This tendency towards abstract areas was attacked by Joseph Schwab in 1969. Schwab's charge of moribundity of the curriculum in a paper read in 1969 and published in 1970 as: *The Practical: A Language of the Curriculum* sent 'academic shock waves' throughout the field and signalled a recurring scenario of re-conceptualisation. Approaches to instruction were independently developed by Benjamin Bloom (1976) and Keller and Sherman (1974) etc., which spread rapidly in American Universities, with linkages in schools, business, industry and the armed forces.

The field also began to develop an international character with scholars such as Torsten Husen in Sweden, Philip Taylor, P.H. Hirst (1965), Denis Lawton (1973) in England. All these were driven by Sputnik 1, racial conflicts, public debate and new frontiers.

In the case of Nigeria, the quest for relevance, external technological advances and challenges, participation in international conferences, contact with curriculum materials (e.g. text-books, journals, etc.) and academic sojourns were some of the factors that facilitated the growth and development of curriculum theory in the Nigerian educational system since the 1960s, culminating in the landmark National Curriculum Conference of 1969. In short, Curriculum theory has had its teething problems, but it has become a core course in any teacher preparation programme in Nigeria.



THEORY AND PRACTICE

Curriculum theorising is both an art and a science. As a worthwhile field of study, it involves propositional knowledge (knowing that) and practical knowledge or process knowledge (knowing how). Theory and practice are indescribably interwoven in the field of curriculum, where any good theory, when applied, should enhance the practice. In curriculum theorising, the crux of the matter is to provide practical answers to very practical curriculum questions. The test of any good curriculum proposition is whether it can guide practice. There is nothing more practical than a good theory. It is also essential that good practice is based on theory. This explains our basic interest in praxiological theories without overlooking the usefulness of the other types. The term *praxiology* is derived from the Greek word "*praxis*" 'meaning a doing' or 'an action'. Praxiology is the key to occupational education and to most other purposeful education at all levels. It is based on descriptive and situational knowledge. It goes beyond this to explore for efficiency and rationality in practice.

Curriculum theorising has to do with philosophising, conjecturing and understanding the complexities of curricular issues, techniques, and paradigms and developments at its frontiers.

What is fundamental about the field of Curriculum Theory?

- It is one of the growth points in education.
- It is an art and a science.
- It has both syntactical and substantive structure using Schwab's nature of knowledge.
- It is a compendium, which is fundamental in its unique form of knowledge.
- It has its own foundations and it tilts towards integrative tendencies.
- It is a field of inquiry with adapted substantive and syntactical structure drawn largely from Sociology, History, Psychology, Anthropology, Economics, Management, as well as learning and teaching theories. Thus it is a set comprising the intersection of elements from several others but different sets.

- It fits a 'field' more than a 'form' of knowledge using Hirst's postulation of the fundamental structure of knowledge.
- It is clearly centred on such foci as purpose, content, experiences and evaluation.
- Its output has been in four major areas, Curriculum development, Curriculum evaluation, Curriculum renewal and Curriculum understanding.
- It has a community of persons (curricularists) communicating with one another in the search to give meanings to curricular concerns.
- It has a history and its tradition is being intensified and consolidated.
 - It has a heritage of literature and a communication network manifested in professional bodies, journals, and meetings run by curricularists.
 - It has emotive appeal to its adherents who enjoy working esoterically within it.
 - It is a field of inquiry that students may benefit from by encounter.
 - It is apparently a high status subject taught as a core course in all Colleges of Education, Faculties and Institutes of Education in Universities all over the world.

Major Approaches: Different authors adopt different classificatory systems for the various approaches to curriculum building. In summary, some of the major approaches may be grouped as follows (Ornstein and Hunkins, 1998):

- a. *Behavioural Approach:* This started with the idea of efficiency, influenced by business and industry, as well as management theories. It is also called linear approach, engineering approach, and end-means model. The earliest proponents were Bobbitt, Charters, Tyler and Taba. It is still the major approach to curriculum because it is simple, non-ambiguous, logical, and prescriptive. It identifies objectives, content, learning experiences and evaluation as the four major elements of a curriculum design.

b. *Managerial Approach:* This is, essentially, an off-shoot of the behavioural approach. It is rooted in the organisational and administrative school of models of the early 1900s. It became dominant in the 1950s and 1960s. It tries to focus on the supervisory and administrative aspects of curriculum, especially the organisational and implementation processes.

c. *System Approach:* This is influenced by systems theory, systems analysis and systems engineering, as originally developed by social scientists in the 1950s and 1960s. It is largely used by the military, business and industry. Here, it is critical that all learners master whatever tasks they perform. George Beauchamp year described the first system theory of curriculum.

d. *Academic Approach:* This is rooted in the philosophical and intellectual works of John Dewey, Henry Morrison and Boyo Bode. It became popular between the 1930s and 1950s. It broadens curriculum focus from subject matter and pedagogy to numerous foundational topics (e.g. historical, sociological, philosophical, social, political).

e. *Humanistic Approach:* This is rooted in progressive philosophy and the child-centred movement in the early 1900s. It was spearheaded by John Dewey, Charles Judd, Francis Parker, Frederick Bosner, Hollis Caswell, L. Thomas Hopkins, Williams Kilpatrick, etc. It received greater impetus in the 1940s and 1950s with the growth of child psychology. It has had a profound impact on elementary school learning. Proponents of this approach tend to put faith in co-operative learning, independent learning, small group learning, and social activities.

f. *Re-conceptualists' Approach:* Re-conceptualists focus on the larger ideological and moral issues of education (not only curriculum). But they are more interested in the study of the curriculum in the abstract than in the practical application of knowledge to the creation of curriculum. They focus more on understanding than on developing curriculum.

Figure 1. Overview of Major Curriculum Designs

DESIGN	CURRICULAR	UNDERLYING	SOURCE	SPOKESPERSON
SUBJECT CENTRED Subject design	Separate subjects	Essentialism, Perennialism	Science, Knowledge	Harris, Hutchins
Discipline design.	Scholarly disciplines (mathematics, biology, psychology, etc.	Essentialism, Perennialism	Knowledge, Science	Bruner, Phenix, Schwab, Taba
Broad fields design	Interdisciplinary Subjects and scholarly Disciplines	Essentialism, Progressivism	Knowledge, Society	Broudy, Dewey
Correlation design	Separate subjects, disciplines linked while keeping identities of each	Progressivism,	Knowledge Alberty	Alberty
Process design	Procedural knowledge of various disciplines; generic ways of information processing, thinking	Progressivism	Psychology, Knowledge	Adams, Beyer Dewey, Papert

LEARNER CENTRED

Child-centred design
Experience-centred Design
Radical design
Humanistic design

Child's interests and needs
Experiences and interests of child
Experiences and Interest of child

Progressivism
Progressivism
Reconstructionism

Child
Child
Child, society

Dewey, Kilpatrick, Parker
Dewey, Rugg and Shumaker

Freire, Habermas
Holt, Illich

Reconstructionism

Child, society

Psychology, Combs, Fantini

PROBLEM CENTRED

Life-situation design
Core design

Experiences, interests
Needs of person, and Maslow, Rogers of the group
Life (social) problems

Existentialism

Child, society

Reconstructionism

Society

Spencer, Strate-Meyer, Forkner and Mekim
Alberty and Alberty, Faunce and Bossing
Apple, Brameld, Counts, Rugg, Shane

Social problems, Reconstructionist, Design

Focus on society and its problems

Reconstructionism

Society, eternal truths

Source: After Ornstein and Hunkins (1998).

Foundation of Curriculum Theory

The commonly accepted foundations of curriculum theory include the following major knowledge areas: Philosophy, History, Psychology, Sociology, Anthropology, Economics, Political Science, Mass Communication, Geography, Language and Literature, Law, Sciences and Technology. This implies that curricularists bring perspectives from other forms and fields to bear on curriculum in a distinctive manner to deal with curricular issues.

Domains of Curriculum Theory

George Beauchamp (1981) divided curriculum knowledge into planning, implementation and evaluation. Fenwick English (1983) viewed the domains of curriculum in terms of ideological (or philosophical-scientific), technical (or design) or operational (or managerial) issues. Edward Short (1987) outlined the domains into policy making, development, evaluation, change, decision-making, activities or field of study, forms and language of inquiry or (Theory). Linda Behar (1992) identified nine (a) curriculum domains as curriculum philosophy, curriculum theory, curriculum research, curriculum history, curriculum development, curriculum design, curriculum evaluation, curriculum policy and curriculum as a field of study.

On the bases of the themes covered by different major curriculum textbooks, journals and postgraduate studies in curriculum theory, the following appears a more comprehensive boundary of curriculum theory bearing in mind that the frontiers of any discipline are elastic and dynamic:

- Art and Practice of Curriculum Development
- Curriculum for Business and Industry
- Curriculum Commissions and Policy
- Curriculum Context
- Curriculum Design
- Curriculum Foundation and Domains
- Curriculum History
- Curriculum Implementation



- Curriculum Integration
- Curriculum Innovation and Diffusion
- Curriculum Issues and Trends
- Curriculum Leadership and Supervision
- Curriculum Monitoring and Evaluation
- Curriculum and Public Debate
- Curriculum Planning
- Curriculum Research
- Curriculum Politics
- Curriculum Control
- Curriculum in Subjects
- Curriculum Understanding
- Borderless Curriculum
- Futuristic Curriculum
- Multi-cultural Curriculum
- Theory of Knowledge and Content Selection

It is also important to note that curriculum research, at national and international levels, is conducted in seven different traditions of research:

- Analytical Studies
- Descriptive Studies
- Evaluative Studies
- Interpretive Studies
- Model or Organisational Scheme Studies
- Predictive Studies
- Theoretical Studies

Three major paradigms – interactionism, functionalism and conflict theory – dominate inquiry in curriculum research at present.

Role of Curriculum Specialists

The emergence of curriculum theory as a field of study has resulted in the concomitant creation of its specialists as distinct from methodologists. The work of such curricularists is varied and necessary in any educational system. These include:

- Obtaining up-to-date information about national, international and local trends and conditions that influence education in general and curriculum in particular, providing means of encouraging teachers to inform themselves about such facts;
- Surveying school curricula to determine how well classes and curricular activities comply with present-day opportunities and needs of children;
- Securing resources needed for new or revised curricula;
- Organising task forces for development or improvement projects and monitoring their work.;
- Working with other school service providers to integrate curriculum with other school services;
- Helping to evaluate continuously both the appropriateness of the curriculum and the quality of the curriculum development programmes;
- Working with committees of teachers and citizens to develop school curricula that fit present day opportunities and problems;
- Providing situational analysis data and other vital statistics for curricular decisions;
- Providing indispensable technical leadership role in curriculum development;
- Providing consultancy services on any technical curricular issues;
- Facilitating the production of curriculum materials;
- Redefining or improving content;
- Acting as a change agent;
- Co-ordinating or evaluating students' needs survey;
- Performing as a curriculum supervisor;
- Understanding current research in teaching, learning and curriculum;
- Designing programmes of study;
- Conducting curriculum research;
- Developing standards for curriculum and instructional evaluation;
- Having skills in human relations and social engineering;
- Co-ordinating or planning staff development programme;
- Facilitating the enrichment of curricula;
- Planning or scheduling classes/school calendar;
- Blending theory building with practice;

Obtaining curriculum knowledge and applying it in the real world of classrooms, schools, business, industry, etc.

Curriculum theory is a defined area of study with a well established instructive community of academics and practitioners who have a common intellectual commitment of making a contribution to human thoughts and affairs. Curriculum theory has a domain, a tradition and a history because the discourses of any intellectual community is built on the discourse of its forebears (Adegoke 1998). Curriculum theory has its own substantive and syntactical structure with a heritage of literature and a communication network (i.e., writings, publications, professional society, etc.). Curriculum theory has a valuative and affective stance by making man as its focus. It is, therefore, interesting to note that one of the liveliest academic debates of recent years has concerned:

- (a) the scientific status,
- (b) the epistemological ranking and
- (c) the utility value of curriculum theory.

It is hoped that an appreciable attempt has been made to clarify these issues. Opposition to curriculum theory as a composite and speciality field has risen both within and outside education largely as a result of ignorance, lack of appropriate information and the urge to protect narrow personal interest.

Let us now go back to our substantive focus, i.e. proposition on competency-based curriculum for productive work.

Justifying Competency-Based Curriculum

The Curriculum theorist has no legitimate way to avoid the responsibility for justifying each operational curriculum option in terms of its actual value for the learners, the society and the discipline involved.

Competency is seen as the ability to cope with a certain class of problems encountered on the job or in a work or any desired activity. Competency

education is more than just scholarstic or academic achievements. It pertains to how well the educational system prepares the students to become responsible citizens and instils in them attitudes and moral values relevant to a modern society. A fully competent individual is one who can cope successfully with any problem or task requiring the application of knowledge, attitudes and skills already acquired. The capability to harness specialised knowledge to the solution of the practical problems of life, whether personal, professional or social, may conveniently be labelled competence. The emphasis is on productive work, empowerment, and sustainability thereby giving adequate coverage to capability, coping, creativity and cooperative action as the four fundamental elements of competence. In the United Kingdom, competence has come to reflect expectations of work place performance (Fletcher, 1992:18). Mansfield and Matthew's job competence model (1985) provides a wider and less mechanistic view of competence than this definition suggests. The model in Figure 2 as adapted from (Elizabeth Rolls, 1997: 198), makes visible four different elements, which are required for competence. Thus, it is not only the performance itself, but the ability to manage the task, the environment and the contingencies which are required for competent practice.

Figure 2
THE JOB COMPETENCY MODEL

Task Management, i.e. the skills necessary to co-ordinate and manage the job role	Task skills, i.e. the skills to do the job
Environmental Management, i.e. the awareness of how work is affected by external issues.	Contingency management, i.e. the ability to manage variance and contingency.

Source: After Rolls, E (1997)

In summary, competency-based curriculum is uniquely problem-solving in terms of (Adegoke, 1989):



enhancing empowerment in relation to job, work and leisure;
improving employability;
engendering relevance and applicability;
ensuring completeness, congruence, discreteness, taxonomic balance and efficiency;
fostering mastery learning;
giving adequate consideration to functionalism, which is the overarching principle of African indigenous education;
considering productive work and educational process as two opposite sides of the same valid curriculum coin;
solving most of the achievement-related problems, if well implemented;
ensuring that motivation on the basis of job aspiration is high and contributing to the development of talents and capabilities not fully provided for in other curriculum designs;
encouraging the use of learner-based and activity-based approaches.

Learning, supported by instruction rooted in competency focused programme, may result in the establishment of five kinds of human capabilities. Briefly stated, these are (Gagne and Briggs, 1978):

1. intellectual skills that permit the learner to carry out symbol-based procedures;
2. cognitive strategies that the learner brings to bear upon his own cognitive processing;
3. information, the facts and organised knowledge of the world stored in the learner's memory;
4. attitudes, internal states that influence the personal action/choices a learner makes;
5. motor skills, the movements of skeletal muscles that are organised to accomplish purposeful actions.

However, the design and implementation of a competency-based curriculum present some challenges. The design stage can be very demanding in terms of labour, time and material resources. The greatest resource in competency-based education is not the system or money or

even teachers, it is the students. The real challenge is how to effectively harness the characters, capacity, knowledge, energies and hopes of the students. It is only then that competency education can take place. The students' desire to learn, so notably unimpressive at present, must be enhanced if they themselves are to take responsibility for their own learning. It is also not uncommon to find some curricularists who indicate that it is difficult for educators to agree on what a competency is, much less on how to evaluate it and rate its importance to the work in view.

Conceptual Clarifications

In order to enhance some operational precision, insight and clarity, it is pertinent to attempt the definitions of key words implicit in the title of this lecture.

The position in this lecture is to shift the focus from the end product (the curriculum theory) to the process by which a theory is sought (the process of theorising) which is the real involvement of a praxiological curriculum theorist operating as a system-alternative proponent and explorer. The chief concern is about the system and how the curriculum can promote the individual's personal growth for ultimate societal growth and development.

Curriculum theory is defined as an institutionalised field of scholarly inquiry which seeks to understand the syntactical and substantive structure of curriculum across academic disciplines from different perspectives and using a variety of methodologies. Curriculum theory aspires to understand the theoretical basis of any curricular issue and the overall significance of the curriculum. It is through curriculum theory that we see, think and know the essence, nature, imperatives, art and science of curriculum. Curriculum theory combines knowledge and techniques from various disciplines and formulates rules and procedures for curricular tasks. Curriculum theorising offers a way of examining and understanding the operation of curricular issues. It provides points of view and technical procedure that uncover curriculum that would otherwise escape our awareness/understanding.

Theorising in the field of curriculum is a general process involving individuals in three distinct activities (Marsh and Willis, 1999: 99):

- Being sensitive to emerging patterns in phenomena;
- Attempting to identify common patterns and issues;
- Relating patterns to one's own teaching, research and service contexts.

Some attempts have been made by some Curriculum theorists to classify theories and theorising (Eisner and Vallance, 1974; Mc Neil, 1977; Macdonald, 1971; Pinar, 1978; Reid, 1981; Marsh and Willis, 1999 etc.). It may suffice to refer to the classification by Marsh and Willis, (1999) which is simple and useful for placing anyone engaged in curriculum theorising.

System-supportive theorists, who tend to prescribe the ends and means of education in terms of its present structures;

- System-Supportive explorers, who are concerned about decision-making between morally engaged individuals within the context of existing social structures;
- System-alternative proponents, who are firmly opposed to present structures and have alternative prescriptions in mind to overcome perceived inequalities in society;
- System-alternative explorers, who are chiefly concerned about the individual and how the curriculum can promote the individual's personal growth.

Some of the major curriculum theorising approaches and their notable proponents have been categorised in the following tables:

Figure 3
Curriculum Theorising: System-Oriented Proponents

Social needs-child-centred	Philosophic, academic rational
Dewey (1900, 1902, U.S.) Kilpartick (1918, U.S.) Rugg (1927, U.S.) Mackie (1919, Australia) Browne (1932, Australia)	PHENIX (1964, U.S.) Hirst (1965, U.K.) Peters (1966, U.K.) Hutchins (1968, U.S.)
Social efficiency	Rational/technical-behavioral-oriented
Bobbitt (1918, 1924, U.S.) Charters (1923, U.S.)	Mager & Beach (1967, U.S.) Popham & Baker (1970, U.S.)
Social needs-rational/technical	Rational/technical-systems-oriented
Tyler (1949, U.S.) Herrick & Tyler (1950, U.S.) Saylor & Alexander (1954, U.S.) Taba (1962, U.S.) Wheeler (1967), Asustralia Tanner & Tanner (1975, U.S.) Goodlad (1984, U.S.) Klein (1992, U.S.)	Maccia (1965, U.S.) Faix (1960, U.S.) Duncan & Frymier (1967, U.S.) Johnson (1967, U.S.) Davies (1971, U.K.) Pratt (1980, Canada)
Social needs-reconstructionist	Rational/technical-discipline-oriented
Hughes (1972, Austrial) Skilbeck (1976, Australia)	Gagne (1970, U.S.) Beauchamp (1975, U.S.) Bereiter (1989, Canada) Bereiter (1989, Canada)

Source: After Reid, (1981)

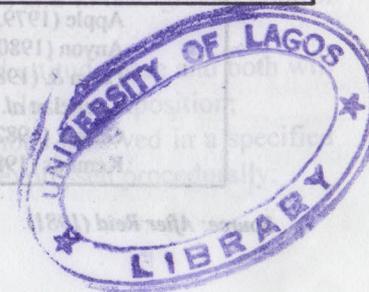


Figure 4

Curriculum Theorising: System Supportive Explorers

Literary artist
Eisner (1974, 1979, 1991, U.S.) Stenhouse (1975, U.K.) McCutcheon (1982, U.S.) Vallance (1983, U.S.)
Deliberative
Schwab (1969, 1973, 1983, U.S.) Connelly (1972, Canada) Walker (1971, U.S.) Westbury (1972, U.S.) Reid (1978, U.K.) Roby (1983, U.S.) Gough (1984, Australia) Smith (1984, Australia) Tripp (1984, Australia)

Source: After Reid (1981)

Figure 5

Curriculum theorising: System-alternative proponents

Social and cultural control
Young (1971, U.K.) Bernstein (1973, U.K.)
Social reproduction
Athusser (1971, France) Bowles & Gintis (1976, U.S.) Lundgren (1976, Sweden)
Cultural reproduction
Sharp & Green (1975, Australia) Bourdieu & Passeron (1977, France) Willis (1977, U.K.) Apple (1979, U.S.) Anyon (1980, U.S.) Lawn & (1980, U.K.) Connel <i>et al.</i> (1982, Australia) Giroux (1982, U.S.) Kemmis (1986, Australia)

Source: After Reid (1981)

Figure 6

**Curriculum theorising: System-alternative explorers
(Re-conceptualist)**

Existential/psychoanalytic	Gender
Macdonald (1971, U.S.) Huebner (1975, U.S.) Greene (1975, U.S.) Klohr (1980, U.S.) Pinar (1980, U.S.) Grumet (1981, U.S.) Schubert, Wills, & Short (1984, U.S.) Brady (1984, Australia) Haggerson (1988, U.S.) Willis & Schubert (1991, U.S.) Miller (1992, U.S.)	Pagnao (1992) U.S.) Lather (1991, U.S.) Kenway (1992, Australia) Klein (1986, U.S.) Shakeshaft (1991, U.S.)
	Postmodern/Poststructural
	Doll (1987, U.S.) Giroux (1992, U.S.) Slattery (1995, U.S.) Hargreaves (1994, Canada)
Phenomenological	
Willis (1979), U.S.) Van Manen (1980), Canada)	

Source: After Reid (1981)

Assumptions

A competency-based curriculum design is based on a number of fundamental assumptions. They are:

- that each discipline must possess certain unique specialised knowledge, skills, techniques and dispositions capable of facilitating the balanced empowerment of its students;
- that sustainable empowerment through curriculum offering ultimately depends on enhancing students' capacities as individuals and groups to improve their own lives and to take greater control over their own destinies;
- that every skill has a knowledge and attitude base and both will usually be learned most efficiently in close juxtaposition;
- that the multifarious roles and functions involved in a specified task, job or work can be defined and expressed procedurally;

- that students of intellectual quality found in a specific training for a specific future role, when given appropriate instruction, can all master the prescribed basic performance;
- that learning results from experience, and the more meaningful and significant the experience, the more it is learned and applied;
- that greater opportunities for self-employment can be fostered if the young ones develop greater skills in decision-making, creative problem-solving, adaptability, knowledge of how to use resources, and how to generate personal commitments;
- that public learning at both individual and public instances must be a means to the solution of individual and societal problems.

Three questions are sufficiently fundamental for our attention at this stage. How can one approach the task of providing for competency education through curriculum design? How can one generate a solid competency-based curriculum, taking into account all varieties of learning (i.e. information, attitude and skills), essential supportive prerequisite and the complexity of cultural values, as well as politics and socio-economic realities that shape the construction of meaning and influence application? To what extent should productive work and vocationalisation drive education?

There must surely be alternative ways of answering these questions and others by the curricularists. In this inaugural lecture, an attempt is made to propose and describe the procedure for deriving a competency-based curriculum model, which we believe to be worthwhile, feasible, timely, and experimentable. It is essentially problem-centred, focusing on persistent life situations and contemporary social problems. As presented in this lecture, the competency-based curriculum design process involves eleven major phases constructed of overlapping and interacting system, which allows for flexibility, inter-dependence and inter-relatedness of decisions and actions.

These phases are:

- Situational Analysis
- Job Description
- Task Analysis
- Course Objectives
- Content Selection
- Selection of Learning Experiences
- Trial Testing and Formative Evaluation
- Feedback Information for further improvement
- Institutionalisation
- Evaluation (summative)
- Maintenance (Sustainability).

Situational Analysis

It is logical to identify, analyse, diagnose and understand the context or the terrain or the milieu or the environment of the curriculum socially, politically, culturally, demographically, historically, ideologically, economically, legally and educationally. The Curricularist must always bear in mind that the process of making decisions about what ought to be taught, experienced and evaluated are fraught with sub-texts and power politics as well as the economic and socio-cultural imperatives propelling the new thinking and orientation.

Two of the major considerations at this stage are:

- Curriculum conceptualisation and legitimisation;
- The collection and analysis of relevant comprehensive data, on resources, cultural values, power distribution, educational system, etc.

The purpose of situational analysis is to collect basic information required for a meaningful curriculum building; identify tasks, problems and difficulties and seek possible alternative solutions. The analysis should be research oriented, humane in nature, democratic and clinical in approach, comprehensive in scope and diagnostic in effect. All the research methods available in all the fields of social sciences, sciences and education are relevant and the selection of research techniques and procedures must be carefully and rationally made on the basis of terms



of reference, time, scope, coverage, finance, personnel, professional excellence and need. The information required from the analysis of the situation has been described by Taba (1962); Nicholls and Nicholls (1972); Hawes (1979); Skilbeck (1976); Bishop (1985); and Adegoke (1988), etc. These include: changes and trends in society, parental expectations and requirements, values and attitudes, resources for learning, school number and distribution, staffing, current legal provision and requirements, current curricular practice, social and cultural backgrounds of the learners, cognitive and language developments of the learner, training and retraining facilities for teachers' role potentials of various agencies and institutions and public debate. A situational analysis of the world of work is critical. This information can be gathered from the following major categories of sources:

- (i) archival materials (i.e. various available dispatches according to the record of the archives);
- (ii) library materials (i.e. reports, periodicals, pamphlets, books and theses, etc);
- (iii) reports of commissions, major curriculum conferences, reports of educational agencies, national policies on education and various provisions on development plans;
- (iv) observations of existing practices, processes and products;
- (v) curriculum conferences and public debate; and
- (vi) the use of various research techniques and procedures to collect data.

It must be borne in mind that the stage of situation analysis is very demanding in terms of preparation, provision of support systems, monitoring personnel, equipment, co-ordination, information processing, synthesising and general logistics.

Job Description

This stage involves functional mapping and the process of assessing needs and defining competencies from the perspectives of the experts, the society, the learner and productive work imperatives. This stage provides a general functional framework. A job description describes the job as it is and suggests the special or unusual conditions associated with the competent performance of the job or/and work.

The approaches which may be used in listing and describing the job of a Public Health Inspector has been exemplified by (Adegoke, 1981). These include:

- a. A personal account of activities, e.g. a daily narrative diary kept by the practising professional or the use of user encounter form over a fixed time period.
- b. Observations, i.e. an individual professional records, his activities carried out by someone else using an observation guide and checklists.
- c. Expert judgement, which has traditionally been the major mechanism for identifying the professional behaviour.
- d. Societal needs and problems, i.e. the identification of the societal needs and the professional resource available to meet those needs.
- e. Relevant job or work statistics.
- f. Job or Work records.
- g. Studying the natural history of job problems.
- h. Analysis of frequently used textbooks, journals etc. in the training of a professional, etc.

Task Analysis

This stage involves the detailed analysis of the competencies listing each competency and the comprehensive tasks/steps involved through systematic investigation and content analysis. It is also required at this stage to indicate the frequency of performance with a view to determining critical skills. The steps involved in each task should also be listed in a sequential, logical and interactive order.

Based on the expansion of Lawless framework as quoted by Rowntree (1981), a framework for analysing a task based component in a curriculum has been presented by Adegoke (1989):

- What sort of problems are the competent experts in the field interested in? What are the professional profiles?
- What are the specific tasks and sub-tasks?
- When should the task be carried out?
- What are the enabling factors and skills required?
- What tools, equipment and materials are needed?
- What are the objects on which the task is carried out?
- How is the task carried out? What order is followed? How long does each step take?
- What are the most likely margins of errors?
- What are the criteria of capability?
- What are the criteria of competency, i.e. successful performance?
- What kind of conceptual frameworks do the experts operate within?
- How do they explain and justify their solutions?
- How much practice must be built into training, etc?

Course Objectives

The fundamental question which a curricularist seeks to answer at this stage is: what kind of things should the learner be able to understand and do at the end of the course that will most facilitate his becoming a competent individual in the least amount of time? (Mager and Beech, 1969:20).

The formulation of specific and detailed curriculum objectives, which are appropriate to a given age range and social environment is a difficult, time consuming, value laden but useful exercise. The major sources from which objectives may be derived include the society, the nature of the discipline and the learner. The analysis of the particular culture and society should reveal the problems, needs, requirements and demands of that society. An insight into some critical societal needs

must have been obtained during situation analysis. The analysis of the learner and of the learning process should reveal his needs for self-development, self-fulfilment, self-actualisation and developmental requirements. All the interest groups and agencies concerned with the curriculum development and labour market should be reasonably involved by means of well co-ordinated public debates, conferences, seminars, review of available materials and existing situations, and memoranda. The statements of objectives should be precise, measurable, observable and stated in a form which makes them most helpful in selecting competency learning experiences and in guiding teachers and evaluation.

The other practical challenge at this stage is that of the need to classify the objectives with a view to ensuring taxonomic balance. The classification framework provided by Bloom and his colleagues are highly significant for the art and practice of curriculum development. Such taxonomic schemes are very useful as a device for ensuring balance, explicitness, a common and consistent focus and a comprehensive basis for the evaluation of knowledge, skills, attitudes, etc. Curriculum literature contains a number of useful guides for deriving behavioural objectives. One of such guides is that of Robert Mager (1962). Generally, the problems of writing curriculum objectives centre around coverage, balance, relevance, specificity, clarity, timeliness, consistency and sequence.

Some possible curricular objectives proposed for unemployment by Watts (1978) may be modified for productive work as follows:

- i. **Employ-ability skills:** To engender skills which will increase students' chances of finding and keeping a job:
 - (a) Employable skills, which may not have been developed in the basic curriculum (social skills, leisure skills, generic skills, etc.
 - (b) Job search skills.
 - (c) Job acquisition skills (interview techniques, application forms, communication skills, etc.
 - (d) Job retention skills.

- (e) Skills of foreseeing forces which may affect prospects in particular kinds of employment.
 - (f) Appreciation of job, work and leisure.
- ii. Adaptability awareness:** To extend the range of employment opportunities which students feel are possible for them:
- (a) Respect for the dignity of labour
 - (b) Awareness of jobs other than those which are immediately attractive.
 - (c) Awareness of possibility of traveling to work or living away from home, and relevant skill training (how to ride cheap mechanised transport); adaptability
 - (d) Awareness of spiral growth and development in entrepreneurship.
- iii. Survival skills:** To equip students with the knowledge and skills they will need to survive if they are unemployed:
- (a) Knowledge of unemployment benefits and supplementary Allowances, if any.
 - (b) Knowledge of redundancy rights, if any.
 - (c) Knowledge of welfare rights in general, if any.
 - (d) Skills of claiming rights.
 - (e) Skills of handling a limited budget(entrepreneurship.)
 - (f) Awareness of local possibilities for 'fiddling' (e.g. 'illegal' part time jobs), and of its possible consequences.
 - (g) Awareness of psychological effect of being unemployed and skills for coping with it.
 - (h) Awareness of social pressures on the unemployed, and skills for coping with it.
 - (i) Knowledge of care and support services for the unemployed in the community
- iv. Contextual awareness:** To help students to determine the extent to which the responsibility for being unemployed lies with society rather than with the individual and vice versa and both:
- (a) Awareness of possible alienating effects of work.
 - (b) Awareness of effects of technological change.

- (c) Awareness of possible economic and political solutions to unemployment and unemployability.
 - (d) Awareness of possible alternative patterns of work and leisure.
 - (e) Awareness of possible effects of being under-employed, unemployed, etc.
 - (f) Awareness of planlessness, irresponsible governance, etc.
- v. Leisure skills:** To equip students with knowledge and skills which will help them to make good use of their increased 'leisure' time while they are unemployed.
- (a) Knowledge of possible leisure activities and local leisure facilities.
 - (b) Knowledge of local Youth Service activities for young unemployed people.
 - (c) Knowledge of local possibilities for voluntary community work
 - (d) Skills of time management.
- vi. Alternative opportunity awareness:** To make students aware of official alternatives to employment and unemployment:
- (a) Knowledge of courses in further education, in skill centres, etc.
 - (b) Knowledge of the Government's Work Experience Programme, Community Industry, etc.
 - (c) Institutionalisation of in-service training and life long education.
 - (d) Social engineering programmes
- vii. Opportunity creation skills:** To equip students with the knowledge and skills they need to be able to create their own employment:
- (a) Knowledge of job-sharing possibilities and procedures.
 - (b) Knowledge of self-employment possibilities.
 - (c) Awareness of alternative, self-sustaining life-styles.
 - (d) Skills of thinking about work in a pro-active rather than a re-active way.
 - (e) Skills for small scale business feasibility study, report and execution as well as sourcing for fund.

Content Selection

Content refers to facts, concepts, principles, theories, generalisations and relevant aspects of social, emotional and spiritual development. In a balanced competency curriculum students have opportunities to develop competencies in knowledge, skills and attitudes and to internalise and utilise them in ways that are appropriate for their personal, social and intellectual needs. Both content and process are germane. The basic questions are: What knowledge, skills and attitudes are of most worth in engendering competent practice? What is the most profitable order of presenting the tasks? These two questions relate to selection and sequence. There should be a clearly defined set of criteria for selection of content. Such criteria include significance, validity, interest, utility, continuity, self-sufficiency, learnability, feasibility, comprehensiveness and consistency with socio-economic realities and learner's characteristics (e.g. maturity, readiness, etc). Total work practice should be sequenced by considering logical sequencing, chronological sequencing, level of difficulty, from general to specific, from simple to complex, etc.

The major problem of selecting curriculum content lies in the selection of particular subject matters from the vast range of possible ones. Since one cannot teach or learn everything, one must select from the plethora of knowledge and civilisations. Some alternative answers to the questions of content selection in the process of curriculum development have been attempted by some writers (e.g. Phenix 1964; Skillbeck, 1976; Taba, 1962; Hirst, 1965; Tyler, 1949; Wheeler, 1971; Pring, 1978) who suggested a set of criteria for content selection which may be considered together and listed as follows:

1. **Contiguity:** This principle states that the stimulus situation to which one wants the learner to respond must be presented contiguously in time with the desired responses.
2. **Reinforcement:** This states that learning a new act is strengthened when the occurrence of that act is followed by the satisfactory state of affairs (that is, a reward').

3. **Repetition:** This states that the stimulus situation and its response need to be repeated, or practised, in order for learning to be improved and retention reinforced and certified. It may be a reiteration of more powerful ideas and principles.
4. **Social Utility:** Certain subject matters have to be selected because they provide necessary basis for surviving in a complex technological society (e.g. technology, sciences, mathematics).
5. **Social responsibility:** Certain subject matters have to be selected because of their role in enhancing social and political awareness in a democratic society (e.g. Politics, Sociology, Social studies, History).
6. **Common Cultures:** Certain subject matters have to be selected because they can serve to preserve a common background of values and meaning through a shared literary tradition (e.g. History, Sociology, Anthropology, Literature).
7. **Cognitive Concern:** Certain subjects are of intellectual importance and they have to be selected even when they do not give too much pleasure or may not be too socially relevant. Such subjects have to be selected because they are good at increasing general powers of the mind like analytic or logical thinking (e.g. Philosophy and Latin).
8. **Learnability:** This implies that the aptitude, interests, cultural background, chronological age, mental age, and maturity of the learners as well as sound psycho-pedagogical principles should be considered in the selection of subject matters with a view to selecting according to the need, ability and capability of the learners.
9. **Sequence:** The level of difficulty, logical arrangement and chronological order should be adequately borne in mind in order to provide continuity and effective ordering.

10. **Validity:** In a technical sense, validity implies a close connection between content and the goals intended. Another aspect of validity is concerned with authenticity, i.e., the extent to which the subject matter is true. There is also the use of validity as it relates to rationale in the development of a curriculum.
11. **Structure of the Subject:** The significance of the subject matters selected should be considered. The fundamentals within a subject field should be determined.
12. **Necessaries:** Needs and interests of the learners, e.g. empowerment, self-actualisation, etc., should be taken into cognisance.
13. **Social pressure:** In selecting what to include as curriculum content, an adequate and rational consideration should be given to the expectations and yearnings of parents, professional associations, public debates, employers, etc.
14. **Basis for further education:** This relates to the vital consideration that the subject matter so selected should provide wide bases and choices for further learning both in and outside the school.
15. **Opportunity for multiple learning activities:** It is preferable to select topics which lend themselves to a variety of classrooms and individual activities such as experimentation, picture analysis, demonstration and observation.
16. **Consideration of the aims, goals and objectives:** This gives a general direction and focus to the curriculum. Curriculum content should be related to its aims.
17. **Consistency with social realities:** This implies timeliness. The subject matters selected must be able to stand the test of time.

18. **Flexibility:** The selection of subject matter should provide for eventual need to update or modify to suit specific local needs.
19. **Personal satisfaction:** Certain subject-matters are selected not because of their cognitive concern or societal significance but because they provide satisfaction to the unique esoteric needs of the individuals and in that sense, increase quality of life. This relates to the learners-centered view.
20. **Resources:** Consideration of resources in terms of their requirement, types, availability, accessibility, intensity of use, quality and quantity. These include time, financial, human, material and infrastructural resources.
21. **Integration:** This principle implies that there should be logical relationships between the various elements of a subject and the subject should also be related to the other subjects in the school curriculum. This involves a vertical relationship within a subject and a horizontal relationship among the several areas of knowledge.
22. **Balance:** This principle calls for a proportionate treatment of all the relevant areas of knowledge. It implies balance of breadth (horizontal coverage) and balance of depth (vertical coverage). The attempt should not be too ambitious, or too narrow in order to guard against parochialism.

Selection of learning Experiences

The critical question at this stage is: what teaching strategies and other educational materials will be required to make teaching and learning of a task effective and enjoyable, bearing in mind that the varieties of learning are information, attitudes and motor skills? In view of the fact that the goal in this approach is to master the elements of work or job competence, mastery learning offers a powerful learning approach despite its limitations (Adegoke, 1989). Job description and task analysis exemplify the essential boundaries for deriving learning experiences required for competencies. It is essential to:

- choose the technique that will cater for the individual differences among students' learning preferences;
- choose the technique that is feasible considering constraints of the instructional situation;
- choose a variety of techniques since mastery learning is central to the approach.

It is the curriculum designer's task to select from among the various options: techniques, strategies, methods and materials which seem most appropriate for the objectives, the audience, and the constraints of the instructional situation. The selection and development of instructional strategies is one of the most critical and complex components of the process of curriculum design and curriculum implementation. The selection of an instructional strategy requires the consideration of several variables; viz: the size of the class, the nature of the subject area, the characteristics of the student audience, the availability and accessibility of resources and materials, the quality and preferences of the teacher, the specified general goals and instructional objectives, and the curriculum context (i.e., political, cultural, economic, ideological and social factors of the school and environment). The selection of instructional strategy is also often based more on designer's preference and expertise than on any other factor mentioned so far. It is problematic to state that one method is superior to another. It depends on the circumstances. Practical approach is often plausible.

Weston and Cranton (1986) have attempted to describe teaching methods in four categories. These are:

- (1) instructor-centred
- (2) interactive
- (3) individualised
- (4) experimental.

It will be useful to consider the following when selecting learning experiences for competency education (Adegoke, 1989):

- choose the technique that most closely approximates the performance conditions called for by the objectives;
- choose the technique that causes the student to perform in a manner most closely approximating the competence called for on the job or in a work;
- choose the technique that will allow the student to make the largest number of relevant responses per unit time;
- choose the technique that will allow physical practice of skills being taught;
- choose a holistic approach to engender complete coverage and equity.

Trial Testing and Formative Evaluation

This stage is essentially meant to provide answers to at least four basic questions:

- Will the programme work?
- What are the grey areas?
- How can the programme be improved?
- What are the strength, weaknesses, opportunities and threats?

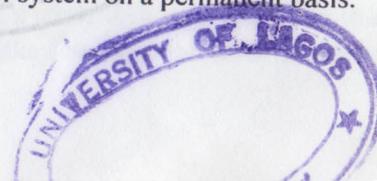
Answers to these questions will provide the basis for working out the most strategic routines that will take into account the best organisation and management processes for greater efficiency and effectiveness and subsequently lead to improvement.

Feedback Information for further Improvement

The essence of trial testing is to provide data to be used as a basis for ascertaining feasibility and areas requiring further improvement. This is the stage when the curriculum is subjected to further improvement based on field experiences.

Institutionalisation

This involves careful use of strategies to get the programme well accepted and entrenched into the school system on a permanent basis.



Evaluation

Evaluation as well as student assessment (both qualitative and quantitative) is an integral part of any competency programme. The two critical questions are: Is it worth doing? How well is it being done? Evaluation should cover the teacher, learner, subject matter and milieu with different techniques and appropriate degrees of emphasis. Some value positions implicit in competency evaluation are that it must be diagnostic, formative, criterion-referenced, process-centred, learner-judged, internal, liberal, and demonstrable. The following table presents an overview of some evaluation models:

Figure 7
Overview of Evaluation Models

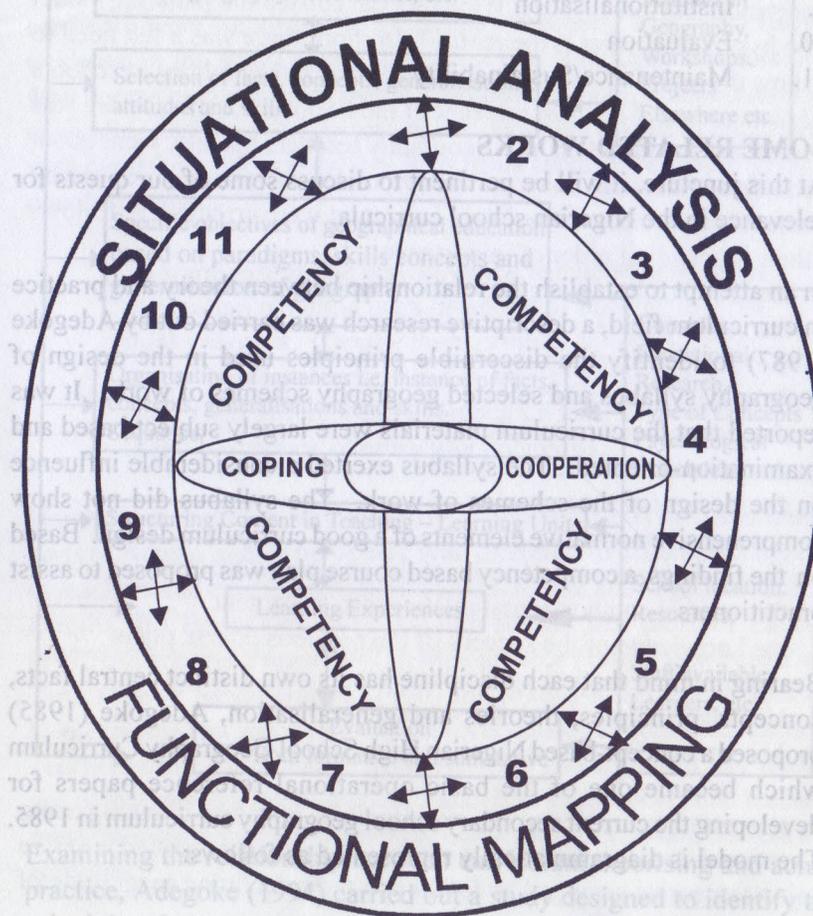
Model	Author	Approach	Possibility of Generalisation	Role of Values
Provus Discrepancy Model	Provus	Scientific	Yes	Value free
Congruence-Contingency Model	State	Scientific	Yes	Value free
Context, Input, Process, Product Model	Stufflebeam	Scientific	Yes	Value free
Judicial Model	Wolf, Worthen, and Sanders	Scientific	Yes	Value free
Connoisseurship Model	Eisner	Humanistic	No	Value bound
Responsive-Model	Stake	Humanistic	No	Value bound
Illuminative Model	Parlett and Hamilton	Humanistic	No	Value bound
Portraiture Model	Lightfoot	Humanistic	No	Value bound

Source: After Ornstein and Hunkins (1998).

There should be a certain amount of interdependence and interrelationship among the competency domains, competency knowledge, skills and attitudes and competency evaluation.

The above descriptive presentation is shown in the following diagram:

Figure 8
Interactive Competency-Based Curriculum Model



KEY

1. Situational Analysis
2. Job Description
3. Task Analysis
4. Course Objectives
5. Content Selection
6. Selection of learning experiences
7. Trial Testing
8. Feedback information for further improvement
9. Institutionalisation
10. Evaluation
11. Maintenance/Sustainability

SOME RELATED WORKS

At this juncture, it will be pertinent to discuss some of our quests for relevance in the Nigerian school curricula.

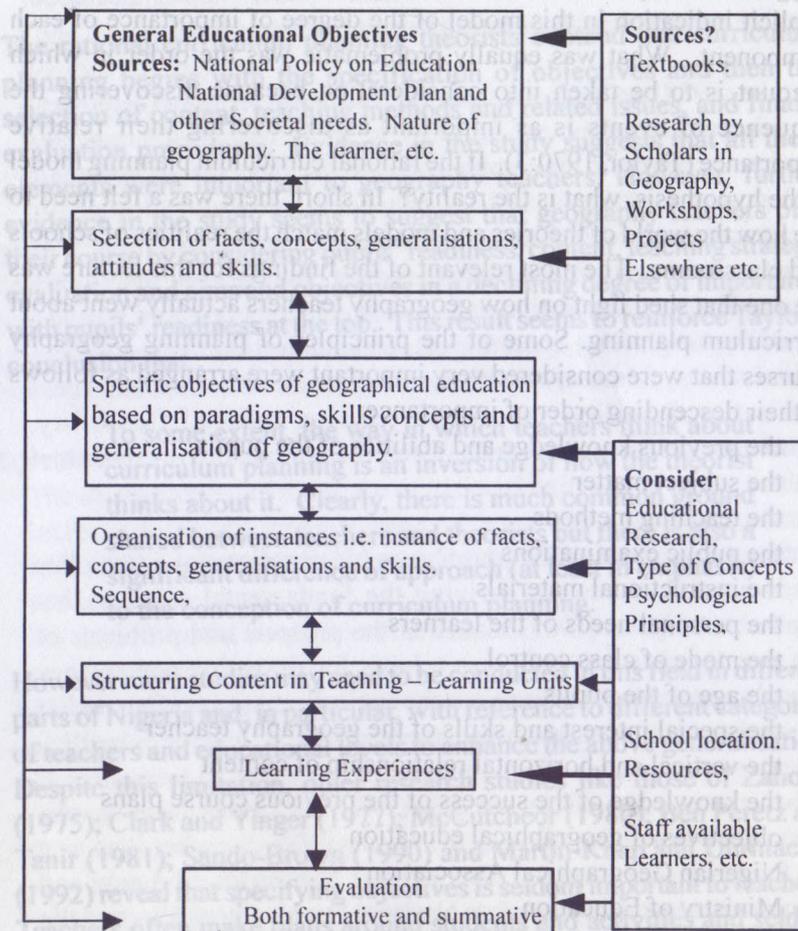
In an attempt to establish the relationship between theory and practice in curriculum field, a descriptive research was carried out by Adegoke (1987) to identify the discernible principles used in the design of geography syllabus and selected geography schemes of work. It was reported that the curriculum materials were largely subject based and examination-oriented. The syllabus exerted a considerable influence on the design of the schemes of work. The syllabus did not show comprehensive normative elements of a good curriculum design. Based on the findings, a competency based course plan was proposed to assist practitioners.

Bearing in mind that each discipline has its own distinct central facts, concepts, principles, theories and generalisation, Adegoke (1985) proposed a concept-based Nigerian High School Geography Curriculum which became one of the basic operational reference papers for developing the current secondary school geography curriculum in 1985. The model is diagrammatically represented as follows:

Figure 9

A Concept-Based Nigerian High School Geography Curriculum

A Model for developing Concept-Based programme



Examining the relationship between curriculum theorising and actual practice, Adegoke (1994) carried out a study designed to identify the principles that geography teachers take into account when planning

geography courses. He further sought to highlight the frequency of their involvement in course planning and to ascertain the degree of importance that they attached to the principles. What was considered problematic in the study was that although the rational curriculum planning model suggested four phases of curriculum planning process, there was no explicit indication in this model of the degree of importance of each component. What was equally problematic was the order in which account is to be taken into consideration because discovering the sequence of events is as important as discovering their relative importance (Taylor, 1970:3). If the rational curriculum planning model is the hypothesis, what is the reality? In short, there was a felt need to see how the world of theories and models match the realities of schools and classrooms. The most relevant of the findings for this lecture was the one that shed light on how geography teachers actually went about curriculum planning. Some of the principles of planning geography courses that were considered very important were arranged as follows in their descending order of importance:

- the previous knowledge and abilities of the pupils
- the subject matter
- the teaching methods
- the public examinations
- the instructional materials
- the personal needs of the learners
- the mode of class control
- the age of the pupils
- the special interest and skills of the geography teacher
- the vertical and horizontal relationship of content
- the knowledge of the success of the previous course plans
- objectives of geographical education
- Nigerian Geographical Association
- Ministry of Education

An attempt to group the twenty six principles of course planning using the rational curriculum planning model as a construct resulted into five major categories arranged as follows in their declining magnitude of importance:

- Pupils readiness
- Content
- Teaching strategy
- Evaluation
- Aims and objectives

The rational curriculum planning theorists contend that curriculum planning begins with the specification of objectives and then the selection of content, teaching methods and related issues, and finally evaluation procedures. Evidence in the study suggests that all these elements were important to geography teachers. However, further evidence in the study seems to suggest that geography teachers plan their course by considering pupils' readiness, content, teaching strategy, evaluation and aims and objectives in a declining degree of importance with pupils' readiness at the top. This result seems to reinforce Taylor's conclusion that:

To some extent, the way in which teachers think about curriculum planning is an inversion of how the theorist thinks about it. Clearly, there is much common ground shared between teachers and theorists but there is also a significant difference of approach (at least in emphasis) to the conception of curriculum planning.

However more studies may need to be conducted in this field in different parts of Nigeria and, in particular, with reference to different categories of teachers and educational levels to enhance the above generalisation. Despite this limitation, other research studies like those of Zahorik (1975); Clark and Yinger (1977); McCutcheon (1980); Ben Peretz and Tanir (1981); Sando-Brown (1990) and Martin-Knap and Uhrmacker (1992) reveal that specifying objectives is seldom important to teachers. Teachers often make plans around students and activities and seldom use objectives as a starting point. Zahorik (1975) reports that teachers most frequent decisions in planning curricula are choosing content and activities.

In a work entitled "Aiding Communication in Science through Curriculum Design," Adegoke (1987) advocated building a curriculum in a form that aids effective communication and proposed a communicative curriculum plan for this purpose. The definition, structure and functions of a communicative curriculum as well as the major patterns of communicative channel were critically discussed. Effective communication is central to competency education.

Adegoke (1988) undertook a study on leadership styles in the process of curriculum development, in order to shed light on the expected behaviour of people in the complex process of competency curriculum development. Certain factors for enhancing curriculum leadership competency were identified as: intelligence, knowledgeability, high integrity, social maturity and breath, power need, achievement need, strong will, inner motivation and human relations oriented attitude, personality, originality, cheerfulness, communication skill, courtesy, aggressiveness, fairness, initiative, co-operativeness, responsiveness organisational ability, supervisory ability, rational flexibility, extroversion, self assurance, span of control and supportive contextual variables.

Based on the proposition that the discernible paradigms of a discipline provide a good source for deriving the fundamental ideas in that discipline, Adegoke (1985) looked at the prospect and problems of using paradigms in geography as a basis for designing competency geography curriculum. This was a theoretical expansion of an earlier work on the use of concepts based approach.

Another attempt was made by Adegoke (1987) to examine the prospects, problems and principles of using the National Development Plan as a basis for curriculum design. This attempt foreshadowed a new and constructive relationship between National Development plan and the fundamental ideas in each discipline, using geography as a case study. In another related work, Adegoke (1987) attempted to examine a balance sheet and outlook of curriculum at the various levels of educational system using relevance, scope, sequence, balance and timeliness as

referential precepts of worthwhilness. It was reported that optimal competency could not be achieved because of certain constraints like;

- Inadequate adaptation and superficial adoption
- Inadequate environment based curriculum
- Non-optimal professionalisation of teaching
- Threats to the standard of education
- Fluid curriculum (including curriculum dynamics)
- Regional imbalance
- Examination-based educational system
- Poor implementation culture
- Politicisation of vital curricular issues

Noting that a competency-based curriculum is implicitly futuristic, Adegoke (1988) delved into the area of forecasting for curriculum development by attempting a Delphi procedural derivation of probable curriculum trends in Nigerian secondary schools (1981-2000). The resulting trends are still valid at present. They are:

Objectives:

- The strengthening of the sense of national unity.
- Increasing demand for more expressive and affective experiences to lend better balance to instrumental and cognitive emphasis in the curriculum.
- An assault would be made on the culture's misplaced confidence on materialism.
- There will be a greater demand for the clarification and pursuit of egalitarian society, at least in theory.
- Development of a sense of fulfilment based on satisfaction rather than possession.
- The need to help the young understand the potential richness of a service-oriented society.
- Increasing demand of the religious and parental pressure groups for moral instruction and discipline.

Content

- Children need to learn the norms of their own community
- Increasing delegation of parental responsibility for education to the school.
- Increasing demand for relationship between curriculum content and vocational/occupational demands.
- Increasing demand for textbooks that are reasonably Nigerian in context.
- There will be continued powerful stress on the acquisition of meaningful substantive content.
- Changes will be required in areas dealing with social problems both in humanities and sciences.
- The curriculum would begin to respond more adequately to the threat of environmental mismanagement (irreversible damage, exploitation for consumption Pollution etc.)
- Increasing awareness of the need to supplement formal education by continuing education throughout life.

Procedure:

- Moral values should be taught objectively by practical experiences.
- Teachers' personal behaviour will receive a greater attention.
- Greater demand for focus on all children (gifted, handicapped, deprived, etc.)
- Provision of ample opportunity for each student to have a close counselling relationship with competent teachers.
- The use of problem-solving and inquiry method will be intensified.
- Teachers may have to negotiate for some kind of time for creative planning.
- Increasing demand that practice should more widely precede theory; that ideas and procedures should be tried out as one of the processes antecedent to the learning of accepted principles.
- The responsible community participation will almost become inevitable.
- Special demand and preferential treatment for technical teachers with a lot of infrastructural problems.
- Deliberate and methodical provisions will be made for education beginning in early childhood and extending into old age.

Evaluation

Accountability will begin to be interpreted in four dimensions

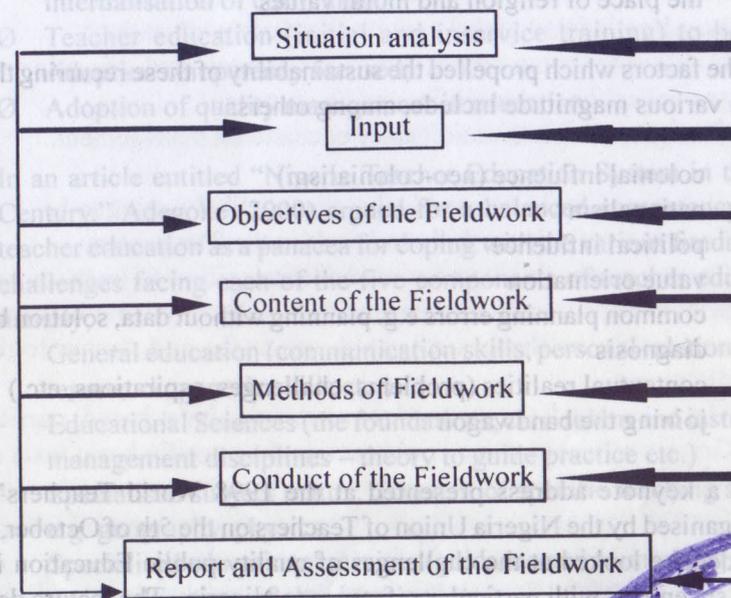
- (a) Community
- (b) School
- (c) Child
- (d) Subject

Greater preference of "personalised norms" to "group norms" based on evaluation instruments.

- Further decentralisation of W.A.E.C.
- The emergence of new examination bodies.
- Continuous assessment will be more widely-spread in Nigeria educational system.

A competency based curriculum model for fieldwork in geography was also proposed by Adegoke(1987). This was diagrammatically illustrated as follows:

Figure 10



Another attempt was made by Adegoke (1997) to identify the major defective competencies in Nigeria school system. The method adopted in the study was library research focusing on content analyses with orientation towards the historical line of investigation. Three categories of materials were critically reviewed. These were archival materials (i.e. various available dispatches according to the record of the archives), library materials (i.e. reports, periodicals, pamphlets, books and themes), and reports of commissions and major curriculum conferences.

The major recurring themes identified in the study were:

- adoptability rather than adaptability
- alleged falling standard of education
- partnership in education and ownership
- manual education versus (including vocationalisation) white collar jobs
- language policy and the problem of medium of instruction in the school curriculum
- the place of religion and moral values

The factors which propelled the sustainability of these recurring themes in various magnitude include, among others:

- colonial influence (neo-colonialism)
- nationalism
- political influence
- value orientation
- common planning errors e.g. planning without data, solution before diagnosis
- contextual realities (problems, challenges, aspirations, etc.)
- joining the bandwagon

In a keynote address presented at the 1998 World Teachers' Day organised by the Nigeria Union of Teachers on the 5th of October, 1998 Adegoke looked at the challenges of quality public Education in the 21st century, with particular reference to Nigeria. The lecture defined

the concept of quality education and established it as a recurring quest in our educational system through time and space. Threats to quality of education and the educational quality control measures were highlighted followed by some emerging suggestions for the new millennium. These include:

- Ø More and better education in human relations;
- Ø A more realistic treatment of problems;
- Ø More and better understanding of the potentialities of Science and Technology;
- Ø More and better education in communication;
- Ø Further professionalisation of teaching;
- Ø Increasing political responsibility of teachers;
- Ø More meaningful attention to teaching-learning process;
- Ø Adequate funding of curriculum planning, implementation and Evaluation;
- Ø Clinical approach;
- Ø International co-operation including borderless education; and internalisation of curriculum
- Ø Teacher education (initial and inservice training) to be more Adoption competency focused;
- Ø Adoption of quality management in education.

In an article entitled "Nigeria Teacher Education System in the 21st Century," Adegoke (2000) argued for a balanced competency-based teacher education as a panacea for coping with the various fundamental challenges facing each of the five components of teacher education, namely;

- General education (communication skills, personal relations skills, teamwork, generic skills etc.)
- Educational Sciences (the foundations, curriculum and instruction, management disciplines – theory to guide practice etc.)
- Specialised subject matter. (content of specific teaching subjects e.g. geography, physics.
- Specialised educational services (guidance and counselling, special needs education, adult education, etc.)

Practice Teaching – meant to expose students to the world of work (school and classroom)

Four major components are required for competence in teaching:

- The performance
- Ability to manage
- The enabling environment
- The contingencies required for competent practice

Competency based teacher education therefore requires some basic paradigmatic shifts from:

- Teacher-centred to resource-oriented learning.
- Teacher-centred to ICT-based teaching and learning.
- Group to individually-paced work.
- Closed to open systems without formal parameters.
- Provider-driven to user-centered curricula.
- Factual work to performance-based learning contexts.
- Isolated to networked environments.
- One-way to interactive teaching.
- Local/national to global context (borderless education).
- Single-subject mastery to broad based integrated education with specialisations, capabilities and competence.
- Change resistant to anticipatory educational management.

It is also increasingly noticeable that there is likely going to be:

- Greater emphasis on skills and tools in the 21st century.
- Greater emphasis on processes, on learning-how to learn, on basic principles as the obsolescence of factual knowledge will be more noticeable in the era of rapid scientific and technological discoveries.
- More integrated (as opposed to parochial subject-based) curricula
- Greater reliance on materials outside the specific basic texts and outside the textbooks generally owing to information technology.
- Greater emphases on linking school work with the world of industry/ work, labour market, self reliance, empowerment
- Increasing need for new devices for exposing student-teachers to

school practices, e.g. micro teaching, video taped classroom interaction, etc.

Increasing need for pre-teaching practice and post-teaching practice (workshops) activities.

Increasing desire to make Faculty of Education more independent in teacher education.

Tolerating and dealing with students' outrageous behaviours.

Adjusting rapidly to changes in Science and technology like information technology, use of computers, etc.

Greater public debate on the structure, curriculum, certification and competency in teacher education.

What is very clear is that this inevitable process of change should - and indeed – be driven by the teacher education sector itself. If this is not the case, then grave consequences could result. The teacher training institutions must possess all attributes necessary for this challenging task by:

- being creative, innovative and responsive teacher education institutions
- offering high quality training based on a balanced curriculum
- ensuring entry on intellectual merit and inherent interest
- pursuing knowledge and professional excellence
- showing commitment to social development and professional excellence
- offering lifelong learning opportunities
- linking to the world of work
- engendering social debate and criticism
- providing advice and expertise for national decision-makers
- upholding academic and professional freedom
- serving personal, local, national, regional and international development needs.
- ensuring optimal professionalisation of teaching.

It will be very important to direct our attention to a pertinent professional question, which in public debate is taken as a mere common-sense issue. The question is: How should Nigeria's teachers be educated? A balanced

competency teacher education involves achieving a satisfactory relationship among competing demands placed on teacher education. Balance neither implies midpoint nor connotes unprofessional lopsidedness. Implicit in this statement are nine sub-questions requiring honest answers, if teacher education is to move forward:

- What are the most fundamental and valid demands being placed on teacher education in Nigeria in terms of structure, duration, curriculum, certification, licensing, competency and motivation for trainees and practitioners?
- Has sufficient attention been paid in teacher education to all of these demands?
- What model of teacher education holds the most promise for Nigeria and her educational system?
- What are the different key factors in successful competency-based teacher education?
- What significant organisations and institutions are likely to have the greatest supportive influence on implementing new approaches to teacher education in Nigeria?
- Should teaching practice be simultaneous/concurrent or consecutive/sequential or be given a block of time like a whole semester?
- Are there competency lessons for us from the Colleges of Medicine each with over twenty departments but all of which combine to train an integrated Bachelor of Medicine/Bachelor of Surgery graduates? Why not teacher education? (Obanya, 2002)
- Is a Centre for Research and Development in Teacher Education possibly domiciled in a University not overdue in Nigeria?
- Should Education lecturers not also serve as exemplars of teaching methods, with students being given the opportunity to learn from and assess the teaching effectiveness of their lecturers?

It is our intent to intensify our research efforts in these critical areas, within the general framework of competency teacher education.

RECOMMENDATIONS

Considering the noticeable gains of competency-based curriculum for productive work:

There is a worthwhile need to review each of the existing academic programmes, with a view to reinforcing and enriching its inherent competency values for the (inevitable) purpose of engendering balanced students' empowerment. This is to ensure that students are given the optimal opportunities to acquire appropriate level of knowledge, manipulative, communicating, creative and life skills as well as the ethical, moral and civic values needed for productive life.

There is the need for a university-wide core course focusing on productive work, which can embrace the new commendable thinking about entrepreneurship and governance.

It is also necessary to bridge the gap between the lecturer and the students by improving the quality of advisory/supervisory roles, mentoring, and positive socio-academic relationship. In the content of competency education, a cohort adviser should (*in loco parentis*);

- focus on helping students realise their individual academic potentials and solve their problems;
- operate as a facilitator, guide, resource person, model, diagnostician, confidant and consultant;
- assess cognitive strengths, styles, and weakness with a variety of devices using his professional ingenuity;
- keep adequate records using Information Communication Technology;
- participate in regular in-service training to improve performance; etc.

Teacher's associations should consider curricular issues as central concerns if such associations are to be seen as worthwhile in the real professional sense. Apart from fostering teachers' economic interests, the teachers' association has a crucial curricular role to play by:

- organising conferences, seminars and workshops, focusing on competency and enhanced competency;

- communicating the results of action research on the nature and needs of children and about instructional strategy and resources;
- exchanging classroom experiences through journals, bulletins, newsletters and special studies which the associations publish; etc.

Motivation is central to a creative, competency education. We need competent teachers who are organisers, facilitators, motivators, innovators, inspirers, but also who do not control the learners' thinking. Learners must be viewed as capable of learning by treating them fairly and equitably and engaging them in equity pedagogical practices. Most importantly, creative teachers will yield creative learners who may be described as intelligent, aware, flexible, innovative, responsive, original, inspiring, fluent, questioning, non-conforming, humorous and self-reliant.

Teachers need to know how to conduct action research, interpret and use such research reports to address concerns about educational quality of students, curricular experiences and pedagogical conditions, if competency-education is the ultimate and it is.

Most effective teachers engage in informal action research in their own classrooms from day to day. Each day they observe the responses of learners to each other, to the teachers' methods and to work problems. This, no matter how informal, is essential in the improvement of curriculum and instruction. By practice, teachers can refine such methods to the point where they yield good result quickly and competently.

Teacher preparation as well as In-service must prioritise attention for expanding and equipping teachers with the basic information for enhanced competency. Teachers must be willing to go on learning because effective competency education cannot possibly be static. Curriculum and instruction

has a role to play in interaction between theory and practice. When a new idea is experimentally placed into practice, research procedures can become means of testing and modifying theory through practice. In-service training must be institutionalised.

In this era of globalisation and Information Communication Technology, a competency-based curriculum demands a technology-based approach (e.g. e-curriculum; e-teaching; e-learning) a new competency examination focus, a responsible implementation culture and very inspiring and highly motivated students.

While competency-based curriculum must be culturally relevant to be meaningful, the strategies to be adopted must be experientially appropriate for students to take responsibility for their own learning. The need therefore arises for the modification and shifting of teaching strategies to match students learning styles, norms and practices. This required paradigmatic shift entails a movement away from the traditional teaching to problem-solving, from rigid classroom instruction to the use of entire environment as resource, from teacher-based to learner-centred, from mere certificationism to functionalism and from lip service to genuine, honest and pragmatic service (Adegoke, 1999 :10)

Conclusion

One may wonder if a theoretical framework can continue to remain so if it consistently runs counter to practice at least in emphasis. This raises the issue relating to the esoteric nature of scientific theory in general and the intuitive, prudential and moral nature of curriculum theorising, which is essentially normative and praxiological. Certainly, without theorising, curricularists would remain ignorant of the complexities involved. But the theory needs to be supported by frequent trips to the real curriculum world if it is to have the much required practical value and if scepticism, conflict and confusion between theory and practice are to be avoided. Education has a vital role to play in solving individual and societal problems. A competency curriculum

offering must be imperative if the future generation are to be empowered to learn to know, to learn to do, to learn to be and to learn to live together. To ignore this, is to ignore Nigeria's survival in the twenty first century.

Mr. Vice Chancellor, Sir, distinguished ladies and gentlemen, my submission is that the ultimate goal of any curriculum theorising, no matter the perspective differentials, should be the quest for competency in all the valued and valuable domains. The justification of any discipline lies in its tangible and intangible contribution to the development of competency as a tool for empowerment in all its ramifications. This is the ultimate reality.

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