71-1458

GITHARA, Henry Kamanu, 1936
THE DEVELOPMENT OF AFRICAN SECONDARY EDUCATION IN THE REPUBLIC OF KENYA (1924-1968)

The Catholic University of America, Ph.D., 1970
Education, theory and practice

University Microfilms, A XEROX Company, Ann Arbor, Michigan

THE CATHOLIC UNIVERSITY OF AMERICA

THE DEVELOPMENT OF AFRICAN SECONDARY EDUCATION IN THE REPUBLIC OF KENYA (1924-1968)

A DISSERTATION

Submitted to the Faculty of the Graduate School of
Education of The Catholic University of America
in Partial Fulfillment of the Requirements
for the Degree
Doctor of Philosophy

by

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1969

This dissertation was approved by Sister Mary Catherine Collins as director and major Professor and the Rt. Rev. Monsignor F. J. Houlahan and Sister Ste. Hilda Budeke* as readers.

ACKNOWLEDGMENT

The author is very much indebted to his doctoral advisory committee members, namely Sister Mary Catherine Collins, S.N.D., who as a major professor, was always a source of inspiration and encouragement from the stage of topic preparation through all phases of this dissertation. So also to Monsignor Francis J. Houlahan, Ph.D., and Sister Rita Buddeke, Ph.D., who both provided helpful suggestions and constructive criticisms that improved this study.

A special debt of gratitude is acknowledged to Dorothy B. Walden, who patiently helped in arranging and auditing the manuscripts in original and final drafts.

To my brothers and sisters, to my friends in Kenya and elsewhere, it is to all, an acknowledgment of great indebtedness is made and lasting gratitude is assured.

Henry Kamanu Githara

DEDICATION

TO MY PARENTS AND ALL OTHER AFRICAN PARENTS

WHO HAVE ENDURED SACRIFICES FOR THE

EDUCATION OF THEIR CHILDREN

"Be firm, constant and courageous for you are not alone"

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CHAPTER I

INTRODUCTION

Purpose of this Study

The major purpose of this study is to trace the various stages of development of secondary education in Kenya with some special emphasis on the African education. This study will also be a source of materials for the construction and development of a curriculum model which is hoped to serve as a theoretical structure for initiating studies and subsequent development and improvement of secondary schools' curricula in this newly founded Republic of Kenya.[1] Keeping this in mind, the model will be formulated to meet the anticipated and projected curricula needs and changes within Kenya Educational System.

Furthermore, this study will be of practical use particularly in the selection and utilization of the teaching aids, material and equipments, teaching procedure and administrative methods, evaluating criteria and techniques, and above all the selection and determination of the objectives of teaching in the public secondary schools of Kenya.

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[1] On the 12th day of December 1963, Kenya achieved its independence from the British Colonial Authority and became a Republic on its first universal, this is December 12, 1964. For more details see Sidney Taylor, The New Africans (New York: G.P. Putnam's Sons, 1967), pp. 211-25; Great Britain Report on Kenya Constitution Conference (London: Her Majesty Stationary Office, Cmnd. 960, February 1960), p. 1; and Nathaniel T. Kenner, "Winds of Freedom," National Geography (September, 1966).

Need for this Study

The new African Government of Kenya has demonstrated and testified again and again the importance it assigns to all major phases of the educational innovations, that is (a) recognizing and identifying the educational needs, (b) the means of satisfying the needs, (c) within organizational and planned sequences, (d) assigning the task to an educational institution willing and able to engage in the project(s) be it experimental or otherwise and lastly, (d) improvement of the physical environment, facilities and the teaching personnel.

Education is a vital factor for independence and development of any young country and a point made clear by Butts who speaks on its improvement by saying, ". . . educational improvement itself is the most fundamental aspect of any people's development."[1] The new Government of Kenya is much aware of the part that education plays in the process of nation-building and this understanding is promptus exemplified in the annual report by Kenya Education Commission which in part reads ". . . education and national building must form a partnership and . . . economic growth can be speeded up if education produces the middle and high level manpower which a developing country needs desperately."[2]

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[1]R. Freeman Butts, American Education in International Development (New York: Harper and Row, 1963), p. 27.

[2]This educational Report was compiled under the chairmanship of Prof. Simeon Ominde and submitted on July 22, 1965, to the Minister of Education (The Hon. Mbiyu Koinange M.P., M.A., LL.D.) and contained 58 recommendations outlining 6 years of educational developments. For further analysis see following pages.

Individual needs and growth (i.e., social and economic) need not be ignored for they are factors that should be accorded serious consideration whenever a modern educator speaks of curriculum changes and improvement. Truly, without this sort of realization his task will fail in its purpose unless, first and foremost, he expeditiously accomplishes what the tradition training did in helping the African boys and girls to grow and develop into mature persons reliable in playing their part in their respective communals and be able to adapt themselves to the environment as cited by Miss Read.

> The African children today have to belong to two worlds. . . . using the modern methods the African educators will be able to detect any deviation and help such children accordingly. . . . There is no secure, fast life for young Africans today, and the school must help them to make adjustment to whatever is in the store for them.[1]

Today Kenya is admidst some basic social changes and the entire fabric of her social-order will greatly depend on the direction and momentum of those changes. A well-planned educational system will ensure a desirable outcome. The following are some of the vicissitudes Kenya must experience within the first ten-year period of her independence: (a) first, there will be rapid developments in the area of agriculture, urbanization and industrialization. This must be met with equal degree of rapidity in educating and training of the whole populus which is an asset for the economic survival of the pro patria, as well as that one of an individual according to the following:

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[1]Margaret Read, "Africans and Their Schools," British Commonwealth Affairs No. 8 (London: Her Majesty Stationary Office, 1953), p. 11.

> At this stage of development, education is much more an economic than a social service. It is our principal means for relieving the shortage of domestic skilled manpower and equalizing economic opportunities among all citizens. . . .[1]

(b) The rising levels of individual and group aspirations which have been long submerged with the bitter memory of being ruled by a foreign people. (c) The increasing responsiveness of the Government to the needs of the governed, be it on individual or group basis. This is an ideal method of checking the social ills and therefore pro bono publico. This was an omission of the Colonial Government and suppressive injustice to those governed, ". . . but what are kingdoms without justice but large bands of robbers, says St. Augustine."[2] (d) Kenya position in the world community of nations will take radical change and the goals of her people take new shapes particularly in the respect of peace and security and increasing quest for personal identification and other factors contributing to the meaningfulness of life and education.

A tremendous hunger for secondary education has normally followed the attainment of independence by many African states.[3] This need of education started a few years preceding World War II (1939-1945) and became an apparent force at the close of the same war and so did the "wind of change" that increased and multiplied as it blew over the

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[1]Republic of Kenya, Ministry of Education Annual Summary. A paper presented to the Ministry of Education (Nairobi: July, 1965), p. 1. (Mimeographed.).

[2]St. Augustine, De Civitate Dei IV, 4: Also of Patrologie Latina 41, 115.

[3]Jomo Kenyatta, "Education Sets the Pace," The Prime Minister Speeches 1963-1964 (London: Oxford University Press, 1964), p. 83.

blackman's continent, affecting fundamental reassessments in politics, economics and in education. The latter to assume the task of producing constructive Wananchi prepared and able to play the role of a free and independent state.

The changes in educational policy were in twofold, (1) never before had education been regarded more as the seed of economic survival and development, schools had hitherto been regarded as social rather than economic institutions and their function was to train the individuals for their appropriate places in society, and (2) now education was to be considered less of a service to individuals and more as a service to the State through the production of engineers and teachers, doctors and agronomists, merchants and industrialists, secretaries and all the other skilled and semi-skilled in short supply. Lastly, (3) Kenya will do all in her power in attempting to try to offer the best possible education to all her youth, to follow the wise words of Dr. J.K. Aggrey the first principal of Achimota College who said, ". . . only the best is good enough for Africa."[1]

It is these needs, changes and forces that when properly met will modify our educational institutions to enable each individual to attain his pervasive feeling of ultimacy and therefore enable the individual to reach what Gardner refers as a point of self-discovery in his

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[1]Dr. Kwame Nkrumah, On the Aggrey-Fraser-Guggisberg Lectureship at University of Ghana, 1957. Cf. Barbara Ward, "Introduction," 5 Ideas that Changed the World (New York: W. W. Norton and Company, 1959), p. 8.

scholastic modis. "What we must reach for is a conception of perceptual self discovery, perpetual reshaping to realize ones best self. . . . . to be the person one could be."[1]

The urgency and importance assigned to secondary school curriculum is clearly emphasized through many official statements contained in various educational committees' reports that include the Beecher Report (1949), The Binns Report (1952), The Addis Ababa Report (1961), and the Griffiths Report (1962).[2] In part the 1965 Kenya Ministry of Education reads, ". . . the curricula of primary and secondary schools will appropriately express the aspiration and cultural values of an independent African country."[3] (Italics mine.) In Kenya today education for the youth particularly those of secondary level is everyone's business, "Everyone is earnestly endeavoring to play his part in ensuring that our young people are well-educated,"[4] says the President of Kenya.

The public concern will hopefully increase the educational motivation among the young people lest they face the negative reality of the technological automation as it is often the case of more industrialized

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[1]J. Gardner, "Can We Be Equal and Excellent Too?" Excellence (New York: Harper Brothers, 1961), p. 5.

[2]V. L. Griffiths, Some Suggestions for an African Government's Educational Policy in Kenya (London: Oxford University Press, 1962). (Mimeographed.)

[3]Jomo Kenyatta, "Education Sets the Pace," The Prime Minister Speeches 1963-1964 (London: Oxford University Press, 1964), p. 84.

[4]Ibid., p. 83.

countries of the west where school dropouts are finding it harder and harder every day to obtain a steady job as has been described by Schreiber, statement of concern: ". . . . the essential problem has to do with the fact that the world to which contemporary dropouts seek entrance has a diminishing place for them."[1]

Kenya should bear it in mind that it is these educational programs particularly that of secondary school which is becoming increasingly the determiner of status and economic opportunities of an individual. However, it is true that soon such standards will become the minimal requirement for entry into the larger society in the economic sense of the word. This is what Tyler has to say on employment of youth: "Not only is a high school education an essential for most employment, but the percentage of jobs requiring persons with a college education is increasing at a rapid rate."[2]

However, for many years the secondary curriculum in Kenya remained inadequate and in most parts inappropriate for both the country and the people it was supposed to serve. The development and improvement of the African secondary education lagged far behind the times, essentially the aims and objectives, method and philosophy of the African education remained basically the same as designed by the colonial power[3] to be analyzed in the next chapter.

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[1]D. Schreiber (ed.), The School Dropout (Washington, D.C.: National Education Association, 1964), p. 2.

[2]R. Tyler, "Social Changes and College Admissions," The Behavior Science and Education (Princeton: College Entrance Examination Board, 1963), p. 2.

[3]This topic will be extended in the next chapter dealing with the colonial policy on African education in Kenya. However, among the

During the years preceding World War II the attitude of the British Government on African education in Kenya had started undergoing various fundamental changes and Britain became a bit more generous in its educational plans for the Africans. It was during this stage of development when the missionaries because of their eager cooperativeness, were placed in an awkward position as caretakers of African educational development.[1] The missionary performance was in such a manner that there would not be conflict between their objectives and those of colonial government.

The colonial secretary had directed and commissioned some educational committees or surveys as they were sometimes referred to to study and offer their recommendations on general improvements of African education. Among these reports we find the Beecher Report started in January, 1949, under the chairmanship of the Venerable Archdeacon (later to become Bishop) L. J. Beecher of Mombasa, who was appointed by the Governor of Kenya, Sir Phillip Mitchell to examine and report, "the scope, methods and content of the African education in Kenya."[2] The

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useful sources and analyses, see Elsbeth Huxley's, White Man's Country and Lord Delamere (London: Chatto and Windus, 2 vols., 1935); Robin A. Hodgkin, Education and Change (London: Oxford University Press, 1967); see also Margaret Dilley, British Policy in Kenya Colony (New York: Nelson Press, 1937), p. 216.

[1]Roland Oliver, The Missionary Factor in East Africa (London: Longmans, Green and Company, 1962), p. 199.

[2]Kenya Colony and Protectorate, Education Department Report (Nairobi: Government Printers, 1949), p. 16. Also, W. E. F. Ward, "The Beecher Report on African Education in Kenya," Overseas Education, Vol. 24, No. 4 (January, 1953), p. 18.

next report was organized under the joint auspices of Nuffield Foundation and colonial office after the Cambridge Conference of September 8-20, 1952. This survey was later divided into two groups, one to visit West African colonies under the Chairmanship of Dr. G. B. Jeffery and the other conducted its study in East Africa under the Chairmanship of A. L. Binns, who had been the Chief Education Officer for the Lancashier County in England.[1] The rest of the Reports are the World Bank Survey 1963, the Tananarive Report 1963, and the Hunter Report 1963. And the last one is Phelps-Stokes Report which was in two parts (1921-1925) and instigated by the American Missionary Society to investigate the problem of what kind of education would best prepare the Africans for self-development[2] for education lay the foundation for human and economic development.

Unfortunately, most of these committees' recommendations did not have any notable positive impact to the curriculum while only a few of them resorted to minor general improvements, their failures were partly due to lack of funds to back what they considered necessary for general improvements of African education in Kenya. In addition to this, the colonial government remained indifferent to African secondary education--a fact that hindered the progress and improvement.

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[1]Cambridge Conference, African Education, A Study of Educational Policy and Practice in British Tropical Africa (Oxford: Oxford University Press, 1953), p. 6.

[2]African Education Commission, Education in East Africa (London: Edinburgh House Press, n.d.), pp. 138, 162-63, and 188.

Design of this Study

This study is designed and organized as a synthetic study and follows the pattern described by Johnson who speaks of synthetic study to be those investigations in which various curricula materials, resource use, data, instructional suggestions, references and teaching aids are brought together into a unified pattern to be helpful in an educational situation.[1] This study also includes (a) personal interviews with educational officials and (b) review of the literature on secondary course programs and modus operandi of the public schools in Kenya.

This study aims at providing a major source of materials on which to develop a model for construction and development of a program of study in the secondary school. This being the aim, the following operational areas were sought in the light of the views of educational research particularly that of secondary school teaching.

(a) The Human Aspects.--The social problems along with cultural values and briefs have been examined particularly in respect of their effects to the secondary schools' curriculum. The nature of the learning process and the learner are also factors considered, and finally the human inter-relations between the teacher and the students.

(b) The Curriculum Aspects.--This operational objective includes the subject matter contents, various stages of the curriculum construction and improvement, selecting and stating of the objective and criteria of such selection.

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[1] Lloyd M. Johnson (ed.), Research in the Teaching of Sciences 1956-1961 (Washington, D.C.: U.S. Government Printing Office, 1965), p. 3.

It also includes a list of suggested objectives for secondary teaching, selection of learning experiences and their organization. Finally, the criteria of closing the above, and the procedures and techniques of evaluation.

(c) Review of the Literature.--This will include the study to various types of curricula designs, rationale for curriculum changes and improvements and finally the problems and implications of secondary school education.

(d) A Model for Construction and Development of a Secondary School Curriculum.--This will include the criteria for selection, utilization and organization for the learning experiences, rationale for evaluating students' performances and techniques of such evaluation. Methods and procedures of implimentation and adaptation of the model which will be the responsibility of the special committee mentioned at the end of Chapter IV. A review of Kenya's secondary schools of the future is presented.

(e) Conclusion.--Finally, this study will include some recommendations to the Ministry of Education for their approbation for possible proposal by the Ministry for general improvement for all Kenya secondary schools in respect to physical facilities, subject matter contents and the teaching personnel. A suggestion for further studies is included too.

Definition of Terms Used

Curriculum

In simple terms the word curriculum is commonly defined as all the experiences that a learner has under the guidance of a school.[1] These experiences include (a) the program of study, (b) extra-curriculum activities, (c) the school staff, (d) other students, (e) rules and regulations, (f) decisions, (g) school routine in disciplines, reports, marking, grading and eligibility, (h) instructional supplies, (i) community and public opinions, (j) the state of the nation(s) and many others. A change of any of these factors will result to the change of curriculum. This is what Anderson has to say about curriculum: "It is conceived of as the whole of the interesting forces of the total environment provided for the pupils by the school and pupils experiences in that environment."[2]

Science

The operational definition of the term "science" is that part of learning embodied by a body of organized knowledge and information in a method or pattern of discovery according to Blough.[3]

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[1]Chester W. Harris (ed.), "Curriculum," Encyclopedia of Educational Research (New York: Macmilan Company, 1960), pp. 358-65.

[2]Vernon E. Anderson, Principles and Procedure of Curriculum Improvement (New York: The Ronald Press Company, 1956), p. 9. See also Rivlin and Schueler, Encyclopedia of Modern Education (New York: F. Huber and Company, Inc., 1943), pp. 205-11.

[3]Glenn O. Blough, "You and Your Child Science," National Science Teachers Association (Washington, D.C.: National Educational Association, 1963), p. 8.

Science education prepares men and women for a satisfying personal life by acquainting them with broad knowledge of nature and truth. It also helps them to integrate the related disciplines by developing skills, abilities, attitudes, consciences and values which will enable them to cope more effectively with their problems and those of the society in which they live.

Therefore, general science says Good, ". . . is an orientational course of study consisting of physical and biological studies commonly taught in high schools."[1]

Model

According to both Parsons and Koch, the term "model" seems to give similar meaning to that of "Ideal Type" of a structure or process.[2] This is so true by a hypothetical reasoning from theoretical premises which are reached by comparing them with empirical data for the purpose of analyzing such data by this method the term "model" will have identical agreement with the theoretical form. Therefore, a model well constructed will enable us to visualize and get an imaginary picture of what we are aiming at when constructing the model in question.

Learning Experiences

The term learning experience refers to the change in response

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[1]Carter V. Good (ed.), Dictionary of Education (New York: McGraw Hill Book Company, Inc., 1945), p. 360.

[2]Sigmund Koch and Parsons (eds.), Psychology, A Study of the Process (New York: McGraw Hill Book Company, Inc., 1959), p. 695.

or behavior of the learner.[1] This change may be in the form of the behavior modification or total elimination.

It should be pointed out at this stage that a learning experience is not the same as the content with which a course deals nor the activities performed by the classroom teacher. Therefore, learning experience refers to the interaction(s) between the learner himself and the external conditions in the environment to which he can react.[2]

Secondary School

This term is defined here in the same way it is defined in the Encyclopedia of Modern Education: ". . . These are schools for general education as distinct from vocational schools[3] . . . and are for students between the ages of 13 to 18 or 20."

Secondary education lays a firm foundation for future scientific and technical professional training for its graduates or admission to institutions of higher learning.[4]

The various types of secondary schools in Kenya include the following (a) The Harambee Schools, (b) Private Schools, (c) The Missionary Schools, and (d) Public Schools. The latter group is

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[1]Ibid., p. 237.

[2]Ralph W. Tyler, Basic Principles of Curriculum and Instruction (Chicago: The University of Chicago Press, 1963), p. 41.

[3]Harry N. Rivlin (ed.), "Secondary Schools," Encyclopedia of Modern Education (New York: F. Huber and Company, Inc., 1945), p. 272.

[4]Dinal G. Burns, "Secondary Schools," Africa Education: An Introduction Survey of Education in Commonwealth Countries (London: Oxford University Press, 1965), pp. 53-54, 72.

maintained by the public funds and share the largest and most generous grants from the Ministry of Education which has executive responsibility to all the schools in the country by the Act of the Constitution of Kenya (Amendment) Act, 1964.

Stream of Classes

This is a quantitative term that depicts the number or multiple of a given form (class) in Kenya secondary schools. The number is computed at the lowest form taught according to Mr. L. Moinde of Ministry of Education. There are (in the year 1969) 110 schools with two streams, 75 schools with three streams, 18 schools with four streams, 6 schools with five streams, 5 schools with six streams, 3 schools with seven streams, and lastly 1 school with eight streams.[1]

Syllabus (plural syllabuses or syllabi)

The term syllabus synonymous with the word curriculum. However, the former includes brief outlines of topics to be covered in each class and subject.[2] The teacher's daily time schedule is considered a part of the syllabus.

[1]A letter from Mr. L. Moinde of Kenya Ministry of Education dated May 16, 1969.

[2]George A. Beauchamp and Mrs. Beauchamp, "Curriculum Efforts in England," Comparative Analysis of Curriculum Systems (Wilmette: The Kogg Press, 1967), pp. 13-17.

Harambee

The word Harambee[1] is used as a motto of the Republic of Kenya and is inscribed on its coat-of-arms and widely used by Mzee (President) Kenyatta and others as a call for cooperation in the building of the nation. It is derived from a term used by a gang of African workers engaged in heavy labor and meaning "let us pull together." Schools and other projects cooperatively constructed by the community are often referred to as "Harambee Projects," such as Harambee Schools.

Africanization and Kenyanization

The term "Africanization" is used deliberately to acknowledge independence of an African country where maximum efforts are carried to ensure that, as far as possible the task of directing the affairs of such a nation at every facet and form becomes a responsibility of the local citizens.[2] The latter term "Kenyanization" is used in the same context but it is restricted to some geographical limit.

Colonial(ism)--Government and Authority

This term simply means that someone imposes in a given area a new institution regulated and governed by outsider(s) and therefore intruders and infiltrators who establish their new rules which are

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[1]Irving Kaplan and others, Area Handbook for Kenya (Washington, D.C.: Foreign Area Studies, The American University, 1967), p. 692. Also see Thomas Molnar, "British Hesitations and Illusions," Africa: A Political Travelogue (New York: Fleet Publishing Corporation, 1965), p. 219.

[2]M. D. Odinga, "Decolonizing the Church in East Africa," East African Journal, vol. IV, No. 4 (July, 1967), p. 12.

administered with some degree of force,[1] which must ensure that each individual action is oriented toward the new sets of rules.

Basic Assumptions

The following are some of the basic assumptions on Kenya secondary school education:

(a) The teaching of the sciences consists of some valuable learning experiences provided to the learner and are inseparable components of formal organization of general educations within Kenya educational system. To stimulate the discoveries among the students the practical work in laboratories and the fields is a necessity,[2] a factor ignored in the past.

(b) The need for reconstruction and improvement of major portions of the Kenya educational system is an issue of great urgency that needs much priority.

(c) Changes in the existing school curricula must conform to the present educational objectives of nation-building.

(d) A rationale for decisions-making must accompany every attempt for innovational curriculum change and improvement.

(e) The validity of any one type of curriculum design may not hold indefinitely and therefore, re-evaluation must be carried on from time to time for prompt changes and improvements.

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[1] Immanuel Wallerstein, "The Social Changes," Africa: The Politics of Independence (New York: Vintage Books Press, 1961), p. 31; also Endre Sik, "Kenya," The History of Black Africa (Budapest: Akademiai Kiado, 1966), p. 202.

[2] Dr. O. Osterling, Kenya Science Teachers College Bulletin (April, 1969), p. 1.

(f) The contents of various curricula plans are determined after the hypothesis is drawn from the theoretical structure of the projected needs.

(g) An extensive study and review of literature on secondary schools' curriculum and its various phases of development in the more educational advanced countries will shed some helpful insights. The stages mentioned above must include (1) history and developmental backgrounds, (2) method and procedures of planning and improving curriculum, (3) method of educational research in secondary school subjects, (4) methods and procedures of curriculum implementation, evaluation and adaptability, lastly (5) suggestion for further studies.

Limitations of this Study

Due to the limitation of time this study will confine itself to the operational objectives previously mentioned and no empirical testing of Chapter IV model of secondary school curriculum will be sought nor its workability.

The study is further limited due to lack of any established educational and professional associations save Kenya National Teachers Union which otherwise would have been a major source of reliable materials. To the Ministry of Education the author recommends formation of such professional association.

Although the workability of the model will not be sought some parallels have been drawn while the details of the learning experiences are not a major concern of this study and remain the responsibility of the guidance and directing committee mentioned at the end of Chapter IV.

The subject matter contents are not outlined but helpful suggestions and lists of suggestive objectives are offered within the model, including those dealing with the teaching of sciences. The parallel and workability of science education have been drawn by Wolfle's scholastic modus:

> The great general principles of science and its methods of acquiring new knowledge, most of the details, facts and methods of the attitude that characterize good scientific work are much the same regardless of the political and geographic boundaries.[1]

Scope and Procedure

This study is intended to cover at least the following areas of African secondary education in the Republic of Kenya: (a) historical background, growth and development of secondary education, (b) philosophy and methods, (c) aims and objectives, (d) curriculum contents and organization, (e) classroom practices and procedures, (f) selection of materials and equipment, (g) academic and professional recruitment and preparation of secondary school teachers, and finally (h) problems of secondary education in Kenya today and tomorrow.

The above task has been accomplished through the following:

(a) Research
The investigator has researched a vast amount of materials pertinent to the study, of which the following are but a part (1) Kenya Colony and Protectorate, Department of Education, Annual Reports and Summaries from 1924 to 1968, and (2) reviews and analyses on Kenya African education.

(b) Interviews
Personal interviews have been conducted with Kenya educational officials, diplomats and politicians.[2]

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[1]Dael Wolfle, "Elements of Methodology of Comparative Education," Science Education News (September, 1963), p. 3.

[2]The group includes the Vice President of Kenya, Mr. Moi, during his visit to the United States in May, 1969.

(c) Reviews.
Review of literature and committees' reports and recommendations on African education which include the following: (1) Phelps-Stokes reports of 1921 and 1925, (2) Addis-Ababa Reports by the Organization of the African States. A plan for African educational development. (3) Colonial Development and Welfare Acts (1940-1960) for education in United Kingdom Dependencies, (4) United Nations Education, Science and Cultural Organization (UNESCO), Educational Reports on Africa, and lastly (5) Beecher (1949), Binns (1952), Cambridge Conference (1956), Griffith Report (1962), Tannarive Report (1963), and Hunter Report (1962), and Reports (1963-1968) from Republic of Kenya, Ministry of Education.

(d) Questionnaires
This will include questionnaires to 146 administrators of Kenya Secondary Schools. Included in this number are some of the schools with two or more "streams" of classes. Still other questionnaires have been sent to individuals as a means and source of information.

Organizational Pattern

The first chapter of this dissertation presents and describes the problem and its contents, the needs that justify and make this study an apropos one at this particular time. In addition to this it has outlined the study's basis assumption, design, limitation, definitions of the terms used and finally the scope and procedures. The premises of this study are based on the relevance of the various findings through research. These include the phases of expansion, development and advancement of Kenya secondary education from 1924 to 1968 with some special emphasis on the African secondary education.

Chapter II includes the review and historical aspects of secondary education in Kenya. Also included are all the forces that helped to shape it into the present status that it is, (a) missionaries,

(b) colonial decisions and policies, and lastly (c) the African - (natives) responses. Chapter III depicts the present status of secondary education in Kenya, while Chapter IV presents a model for construction and development of a secondary school program of study.

Chapter V contains (a) recommendations to the Ministry of Education, (b) summary, (c) conclusion, and lastly (d) appendix,

CHAPTER II

FOUNDATIONS OF KENYA AFRICAN EDUCATION

Probably the most conspicuous of all the connotations of the term knowledge is the concept of education. Most persons today relate this term with body of fact and truths ascertained by others in one or more orderly sequence. However, this is not always so as pointed out by Jomo Kenyatta in his anthropological text about Kikuyu where he speaks of education to be a process that begins at the time of ones birth and ends at death.[1] The word education comes from two latin words literally meaning to "draw out"[2] partially because of its suggestiveness it has caused great disputes amidst the educators and linguists as to its true meaning.[3]

The common concept of education as understood by the multitude is that which takes place in what is commonly known as "school." This falls short of what must be included especially when the African education is a topic. Unfortunately, this term continues to be associated with what has been ascertained by others and stored in libraries of all

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[1]Jomo Kenyatta, Facing Mount Kenya (London: Martin Secker and Warburg, Ltd., 1938), p. 99.

[2]Rev. J. K. Fraser, "Education," Commercialism in Education (Ohio: F. W. Barton Publishers, 1938), p. 24.

[3]Ibid.

kinds and sizes with materials bound and found in rows and rows of atlases, encyclopedias, histories, biographies, and various types of books on travels and scientific treaties.[1] A meaning of any term by large depends on one's previous exposure and experiences.[2]

Then what is education? When does it start? Where and when does it end? How does one acquire it?

Education is a process in which one acquires the knowledge about himself, his future tasks and role(s) and understanding about the world around him. This knowledge is transmitted from one individual to another through various media of communication. This includes more than what we get from formal school systems.

The above questions were posed to 261 students from three large universities.[3] As outlined in Table 1 a larger portion (65.5%) of the American students restricted their answers to refer to the type of education gained from attendance of a formal educational institution (i.e.,

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[1]John Dewey, "Ways of Knowing," Democracy and Education (New York: Macmillan Company, 1961), pp. 220-21.

[2]Among the helpful sources on the meaning of this term education see Thorndike-Barnhart, Comprehensive Desk Dictionary (New York: Scott Foresman and Company, 1953); G.F. Hallock, Cyclopedia of Commencement Sermons and Baccalaureate Addresses (Ohio: F.M. Barton Publishers, 1938) and John S. Brubacher (ed.), Eclectic Philosophy of Education (New York: Prentice-Hall, Inc., 1951).

For education in colonies see: Arthur Mayhew C.M.D., C.I.E., Education in the Colonial Empire (London: Longmans Green and Company, 1938).

[3]These were Indiana State University (1968), Howard University (1969), and University College, Nairobi (1969) with 92, 68, and 101 students respectively. The 6 responses from the fourth university were dropped without any statistical significance.

schools and colleges). Their answers excluded the type of education gained from informal and traditional means. On the other hand a very large portion (85%) of the African students included the latter type of education--that conforms to Antipa Othieno's definition of education.[1] A further check revealed that sixty-five of these students had read part(s) or portions of Facing Mount Kenya by Jomo Kenyatta and two among this number had read it from cover to cover. This supports my hypothesis that we are influenced by the ideas expressed in the books we read.

TABLE 1

THE RESPONSES AS TO THE MEANING OF WORD EDUCATION

Schools	Responses	Restrictive (A)	Inclusive (B)	Both (C)
Ind. State University	92	64/ /70%	21/ /22.8%	7/ /7.2%
Howard University	68	41/ /61%	27/ /39%	0/ /0%
Univ. Col. Nairobi	101	14/ /14%	85/ /85%	2/ /1%
Total	261	119	133	9

[1] According to Mr. Othieno's definition of traditional education is that which is harmonized with both the individual and his surroundings with nothing corresponding or similar to today's schools. Teaching is not a distinct profession for curriculum, but is lived daily by each and every member of the group.

Logically, education can be divided into two broad categories, namely (a) the informal education and, (b) the formal education. The informal type is more prevalent a method of educating the young as well as the old in a traditional society of which--it is true to say--Kenya was at one time.[1] In a traditional society education must provide the social need and knowledge about the group; it must be broad in scope and the controls must be vested within all the adult members of the group.[2] Herskovitz identifies the following means of accomplishing what the education is supposed to acquire as a measure for its worthiness:

(a) informally, the parents and elders in such a society must function as instructors;
(b) the young must serve as apprentices to craftsmen;
(c) by initiation rights the young men become full members of the society;[3]
(d) the fellowship and unity of various groups is rather a remarkable thing that binds the entire group and shares the joy and sorrows of the whole group.

Far more important than the specific skills or training primarily given, was the knowledge of the behavior pattern and the history of the society. The accomplishment of this was possible through

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[1]A number of studies have been done on the transitions from traditional to formal educational systems in the African society. Of these see: Daniel Lerner, The Passing of the Traditional Society (Glencoe: The Free Press, 1958); Aidan Southall (ed.), Social Changes in Modern Africa (London: Oxford University Press, 1961); and J. Goldthorpe, Outline of the East African Societies (Kampala: Department of Sociology, Makerere University College, 1962).

[2]Antipa Othieno, An Outline of History of Education in East Africa, 1844-1925 (unpublished Doctoral dissertation, Columbia University, 1963), p. 13.

[3]Melville Herskovitz, The Human Factor in Changing Africa (New York: Knopf, 1962), p. 221.

songs, dances, stories, and other complex network of extended family histories, age grouping and interrelationship between individuals.

Historical Aspect and Background

When the missionary education and their contribution to Kenya is the topic, the reference is to the formal educational system of which Kenya is greatly indebted to various Christian bodies. By far the missionaries have contributed much in the elementary education than in any other level, for when Africa is taken as a whole, 80 per cent of elementary schools in the tropical Africa were missionary schools in 1925. Uganda had a little less than 100 per cent of all primary schools in the hands of missionaries in the same year.[1] Their contribution is a fact that has been acknowledged through appreciation by many of the African leaders. Otiende has praised the missionaries for their invaluable contribution to the welfare of all Kenyans.[2] The President of the Kenya National Teachers Union acknowledged the appreciation of the missionary contribution and welcomed them to continue doing the same in an independent Kenya.[3] Many statements have been made to show the appreciation of the work and contribution by many Christian missionaries who in time were willing to speak on behalf of the African interest in

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[1]Arthur Mayhew C.M.G., C.I.E., Education in the Colonial Empire (London: Longmans Green and Company, 1938), p. 92.

[2]J. Otiende, "The Clamour of Learning," East African Standard (December 12, 1963), p. 12.

[3]J. K. Koni, "Religion in Schools," Kenya National Union of Teachers, Reporter, vol. 3, No. 95 (December 21, 1963), p. 21.

Kenya as well as in the other corners of the African continent of which the following is but one example:

> In almost every case the missionary was far ahead of the government, and in many cases even of the trader. As political control advanced, he was prepared to welcome it and to co-operate enthusiastically with the government, insofar as he was convinced that its presence was of benefit to the African himself. He was equally prepared to fight it, if it seemed to him that the rights of the African were being infringed or betrayed.[1]

The Christian Church has been in most of the times willing and did much to improve the social condition of the Kenyans of all creeds. The same church is willing today to contribute what it can in the field of education. This fact is evidenced by a statement by the Christian churches of Kenya to the Kenyan government. The paper is jointly signed by the Bishop Obadiah Kariuki of Fort Hall[2] (Kenya) and the Roman Catholic Archbishop of Nairobi, Rev. John J. MaCarth, which reads in part:

> . . . experiences in education in Kenya, we want to be able to place at the service of the state the further services of our teaching staff and to have our members participate on the educational committees concerned with planning, policy and professional research.[3]

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[1]Stephen Neill, "British in Africa," Colonialism and Christian Missions (New York: McGraw-Hill Book Company, 1966), p. 309.

[2]Bishop Obadiah Kariuki of Fort Hall was among the first three African churchmen in the African Church of East Africa to attain the rank of bishophood in the late '50's. He is also the chairman of the Interdenominational Kenya Christian Churches Educational Association.

[3]Christian Council of Kenya, "Church and Schools," Reporter, vol. 3, No. 94 (December 14, 1963), p. 41.

To the missionaries in Kenya as well as to those all over the world, man is a citizen of an "Abiding City," but he has also to exercise his citizenship in a temporal society and he must be educated to understand his dual citizenship.[1]

According to the missionaries in Kenya man must receive complete education that is education for the body, for the mind and for the soul.[2] It is a mistake to cultivate one part of the above-mentioned and neglect the others. This has been the operational philosophy of Christian education in Kenya.

In any period of Kenya's history we find that most of the schools have been missionary enterprises, particularly those of lower levels. At the same time we find out that majority of these schools were recipients of colonial government grants and aids and in some cases the grants received covered a large portion of the operational costs.[3] These schools must in return submit themselves to the governmental supervision and inspection as a condition to receiving financial assistance.[4]

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[1]Nuffield Foundation and Colonial Office, African Education; A Study of Educational Policy and Practice in British Tropical Area (Oxford: Oxford University Press, 1953), p. 63. Hereafter referred to as the African education.

[2]If man were only a body, athletics would be the whole of education. If he were only a mind, mental culture would be his total knowledge. But if he has a body, mind and soul, then education as seen by Christian educators, is the cultivation, development and efficiency of all three; see Reporter, vol. 3, No. 100 (February 14, 1964), p. 33.

[3]Arthur Moehlman and Roucek (eds.), "Africa: Educational Theories and Practice," Comparative Education (New York: The Dryden Press, 1952), pp. 414-47.

[4]L. J. Lewis, "Africa Social and Economic Background," The Yearbook of Education, 1949 (London: Evans Brothers, Ltd., 1950), pp. 312-13.

Although the missionaries did not have territorial claim - collectively they formed an important factor in the determination of policies by acting as a lobby in London. An example of this occurred during their interference in the political scene in the year 1921 when Reverend J. Oldham of the International Missionary Council sent a private memorandum to the Colonial office in England protesting Governor Northey's consent on Kenya's policy of compulsory labor which was harmful to the relationship between the African and Europeans, and left no choice for the Africans who were forced to work for settlers.[1] Reverend Oldham urged the government (England) to pursue a policy of maintaining individual integrity through education and industrial training that would upgrade the standard of living for the whole population.[2]

Sir Winston Churchill, who was the colonial secretary during this period of time, sent an urgent dispatch to all government officials in Kenya prohibiting them from using or resorting to compulsory labor unless absolutely necessary. This was indirectly aimed at Kenya's settlers for his dispatch continued to ask the European community "to adapt a more consistent attitude to that outlined by colonial office in dealing with the Africans."[3]

Due to Oldham and his colleagues' untiring efforts or persistence there began to emerge the policy in which the legitimate demands

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[1]Roland Oliver, The Missionary Factor in East Africa (London: Longmans, Green and Company, 1952), pp. 255-56.

[2]Ibid., p. 255.

[3]Kenneth Ingham, A History of East Africa (London: Cox and Wynman, Ltd., 1962), p. 346.

of the government and the European settlers in Kenya were balanced against the importance of the demands of encouraging the Africans to cultivate and improve their land in their reserves to the best of their knowledge and ability.

Both ignorance and inefficiency in handling African's legitimate claims have been responsible for the injustice rather than intentional malice among the holders of power.[1]

It was in early 1964 when Otiende, the first Minister of Education in an independent Kenya, was a guest speaker at the conference at Limuru by the Christian Council of Kenya and acknowledged in detail the educational contribution by various voluntary agencies and asked them to continue within the new administrative (educational) structure.[2] He continued to speak and explain the necessity of unification and centralization for the efforts in order to cause the necessary educational changes within the young Republic of Kenya.

The whole speech must have been a disillusion to many of the missionaries who had attended the conference and who thought that the church schools were going to continue to enjoy the autonomy their schools had had. At this period, and soon after independence the Kenya government had decided to re-evaluate all the secondary school programs and

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[1]East African Protectorate, Official Correspondence Relating to the Masai of Kenya (London: OHMS, Cd. 5584 of 1911), p. 11.

[2]The enrollment in elementary levels in Kenya had impressively risen from 891,553 (1963) to 1,028,000 (1965) and therefore, it was the most immediate need of the government to increase and expand secondary school facilities as rapidly as the supply of teachers permitted; see Republic of Kenya, African Socialism and Its Application to Planning in Kenya (Nairobi: Government Printers, n.d.), pp. 39-41.

make suggestions and proposals to the Ministry of Education which was to be given mandate by an Educational Act by the end of 1964.[1] It should be noted that this is the first time in the history of Kenya when the government has taken keen and sincere efforts in guiding and directing educational growth rather than leaving it entirely to the missionaries and other noneducational voluntary agencies.

There was very little done during the 1940's and early 1950's in respect to any educational development in Kenya. Due to this state of affairs, Mr. Mathieson, a top Administrator in the Department of Education, saw it right to use the political uncertainty as a scape-goat in one of his reports on educational progress.[2] The educational progress during these times was either through non-educational policies by government or by private and voluntary agencies. In the late part of 1956 a ten-year educational plan was conceived, but the political developments and changes unfortunately or otherwise had outdated the plan before it left the drawing tables.[3]

In short, the essence of the plan was, "education for a few." Now the political scenery had changed and the African dream of reality

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[1]The executive responsibility of all schools was provided by an Educational Act of 1964 to the Minister of Education. See Kenya Constitutional (Amendment) 1964 and Republic of Kenya, Ministry of Education Annual Summary 1965 (Nairobi: Government Printers, n.d.), p. 3.

[2]Mr. Mathieson was Kenya's Minister of Education in 1950's, a major contributor and designer of the 1956 ten-year educational plan that was a great disappointment to Kenya's Colonial Authority. See Kenya Colony and Protectorate, Legislative Council Reports, vol. 85 (May 17, 1960), pp. 684-85.

[3]Ibid., p. 685.

was about in hand and the prevailing mood all over the country was dulce et decorum est pro patria mori and the youth were about to reenter the numerous newly opened secondary schools,[1] including the previously closed African independent schools. The inefficacy of the above-mentioned ten-year plan supports this writer's hypothesis of "education for a few" as the colonial aim of African education in Kenya.

How appropriate was the African education then under the colonial paternalism in Kenya? In answer to this question the author ventures to say that the suitability of the educational system particularly to that one of secondary level is beyond the ratiocination of African people. There are those who thought of it as malapropos of which S. O. Ayodo, the present Minister of Tourism and Wildlife, has this to say, "We want our children to be educated as nationals (citizens) and not as colonials . . . nor citizens of foreign powers."[2] About the same time Sekou Toure, the President of the Republic of Guinea (West Africa) in a speech kept on referring to the importance of immediate Africanization of entire educational institution as the first step in correcting the evil implanted in the minds of the African people.[3] This is what Tom Mboya has to say on the inexpediency and inutility of the African education as designed and administered by Kenya Colonial Government:

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[1]Kenya Colony and Protectorate, Legislative Council Reports, vol. 87, (July 4, 1961), pp. 2250-51.

[2]Ibid., p. 2693.

[3]President Sekou Toure of the Republic of Guinea, "Decolonizing the Church in East Africa," East African Journal, vol. IV, No. 4 (July, 1967), p. 14.

> We have had in this country an educational system geared to meet a colonial psychology and a colonial atmosphere that kind of education has created a kind of educated person that, to a large extent, would fail to meet the new emotional, psychological and social problem that will arise after independent and nationhood. Our new system must aim at eliminating the colonial psychology and creating a truly independent psychology aimed at installing in the minds of boys and girls the pride that they are Africans . . . greater appreciation of African culture, history and the African personality.[1]

To accomplish what Mboya speaks about Ayodo suggests that the young people should be taught how the government of Kenya functions.[2] At the same time Kioni of Kenya National Union of Teachers thinks Africanization of all administrative posts can be only the means of achieving what Mboya speaks about.[3]

Virtually all the schools that existed before Kenya's independence in 1963 owe their roots in the efforts of Christian missionaries who belonged to several denominations. In some of the African countries like Gambia missionary schools existed longer than 100 years before the first government schools appeared.[4] However, many of these schools did receive a substantial support from the government. The only requirements and qualifications to this financial support was that the school concerned must meet the standard subscribed by the government to schools

[1]Kenya Colony and Protectorate, "Education," Legislative Council Debate on July 21 (Nairobi: Government Printers, 1961), pp. 2693-94.

[2]Ibid., p. 2557.

[3]S. J. Kioni, "Kenya National Union of Teachers Newsletter," Reporter, vol. III (January 4, 1964), p. 15.

[4]Arthur Mayhew C.M.G., C.I.E., "Education," Education in the Colonial Empire (London: Longmans Green and Company, 1938), p. 102.

of its kind and its locality. Because of the financial needs the missionary schools became reluctant partners of colonial authority in Kenya and as such the purpose of education took a sharp turn from the original purpose it was initially designed for that is spreading of the gospel.[1]

It is interesting to note that even schools run by various Christian missionaries fitted ascribed policies of the colonial government. The greatest bait that brought them under the colonial wings was that of financial aid and grants and other schools were to teach for externally constructed examinations such as Overseas Cambridge School Certificate.[2]

Although it is generally true as Mr. Holmes says--education in all the British dependencies have their roots from England and their systems were designed and began before the first British settlers had set foot on their "new" lands. This is a generalization that bears some truth.[3] Schools in British Protectorate were encouraged to use the local vernacular[4] as the medium of instructions in both elementary and middle standards. This policy was not universally accepted by all the

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[1]For analysis on "unwilling partners," see Olawale Elias Q.C., Government and Politics in Africa (New York: Evans Brothers Ltd., 1950), pp. 312-13.

[2]Lewis, op. cit., pp. 312-13.

[3]Moehlman and Roucek, op. cit., p. 422.

[4]Lord Lugard (ed.), "Education in Africa," The Dual Mandate in British Tropical Africa (London: Frank Cass Company, Ltd., 1965), p. 610.

countries under British Colonial Government, in fact a political war was waged against this policy but to find out that the decision was but a firm one intended for all the colonies under the Colonial Government.[1]

The vernacular policy was translated and viewed as a tool of advancement of "Divide and Rule Doctrine."[2] However, within Moslem communities the policy enthusiastically welcomed for they thought of English as an unholy language only for worldly usage while Arabic was to be learned for religious reasons and entrance into heaven.[3] On the other hand the French attitude was that all "their schools" must use French language except for additional instruction for temporary use or local experiment.[4]

It seems that each one of these two different educational policies has some merit and demerit. First the British policy does not provide for atmosphere that would foster the unity among the inhabitants of a given territory. At elementary school levels children are at their formative years where instructions should be geared and directed toward desirable goals as it was the task of philanthropian schools.[5] If a

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[1]Oliver, op. cit., p. 275.

[2]Scipio, "Education for Elite," The Emergent Africa (Boston: Houghton Mifflin Company, 1965), p. 107.
Soon after independence Ghana adopted English as a medium of instruction from first grade onward. The policy of using vernacular was interpreted as being imperialistic inspired, aimed at dividing the African people for the convenience of ruling them.

[3]Lugard, op. cit., p. 453. [4]Ibid.

[5]Philanthropinon were schools founded in Germany in the year 1774 of the province Dessau. The major task was for unification of the country that was torn into pieces by civil and external wars.

child can learn better in his own vernacular that would only be a defense for this policy. After completion of secondary school course students had to sit for Overseas-Cambridge School examination which is given in English which requires longer periods of preparation and should start from the primary grade.

As a result of this policy the teachers shortage became a very perplexing problem in Kenya schools for it was only those who could speak local vernacular who could be hired to teach.[1] As a conclusion this policy has not been of any benefit to the country nor to the people it was supposed to serve.[2] On the other hand it was French who could employ the expatriate to teach in their territories in Africa and therefore the problem of the teachers shortage has never been a hindrance to the educational development in these regions but this was impossible with the British. It should be mentioned at this stage that the Moslems living under the French were opposed to the educational policy of using French in the lower grades for the reason that they considered French to be an unholy language and unsuitable for their children.[3]

The only disadvantage that can be seen so far is that by the French policy attempts were made to transpose the educational approach to wrong people. This was a breach by missionary educational experts,[4]

[1]David Muriithi, "Education and Nationalism in Kenya," Teachers College Record, vol. LXVI, No. 61 (March, 1955), p. 302.

[2]Ibid., p. 339.

[3]The Moslems considered French to be an unholy language only to be used for commercial usage, while Arabic should be taught for religious reasons and entrance into heaven.

[4]Max Millikan and Blackmer, The Emerging Nations (Boston: Little, Brown and Company, 1961), p. 32.

who also on the behalf of the colonial power they adopted some policy questionable in the light of Christian ethics,[1] lest they lose their financial support which was a quid pro quo gained by the colonial power.

By the method of financial support the government had acquired an indirect rule[2] and et id genus omne, and consequently the missionary schools policy became closely linked with the interests of the colonial powers, a fact which is very sad indeed.[3]

Exploratory and Penetration Period (1800-1860)

This is a preponderant period which is characterized by various groups of individuals who took the most daring tours to unknown destinations. As it will be read in the pages to follow the earlier visitors motivated the latter groups with their hyperbolic narrations concerning the people in these lands whom they considered strange, the newcomers curiosity justified thereby their mission.

There arose curiosity among friends as well as among critics who found it hard to rationalize the appearance of an equatorial snowy mountain.[4] The latter group contained some of the famous armchaired

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[1]Scipio, op. cit., pp. 98-119.

[2]Stephen Neill, "British in Africa," Colonialism and Christian Missions (New York: McGraw Hill Book Company, 1966), p. 301.

[3]M.D. Odinga, "Decolonizing the Church in East Africa," East Africa Journal, vol. IV, No. 4 (July, 1967), p. 13.

[4]Mt. Kenya, which rises to the altitude of 17,058 feet above sea level is an equatorial mountain with an icecap on the top which has never melted. The Republic of Kenya borrowed its name from Mt. Kenya. Erroneously, Rev. John L. Krapf claims its discovery ignoring the fact that the

London geographers, a fact that still puzzles English historians.[1] Many came, of which John Ludwig Krapf, a German missionary, was the first European to set foot on Kenya's soil in the year 1844, through the way of Abyssinia.[2] He sailed down to Zanzibar where he entertained the Sultan Syyid Said who was greatly fascinated by his art of delineation about the inhabitants of the inland for his was satis verborum.

With the material help he received from the Sultan, Krapf was able to continue his journey upward to Mombasa,[3] where he settled after founding the first Christian mission at Rabai which is a few miles inland from Mombasa. In this he was assisted by Reverend Rebmann in 1846.[4] In the same year the two missionaries set out on expedition tours. They had a great admiration for the geographical features of the land and on these they based their tales, says Ingham:

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indigeneous people (including this author's ancestors) had lived on the area surrounding this mountain for centuries before then. In the same fashion Rev. J. Rebmann claims the discovery of Mt. Kilimanjaro; see Kenneth Ingham, A History of East Africa (London: Cox and Wyman, Ltd., 1962), p. 9; see also Beaver and Stamp, Africa: Regional Geography (London: Longmans, Green and Company, 1960), pp. 147-67, 163-71.

[1]One geographer even wrote a huge volume in form of a book to prove how either Mts. Kenya and Kilimanjaro could not exist; cf. Z. A. March and G.W. Kingsnorth, "Discovery of Mts. Kenya and Kilimanjaro," An Introduction to the History of East Africa (London: Cambridge University Press, 1965), p. 53.

[2]The present Republic of Ethiopia under H.E. Emperor Hile Selassie I; see George A. Lipsky, Ethiopia, Its People, Society and Culture (New Haven: Hraf Press, 1962), pp. 16-21.

[3]Mombasa was the largest city by then in seagate to Kenya and also a commercial center.

[4]Kenneth Ingham, A History of West Africa (London: Cox and Wyman, Ltd., 1962), p. 88.

> Yet much of the fate of the African explorers is that, although they had seen the mountains clearly and had spent some times at bases and reported snow-capped eminence standing on the equator . . . arose violent opposition among friends, critics, and geographers of England.[1]

Many of the people who read these descriptions about these equatorial lands turned to be highly critical without due consideration of expertu crede and many set out to see for themselves.

The British and Germans were the European powers who were induced to seek and know more about these East African lands, and by the year 1895, both these powers had come to a conference in Berlin to decide their respective "spheres" of influence after which Kenya became a British colony on November 26, 1895. This act is said to have shocked the moral rectitude of Christian people in Europe in connection with the signing of a treaty which they thought to be deceptive to the natives and contrary to the Christian virtue.[2]

There were no direct contributions to secondary education by this group. However, it should be mentioned here that their recitals and narrative ability were the mainspring to many who came to establish Christian missions and some schools which laid a firm foundation of Kenya's future educational system.

After the country fell into the hands of the colonial empire the British did nothing constructive but they embarked policies that

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[1]Ibid., p. 89.

[2]Do unto others as you would have them do unto you. See Jean Jacques Rousseau, Emil (London: University Printing House, 1966), p. 197.

were destructive to the traditional institutions of the African society, which was primarily social in its purpose, broad in scope and communal in control.[1] Kenya has been said to be poor and would remain so according to Mayhew's theory that states, ". . . in less developed countries the social services (i.e., education) are accorded small portions of expenditure for peace, order and security must be established first."[2] This was accomplished through the works and cooperative attitude of the missionary societies. In Kenya as well as the other East African territories it was the large communities in the interior that became the centers for educational developments. Unlike the coastal region of West Africa the eastern coast was heavily populated by Moslems (Muslims or Islam) a fact which encouraged the early missionaries to forsake the coastal cities and bear the inconveniences of long overland safaris.[3]

Missionary Period (1860-1950)

There are many factors that might have motivated missionaries and therefore primum mobile in their coming to Kenya. One of these factors as reportedly said is "And He said unto them, Go ye into all

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[1]Antipa Othieno, An Outline of History of Education in East Africa: 1844-1925 (unpublished Doctoral dissertation, Columbia University, 1963), p. 167.

[2]Mayhew, op. cit., p. 71.

[3]School existed where missionaries found physical and social climate in which it was possible to establish a mission post. Unfortunately, during these periods the East Avrican coastal region was under the influence of Muslum dynasties; see Robert A. Lystad (ed.), "Education," The African World (London: Pall Mall Press, 1965), p. 200.

the world and preach the Gospel to every creature,"[1] a biblical passage that seemed to have motivated those who came to a land unknown to even the learned fellow countrymen. However, a word of caution must be inserted here for all generalizations like this one are subject to exceptions and other qualifications. It also should be mentioned here that they are those who came to Kenya, and for that matter to many other African countries to look for more comfortable existence as has been reported by Lord Huxley; "I have met some missionaries who obviously found in mission life to Africa a much freer, ampler and more comfortable existence than any they could have looked forward to at (England) home. . . ."[2]

Lord Huxley goes on to describe this group of missionaries by saying that they act and behave like little lords of their small domains surrounded by black men and women compelled to serve them.[3] Another motivating factor might have been to come and strengthen the British anti-slavery forces, for it was during this period when England had decreed slavery illegal, and an Act of 1833 liberated all the slaves in British Commonwealth countries.[4]

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[1]New Testament, St. Mark 16:15.

[2]Julian Huxley, "Mission and Life in Africa," Africa View (New York: Harper and Brothers, 1931), p. 337.

[3]Ibid., p. 338.

[4]Stephen Neill, "Slavery in Africa," Colonialism and Christian Missions (New York: McGraw Hill Book Company, 1966), p. 276.

The enforcement of this Act of 1833 was a difficult task even to British who had a mighty Navy force around the world seas, and it was during this time when some missionaries, humanitarians and imperialist alike were becoming more and more convinced that the total elimination of slavery and its evil remnants was only possible by permanent occupation of the African continent by some European powers.[1] This will give an access and enable a constant check on Arabs who were reportedly deeply involved in the slave trade.[2]

Unfortunately, there were times when some missionaries acted in the interest of the colonialists and therefore aiding to the confusion of their role against that of imperial government. In 1890 there were occurrences among missionaries imbued with prejudiced feeling of racial superiority which only served to worsen the relationship with the Africans,[3] and therefore revealed their inherent inconsistency in their dealings as reported in 1926 Annual Report of Kenya Department of Education.[4] This gravely hindered the effectiveness of their (the missionaries) work of evangelization and increased the degree of distrust among the natives.[5]

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[1]Ibid., p. 274. For further analysis of this Act 1833: see F. Flint, "The Background of East Africa," History of East Africa (Oxford: Clarendon Press, 1966), p. 356.

[2]Neill, op. cit., p. 275.

[3]Ibid., pp. 314-15.

[4]Kenya Colony and Protectorate, Department of Education Annual Report (Nairobi: Government Printers, 1926), p. 17.

[5]F.B. Welbourne, "East African Rebels," A Study of Some Independent Churches (London: S.C.M. Press, 1961), p. 111.

On the other hand we find some of those early missionaries who thought of African betterment to be only through colonization. Among this group we find Reverend G. Grenfell, a famous Baptist Minister in 1888 who had this to say, ". . . if the civilized powers claiming the heart of Africa would occupy as well as claim, this would once brighten the horizon of these territories with promise and the evil would give place to prosperity and peace."[1] This is to say that it is only the presence of the power of the Christian nations that can lead Africa once and forever this endemic plague[2] caused by ravage of slave trade.[3] Slavery existed in many habitats of human species, in Athens and Rome the slaves outnumbered the free men.[4]

The Christians drew their sling of slavery by the claim that, "all men are created equal by their Creator." Unfortunately, this piece of philosophy was not universally accepted by all Christians of all faiths at all times. Neither did all types of slavery receive equal condemnation from those who were high in the hierarchies of the Christian churches as the following illustrates:

> Til the end of the middle ages monasteries and ecclesiastics possessed slaves and their right to do so was defended by a Pope as late as 1542, though in the very same period Popes protested against the wholesale enslavement of the newly discovered peoples in the Western World.[5]

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[1]Stephen Neill, "Slavery in Africa," Colonialism and Christian Missions (New York: McGraw Hill Book Company, 1966), p. 275.

[2]Roland Slade, English Speaking Missions in the Congo Independent State (London: Longmans, Green and Company, 1921), p. 112.

[3]Ibid., p. 113.

[4]Neill, "Slavery in Africa," p. 266.

[5]Ibid., p. 275.

Was he (Pope) not silent for the enslavement of the black people?[1] The torment of slavery ended only because the minds of civilized people everywhere underwent a revolutionary change that spread the humanitarianism.[2] At the same time there were those in high governmental offices who needed time for changes of which Sir John Hawkins[3] is an example of pis aller group.

Missionaries and Secondary Education in Kenya

The teaching and training of one's future role and responsibility in Kenya was carried through many combinations of educational media. In a traditional society[4] such as Kenya was in past and before the invasion of Christianity such training and teaching were carried informally but with lasting impressive effects. The education for an African child during this time was rather scant and most practical in nature says Kenyatta[5] and without the formal schooling; then the early training

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[1] During the mid 1500's, Popes had condemned the enslavement of the natives of the newly discovered lands in the western hemisphere and noted is the absence of condemnation and protest of the ravagious acts against the black people in Africa.

[2] Neill, "Slavery in Africa," p. 267.

[3] Sir John Hawkins was a noble and brave seaman of the Elizabethan period who engaged himself in the slave trade while in the service of her Majesty Queen Elizabeth I. Equally he was a man of low moral character and rapacious manner who reportedly raided Africans and sold them in West Indies as slaves; see Neill, "Slavery in Africa,"

[4] Kenyatta, op. cit., pp. 98-129. For analysis of traditional society see: E.B. Castle, "African Traditional Education," Growing up in East Africa (London: Oxford University Press, 1966), pp. 39-55; David G. Scanlon, Tradition of African Education (New York: Columbia University Press, 1964); and Kenneth S. Carlston, Social Theory and African Tribal Organization (Urbana: University of Illinois Press, 1968).

[5] Kenyatta, op. cit., p. 99.

was left a duty and responsibility of the father and mother or someone else in the household while later such functions were left as the obligation of other members of the community. Needless to say that for the youth the rites de passege mark the combination of epoch in his life as he assumes different role. In Kenya the moral training occupied a very special place as it did in Rome. This was an asset to the group unity and the formations of one's character: ". . . would urge that the lines that he is said to copy should not express thought of no significance, but convey some sound moral lesson . . . and the impression made upon his unformed mind will contribute to the formation of his character."[1]

The Christian missionaries came to Kenya from the European countries long before the establishment of the British Colonial Government in the country, indeed it was a sad fact that they came from the same places, in the same manner and about the same time. The whole implication has earned them a similar identity. The colonial establishment took rather a slow process for it was not until the famous Berlin Conference (1895), that the British claimed the lordship over Kenya. This slowness was a means to conceal their territorial ravenousness as revealed by the later events. It should be mentioned that in addition to the wealth accumulated from colonial administering it was conceded an essential decora for great power.[2] A colony was by all means regarded as a place where huge fortunes could be amassed by governments and

[1]Grant Sowerman, "Education," Rome and Romans (New York: MacMillan Company, 1949), pp. 199-200.

[2]H.A. Wieschhoff, "Do Dependencies Pay?" African Handbook 5: Colonial Policies in Africa (Philadelphia: University of Pennsylvania Press, 1944), p. 16.

and individuals participating in colonial enterprises particularly those not gainable through the international investment and commerce,[1] through contingent form of economic controls. Indeed there may be some failures as normally expected in a commercial dealing.

For a period of over fifty years the Christian mission had enjoyed the monopoly before the colonial exploiters interfered with their daily life activities. They had established some schools at least one in every missionary post, and in these schools they held small bible classes where they taught catechism for those preparing for ministerial callings. It was not until later years they added the basic three "R's" into their instructions for at that stage the Anglican Church had come to recognize education as a sine quo non for the spreading of the Gospel.[2] After this time we find the same method adapted by every denomination in their attempt of gaining many converts as possible.

Today the Catholic Church is reported to have the largest number of adherents among the Christian denominations[3] followed closely by all the other protestant churches put together.[4] With 600,000 believers in 1966, the Society of Friends had the largest membership anywhere in the world.[5]

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[1]William Barbar, "The Colonial Hangover and Economic Policy in Undeveloped Countries," The Yale Review, vol. LXIII, No. 2 (December, 1968), p. 185.

[2]C.P. Groves, The Planting of Christianity in Africa (London: Lutterworth Press, 1954), p. 151.

[3]At present the Catholic Church is reported to have over 1.7 millions of believers; see S.H. Steinberg (ed.), "Kenya," The Statesmen Yearbook (New York: St. Martin Press, 1967), pp. 521-27.

[4]Ibid., p. 523. [5]Ibid.

The British Colonial Authority is supposed to have been invited by some missionaries (Dr. Livingston) from the fear that Germany might have taken Kenya for the latter was considered to be a worse evil.[1] A little persuasion to the British public was necessary for by then the prevailing economic theory was that "colonies are a bad investment,"[2] but later this theory was found to be invalid. To support this idea of invitation, Oliver has mentioned a number of things that the missionaries did to ensure and make the occupation possible--their contacts with the natives were peaceful and did arrange for many concessions and opening of new businesses in behalf of the newcomers[3] and therefore all types of exploitation grew under the wings of Christianity[4] and at last the flag followed the cross.[5]

The missionaries did much that was gainful to the colonial administration without any cost to the latter. They spread the use of English language and inducted the natives to the western mode of life and thinking in a fashion doubtful as to whether it would have been achieved without the missionaries and their assistance through education and religion.[6] According to Oliver there seems to be no differences between

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[1]Oliver, op. cit.

[2]H.A. Wieschhoff, op. cit., pp. 22-23.

[3]Rene Maunier, The Sociology of Colonialism (London: Routledge-Paul Publishers, 1949), p. 23.

[4]Ibid., p. 23.

[5]Oliver, op. cit., p. 162.

[6]Ibid., p. 128.

the missionary and colonial motives but the former is noticeably concerned about the African spiritual salvation.[1] At the same time Odinga regards the missionaries to be the most blemishious group who thought its services to be of monopoly to some races in the world.[2] This is what he continues to say:

> The fact that the unsolicited . . . persons in European lands to start trotting along the globe looking for fresh lands where the word of God in their own form was unknown proves more than anything else the contemptuous attitude they must have had for the human essence of those people living in those lands. . . . The fact that religion inflicted these lands along side with the colonialism is very sad indeed.[3]

On the other extreme we find some who declare missionaries to be totally blameless for their deeds nor for the deeds of those under them. Such a group is represented by George Carpenter who states:

> At the time when almost every other agent related to Africa was engaged in exploiting the continent and its people, the Christian missionaries were already concerned with education. Everywhere, they were pioneer teachers. . . . In fact few then thought the African people capable of learning . . . almost universal under estimation of African intelligence . . . a misjudgment that is wide-spread today.[4]

Carpenter goes on to identify the missionaries' aim as that one of being concerned with Africans as persons and their full growth into stature of manhood and womanhood of which from the Christian point

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[1] Ibid., p. 178.

[2] M.D. Odinga, "Decolonizing the Christian Church in East Africa," East African Journal, vol. IV, No. 4 (July, 1967), p. 11.

[3] Ibid., pp. 11-13.

[4] George Wayland Carpenter, "African Education and the Christian Missions," Phi Delta Kappa, vol. XLI (January, 1960), p. 191.

of view was their birthright as children of the Almighty God. So teaching was and still is per essentiam service for Christians to render. And thus it came about that long before any government in modern Africa began to think about African education--the Christian missions were hard at the task.[1] There were Christian schools in Kenya long before the colonial government thought of African education. However, the early schools were founded as catechists' training centers and for the purpose of the spread of the Gospel.[2]

In Kenya as well as the other parts of Africa the foundation and development of formal education is synonymous with opening and establishment of Christian missions.[3] Protestant and Catholic missionaries alike saw education as a sine qua non for the spreading of the religious philosophy. In order to avoid any conflicts or confrontation with the colonial government the early missionaries were advised by their religious superiors to be willing and prepared to cooperate with all their power.[4] This coadjurement benefitted both parties in a unique way, that is:

a. The missionaries gained material means on which to extend their religious and educational activities.
b. The government had now acquired a say in the general operation of the schools in means of "indirect rule" by incircuitous method.[5]

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[1]Ibid., p. 191.

[2]Among the useful sources of missionary works in Kenya, see Oliver, op. cit., pp. 199-292, 299.

[3]C.P. Groves, The Planting of Christianity in Africa (London: Lutterworth Press, 1954), p. 151.

[4]Oliver, op. cit., p. 275.

[5]James Douglas, Missionary Education in Kenya and Uganda: A Study of Cooperation (London: International Missionary Council, 1936), p. 210.

c. The interpose of the aforementioned brought about a situation in which more formal education was offered to the African community.

It was Bishop (later a Cardinal) Arthur Hinsley who as Visitor Apostolic to the Catholic Mission in British Africa in 1927 reminded his Catholic missionaries in West Africa to consider education as an essential means of propagation of their evangelization.[1] In the following year 1928-29, Bishop Hinsley was invited as a guest speaker to a meeting held at Dar-es-salaam to work out methods of extending the conjunction between the missionaries and Kenya government in the respects of African education, and this is what he had to say to the Christian educators in East Africa: ". . . with all your power, and where it is impossible for you to carry on both the immediate task of evangelization and your educational work, neglect your church . . . in order to perfect your schools."[2]

It should be mentioned at this point that it was not all the Christian missionaries in Kenya who were interested in African education. To many of the interested, education was to enable the natives to perform res gestae of reading the scriptures in their tongues, and the feat was achievable at elementary standards. The exclusion of

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[1]J. Maze, La Collaboration Scolarie des Missions et des Gouvernements (Budapest: Akademiai Kiado, 1931), p. 112.

[2]At this meeting ways were paved out on gross cooperation between the government and Christian missions in the country. The financial aids and grants enabled many developmental projects to be carried on. Such projects were directed by the latter while supervised by the former (colonial government); see Kenya Colony and Protectorate, Education Department Annual Report (Nairobi: Government Printers, 1929), p. 15.

higher instructions at this early (1895-1925) stage was partly due to the then prevailing false social theory on the intellectual potency of the black people[1] and, therefore, the education beyond the elementary level was considered arbitrary to be "a point of diminishing (utility) return."[2] Both the government and missionary seemed to operate on the policy of instruire la masse et degages l'elite (literally meaning give primary "elementary" education to masses and win the elite.) Say both Oliver and Atmore.[3] In Kenya today there are approximately 3.2 million Christians of all faiths as indicated in the table below, and about three Muslims for every Christian.[4]

Due to the repeated suggestions by Phelps-Stokes commissions on African education in the year 1921 and 1925, the years between 1930 and 1950 witnessed a great degree of cooperation between the Kenya government and various voluntary agencies in the country. Most of these agencies were largely composed of various Christian bodies and missionaries.[5] Out

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[1]Carpenter, op. cit., p. 191.

[2]An economic theory that tries to explain the "desirability and price" in reference to the least utility attributed to any item of a supplied good, see Harold Sloan and Arnold Zurcher, A Dictionary of Economics (New York: Barnes and Noble, Inc., 1949), p. 163.

[3]Oliver and Atmore, "Education in British Colonies," Africa Since 1800, (London: Cambridge University Press, 1967), p. 166.

[4]Chester Bowles, Africa Challenge to America (Los Angeles: University of California Press, 1956), p. 38; H.W. Coxill (ed.), "Kenya," World Christian Handbook (New York: Abingdon Press, 1968), pp. 72-73, 98; and S.H. Steinburg, "Kenya;" The Statement's Yearbook (London: St. Martin's Press, 1968), p. 521.

[5]Great Britain Colonial Office, Educational Policy in British Tropical Africa: Cmd. 2347 (London: Her Majesty Stationary Office, 1925), p. 211.

of this combined efforts, resulted numerous surveys and commissions erected and appointed to study the most effective approach in African education in Kenya.[1]

TABLE 2

DIFFERENT FAITHS AND THE NUMBER OF THEIR ADHERENTS

Roman Catholic	1,170,000
Protestant	800,000
African Free Church	600,000
The Society of Friends	600,000
Islam (Mohamedan)	7,895,000

On June 6, 1925, Reverend Oldham suggested an establishment of a permanent Education Advisory Committee at the colonial office whose function would be to advise the colonial secretary on matters dealing with African education.[2] This was a positive step says Oliver.[3] Among the notable commissions born of this cooperation are analyzed and their contribution to Kenya secondary education are outlined.[4]

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[1] L. J. Lewis, Educational Policy and Practices in British Tropical Areas (London: Nelson and Sons, Ltd., 1954), p. 13.

[2] Ibid.

[3] Oliver, op. cit., p. 269.

[4] For the analysis of the contribution of various commissions to Kenya secondary schools: see p. 50 above.

Through the mutual cooperation between the government and the church funds became available for extension of educational institutions most of which were under the Christian missionaries.[1] The number of primary schools and other related facilities improved and increased sharply from 180 in 1920 to 2,500 in 1930, the largest percentage increase in the history of Kenya schools.

As clearly noted by Ward, Great Britain had reached a "turning point"[2] (1945) in all her political and educational policies toward her colonial dependencies. The meaningless paternalistic terminology of "trusteeship"[3] had been replaced with the term "partnership" a more humane term and on which the future multiracial government of Kenya was to be based.[4] Education increased the political awareness among the African community.[5]

During the pre and post-World War I years, the missionary activities in Kenya were by large concern only on primary and (elementary) education but the big change came about as a result of Phelps-Stokes Commission of 1921.[6] Their report is entitled African Education and was

[1]Mayhew, op. cit., p. 92 and Ward, "Kenya," African Education Commission (London: Edinburgh House Press, 1924), pp. 63-64.

[2]W.E.F. Ward, "Educational Progress in Britain Dependencies Since 1945," Educational Forum, vol. XXII, No. 4 (May, 1958), 445-46.

[3]Lord Houlay, An African Survey (London: Oxford University Press, 1957), p. 195.

[4]Ibid., p. 193.

[5]Ward, "Educational Objectives for the Colonial Peoples," Nature, vol. CLXIV, No. 4169 (September, 1949), 526-27.

[6]This commission was instigated by the American Missionary Society and largely financed by Rev. Anson Phelps Stokes, an Episcopalian Minister. The sole aim was to investigate the problem of what kind of education that would benefit the Africans most and equip them for the self-development.

a major instrument in bringing both the voluntary and governmental bodies together into a spirit de' corps on the problem of the African education. It was also due to this report that African Advisory Committee was formed in London and on permanent basis representing the government's various Christian missions and prominent African educationalists.[1] At the suggestions of the latter committee a second (1925) Phelps-Stokes Committee was set to investigate and analyze the problem(s) of education in East Africa. The Advisory Committee was now in a better position to draw educational policies and define the interrelationship between the above-mentioned bodies.[2]

The essence of the recommendations by the newly elected Advisory Committee was:

a. increasing the quantity[3]
b. updating the quality
c. distribution and
d. including higher education for Africans, for until this time missionaries were the only ones interested and concerned in providing a genuine education for the Africans.[4]

In view of the paternalistic attitude (trusteeship) adopted by British Colonial Government then, it was its primary duty to help the Christian missionaries in promoting of this essential social service for her subjects. This could only be possible with ample financial aids and

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[1]Oliver, op. cit., p. 269.

[2]Great Britain Colonial Office, Educational Policy in British Tropical Africa; Cmd 2374 (London: Her Majesty Stationary Office, 1925), p. 117.

[3]There were far too few schools to serve the needs of a growing native population adequately; see Lugard, op. cit., p. 443.

[4]Carpenter, op. cit., p. 191.

grants for improving and extending the existing facilities and possible supplement where necessity dictates.[1]

Both Catholic and Protestant missions welcomed the government aid and also accepted the responsibility that "a good British education" implied. The kind of education they were offering theretofore, was merely teaching the fundamentals of reading and writing, but now they are able to include refined arts and sciences which would equip the graduates to live and develop their faith in complex modern societies.[2] In this spirit the missionaries who for many years had been preparing and training the African clergy who would one day take over their place, were now committed to continue their educational responsibilities in great extent.

The responsibility increased was that of promoting of the growth of the secondary education that was to take place as a venture between the government and missions. The problem, however, was that the missionaries belonged to different nationalities who were to function in African education which was based on British educational assistance. The eventual outcome of the development of secondary education was to focus its aim on the School Certificate reorganized by Cambridge University in England.[3]

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[1]African Education Commission, Education in East Africa (London: Edinburgh House Press, 1925), pp. 138, 162-88.

[2]For the Catholic Church sentiment on this: see Rerum Ecclesia, World Missions, Encyclical of Pius XI, February, 1926.

[3]Scanlon, op. cit., p. 91.

The norms of British educational system of which Kenya was now enshrining presented some difficulties to non-English missionaries and more so those from non-English speaking countries as mentioned by Lacayo:

> . . . this meant that many missionaries whose native tongue was not English had to learn it . . . they had to adapt to the British norms of education and in many cases obtain a degree or diploma which was acceptable by British standards.[1]

The actual development proceeded without unduly problems or complications. The former schools for catechists training were enlarged or modified to provide for teachers training centers for those of elementary lower levels.[2] While this was taking place the central mission schools were being converted into secondary levels by up-grading them according to the pre-determined goal of School Certificate.[3] The conversion of central mission schools progressed by means of adding higher classes on these schools while gradual dropping the lower ones.[4] This was a beginning of a highly successful missionary educational endeavor.[5]

In 1926, the Kenya Government helped the Alliance of Protestant Missions erect the Alliance High School at Kikuyu near Nairobi, which became the first secondary school in the country. Soon after this

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[1]Sr. Mary Felice Lacayo, "Missions and Secondary Education," Teaching of Secondary School Mathematics in East Africa (unpublished Master's Thesis, The Catholic University of America, 1963), p. 10.

[2]Ibid., p. 9.

[3]UNESCO, "Kenya," World Survey of Education: III, Secondary Education (New York: International Documents Center, 1961), p. 1188.

[4]Ibid.

[5]Ralph M. Wiltgen, Gold Coast Mission History (Illinois: Divine Word Publications, 1956), p. 11.

(1930) the Holy Ghost Missionaries, also with the Government help were able to found the second secondary school for African boys at Kabaa (Thika) which later moved to Mangu.[1] This set a pattern of development and growth of secondary schools for African boys and later for girls also. It was a general practice among the missionaries to give instructions separately.

Throughout the thirties these schools were several years below the present standard, but nevertheless that was just a beginning and a promising start. Indeed, it was not until 1940 when the first group of Kenya African candidates sat and obtained the Cambridge Overseas School Certificates. The group consisted of seven in number and had been prepared for this examination by continuing their studies at Makerere College in Uganda.[2] However, the number of African candidates for this examination has greatly and steadily increased from seven in 1940 to 5,534 in 1963 and 17,247 last year (1968) as it appears in Table 3.

The correspondence course is particularly popular method of obtaining a formal education while holding down a job. Truly, most correspondence and private students prepare for the same examination and subsequently the same certificate as do regular students. However, most correspondence students prefer to take the school certificate examination at both "O" and "A" of General Certificate of Education.[3]

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[1]UNESCO, op. cit., p. 1188. [2]Ibid.

[3]Kaplan and others, op. cit., p. 244.

TABLE 3

AFRICAN CANDIDATES (1940-1969) FOR CAMBRIDGE/SCHOOL CERTIFICATES[a]

Year	T[b]	P[c]	%	Year	T	P	%
1940	7	7	100	1955	252	233	92
1941	N.A.[d]	5	N.A.	1956	384	299	78
1942	11	N.A.	N.A.	1957	383	363	95
1943	8	8	100	1958	625	491	79
1944	N.A.	15	N.A.	1959	799	654	82
1945	22	17	61	1960	985	649	66
1946	N.A.	35	N.A.	1961	4335	2877	66
1947	41	35	85	1962	4710	3132	66
1948	58	56	96	1963	5534	3555	64
1949	72	60	83	1964	6182	3953	64
1950	65	63	97	1965	7353	3112	42
1951	88	88	100	1966	8036	6628	82
1952	N.A.	101	N.A.	1967	12222	9239	76
1953	153	144	94	1968	17247	14001	81
1954	175	153	87	1969	N.A.	N.A.	N.A.

[a] These charts (1940-1969) have been compiled from information obtained and gathered from the following: cf. UNESCO "Kenya," World Survey of Education III; Secondary Education; Kenya Colony and Protectorate, Department of Education Annual Report (1938-1965); Kaplan and others, Area Handbook for Kenya; Vice President of Kenya (Mr. Moi), Speech at Washington International Club on May 18, 1969; and A letter from Mr. Moinde of the Ministry of Education, May 16, 1969.

[b] T = Total No. of Candidates

[c] P = No. of Passes

[d] N.A. = Non-available

"The General Certificate of Education and Cambridge School Certificate are of equal value in terms of academic qualifications, but G.C.E. with a bit less prestige."[1]

Candidates for School Certificates can be presented either by a public or a private school. However, the number of the private candidates has been far too few compared with that from public schools. Approximately in 1968, the number was 25 per cent and 12 per cent for Cambridge School Certificate and Higher School Certificates respectively.

The problems of changes and development into secondary schools were the usual ones in an expanding educational system. These were. (a) to ensure a continuation of adequate scholastic standards. (b) To secure adequate and suitable physical facilities for the anticipated growth. (c) To secure enough funds to meet all the added responsibilities and lastly (d) to secure qualified teachers and other personnel.[2]

For teachers training schools the former catechists centers were enlarged and improved. The colonial government built a training school at Kabete in a pattern that coordinated education and community development as had been previously suggested in Phelps-Stokes' Reports of the early twenties.[3]

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[1] Ibid., p. 244.

[2] Lacayo, op. cit., pp. 9-10.

[3] British Central Office of Information, Education in the United Kingdom Dependencies (London: Her Majesty's Stationary Office, 1955), p. 28.

Unfortunately, there have been more or less constant friction and conflicts between missionaries, settlers, and colonial administration as to the aims and objectives of African education.[1] The trustworthiness among the parties concerned was questionable particularly that of the colonial merchants. It is said that it was more difficult in Kenya than in any other British colony in Africa or elsewhere to formulate a trustworthy statement.[2] However, the Government had to work out a more modus vivendi suitable to missionary and non-missionary parties.

A brief statement of the main aim of Christian education in Kenya is that, it existed and still is to spread the Gospel, to develop the life of the Church and to prepare men for their eternal destiny.[3] In both Christian and non-Christian circles it is generally agreed that, education should seek to "draw out" that which is best in every man and woman.[4] It is further agreed that the Christian aim of secondary education in Kenya has a threefold duty, that is:

a. To prepare the students to be good citizens
b. To prepare the students to be productive members of their temporal society, and finally
c. To develop the spiritual insight with which the Almighty God has blessed them.[5]

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[1]Lord Oliver, White Capital and Colored Labour (London: Hogarth Press, 1929), p. 14.

[2]W. McGregor Ross, "Lands," Kenya from Within (London: Frank Cass and Company, Ltd., 1968), p. 85.

[3]Great Britain, African Education: A Study of Educational Policy and Practices in British Tropical Africa (London: Her Majesty's Stationary Office, 1953), pp. 64-65.

[4]See Fraser, p. 22 above.

[5]Great Britain, African Education, p. 65.

In achieving this aim, it is necessary for the school to relate the curriculum to the environment from which the students come and are to spend their lives when the schooling days are over.[1] In this respect ad vivum is somehow necessary and must relate to their true lives, for education would be meaningless otherwise.

In the Christian philosophy, man is held to be a child of God who by destiny will share His life and beatitudes. Christian education then must consist of the essentials in preparing man for what he must be and do here below in order to obtain the sublime and for which he was created.[2] Also such education must aim at securing the Supreme Good, that is, God, for the individual souls of those being educated,[3] and to the highest maxima of well-being possible as members of a human temporal society.

There are many implications for a Christian teacher today as in an earlier period. It seems totally impossible for one to give a Christian form of education if not a Christian himself. As a Christian teacher will never rest in knowledge for its own sake but will ever push onward to the practicable application of knowledge in the daily human conduct.[4]

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[1] Ibid., p. 66.

[2] Pope Pius XI, Christian Education and Youth (New York: The Paulist Press, n.d.), p. 5.

[3] Ibid.

[4] M.T. Marnane, A Guide for Catholic Teachers (Dublin: M.H. Gill and Son, Ltd., 1952), p. 4.

The aforementioned has been the general aim of all the missionary schools for Africans in Kenya. However, some of these denominational Christian bodies had their particular aims and objectives elaborated a bit.[1]

Singularly, the Christian education aimed and still does, at developing in each individual pupil, the knowledge, skills, power, habits, interest, and ideals requisite to the realization of his full potentialities as a worthy member of his society, in the Church in the home and in the school.[2] Secondary education also lays the foundation for the future training of arts and sciences, health, morality, citizenship, character and many numerous vocational and technical trades and skills[3] such as those of building, printing, and management. Christian education must aim at fashioning the individual character after the pattern of Christ, Smith declares.[4]

So we draw nearer to the end of what we called missionary period and their contribution to African secondary education in Kenya. At this stage it is reasonable to ask what conclusion, if any, can be drawn from this survey, which covers several interrelated epochs.

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[1]The objective of Catholic secondary education has been elaborated to include the following as its goal: to development of intelligent, cultured, healthy, social minded, spiritual vigorous and vocationally prepared Catholics; cf. The Catholic School Journal, vol. XL (May, 1940), pp. 148-49.

[2]John D. Redden and Francis A. Ryan, A Catholic Philosophy of Education (Milwaukee: The Bruce Publishing Company, 1942), p. 99.

[3]Ibid.

[4]Reverend Edwin W. Smith, The Christian Mission in Africa (London: Edinburgh House Press, 1926), p. 109.

Truly, it has become increasingly evident as the survey progressed that it would not be logical to make or assert any generalization that the penetration of the African world by the western political power and culture has produced nothing but destruction. On the other hand it is equally true that idealizing representation[1] of the colonial expansion or of the missionary penetration in which they appear as only the friends of the simple Africans are grave distortation of mythological importations.[2] Among the latter group of misguided thinkers are those who think that Africans owe their existence to their presence of which the following is an example: "Frankly, these people (Africans) are children and will always be so . . . and it is our Christian duty, as elder brothers to care for them."[3] Nevertheless, once the caution and restraint have been taken into account it seems that the following statements of observation can be legitimately be made about our theme.

There have been some western missionaries who wholeheartedly have deplored colonialism in all its forms condemning it for being no less than exploitor and robbery.[4] On the other hand some have left their

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[1]See Bernard Slevin, Kongolo Massacre (London: Paraclete Press, 1962), pp. 30-39; Ndabaningi Sithole, African Nationalism (London: Oxford University Press, 1961), pp. 51-64; and N.S. Cavey Jones, The Anatomy of Uhuru (New York: Frederick A. Praeger, 1967).

[2]Neill, Colonialism in Christian Missions, p. 416.

[3]Bowles, op. cit., p. 35.

[4]It was St. Augustine of Africa who used this term "robbery," in defining of government that does not practice equal justice to all those it governs. To such he said, "is nothing but a gang of robbers." Cf. Rev. Festus Chukwudi Okafor, An Analysis of the Necessity, The Theocentricism in Educational Philosophy with Particular Reference to Emerging Africa (unpublished Doctoral dissertation, The Catholic University of America, 1969), p. 263.

service upon arriving overseas in order to enter into service of their countries as administrators, explorers, or Ambassadors. Others still have enthusiastically entered into the plans of their own country in its colonial domains.[1]

All missionaries had reserved the right to obey a higher power.[2] However, timidity, prudence, and calculation have indeed caused many to keep silent when they ought to have spoken;[3] this is a case parallel to vast majority of American (U.S.A.) white people who for decades have kept silent on their country's racial bigotry.

In the attempt to present the pure doctrine of Jesus Christ to non-Christian worlds, missionaries have a tendency to over-rate the western held values and traditions while they greatly under-rateed and under-valued the locally existing ones. This may be done to win the favor of the colonial government.[4] The complication of all this resulted in limiting their success.[5] Missionaries and local Christians maintained their existence of isolation from the "national life" and as a result of this grew suspicious of anything attached onto Pan-Africanism or black

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[1]Neill, Colonialism in Christian Missions, p. 412.

[2]Ibid., p. 415.

[3]The case of Rev. J.H. Oldham (later a Bishop) of the international Mission Council is a good example of when a missionary should speak. He led the protest to the Colonial Office about the Governor of Kenya (Sir Edward Northeys) leaning towards the establishment of a Compulsory Labour Law in 1921, forcing the African to work for the white settlers. Cf. Lord Oliver, op. cit., p. 214.

[4]Salim Mchunguzi, "Kenya Political Evaluation," Inside Kenya Today, No. 3 (March, 1969), p. 25.

[5]Neill, Colonialism in Christian Missions, pp. 413-15.

nationalism,[1] and came to think of their freedom and existence in the context of the presence and continuous existence of colonialism. The by-product of such complication was the tendency to hold on for too long in the position of control,[2] with the consequence that just at the time when the missionaries ought to have been setting themselves sedulously in preparing the way for the younger churches, they were strengthening their control and comforting themselves with false conviction that the time of "self-government churches" is many decades to come.[3]

However adverse the situation may look . . . it was missionaries who paved the way for African education and, despite their other failures[4] and omissions. One can say with all sincerity that it was education by which the way for the African self-determination was initiated: "To education we owe our independence. It was only with education that

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[1]The International African ServiceBureau merged into the Pan-Africanism in 1944, with the following objectives (a) to promote the well-being and unity of African Peoples and peoples of African descent throughout the world. (b) To demand self-determination and independence of African peoples and other subject races from domineering foreign powers claiming sovereignty and trusteeship over them. (c) To secure equality of civil rights for African peoples and total abolition of all forms of racial discrimination, and lastly (d) to strive to cooperate between African peoples and others sho share such inspiration. See George Padmore, Pan-Africanism or Communism? (London: Dennis Dobson, Ltd., 1956), pp. 117-51.

[2]D. Rubadiri, "Africa and Christianity," African Reports, vol. IX, No. 7 (July, 1964), p. 27.

[3]Neill, op. cit., p. 417.

[4]Mchunguzi, op. cit., p. 27.

Africans were able to organize themselves into a political power capable of eventually overthrowing the British colonial rule."[1]

As a conclusion, therefore, the history and accounts of the deeds of the Christian missionaries in Kenya and elsewhere must in the end be left to the judgment of Mwenyezi Mungu who alone knows all the facts and can exercise a perfectly objective and merciful judgment.

The Acquisition and Establishment of Colonial Administration

In the years between the fourteenth and eighteenth centuries, colonies were regarded very profitable fields of enterprise by the merchants (i.e., British) of the colonial power[2] who bear the character of Shylock in "Merchant of Venice." Indeed they were profitable and places where government and individual fortune-hunters amassed huge sums of wealth by participation in the colonial administration. In addition to the accumulatable richness, being a colonial power and owning some colonies was regarded an essential decora of great powers.[3]

However, after the first World War (1917-1918) accumulation of foreign lands (colonies) was considered an economic trade risk. It is said that, the colonialists had to spend or invest a larger sum of money

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[1] Ibid., p. 27. Dr. Kwame Nkrumah pays tribute to the missionaries by saying that independence is a constant reminder of the debt our countries (Africans) owe to the Christian faith. However, this statement is rebuttable from the fact that is only a few who shared this inspirational idea of independence. See McHunguzi, op. cit., p. 27.

[2] Wieschhoff, op. cit., p. 16.

[3] Ibid., p. 23.

than they could withdraw in return. This was a prevailing assertion supported by vague statistics of questionable sources and accuracy. It seemed that the value of such statements was an attempt to prove that the dependent areas (countries) were administered for humanitarian purposes only and the giant metropolis powers were primarily interested in general welfare of their subjects.[1] The fabrication and falsehood of such statements have been rebutted repeatedly by a high British official in Kenya who agrees that their main duty was to collect taxes.[2] The same octogenarian Christian gentleman testifies of British to have handsomely profited from their African possessions.[3] This supports by hypothesis that the British were out strictly for fortune hunting and for the glories of England, and so were the other merchants.[4]

The dependencies provided food stuff, minerals and other essential raw materials for the industries and trades largely among the metropolis countries. The desperate needs and necessity of such raw materials were a factor that led the British parliament to vote and approve of 3 million British pounds,[5] in 1896 for construction of a railroad from Mombasa to Uganda through Kenya.[6] The construction of this railroad was met with some opposition by some of the British politicians, nevertheless, the

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[1]Lucy Mair, "Colonial Days," The New Africa (London: C.A. Watts and Company, Ltd., 1967), pp. 27-34.

[2]Bowles, op. cit., p. 6.

[3]Ibid. [4]Ibid., p. 26.

[5]A British pound is equal to approximately 2.8 U.S.A. dollars.

[6]M.F.Hill, The Permanent Way (Nairobi: East African Railways and Harbours, 1950), pp. 242-43, and Carey Jones, "Raw Material Background," The Anatomy of Uhuru (New York: Frederick A. Praeger, 1967), p. 24.

railroad advanced the interrelationship between the British and East Africa. The railroad entrepreneurs needed some governmental support[1] which led the taking over of Uganda in 1893 and later all the lands through which the railroad passed down to Mombasa. This was regarded as a British supply route,[2] and was followed by changes of policies in dealing with the African community in Kenya[3] and therefore commenced the colonial inhumanities.

After Kenya was declared a colony (1895) we find large gangs of poor immigrants moving into the country at the invitation of the British Colonial Government,[4] to come and try their luck. There were indications to support that this group consisted of "commoners" who were either economic failures or social misfits[5] in their home countries as the following clearly illustrates: "I was looking for a new life . . . and I have found it here in Kenya. Taxes are low, living is cheaper, the climate nearly ideal and I now own 5,000 acres of land in this beautiful (white) highlands. I intend to keep that land . . . and . . . all of it."[6]

Soon after the initial arrival and settlement of the first band of European settlers we find lands regrouped into three categories of

[1]Ibid., p. 24. [2]Ingham, op. cit., p. 172.

[3]Sir Charles Eliot, The East African Protectorate (London: Edward Arnold, 1905), pp. 3-32.

[4]The decision to open Kenya for white settlement was made by Sir Charles Eliot, first commissioner of East African Protectorate (1901). However, such idea seemed to have been advanced by Lord Lugard in 1893. Cf. Calvin W. Stillman (ed.), Africa in the Modern World (Chicago: University of Chicago Press, 1955), pp. 199-200.

[5]If these individuals were successful at home they would not have dreamed of coming to lands strange to them in every respect. Cf. Zoe March and G.W. Kingsnorth, An Introduction to History of East Africa (London: Cambridge University Press, 1965), p. 166.

[6]Bowles, op. cit., p. 10.

references:

a. The white highlands. It should be mentioned that these highlands consisted of the most, if not only, fertile portions of Kenya and on 3,000 to 10,000 feet above sea level. They (highlands) covered approximately 16,173 square miles[1] of well-watered slopes. They were reserved for white settlement only who comprised about .9 per cent of the population.[2]

b. The crown lands. These consisted of non-inhabited parts of the country at the time of the land survey that was conducted in 1901. This formed the largest part of Kenya since by then the population was under 4 million in 1900 and 2.8 million in 1910 due to serious epidemics.[3]

c. The native (African) reserves. These were the lands (1901) already in occupancy by the African community. They were heavily populated with density of 1600 persons per square mile.[4]

The alienation of the African lands in 1901 for the exclusive use by white settlers has been the major cause of racial conflicts in Kenya,[5] and any other assertion would be vitium parare. It is true there have been other confrontations between the African and the colonial oppressors (i.e., the Compulsory Labor Law of 1926) but all of them have been manifestations in one form or another of the land problem. The black people rightfully believed the white people stole their lands for ex nililo nihil fit (literally meaning that from nothing, nothing comes) and

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[1]Lord Hailey, "East Africa," Native Administration in the British African Territories (London: Her Majesty's Stationary Office, 1950), p. 196.

[2]W.T.W. Morgan and Shaffer, Population of Kenya (London: Oxford University Press, 1966), p. 4.

[3]Ingham, op. cit., p. 212; and March and Kingsnorth, op. cit., pp. 165-66.

[4]Jones, op. cit., p. 23.

[5]William A. Hance, "East Africa," The Geography of Modern Africa (New York: Columbia University Press, 1965), p. 397.

therefore, since they did not bring lands with them, where did they get the lands they have?

In 1929, the British Government (MacDonald) received an African deputation who had gone to London to present to the parliament numerous complaints about the scandalous arbitrariness of the colonial administration that had had unlawfully confiscated the African lands.[1] Perhaps the elements of explosiveness in this case was due to the importance the Africans assigned to the land and their whole dependence on the mother soil.[2]

The colonists mentality was marked with greed and selfishness particularly in connection with the land policy. The sale of the farms in the highlands was restricted to white farmers only, and were accorded 99 or 999 years' leases.[3] Hugh Cholmondeley (later became Lord Delamere), Sir Harry Johnson, Sir H.C. Belfield, and Sir Arthur Hardinge were more or less independently engaged in converting Kenya into a white man's country.[4] Inasmuch as this was concerned it was an idea of abysmal insanity.

[1]Endre Sik, "Kenya," The History of Black Africa (Budapest: Akademiai Kiado, 1966), p. 198.

[2]G. Howard Jones, The Earth Goddess (London: Longmans Green and Company, 1936), p. 142.

[3]This lengthy period of land leases to white settlers has neither logic nor rationale. Hypocritically Sir Harry Johnson, then the Commissioner of East Africa Protectorate, claimed that it was necessary for peace, law, and order and good government; cf. W. McGregor Ross, "Early Land Policy," Kenya from Within (London: Frank Cass and Company, Ltd., 1968), pp. 46-55.

[4]Ibid., p. 47. Elsbeth Huxley, White Man's Country, and Lord Delamere, vol. X (London: Chatto and Windus, 1935), p. 73; George Padmore, "The European Highlands," Pan-Africanism or Communism (London: Dennis Dobson, Ltd., 1956), p. 233.

By the implications of administering the land policy and other segregating policies that were prae judicium against non-European communities. Ignorantly or otherwise, the British had created a society (Kenya) of three different communities, namely the African, Asiatics, and the Europeans. All the social services including education were to be catered as three distinctive systems.[1] In colonial Kenya (1895-1963) there were three educational systems that is (a) African Education, (b) Indian Education, and finally, (c) the European Education.

As a matter of survival the Indian community formed a political party, Indian National Congress, in 1913 to fight against the savage injustice directed to them through the policies of Sir Edward Northey by then the Governor of Kenya.[2]

The exclusion of the Indians from farming business was a source of great disappointment to Kenya Indians and those in India too.[3] The policy of exclusion was defended by Mr. Jackson (later Sir Fredrick Jackson) and Sir Edward Eliot, the latter a great conniver who interpreted his motive as an "avoidance" to rivalry among the Kenya races.[4]

As a matter of rule, rather than exemption, the British colonial policies in Kenya were marked by numerous and continuous contradictories and other undesirable forces, some of which are outlined below:

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[1]Ross, op. cit., pp. 300-306; and Arthur Mayhew, C.M.D., C.I.E., Education in the Colonial Empire (London: Longmans Green and Company, 1938), p. 63.

[2]George Bennet, Kenya: A Political History (London: Oxford University Press, 1966), p. 37.

[3]W. McGregor Ross, "Sowing the Wind," Kenya from Within (London: Frank Cass and Company, Ltd., 1968), p. 301.

[4]Sir Edward Eliot, The East African Protectorate (London: Edward Arnold, 1905), pp. 178-79.

a. British was a nationality that professed to be a Christian at home (England), while in Kenya their behavior was contrary to what they preached (Christianity) and exercised the worse kind of brutality known to mankind against the African people which amounts to an open hypocrisy.[1]

b. The colonial merchants in Kenya did not practice nor support genuine democracy while they strived for one at home, and the outcome was either to be a transformation or virtual disappearance of such a rule, says Barbara Ward;[2] luckily the latter was the outcome.

c. The colonial government was weak enough to be unable to enforce the lex terrae among the barbaric white settlers. Among these was the law of taxation, but interestingly enough the same thugs were to push the government to impose similar taxation on Africans.[3] In 1925, the settlers forced the government to withdraw publication of Habari, a small Swahili newsletter intended to educate the black people about their "rights" within the laws of the country.[4] After two years (1927) the principal of the Jeanes School reopened the newsletter.

d. There was constant pressure exerted by numerous groups of settlers who aimed at gaining the political control of the colony and its black inhabitants.[5] A true retrogressive theory of western democracy.[6] Settlers lots were led by a well-known colonialist-imperialists Lord Delamere who was an octogenerian and Christian crusader of the western civilization who did not feel at ease in England but preferred life in the colonies where natives could be treated as the British serfs during the periods of feudal periods.[7] From his monstrous and racialistic speeches suggest that Lord Delamere might have been a victim of dementia praecot and delirium.

[1]Mchunguzi, op. cit., p. 25.

[2]Barbara Ward, "Nationalism," Five Ideas that Changed the World (New York: W.W. Norton and Company, Inc., 1959), p. 35.

[3]Mchunguzi, op. cit., p. 27.

[4]W. McGregor Ross, "Harry Thuku," Kenya from Within (London: Frank Cass and Company, Ltd., 1968), p. 237.

[5]Lord Hailey, An African Survey (London: Oxford University Press, 1957), p. 146.

[6]Padmore, op. cit., pp. 238-40. [7]Ibid., p. 234.

e. Within the government itself there were forces acting against each other in matters relating to African education. A few wished the African to be politically educated so to enable the individuals to move from a passive role to a full participation in the broad task of the society.[1] Others, unfortunately the winners, argued of such goal to be aimed at and achievable after the first one thousand years.[2]

At this stage we can conclude by making the following statements of observation on the British colonialism in Kenya:

1. That the acquisition and establishment of colonial administration was immoral and illegal. There is no man who is good enough (morally or otherwise) to govern (and rule) another without the others (the governed) consent.[3]

2. That there were numerous country-wide spread of resistance against the cruelties and inhumane British colonial rule. The climax of protests being between the years 1901 to 1923 and later in 1950's.[4]

3. That the colonial merchants were without mercy even to the defenseless women and children.[5] It (government) was composed of selfish characters and marked by non justitia omnibus as a trade mark.

4. The colonial administration in Kenya denied freedom to the black majority, and such a government is cursed by the prophetical words of Abraham Lincoln: "Those who deny freedom to others deserve it not for themselves, and under a just God cannot long retain it."[6]

5. It should be noted that even from principio (from the beginning) the British were never invited by Kenyans and therefore their entry was illegal. The other hopes that, for all these injustices against the innocent to be left the duty of Nemesis who no doubt will find it irremissible.

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[1]Lucian W. Pye, Politics: Personality and Nationbuilding: Burma's Search for Identity (New Haven: Yale University Press, 1962), pp. 15-31.

[2]See Land leases on p. 70 above.

[3]Lewis C. Henry (ed.), Five Thousand Quotations for all Occasions (New York: Doubleday and Company, Inc., 1945), p. 111.

[4]Mchunguzi, op. cit., pp. 24-27.

[5]Ross, Kenya from Within, pp. 110-12, 225.

[6]Henry, op. cit., p. 100.

Colonial Contribution to African Secondary Education

The first and most concrete of all the colonial government contributions to African secondary education came in the form of "financial assistance" to various missionary bodies already engaged in education. The actual and individual percentages of assistance to these early secondary schools[1] are not given. However, there are some indications that the government might have shouldered larger portions. It should be noted that the government in addition supplied the artisans who constructed the buildings. These were from the Native Industrial School Kabete.[2]

Unfortunately, due to the government state of apathia on African education the development was not extensive nor evenly distributed. The colonial view is expressed in 1946 Kenya Development Committee's Report that in part reads: "It became (in part) evident that it was of little use to spend large sums on African education . . . for money would not be available in developing the natural resources of the colony on which all people depend."[3]

At the same time many government officials were opposed to aiding missionary bodies for any purpose but instead suggested aiding white

[1]The early African secondary schools were the Alliance High School Kikuyu (1926), Holy Ghost High School Kabaa (1930), C.M.S. Masena Secondary School (1938), and Roman Catholic High School Yala in 1939.

[2]Kenya Colony and Protectorate, Education Department Annual Report (Nairobi: Government Printers, 1932), p. 28.

[3]Kenya Colony and Protectorate, Report on the Development Committee, vol. II (Nairobi: Government Printers, 1946), p. 31.

settlers who would develop African schools.[1] It seems that the settlers by large expressed the wishes of majority of the white minority in matters dealing with the existence and welfare of the black people. Still another colonial contribution came in the form of legislation and educational ordinances, of which the latter may be regrouped into the following:

a. The 1924 Educational Ordinance was voted in Kenya Legislative Council concerning the African secondary education.[2] This was further promulgated under 1931 Ordinance and Enactment of the District Education Board that gave the local Native District Councils the mandate over the primary and intermediate schools.[3] The NDC's were accorded 100,000 pounds in 1948 and 234,000 pounds in 1957 from the Central Government. With such a financial backing they were able to initiate a scheme which made it possible for half of the country's youth to receive a minimum of six years' education.[4] In the same ordinance 800,000 pounds from African Relief Fund[5] were made available to any private agencies (i.e., missionaries) to full capital for any secondary schools construction undertaken within the plan.[6]

b. During 1945-1955 a ten-years' plan was initiated for the development of general education for African people in Kenya. This plan enabled the increase of African secondary schools from one in 1924; two in 1930; four in 1946, to eleven in 1960, with full secondary school program at five of them.[7] The year 1951 welcomed the first African girl to ever sit for Cambridge School Certificate and obtained it.[8]

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[1] Ibid., p. 33.

[2] Kenya Colony and Protectorate, Education Department Annual Report (Nairobi: Government Printers, 1949), p. 2.

[3] Ibid., p. 2.

[4] Great Britain Colonial Office, Secretary of State Circular, No. 12050 (London: Her Majesty's Stationary Office, 1949), pp. 1-6.

[5] The funds used on construction of the first African secondary schools (Kikuyu and Kabaa) were contributed by East African War Relief Fund, a fund built by Africans for Africans; see Kenya Colony and Protectorate, Education Department Annual Report (Nairobi: Government Printers, 1926), p. 28.

[6] Great Britain Colonial Office, op. cit., p. 10.

[7] Kenya Colony and Protectorate, Education Department Annual Report (Nairobi: Government Printers, 1951), p. 5.

[8] Ibid.

c. Teaching at African secondary schools was made more attractive at least by raising the salary scales to the same levels similar to those at other schools.[1] This attracted many young people into the teaching professions.

d. The fourth type of contribution, historians agree, was not a direct benefit given to the natives but the fact that the presence of colonialism in Kenya, somehow, motivated and stimulated the desire to an increasing number of Africans to try to fit themselves into the world of today by means of better education and other related social services.[2] This is a fact supported by the reality that here has never been a compulsory education for African children while other children (Indians and Europeans) received universal education up to the fifteenth birthday as from 1942.[3]

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[1]Kenya Colony and Protectorate, Education Department Annual Report (Nairobi: Government Printers, 1949), p. 20; also see The Laurence Commission, Report of Teachers' Salaries Commission (Nairobi: Government Printers, 1961), pp. 1-2.

[2]Wieschhoff, op. cit., p. 51.

[3]Kenya Colony and Protectorate, Education Department Annual Report (Nairobi: Government Printers, 1957), p. 20; also see Kaplan and others, op. cit., p. 228.

CHAPTER III

THE CURRENT SCENERY OF KENYA

SECONDARY EDUCATION

Introduction

The primary aim of education according to absolute philosophy is to "form" the creature man through the attainment of his full formation (e.g., child to man) and completeness as a man.[1] In such an aim therefore, there are two distinctive implications, namely (a) a philosophic one (ontology or the science of being) that deals with man and his pro essentialis and second (b) a scientific (empiricology) are that deals with human nature in the phenomenal characteristics that lie within the range of scientific observation and measurement.[2]

On the other hand and in accordance of the above premise, the purpose of secondary education is to broaden the educational goals and opportunities. When broadened, the primary aim of education becomes a lot more approachable. However, a thorough study of the objectives is a must before an establishment of a meaningful educational program is initiated.[3]

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[1]Jacques Maritain, "Thomistic View on Education," Modern Philosophy and Education (Chicago: University of Chicago Press, 1955), pp. 57-90.

[2]Ibid., p. 63.

[3]LeRoy H. Griffith, Nelson Haggerson, and Delbert Weber, "The Purpose of Education," Secondary Education Today (New York: David McKay Company, Inc., 1967), p. 20.

Secondary education in any society deals with child's most formative years that are of maximum physiological and psychological significance. That is to say that any damage during this period may result to life-long suffering and therefore resulting to an individual who is physically or mentally maladjusted.

It is then the responsibility of the secondary schools to help youth to develop the intellectual and practical powers according to his ability and special aptitudes. The maximum growth is only attainable through well organized program(s) of study in relationship to the pupils' interests, abilities, and the needs of the society.[1]

In Kenya today there are over 600 secondary schools of which 75 per cent are small but newly built within the last five years. The graduates of these schools supply for the rapidly growing national needs for high and middle level manpower and therefore add to the smoothness of Africanization (Kenyanization) processes.[2] In addition to the above, the secondary schools function in increasing the proportion of candidates for higher education,[3] in ever extending Nairobi University College. The latter helps in solving the country's higher level manpower problems. However, if the facilities are not extended at a more rapid rate the problem of higher manpower cannot be met locally.

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[1]Mohammed Siddiq, "Problems of Secondary Education," Science Education in Afghanistan (New York: unpublished doctoral dissertation, Columbia University, 1962), p. 81.

[2]Letter from Mr. L. Moinde, Ministry of Education, May 16, 1969.

[3]Republic of Kenya, "Education, Training and Experience," African Socialism and Its Application to Plan in Kenya (Nairobi: Government Printers, 1965), p. 40.

Aim and Objectives

It will be noted that the aim of colonial education in Kenya was in accordance with their aim of creating a special "class" among the African masses. This was in turn, in furtherance of the famous inhuman political policy of divide et impera,[1] an effective method of controlling the conquered (ruled) people, originally mentioned by Machiavelli in the Ancient Political Maxim.[2] This theory of divide and rule is Roman in design but British in function and character. Unfortunately, there were a few misguided and semi-educated Africans who took the role of stooges and robots in helping to extend the colonial domination to the last black soul,[3] such individuals indeed did a great disservice to the people in the country.

It seems that, the ultimate goal of educating Africans in Kenya was not only to produce literate individuals but also to produce black Englishmen who are loyal to the British throne (King), which was taught as a Christian virtue.[4] A great disappointment came later for contrary to this idea, the schools (Kikuyu and Mangu) expected to turn out loyal

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[1] Divide and rule is the principle of keeping the subjects (the ruled masses) at odds among themselves which follows the theory that it is easier to rule and control the divided people; that is those who are not unified. Through the practice of this theory the British Colonial Empire flourished in many corners of the globe. Cf. Wilbur White, White's Political Dictionary (New York: The World Publishing Company, 1967), p. 90.

[2] John Bartlett, (ed.), Familiar Quotations (Boston: Little, Brown and Company, 1955), p. 1010.

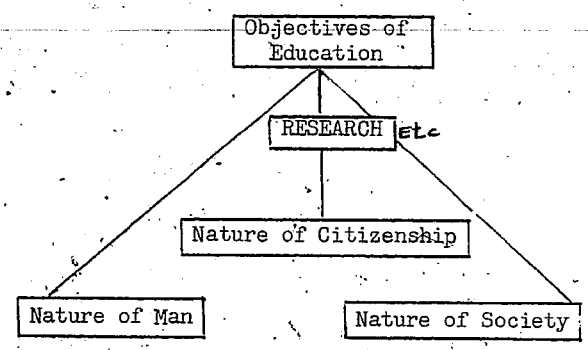
[3] Mchunguzi, op. cit., p. 25.

[4] Ibid., p. 25.

subjects for British Colonial Empire through education, had instead produced the first pillars of African nationalism in Kenya.[1]

From the date (December 12, 1963) that Kenya regained her political independence the schools, especially those of secondary level have assumed the task of preparing the African old and young alike, to play the major role in the affairs of their territory. To meet this goal squarely, education has increasingly been a part of overall study for the national development.[2]

The national needs, that is anything contributing to the nation-building constitute the present aim of education in Kenya, while the nature of man, the nature of society and the nature of citizenship plus research determine the educational objective of any country.



[1]Mchunguzi, op. cit., p. 27.

[2]Republic of Kenya, "Strategy for Development: Education," African Socialism and its Application to Planning in Kenya (Nairobi: Government Printers, 1965), pp. 48-49, 54-55.

The following are currently held as the objectives of secondary education in Kenya:

a. To produce literate citizenry which will actively participate in the general affairs of the land.[1]

b. To develop the desirable qualities (virtues) in youth that include attitudes, understanding, intellect and practical skills useful in the task of nation-building. Therefore, a union emerges between education and natural development, . . . it is our principle means of relieving the shortage of domestic skilled manpower.[2]

c. To equalize the economic opportunities among all citizens.[3]

d. To prepare the student for future family life, further and higher studies or training for scientific and technical skills,[4] that follows satisfactorily completion and performance in the final secondary school examination. This is School Certificate (SC) or General Certificate of Education (GCE)

e. To provide the youth with a foundation of character training and knowledge, which will enable them after further study and experience to play a prominent role in the life of the community, in administration or in commerce or agriculture or whatever may be the profession chosen.

Secondary education is also used as an effective tool in changing the environment while it relieves the problem of cultural disintegration which is a topic of great concern in Kenya as well as in other new African States.[5]

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[1]A democratic (i.e., parliamental) type of government is dependent upon the responsibility and intelligent participation of its citizens. Cf. Edward A. Krug, Curriculum Planning (New York: Harper and Row, 1957), p. 29.

[2]Republic of Kenya, Minister of Education Annual Summary (Nairobi: Government Printers, 1965), p. 1.

[3]Ibid. [4]Ibid.

[5]UNESCO, Final Report, Conference of African States on Development of Education in Africa (Addis Ababa: UNESCO, ED/180 and 181, n.d.), pp. 9-23.

Man according to LeRoy Griffith in his Secondary Education Today is a social rational and spiritual being[1] (i.e., that is not nothing) and for anything to be of some durable worth it must affect his triquality of being. His knowledge is primarily philosophical in nature while his place and value are cosmos.[2] Truly, man's dignity, rights, destiny and aspirations as a person do not change[3] and less would his primary aim of education. And therefore, it should be emphasized that, as long as the nature of man is what it is, the end of education remains absolute and universal to all men.[4]

However, the British Colonial Authority in Kenya and elsewhere had devised educational systems that were strictly stratified on racial basis, each system (African, European, Indian, and Arab) differing from the others in content, aim, and objectives.[5] This was in support with their (British) "Divide and Rule" theory;[6] a true crime against the humanity.

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[1]Griffith, op. cit., pp. 21-23.

[2]Maritain, op. cit., p. 64.

[3]Griffith, op. cit., p. 23.

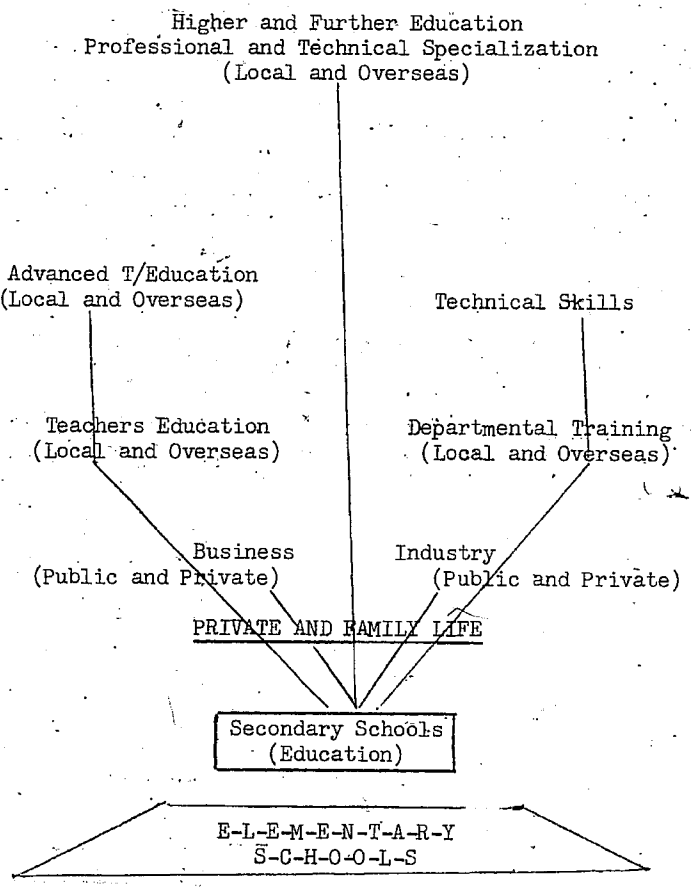
[4]Ibid., p. 23.

[5]J.K. Koinange, "Educational Development in Kenya," Permanent Mission of the Republic of Kenya to the U.N., August, 1966, pp. 1-2.

[6]See above, p. 79.

THE DISTRIBUTION OF HIGH SCHOOL GRADUATES

(1940-1968) IN KENYA[1]



[1]Compiled from Information provided in 1961, Ministry of Education Annual Report (Nairobi: Government Printers, 1961).

Types of Secondary Schools

The significance of various types of curriculum in any level of African education was not felt under the colonial education. The African students in any given form (i.e., grade) all over the country were assumed and supposed to have the same ability, interests, and aptitude. It is no surprise that principles of 1924 were apropos[e]ly used as valid as late as 1953. Education given during these periods was superficial to a few African children who were bound by external examinations[1] similar to Overseas Cambridge School Certificate.

In 1952 the Nuffield Foundation was summoned by the African Education Advisory Committee to study and submit their recommendation on the development of secondary school other than "grammar" school.[2] The recommendation submitted expressed the necessity of technical secondary education. According to the Chairman A.L. Binns (now Sir Arthur Binns) the technical secondary education would be more practical in producing farmers, artisans, technicians and reliable administrators which the grammar (academic) schools had utterly failed.[3]

The major problems which were discussed in the above-mentioned report were on the whole the ones which have continued to influence the development of African secondary education in Kenya for the last ten years, and are discussed along with others which are most relevant to the development of secondary education in Chapter II.

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[1]William E. Ward (ed.), "Fifty Years of Education in Africa," African Education (Oxford: The University Press, 1953), p. 5.

[2]Ibid., p. 93. [3]Ibid., p. 5.

With the recommendation from Nuffield Foundation, the African Education Advisory Committee (formed in 1925 according to suggestion of Rev. Oldham)[1] initiated the institution of a second type of secondary education that became the foundation of technical secondary education in Kenya.

In Kenya today there are nine technical (trade) schools[2] with one polytechnical institute in Nairobi. The enrollment has increased from 280 in 1959 to 2,019 in 1968 as shown in the following table.

TABLE 4

TEN YEARS' ENROLIMENT IN KENYA TRADES AND TECHNICAL SCHOOLS[a] (1959-1968)

Year	Enrollment
1959	280
1960	649
1961	501
1962	505
1963	938
1964	822
1965	1247
1966	1609
1967	1803
1968	2019

[a]Compiled from information given in Ministry of Education Annual Summary (Nairobi: Government Printers, 1965), pp. 2, 7, 9, 27; 1961-63, p. 25; 1959, pp. 19-23.

[1]L. J. Lewis, Educational Policy and Practices in British Tropical Areas (London: Nelson and Sons, Ltd., 1954), p. 13.

[2]This includes Kabete, Thika, Sigalagala, Machakos, Meru, Eldoret, Mawego, Mombasa and Nakuru Technical Schools. The Kenya Polytechnical Institute in Nairobi cater to those who choose to continue with their higher technical training or specialization.

Before Kenya attained its independent status these technical secondary schools followed a course of study leading to the British G.C.E. offered by the Associated Examining Board, which is one of the nine examining bodies in England and primarily cater to secondary technical schools and institutes of further education.[1] However, today students are no longer bound by external examination and sit for Kenya Government Grade III trade tests on completion of the first two years of their training and Grade II tests at the end of their third year.[2]

The grammar school is the oldest kind of secondary school in Kenya. The first secondary school of this kind was built at Kabete in 1926 by the Alliance of Missionary Society and the second one at Mongue in 1930. These two secondary schools for Africans have since provided the majority of the men who now form Kenya's cabinet.[3]

There are 601 secondary schools today according to the Ministry of Education Annual Summary, of which 250 are Harambee schools. The latter is not well equipped and still remains a challenge to the educational authority and specialists in the country.

Most of the secondary schools are concentrated within the southern portion of the country (see Table 5) between zero and five degrees south of the equator and between latitude 34 to 42 degrees south of the equator.

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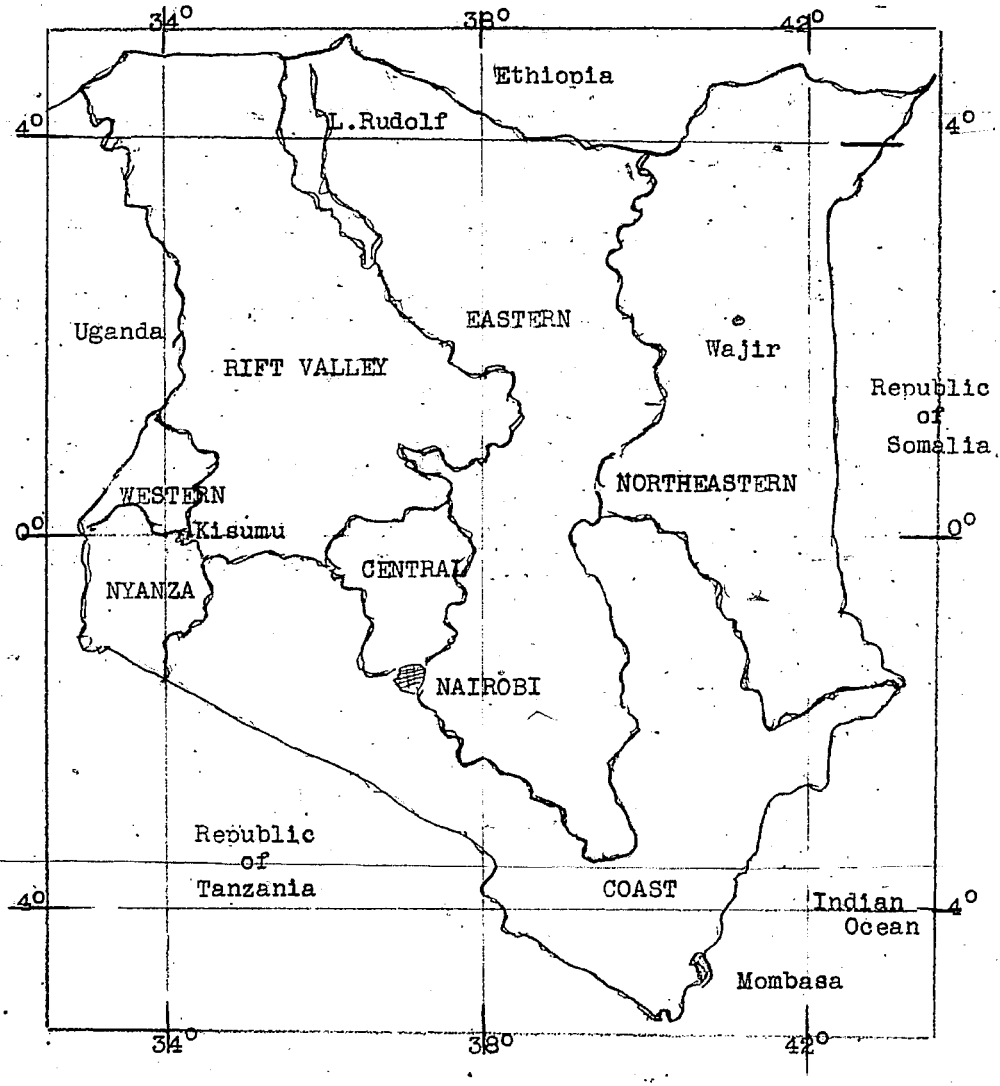
[1]British Information Services, "Secondary School Examinations and University Entrance in Great Britain," ID/1296 of 1962, p. 7. (Mimeographed.)

[2]Republic of Kenya, "Technical Education," Ministry of Education Annual Summary (Nairobi: Government Printers, 1965), p. 7.

[3]Mchunguzi, op. cit., p. 27.

TABLE 5

THE DISTRIBUTION OF SECONDARY SCHOOLS IN KENYA (1968)[1]



[1]Republic of Kenya, Ministry of Education Annual Summary (Nairobi: Government Printers, 1968), pp. 48-49.

Kenya secondary schools can be clearly divided into four types or categories:

1. The Government Schools.-- These are schools founded, financed, controlled or adapted by Kenya Government, the latter is the case with the successful Harambee Schools. Most of the Government schools are situated in large towns and intended as a model for all to follow.

2. The Harambee Schools.--In recent years and the period after independence (December 12, 1963), some of the more progressive districts and localities have opened schools of their own which are controlled and financed by local people in order to make sure that their children receive secondary education. There are many problems associated to this type of school, especially in recruiting good teachers, adequate space for pupils as well as adequate equipment for laboratories and libraries.[1]

3. Private Schools.--Founded, controlled and financed by private individual(s) and mostly founded in large cities (i.e., Nairobi, Mombasa, Nakuru, etc.). Most of these schools are poorly staffed and equipped, since very few of the founders (mostly Indians) have in mind any intention of benefitting the African people when they conduct such institutions. Rather, most of them intend to make a little profit by charging high fees, engaging poor teachers at low salaries and renting cheap room(s).

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[1]J.K. Koinange, "Educational Development in Kenya," Permanent Mission of the Republic of Kenya to the United Nations, August, 1966, (mimeographed).

4. Mission Schools.--These are founded, controlled and partially financed by various bodies of Christian missions (e.g., Catholic, C.M.S., Unitarians, etc.) and can be divided further into the following subdivisions: (a) Government assisted, these are the schools for which Kenya Government pays a certain percentage of annual budget.[1] The balance must come from fees and mission funds, and (b) unassisted schools.

Based on figures given by the Ministry of Education there was an increase of approximately six times in the ten years' period of growth. The figure is 17,671 in 1958 and 81,522 in 1968, as indicated in Table 6.

TABLE 6

ALL SECONDARY SCHOOL ENROLIMENT FOR TEN YEAR PERIOD (1959-1968)[a]

Year	Enrollment
1959	17,671
1960	19,072
1961	26,142
1962	29,032
1963	26,875
1964	47,976
1965	58,989
1966	65,391
1967	77,681
1968	101,361

[a]Compiled from information gathered from Republic of Kenya Ministry of Education Annual Reports and Summaries: 1959-1968 (Nairobi: Government Printers, 1968), and Letter from Mr. J. Moinde, May 16, 1969.

[1]The union between government and missionaries started with the founding of the first high school in Kenya.

Secondary school attendance of about 33,576 students was reported in schools either maintained or assisted by the Ministry of Education as indicated in Table 7.

TABLE 7

ENROLIMENT IN GOVERNMENT AIDED SECONDARY SCHOOLS (1968)

Maintained Schools = 158				
Boarders		Day Pupils		Total
Boys	Girls	Boys	Girls	
9828	4095	9962	2921	26806
Assisted Schools = 128				
1185	800	2716	2069	6770
Grand Total	33,576			

The Harambee, Private and Missionary Schools[1] comprised the unaided schools in Kenya. Over one half (i.e., 47,946) of the secondary schools' population attended such schools as shown in Table 8.

[1]See above p. 88.

TABLE 8

ENROLLMENT IN UNAIDED SECONDARY SCHOOLS (336) IN 1968[a]

Boarders		Day Pupils	
Boys	Girls	Boys	Girls
12380	5544	22310	7712
Grand Total	47946		

[a]Republic of Kenya, Minister of Education Annual Report and Summary (Nairobi: Government Printers, 1968), p. 24.

The Curriculum

The term "syllabus" is often employed in reference to secondary school curriculum while the term "scheme of work" is used in connection with that of elementary schools. In the syllabus there are to be found brief outlines of the topics to be covered in a class during the year,[1] and often the teacher's daily time schedule is included and regarded a part of the syllabus.

The preparation of the syllabi remains a responsibility of the Department of School Instruction in the ministry of education. All various departmental heads and general supervisory staff assist in the preparation of syllabi for their respective departments and fields. Unlike the United States, the syllabi (curriculum) are prepared and written by individuals from the administrative echelon who at best know

[1]George A. Beauchamp and (Mrs.) Beauchamp, Comparative Analysis for Curriculum Systems (Wilmette: The Kagg Press, 1967), p. 15.

little about day-to-day school operation and learning situation. However, much of the details of the subject or topic contents are left the responsibility of the local and regional educational authorities who in times simply fulfill the "wish" of the guidelines of the Ministry of Education.

The principals and individual teachers in some cases may choose the textbooks,[1] but their choices often turn out to be the same as those suggested (i.e., books and works) in the guidelines from the ministry of education. This concludes an indirect "spoonfed process," accomplished through the third person.

It is sad indeed to note that, the externally imposed examinations still continue to be the strongest factor of inference to the (a) nature of secondary schools' syllabi, (b) programs carried out in high schools and in institutions of higher learning and, (c) actual methodology and classroom practices. It should be mentioned here that, most of these external imposed examinations are made by board members who at best are totally ignorant about the modern educational theory and practices.

In Kenya a candidate for the Overseas Cambridge School Certificate must be presented by a school approved by the syndicate for "A" certificate and at least by a school listed by an appropriate educational authority (i.e., ministry of education) for a "B" certificate.[2] This

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[1] See Appendix C below.

[2] University of Cambridge Local Examinations Syndicate. Joint Examination for School Certificate and General Certificate of Education: Regulations (Cambridge: The University Press, 1962), p. 34.

type of arrangement presupposes that the student possesses that general education and background as followed in a particular syllabus. Consequently, the importance of a candidate being presented for this examination by a recognized and reputable school cannot be over estimated. This constitutes the first regulation of the University of Cambridge Local Examinations Syndicate.

Further regulations include (a) a minimum number of subjects must be passed in, (b) a variety kind of subject must be taken by every candidate for the Cambridge School Certificate, (c) a single candidate may sit for as many as eight subjects and, (d) to be eligible for a certificate a candidate must reach a satisfactory standard as judged by his (students) performance in his best six subjects, including the English language which is compulsory for the Cambridge School Certificate.[1] The candidate must gain a credit in at least one subject or pass in five subjects at least with credits in two subjects.[2]

The subject in which it is possible to enter for school certificate are grouped below for possible choices of eight subjects from five different groups:

I. English language;
Compulsory for school certificate

II. General subjects;
English literature, Swahili literature, history, Bible knowledge, and geography.

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[1] Ibid., p. 34.

[2] Ibid.

III. Languages;
Latin, Greek, German, Spanish, and Swahili which is a popular choice for Kenya candidates.

IV. Mathematical subjects;
General mathematics, additional mathematics and commercial mathematics.

V. Science subjects;
General sciences, agricultural science, physics, chemistry, physics, and chemistry, biology, and botany.

VI. Arts and crafts;
Art, music, woodwork, metal-work, needlework, and dressmaking, cookery, and general home craft.

VII. Technical and Commercial subjects;
Engineering sciences, surveying, geometrical and commercial drawings, geometrical and building art and drawing, commercial studies, commerce and principles of account and health sciences.[1]

In respect to evaluation, Kenya lacks any planned or implemented system of feed-back which would otherwise help to judge the effectiveness of secondary school curriculum apart from the examination results. It is true that teachers and schools whose students persistently do poorly on the examination are subject to much criticism. However, it should be recognized that these circumstances evaluate the teachers' performance in the classroom rather than the effectiveness of the curriculum.

Kenya has started (1948) the task of reorganizing the secondary school curriculum under the title of East African School Certificate (EASC) and East African General Certificate of Education (EAGCE).[2]

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[1] Ibid., p. 5.

[2] Letter from Moinde, May 16, 1969.

Hopefully, this will help in reducing the influences caused by externally imposed examinations and curricula of the British Colonial era. It is also hoped that the Ministry of Education will seek the counsel of the representative of those directly associated with daily school and classrooms operation while drafting the new curriculum for secondary schools of the Republic of Kenya.

It is essential that all the teachers training colleges and the University of East Africa in Nairobi should collaborate closely with secondary school administration in order to pull together all their "know how" in preparing a modern curriculum for secondary schools and in the training of teachers especially in the critical subjects hurt most by the shortage of teachers.[1]

The UNESCO Seminar held at Rabat in December, 1962 recommended the curriculum construction to be inspired and guided by the local conditions and in part it reads:

> In view of African needs it is often desirable to consider the use of crash programs in certain areas of education . . . the Africanization of curricula seems particularly necessary . . . the importance of choosing the maximum number of examples from the surrounding environment must be stressed constantly.[2]

The richness and diversity of African flora and fauna facilitate the choice of examples from the surrounding environment in teaching of various subjects. However, most delegates attending the Seminar

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[1]UNESCO, "Secondary and University Education in Africa," Essential Conclusions and Recommendations of the Rabat Seminar (Belgium: Unesco, ED[NS], 63/XVII. 3/A, 1964), p. 10.

[2]UNESCO, "The Development of Higher Education," The Teaching of Sciences in African Universities (Belgium: Unesco, ED/633A, 1964), pp. 16-17.

A LIST OF COMPARISONS OF THE PAST AND PRESENT KENYA SECONDARY SCHOOL CURRICULUM[1]

Alliance High School Kikuyu Kabaa (Mangu) Holy Ghost School 1924-1940--and thereafter	Kenya Public Secondary Schools Today 1960[2]
Academic a) Religion: Old Testament Catechism Prayers Chris. ethics b) Arithmetic c) Swahili) d) English) --Grammar, Reading Composition e) Geography f) Hygiend g) Physical education drill & games h) Music: Singing Notation and Instrument i) General Knowledge j) Manners: Social European	Languages: Swahili and English Grammar, reading and composition Latin, Greek, German and Spanish. General Subjects: Bible knowledge, history, geography, and Swahili and English, literature Mathematics: General mathematics additional/commercial mathematics Science Subjects: General Science, agriculture science, physics, chemistry, biology, botany and health science Arts and Crafts: Arts, music, woodwork, metal work, needle work, dressmaking, cookery, and general home craft.
Professional & Vocational a) Teacher training b) Lay brothers-(Noviciate) c) Seminary d) Ministerial (Protestant) e) Priesthood (Catholic)	Technical & Commercial Subjects Engineering sciences, surveying radio and TV repair, geometrical and commercial drawings, geometrical and building art/drawing, commercial studies and commerce and principles of account.
Technical and Trades a) Agriculture b) Building trades Bricklaying Masonry Carpentry c) Iron work and pottery d) Engineering	

[1]List compiled from information gathered from Republic of Kenya Ministry of Education Annual Report, 1966, pp. 7, 11, 15; Letter from Bro. John Osogo of P.O. Box 27028, Nairobi, June 6, 1969.

[2]See above pp. 94-95.

emphasized the point that the Africanization should never lead us to forget the universal nature of education.[1]

Method of Teaching

Lecturing as a method of teaching is widely employed by many secondary school teachers in Kenya than any other method[2] according to the responses to the questionnaire. Many of the responding teachers support it by drawing its necessity due to the large size of classes which are foten in the fifties. The size of the class lead most of the teachers to think of other methods to be ineffective in teaching in secondary schools.

How many other methods have they tried? Upon close checking it was found out that the "group method" teaching still remains to be given a trial and is suggested in the recommendation at the beginning of Chapter V below.

Lecturing method by itself is of limited effectiveness especially in Kenya schools where English is not a "mother tongue" to a vast number of students. However, a combination of lecture-Heuistic-discussion method would yield high dividends and improve the learning experiences in many of the Kenyan Secondary Schools.[3]

In times the lecturer assumes a dominatus or dominus position which further reduces his mastery of teaching. In the corroboration of the above recommended lecture-Heuistic-discussion method secondary school teachers should receive training in the use of modern technological

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[1] Ibid., p. 17.

[2] See Appendix C below.

[3] This will improve the feed-back system between the teacher and his student.

devices including teaching machines, television, film and slide projectors, and experimental or "take-home" kits.

Lecturing method by itself is an old and outdated educational approach where verbal learning and memorization dominate. This is led by formal abstract approach at the expense of practical works in laboratories, field trips and group discussion--all with stimulating interests and discoveries for/by students. By lecturing method (alone) knowing is thus often confused with remembering at the expense of understanding.

Professional and Academic Training for Secondary School Teachers

Every secondary school pupil has the right to expect his teachers, supervisors and his school administrator to be individuals who know life and are well schooled to know the techniques to deal with its numerous problems more effectively. Teaching is a profession and a "learned" one too. This fact presupposes the existence of a well organized and developed body of scientifid knowledge in a wide range of skills.[1] These skills must be gained through theoretical and practical channels and persons so educated as to be effective teachers for the Republic's schools should hold a certificate (i.e., teaching) and should be protected by the law of the country and professional bodies.[2]

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[1]Frank P. Bachman, "Teaching as a Profession," Training and Certification of High School Teachers: Field Study No. 2 (Tennessee: George Peabody College for Teachers, 1930), p. 3.

[2]The need for Teachers Professional Association has not yet been realized in Kenya, however that constituted one of the recommendations to the Ministry of Education. See Recommendation number 4.

Inasmuch as teachers are concerned there should be fair practice through equality and security of their positions as a reward of a good and faithful service to the nation. Truly there is no greater or better gift that can possibly be offered to a young Republic than to teach and instruct our youth.[1]

The African child in Kenya did not receive the education opportunities that he needed nor equal to that accorded to other children under the British Colonialism. Their schools were staffed with individuals not schooled in the art of teaching, locally known as "untrained teachers" (UTs). However, due to the dedication of wananzi since independent this condition is steadily yielding to the forces of change. The vehicle and speed of change must be regulated by the true dedication of teachers.

In Kenya, teaching is a public service[2] that deals with the most precious assets of the country. Henceforth, let the teacher acquire the skillful mastery of handling these assets--youth. A qualified, competent, dedicated and happy teacher is the greatest of all educational opportunity that any learner can have,[3] with or without adequate teaching materials. Such a teacher is not a compensatory factor,[4] but

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[1]Lewis C. Henry (ed.), "Education," Five Thousand Quotations for all Occasions (New York: Doubleday and Co., Inc., 1945), p. 71.

[2]Republic of Kenya, Ministry of Education Annual Summary (Nairobi: Government Printers, 1965), p. 1.

[3]Morris S. Wallace, The Meaning of Equal Opportunity for Rural Youth (Stillwater: Oklahoma A and M College, 1955), p. 3.

[4]Ibid.

a must in any effective teaching-learning situation. That is (a) creation, (b) organizational skills, (c) implementation, (d) evaluation, and lastly (e) coordination.

In order to promote the growth of the above-mentioned virtues both professional and academic training are essential. A prospective teaching candidate must avail himself for such training as may be demanded by his intended subject (field) of specialization. A general and broad outline is described in the pages to follow. In Kenya today there 4,644 teachers directly connected with the nation's 601 secondary schools;[1] of this number, 18.2 per cent are women the majority of whom are married.

The number of available secondary school teachers in 1968 was less than the projected estimate for 1964 to 1970.[2] The enrollment of secondary school teaching candidates was 596 as shown in Table 9.

The number of secondary school teachers for a ten-year period is shown in Table 10.[3]

Teacher shortages in many African countries is a problem that should be given all priority and joint efforts of all the concerned. The discrepancy between the number of available teachers and the actual demand made it necessary to import foreign teachers. As from 1965[4] the

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[1]Republic of Kenya, op. cit., p. 26. Also letter from Moinde, May 16, 1969.

[2]Republic of Kenya, Ministry of Education Annual Reports and Summaries for 1964 to 1970, and Kenya Statistical Digest, vol. II, No. 3 (September, 1964), p. 6.

[3]Letter from Moinde.

[4]Stanley Meisler, "Peace Corps Teaching in Africa," Africa Report, vol. XI, No. 9 (December, 1966), pp. 16-20.

United States peace corps volunteers replaced the teachers for East Africa (TEA) a program previously administered by Teachers College of Columbia University in New York:[1] The latter group was more qualified to teach in Kenya schools by virtue of their professional training and preparation.

TABLE 9

ENROLIMENT IN TEACHERS COLLEGES SECONDARY EDUCATION--MARCH 1968[a]

Classes	Boarders		Day Students		
	Males	Females	Males	Females	Total
1st Year	4	13	. .	. .	17
1st Year	83	54	. .	. .	137
2nd Year	45	34	. .	. .	79
3rd Year	12	24	. .	. .	36
1st Year	123	35	. .	. .	158
2nd Year	119	34	6	10	169
Total	386	194	6	10	596

[a]Republic of Kenya, Ministry of Education Annual Reports and Summaries, for 1964 to 1970; and Kenya Statistical Digest, vol. II, No. 3 (September, 1964), p. 6.

While the shortage of secondary school teachers was reduced by ninety-eight, being the number of the first group of volunteers, there is no doubt some inefficiency was added due to the fact that the

[1]Ibid., p. 18; also Teachers College, Columbia University, "Semi-Annual Report to Agency for International Development," Teachers for East Africa Project (New York: Columbia University, 1963). (Mimeographed.)

young volunteers were not trained nor equipped to teach in secondary schools in Kenya.

TABLE 10

NUMBER OF SECONDARY SCHOOL TEACHERS FOR TEN YEARS' PERIOD (1959-1968)

Year	Teachers
1959	2113
1960	2020
1961	2009
1962	2615
1963	2019
1964	2690
1965	2710
1966	2890
1967	3801
1968	4644

The candidates for teaching profession should spend at least two years in furtherance of their general education and in increasing, deepening, and broadening the knowledge of their respective subjects. During the first two years, each candidate will build-up general appreciation and understanding of the present day-life in relationship to his/her subject--latter to be his/her contribution to humanity. General knowledge about the student's cultural background should be prerequisite to student professional training.[1] Materials to make up such program

[1] Western State Teachers College, Catalogue 1939-1940, p. 181.

should be drawn from various sources including (a) social studies, (b) sciences, (c) mathematics, (d) literature, (e) physical and health education and lastly, (f) a deeper reach in student scholastic subject areas. Upon satisfactory completion of these two years' program the candidate may be admitted to the third year--the professional year.[1] During all these periods it is imperatively necessary that each student be assigned to a faculty member possibly specialized in the student's subject area. From this faculty member the student will gain better understanding of the peculiar problems related to his subject area and teaching in general. He can consult his faculty (academic) advisor anytime when it is of mutual convenience to both.

Level of Qualification

At present there are two types of teachers' training institutions. The first type trains teachers for primary schools, who after three years of academic and professional training are eligible for either First (P1), Second (P2), and Third (P3) grades of primary teaching certificates. The latter being for K.P.E. certificate holders while the first two are reserved only for school certificate holders.

The second type of school trains ex-form IV and ex-form VI for secondary school teaching posts. The training for these groups takes

[1]The professional year will consist of practical teaching situations and settings. The teaching candidates (teachers to be) will have opportunities for observing actual classroom teaching by other teachers and later to be introduced into supervised practical classroom teaching. See Dr. O. Osterling, Kenya Science Teachers College (KSTC) April, 1969, p. 2.

three years and one year respectively.[1] There are five colleges in the second group out of a total of thirty-five teachers training schools in Kenya. Kenyatta College and Kenya Science Teachers College near Kabete are the newest and the best equipped of all teachers training institutions in the country. The curriculum in teachers education includes (a) mathematics, (b) biology, (c) chemistry, (d) physics, (e) physical geography, (f) industrial arts, (g) English and others. The training period which is three years is divided into four general structures or timings:[2]

I. Introductory Course
This consists of 14 weeks where every student is expected to take the first six science subjects mentioned above.

II. Basic Course
A 35 week duration where students split up into predetermined alternative brackets of three subjects each, (a) math-physics-chemistry, (b) chembio-geography and (c) math-chem-industrial arts.

III. Higher Course
Forty-two weeks in length for deeper and broader study of ones predetermined subject(s) of specialization. Polyvalence is a popular method in teachers education in Kenya, and

IV. The Professional Course
This is mainly concentrated to the final year and comprises courses in educational psychology, subject(s) area methodology and supervised teaching practice often referred as professional laboratory experiences.

The final assessment of the students' academic and professional training are mainly based on the results of their achievements in (a) the course work during the entire three years' period, (b) the final examination in the student's two main academic subjects and in educational

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[1] Kenya Science Teachers College, Bulletin, 1969, p. 3.

[2] Ibid.

psychology, (c) the special and individual project(s) which normally takes about 50 per cent of the training duration, and finally (d) the teaching practice.

As far as the teachers education is concerned it should be mentioned that:

> In accordance with the pooled judgment of the college tutors about 50 per cent of the total time-tabled academic training consists of activities such as laboratory experiments and field observations and collections performed by the students themselves. The other 50 per cent consists of lesson elements . . . demonstration experiments, lectures, group discussions, problem solving, supervised individual studies, assignments and assessments.[1]

There are some consolidation plans that started at the end of 1965. This plan aims at utilizing all the teachers training facilities to the fullest extent while reducing the number to twenty-five by 1972. It is hoped that the graduates of this consolidated facilities will come out with a thorough knowledge of the subject(s) to be taught, professional skills and knowledge.

Student Teaching and Supervision (A List of Guidelines)

The student teaching which is also referred as "guided or supervised teaching" is a part--a most significant part of teachers' education and a part of that continuum referred to as "professional laboratory experiences" in teachers training with both quantitative and qualitative aspects. Quantitatively, student teaching includes all those contacts with children, youth and adults through observation group or

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[1] Ibid., p. 2.

projects participation and teaching. This makes a direct contribution to an understanding of individuals and their guidance in the teaching-learning process during the periods of supervised teaching when a student takes an increasing responsibility for the work with a given group of learners over a period of consecutive weeks.[1]

Qualitatively, professional laboratory experiences and practical teaching serve several purposes. They afford to the prospective future teacher (a) an opportunity to implement an educational theory by studying the pragmatic of value of theory and by checking his/her understanding of the theory in application, (b) a field of activities in which problems and questions are raised, (c) some ways and means--solutions and answers are tried as the student sees and recognizes his/her own needs for further study, and finally (d) an opportunity to evaluate how effectively he/she functions when guiding actual teaching-learning situation. Thus, through personal involvement in learning how to teach others, he has the opportunity to develop understanding and skills as they relate to his own learning and as they relate to helping others learn.[2]

Too, each student teacher has a chance to answer for himself: Is teaching the right kind of profession for me? Or, am I right for the teaching profession?

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[1]John G. Flowers, et al., School and Community Laboratory Experiences in Teachers Education (New York: American Association of Teachers College, 1948), p. 7.

[2]Ibid., pp. 16-19.

Because of the importance placed upon professional laboratory experiences in the preparation of professionally competent teachers in Kenya, a recent re-examination of the concepts and practices. Laboratory and field methods have gained great reclaim in teachers training colleges where a student devotes 50 per cent of his three years training,[1] This adds to his professional depth, scope and concepts.

The following are suggestive guidelines of student teaching and supervision.

Laboratory Experiences.--The concept of professional teaching practice (supervised) must be examined with reference to the "total fabric" of teacher education. Also attempts should be made to implement it within the scope of (1) educational needs in the country; (2) teachers general education; and (3) teachers field(s) (subject) of specialization.

Professional Knowledge.--There must be planned synthesis of the essential elements of teaching. Each student teacher is in the phase where "theoretical" understandings are practiced, tested, redefined or placed by other relevant theories.

Selection and Counseling:--The recruitment and retention must be recognized as crucial and a matter of national concern and therefore teachers in public schools must remain employees of the Central Government (Kenya) and their professional rights safe-guided by the written laws of the land. The counseling of the future teachers should begin early in the training and should be available as long as they remain in the teaching profession or contemplating to rejoin.

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[1]A letter from Dr. O. Osterling, Principal of Kenya Science Teachers College, May 7, 1969.

Lastly, laboratory experiences should not only be concentrated within the last year of their training but should be provided within the entire period of training. Each master teacher is only qualified to supervise one subject.

In-Service Training

Due to the nature and purpose in founding of Kenya African Education many missionary schools saw it fit to use any bright student for classroom teaching--needless to say a system that resulted in a large number of (UTS) untrained teachers, not schooled in the art of teaching. Still today we find similar type of teachers in some secondary school classrooms. Hence, the importance of in-service educational training cannot be over exaggerated inasmuch as such inefficiency exists in the classrooms.

A good in-service education for secondary school teachers should be designed to provide thorough knowledge of the subject to be taught, and the basic professional knowledge and skills.[1] It must consist of such learnings regardless as to who organizes them for the professional enrichment of the teacher(s) concerned.

According to Archer,[2] all teachers need in-service training in one degree or another and particularly in those phases that happen not

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[1]David Mallery, New Approach in Education: An Experimental Program in Independent Schools (Boston: National Council of Independent Schools, 1961), p. 118.

[2]Clifford B. Archer, "In-Service Education," Encyclopedia of Educational Research (New York: McMillan Company, 1960), pp. 703-708.

to be covered during ones training years, for knowledge is rapidly expanding and more so in science(s).

The following are some of the common types of in-service training:

1. Faculty Meetings.[1]--This is an enterprise of rectitudious cooperation between teachers and administrators in pooling their ideas together for the betterment of educational programs in their schools. There should be an atmosphere conducive to free exchange and interchange of professional ideas without fear of recrimination or reprisal.

2. Institutes.--Institutes for in-service education may take a form of lectures by an expert invited to address groups of teachers. The aim of this type of in-service education must be either (a) review of the subjects taught at the schools, (b) to give suggestions on new methods and approaches or to stimulate the self-improvements. This is particularly fitting to Kenya setting for such institutes can be held at local teachers training colleges or the University of East Africa in Nairobi which might be better equipped with materials and human resources.

3. Workshops.--This is a gathering of teachers, supervisors, consultants, and school administrators to discuss cooperatively some professional problems. Workshops are similar to professional meetings but more than one school is involved and usually lasts for some days. This also permits a probing of the problem area under discussion, and often they are referred to as "refresher courses" in Kenya.

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[1]James Michael Lee, "Professionalization," Principles and Methods of Secondary Education (New York: McGraw Hill Book Company, Inc., 1963), p. 257.

4. Professional Readings.--Unfortunately there are very few professional publications for teachers in Kenya, since professional associations are almost absent. Professional readings are known to be a means of increasing ones professional growth according to the study by Vernice.[1] Kenya secondary school teachers fulfill this need by reading publications written by professional (teaching) organizations from other countries among which United States is a favorite.

5. Professional Organizations.--This helps to promote ones continuance and fruitful in-service group. Every teacher should belong to at least one professional organization. Luckily there is Kenya National Teachers Union (KNTU) which serves this need. KNTU is a national member association of World Confederation of Organization of Teaching Profession.[2]

6. Formal Course of Study.--This can be taken at an institute offering teachers education commonly takes a longer period than the above. In addition to these one conducts a study project related to his professional needs.

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[1]Sister M. Vernice, S.N.D., "The Sister In-Service and Her Reading," Catholic Educational Review, vol. LVII (May, 1959), p. 291.

[2]World Confederation of Organization of the Teaching Profession (WCOTP) was organized in 1952 after a merger of (a) World Organization of Teaching Profession, (b) International Federation of Teachers Association and (c) International Federation of Secondary Teachers. Its goals are to promote a continuing exchange of professional knowledge and organizational experiences between its members and to safeguard their status. Cf. WCOTP Bulletin R/10/67 (mimeographed); WCOTP, Annual Report (Dublin: WCOTP, July, 1968), p. 1.

Problems of Teachers Education

Perhaps no other educational problem in the Republic of Kenya should receive a more serious consideration than that of teachers education and professional training. It has been clearly recognized that its improvement is essential for the solution of problems that confront the task of nation-building. The British education, which was designed for the sake of the elite--that is the ruling class--had miseducated the African masses and was improper at its best or otherwise totally destructive to the African personality.[1] In its processes of miseducating it induced the African youth into a hypothetical society that never existed--an evolutus class of Africans who thought, behaved and shared the temperare (temperances) of the white people.[2]

The failures of education is of great concern all over the world. As in the United States such has been signified in the studies by both American Association for School Administrators,[3] and the Youth Commission of the American Council on Education.[4] The solutions to most of these problems lies in proper education and skillful training for teachers.

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[1]Kenya Colony and Protectorate, Legislative Council Debates, LXXXVII (July 21, 1969), 2693.

[2]The colonial educators aimed at producing a class of Africans who would develop qualities mentioned above and others that would transform them into black Englishmen. Cf. Elsbeth Huxley's, White Man's Country and Lord Delamere, I (London: Chatto and Windus, 1935), 7.

[3]Homer P. Rainey, Education for Family Life (Washington, D.C.: American Association for School Administrators, 1941).

[4]Joseph K. Folson, Youth, Family and Education, Prepared for American Youth Commission (Washington, D.C.: American Council on Education, 1941).

The primary function of the secondary education as recognized today is that of promoting the development of the "whole" pupil in (a) proper and desirable attitudes, (b) sense of duty and responsibility for the home and in the community of man, and (c) interests and understanding that will equip them to participate in the task of nation-building for the survival of nationhood and country. It follows necessarily that, the proper education and training for secondary school teachers must be redefined in the light of the modern goals.

Another problem of teachers education was that the process of change was retarded, for changes in education were considered a threat to the colonial government, especially that it meant more education to the African masses. This one aspect altered the equilibrium of political power making the devide et empera theory obsoletus.

Among other things the African society in Kenya expects its secondary school teachers to be true dedicated citizens who understand the nature of adolescence and its peculiar problems. Also the country expects its teachers to possess abilities, skills and "know how" to participate in schools and community projects and to willingly study the society in order to devise a better and more functional educational program.[1]

A new kind of teachers education in Kenya is imperative if there is at all to be a modern education program in an independent land that aims in offering equal educational opportunity to all its youth. Such a program is needed in meeting the real needs of the society.[2] Theory must

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[1]Russel T. Gregg, "Professional Graduate Program for Secondary School Teachers," School and Society, LIII (June, 1941), 745.

[2]W. Carson Ryan, Mental Health Through Education (New York: The Commonwealth Fund, 1938), pp. 70-71.

be in advance of practice inasmuch as to assure the prospective teachers the type of preparation that the society demands of them.[1]

It is sad indeed that the complexity of todays society makes it increasingly necessary for the secondary school teachers to assume responsibility previously delegated to homes and other social agencies. This makes the in-service training a matter of great necessity in helping the teachers to keep alert and grow in their subject areas.

The current efforts and practices in Kenya's teachers education is a concrete illustration of the rapid changes that are taking place in accordance to the growth of the nation, for ours is but a society in changes.[2]

The time allocated for professional laboratory experiences is just too short and commonly taken at the end of the last year of teachers training. However, it would increase the future teachers professional competence if it is integrated with the entire three years' training program.[3]

Secondary Education for Girls

Generally, education for women particularly that beyond elementary grades had been somehow ignored and neglected due to combination of economic and cultural factors. First, education as given by colonial

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[1] Ibid., p. 71.

[2] Science Education in American Schools, Forty-Sixth Yearbook (Chicago: University of Chicago Press, 1947), p. 274.

[3] Coppin State Teachers College, Bulletin: Announcement for 1962-1963 Session (Baltimore: C.S.T.C., 1962); pp. 6, 30.

agents was meant to improve and strengthen ones power of economic exploitation, and since women did not normally engage in gainful employment outside the immediate family-surrounding their higher education was deemed unnecessary, and mis-using of funds otherwise usable in educating the boys.

Second, although non ad nuntiare after marriage girls were more considered members of the families they marry in, and thus it seems that no one would invest a large sum of money educating individuals of other families.[1] Thanks to the passage of time, that reasoning has proven invalid. The years between the 1950's and 1960's witnessed a steady increase of women enrollments in educational institutions of higher learning and professional schools. This was the first stage of realization of the value of women's education in accordance with Dr. Charles D. McIver, who said: "When you educate a man, you educate an individual, (but when) you educate a woman you educate a whole (nation) family."[2]

It was in 1951 when the first African girl sat and obtained a Cambridge School Certificate; the same young lady became first once again in obtaining a Registered Nurse (R.N.) certificate after some years of training at the King George VI Hospital which later became the Kenyatta National Hospital, Nairobi. Today, Kenya women are to be found in many professions that were reserved for men during the Colonial Era. The

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[1]During the Colonial Administration there was no universal (compulsory) education for African children and only those from financially able families received an education.

[2]Bruce Bohle, "Women," The Home Book of American Quotations (New York: Dodd, Mead and Company, 1967), p. 448.

The number of secondary schools' attendance (girls) continued to increase as indicated in Table 11.

TABLE 11

GIRLS' ENROLIMENT IN KENYA SECONDARY SCHOOLS (1953-1968)[a]

Year	No. Girls	Entry C.S.C.[b]	% Pass	Year	No. Girls	Entry C.S.C.	% Pass
1951	50	1	100	1960	1308	89	7
1952	210	5	80	1961	1448	110	8
1953	385	10	100	1962	6629	174	3
1954	696	5	100	1963	8841	998	11
1955	912	7	100	1964	13101	1527	12
1956	1122	16	100	1965	13256	1820	14
1957	1300	41	100	1966	17048	2692	16
1958	1198	53	4	1967	13690	10501	77
1959	1296	62	5	1968	20855	14023	68

[a]Kenya Colony and Protectorate "African Education," Department of Educational Annual Reports (Nairobi: Government Printers, 1952), p. 23; 1953, p. 18; 1954, p. 27; 1955, p. 18, 29; 1956, p. 14; 1957, p. 14; 1958, p. 10; 1959, p. 11; 1961, p. 8; 1962, p. 9; 1965, p. 12.

[b]C.S.C. = Cambridge School Certificate examination.

The African Girls High School (AGHS) built and opened in 1950 (by Lady Mitchell, wife of Kenya's Governor, Sir Phillip Mitchell) became the first secondary school for African girls in Kenya, while in 1952, the Consolata Mission School at Limuru became the second.

It is true even in advanced (education) countries like the United States and Great Britain, women had to fight for the right of equal education through various sound agencies. Their continuation of education would equip them to (a) help eliminate the world illiteracy and (b) to curve the high infantilis mortalitas according to the argument presented by Dr. Helen C. Putnam, a crusader of female rights through education.[1] ". . . in areas where illiteracy is most general there are social forces that oppose and hinder the growth of the school. In addition mothers are so generally illiterate, and so exerts a deplorable influence upon family life and the education of children."[2] (Italics mine.)

Therefore, it is in accordance to the social justice that the independent Kenya has adopted an Equal Educational Policy[3] to all its citizens regardless of sex or other social and ethnical distinctions. Such a policy, it is hoped, will help to promote (a) equality through education, (b) good citizenship, (c) natural unity, and above all (d) add to the ontological pride--that is of being.

Illiteracy Versus Population

The problem of illiteracy is of great concern to many governmental bodies all over the world and the United Nations is no exception,

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[1]Dr. Helen C. Putnam, "Continuation School for Girls," Journal of Educational Psychology, III (January, 1912), 158.

[2]UNESCO, "World Illiteracy," Foreign Educational Digest, XXVIII, No. 1 (September, 1963), 128.

[3]Republic of Kenya, African Socialism and Its Application to Planning in Kenya (Nairobi: Government Printers, 1965), p. 40.

for in 1951 it helped set up six Fundamental Educational Centers in various areas of the world where educational levels were much below the average.[1] One such center was put in equatorial Africa. The need for these centers was evidenced by the fact that approximately one-half (1.2 billion) of the world's population could not read or write and was in total ignorance of even the simplest technical methods.

By that time Kenya had over 75 per cent of illiteracy even after being in British colonial authority for over fifty-five years. It was again in 1963 when UNESCO summoned experiri and specialists from twelve nations to cooperatively work out a scheme that would help reduce the 700,000 world adult illiteracy by half within a ten-year period.[2]

It should be mentioned here that illiteracy is the mother of many human miseries that include (a) ignorance, (b) hunger, (c) sickness and others.[3] Indirectly or otherwise, illiteracy promotes the forces that lower the standard of living. Each country's standard of living can be expressed mathematically with a divisible equation as shown below:

$$\frac{\text{TOTAL WEALTH PRODUCED}}{\text{NUMBER OF POPULATION}} = \text{STANDARD OF LIVING}$$

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[1]The Fundamental Educational Centers would instruct the basic three R's designed to enable the student to employ these abilities for self-development and that of his community. His knowledge and understanding will equip him to help raise the standard of living of the community in which he is a member. Cf. Foreign Educational Digest, XVII, No. 1 (September, 1952), 72; and J. J. Dames, Adult Literacy Teaching (Nairobi: Adult Literacy Center of Kenya, 1967), pp. 1-97. (Mimeographed.)

[2]UNESCO, "World Illiteracy," p. 128.

[3]Ibid.

In Kenya today the illiteracy is confined and concentrated among the middle aged Africans. Fortunately, the secondary school graduates are helping immensely to stamp it out or at least to stop its spread into the younger generations.

It was in the early 1960's when the Government of Ecuador took the campaign against illiteracy from the private agencies after enacting a law that made education compulsory between the ages of fifteen and fifty.[1] A similar law would help Kenya to reduce the illiteracy to an insignificant level within a ten-year period. However, to accomplish this it must register for the assistance from the following: television and radio stations, secondary and higher schools' graduates, the know-how from the University of East Africa in Nairobi and elsewhere, labor and trade unions, educational foundations and organizations, and lastly and above all, the Harambee spirit.

Yet another practical campaign that would be immediately fruitful is Teach-one-Yourself method. In this pursuit each literate citizen would be required to teach at least one of the illiterate citizenry in every given three years' period until the last trainable or/and educable individual in the Republic is served.

Through such a systematic attack on illiteracy Kenya would be able to reach somewhere between the 80's and 90's (percentile) levels of literacy within a ten-year period. Subsequently, this would alter Kenya's picture depicted in the next table.

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[1]International Bureau of Education, Bulletin (September, 1963) p. 225.

TABLE 12

THE EFFECTS OF ILLITERACY IN KENYA AND ELSEWHERE[a]

	Kenya	Ecuador	Brazil	U.S.A.	South V/Nam	India	Ghana	USSR	UK	World/ Mean Average
Literacy	25%	67%	49%	98%	20%	27%	25%	98%	99%	57%
Higher Education (per mill.)	NA	100	20	280	4	30	100	150	130	70
Income (dollars)	$75	$162	$225	$2,625	$75	$75	$187	$850	$1,375	
Life Expectancy	M-43 F-43	NA	M-39 F-46	M-70 F-74	NA	M-42 F-41	M-38 F-38	M-65 F-73	M-63 F-74	
Infancy Mortality (1 thous.)	195	227	88	9	159	176	246	NA	5	
Suicide (1 mill.)	None	6	140	1,100	NA	5	None	NA	1,100	
Years to double Population	24	23	23	44	31	31	26	44	100	39

[a]Compiled from information in Morris L. Ernst and Judith A. Pusner, The Comparative International Almanac (New York: The McMillan Company, 1967), pp. 23, 48, 60, 73, 81, 151-54, 164-67. UNESCO, Statistical Yearbook, 1965 (New York: United Nations Publishing Service, 1966).

Administrative Organization (1911-1968) of Kenya Ministry of Education

The Government of Kenya is composed of twenty-two ministries each headed by a political appointee who in turn is assisted by a group of professional and semi-skilled individuals. The Ministry of Education is the official hand of the Government in matters dealing with general scope of education at any level of the following:

(a) Identifying and recognizing of any educational need(s).

(b) Proposing and sponsoring any program(s) for satisfying such needs(s) as the case may be.

(c) Interpretation and implementation of educational policies, and lastly

(d) Setting up criteria of evaluating the effectiveness and standard of (1) education and policies and institutions, (2) its personnel and those under similar contracts, (3) educational objectives and goals.

The Ministry of Education grew to be the fifteenth ministry from a small sepository office established in 1911 with one office, one secretary and an office-hand.[1] It should be mentioned that the absence of an educational department as from 1895 was partly due to the fact that the British was busy indeed establishing a colonial government for the local immigrants and for the expansion of their empire,[2] on a land

[1] Kenya Colony and Protectorate, Department of Education: Triennal Reports, 1961-1963 (Nairobi: Government Printers, 1963), p. 4.

[2] Sir Andrew Cohen, British Policy in Changing Africa (Evanston: Northwestern University Press, 1969), p. 21.

that meant much in terms of raw materials for England's expanding trades and industries.

Soon after 1911 the Department of Education adapted a two-fold policy on African education, namely(1) planning for the improvement of educational system with more emphasis on the practical arts and (2) to plan for an educational system that would lay a strong spiritual base in training and educating Africans.[1] However, there were numerous inconsistencies and set-backs within the two operational objectives mentioned above. First, the importance of developing an education within the cultural milieu was ignored. The African children were to use the same curriculum as used in England, a practice supported by arrogant and invalid rationale by the colonial educators, says Lystad.[2]

A second fallacy in the education of Africans was that Cambridge School Certificate's examinations were done in English language and therefore put the African child into great disadvantages in many fronts. He often had to first translate many questions into his vernacular in order to understand them and therefore reducing the time allotted for answering. It was indeed a dull experience to memorize uninteresting materials that produce a considerable amount of frustration to the young African child, and his learning process. From the academic (i.e., examination) point of view Swahili held no value while from practical (i.e., communication) English was of little value says Jones.[3]

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[1] Ibid.

[2] Robert A. Lystad (ed.), "The Foundation of African Education," The African World (London: Pall Mall Press, 1965), p. 203.

[3] For details of the frustration the African child experienced, see Thomas J. Jones, Education in East Africa (London: Edinburgh House Press, 1925), p. 20; and G. Seward, Psychotherapy and Cultural Conflict (New York: The Ronald Press Company, 1956), p. 18.

In October, 1964, secondary school teaching became a civil job after a teachers' strike demanding a uniform employer--Kenya Government.[1] This of course does not include those teaching in non-public schools.

As from 1946 to 1960, the Ministry remained in its embryonic stages of development and was headed by a director of education who was assisted by a deputy director and four assistant directors and an inspector of schools. Unfortunately, during these periods there was a very peculiar distinction of racial groups in Kenya educational system including its administration as Mayhew conveys: "Distinction in school systems organized on racial basis in areas such as Fiji Islands, Malaya and in Kenya raise questions which are difficult to answer . . . and lay us open to many charges."[2]

As a result of the British racial policy a large portion of African children became victims of circumstance in spite of their innocence. For example, while there was compulsory (e.g., universal) education for Indians and European children since 1942, there was no such educational opportunity provided for the African children. This was a privilege (right?) denied the African child although stipulated on the papers that education will be made available to all children regardless of ones social station.[3]

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[1]Republic of Kenya, Ministry of Education Annual Report (Nairobi: Government Printers, 1965), p. 1.

[2]Mayhew, "American View on Colonial Educational Policy," p. 63.

[3]Colonial Office "Health and Education," Dispatches of the Governors on the East African Loyal Commission (London: Her Majesty's Stationary Office, 1946), p. 56.

No major territory established by the British Empire had universal education for the children of the colonized people says Williams.[1] The colonial policy on African education in Kenya had a lot of misgivings and was short of equality they preached as a Christian mission. Once a colonial governor in Kenya had the following to say on the compulsory (universal) education for African children: ". . . that is a desirable long term objective is beyond dispute, but to adopt it now as a principle of policy in Kenya, would be violence to the reality of the situation."[2]

In spite of all the un-Christian, unfairness and inequality practiced under the banner of colonial educational authority against the people, country and property,[3] there was slow progress and growth in educational facilities. However, much of the progress was accomplished during the period after 1963 through cooperative and dedicated efforts of professionals, educators, theorists, philosophers, and students who all worked together as a team serving the educational needs of the Republic of Kenya.

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[1]E.F. Williams (ed.), "Educational Progress in Britain's Dependencies Since 1945," The Educational Forum (Wisconsin: Kappa Delta Pi, 1957), p. 445.

[2]Ibid., p. 446. See also Colonial Office, "Health and Education," Dispatches of the Governors on the East African Loyal Commission (London: Her Majesty's Stationary Office, 1946), p. 56.

[3]Up to 1948, the educational expenditure for the European Community which comprised about 1 per cent of Kenya population exceeded the educational expenditure of the African people who were over 90 per cent of the same population. Cf. Kenya Colony and Protectorate, Department of Education Reports (Nairobi: Government Printers, 1947), pp. 9, 27; 1949, pp. 15, 28, 64.

TABLE 13

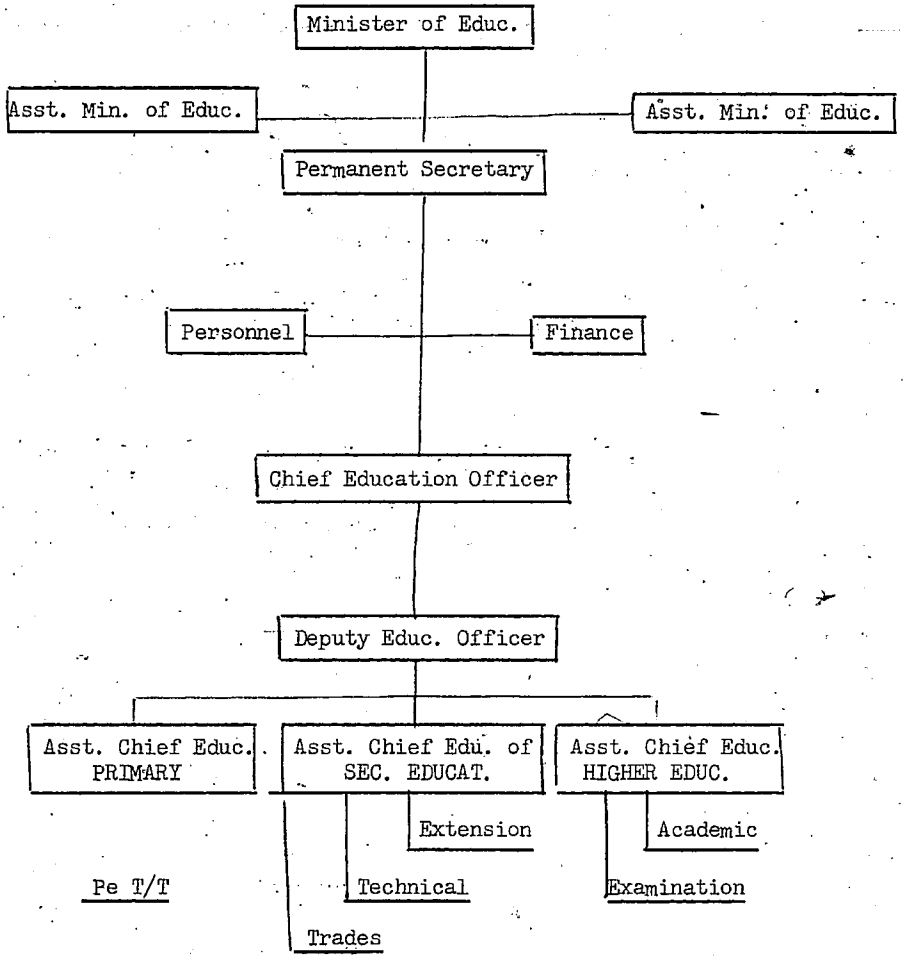
MEAN YEARLY EXPENDITURE OF THE MINISTRY OF EDUCATION[a]

Division	1911-1920	1921-1930	1931-1940	1941-1950	1951-1960	1961-1970
Primary	32,000	41,610	110,000	104,000	229,000	15,000
Secondary	NA	NA	18,222	26,000	38,264	415,000
Tech. & Trade	NA	12,915	27,000	32,096	26,100	100,000
Higher	NA	NA	20,000	9,800	19,400	10,000
Teachers Educ.	12,000	30,000	70,103	40,200	107,500	80,000
Grand Total	NA	NA	245,325	212,096	420,264	620,000

[a]Table compiled from information gathered from Kenya Colony and Protectorate, Development Estimates for the Years 1964-1965 (Nairobi: Government Printers, 1964), pp. 41-42; Report on Committee on Educational Expenditure (Nairobi: Government Printers, 1948), p. 17; Education Department Annual Reports, 1952, p. 5; 1955, p. 5; 1951, pp. 17-19; 1956, p. 12; 1958, p. 10; 1961, pp. 7-8; 1965, pp. 17-18, 23.

NOTE: All figures in East African Pounds. NA = None available.

ADMINISTRATIVE ORGANIZATION OF KENYA
MINISTRY OF EDUCATION (1965)[1]



[1]Compiled from information gathered in Republic of Kenya, Ministry of Education Annual Report (Nairobi: Government Printers, 1965), p. 4.

Problems of Secondary Education (Today and Tomorrow)

Since the first report on African Education in 1921 the most acute problem of secondary education has been that of a shortage of teachers[1] and particularly those of graduate level which constitute the most able, highly qualified, and educated Africans who are often absorbed into governmental posts and industry which otherwise offer more in the form of salarium than they would receive as teachers. This problem is expected to continue for decades if there are no drastic changes in Kenya teachers' salary scales. It is hoped that a substantial raise of the salaries would attract many young people into the profession and hence reduce the present shortage of teachers.

A close collaboration between the secondary schools and the University College in Nairobi and all other teachers training colleges is matter of great necessity for the development of a new curriculum and preparation of secondary school teachers in the critical areas and subjects.[2] The employment of expatriate teachers may produce a temporary solution, however this should not be aimed to continue in definitium. Employment of teachers trained outside Kenya should be used as a last resort.[3]

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[1]UNESCO, Final Report, Conference on African States on the Development of Education in Africa (Addis Ababa: Unesco ED/180, n.d.), pp. 5, 17, 37, 42.

[2]UNESCO, "Secondary and University Education," The Teaching of Sciences in African University (Belgium: Unesco, ED/NS/63/XVII. 3/A, 1964), p. 10.

[3]Ibid., p. 64.

Secondary schools in Kenya whether in rural or in urban centers are replete with problems and issues most of which relate to insufficient funds for expansion and improvement purposes. A major defect of secondary education is that it is regarded by many parents to be a gateway for higher education and eventually to leadership positions. It is true that many reforms have been carried out and the changes have helped in a twofold manner, namely correct the pre-existing false images of secondary education and serve as signs of progress in education.

However, in the areas of school organization, syllabi, method instruction, examinations and finally teachers, training and recruitment are problems that need further study, reforms and consideration for intelligent solutions. It is essential that future teachers should receive their training in their own or a neighboring country if they are to be well suited to the African environment.[1]

The majority of teachers in Kenya are seeking other ways of subsidizing their income through numerous odd jobs that actually reduce time for their classroom preparation. This is a result of low teaching pay. A sad case indeed.

Teachers are free citizens with a special interest and competence in education of youth.[2] Their mastery in logic leads the younger people into developing of knowledge necessary to reach the rationale decisions

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[1]UNESCO, Science Teaching in the Secondary Schools of Tropical Africa (Paris: Unesco NS.62/D, 27/A, 1963), p. 64.

[2]Robert E. Mason, Education Ideals in American Society (Pittsburgh: University of Pittsburgh Press, 1960), p. 4.

through clarification and understanding of the issues involved. This is essential for arriving to productive compromises. In spite of the importance of their job, teachers do not have the right of professional status which they should have says Stinnett. "Recognition of teaching as a profession rather than a trade, and of the individual teacher as a competent professional rather than mere holder of a job are essential to maximum performance."[1]

Another crucial problem is lack of flexibility in the subject offerings. As mentioned above under curriculum every child is expected to pass in at least five subjects to obtain a school certificate. It must be remembered that as a child grows into adolescence the situation changes with physiological and psychological maturation and changes different in taste and aptitude will also occur. Therefore, a uniform type of subject is no longer adequate for each adolescent must find something in school that fulfills his needs. There must also be considerable simplification of curriculum or else it will remain a major challenge and responsibility for those who design the curriculum to produce a flexible program that provides for the interests of different groups of students.[2]

There is a total lack of vocational guidance in Kenya secondary schools to help the youth make intelligent choices of their future careers, but instead they are left on their own. Success and satisfaction

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[1]T.M. Stinnett, "The Right of Professional Status," Professional Problems of Teachers (New York: The MacMillan Company, 1968), p. 228.

[2]B.O. Smith, W.O. Stanley, and J.H. Shores, Fundamental of Curriculum Development (New York: World Book Company, 1957), p. 53.

in any society may depend a great deal on how the individual perceives such a vocation. In any society some vocations are considered high, others low, which form an important factor of how parents and youth perceive a given vocation.[1] In order to facilitate this each secondary school teacher should be given a basic knowledge on the principle of guidance and counseling, while each secondary school with over 500 students should have a professional counselor on its staff.

Guidance is a part of teachers' daily work and should consist of essential knowledge and competence of pointing out what is right and urging its acceptance.[2] It remains a great challenge to Kenya Ministry of Education and other institutions of higher learning to devise a method of directing the secondary school graduates into proper vocational choices.

The secondary school counselors and teachers must open the world to the students they teach through experiences and opportunities. They must also aim at stimulating the desirable interest in youth. To accomplish this the counselors must be provided with information about individual counselee, such information must include student's scholastic records from the middle level to secondary levels, pupil's achievement record, his attendance, personal records, family items and background, special test results, his hobbies and lastly his/her intended vocational goals.

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[1] Siddiq, op. cit., p. 85.

[2] Henry B. McDaniel, Guidance in the Modern School (New York: Dryden Press, 1956), p. 15.

The present 600 secondary schools in Kenya must prepare the way for the future high schools which will be "comprehensive" in nature. These future comprehensive schools will have more programs sufficiently varied to meet the needs of all classes of students similar to those described by Sister Janet Miller.[1]

For summary it should be mentioned that in spite of gigantic problems confronting the patriotic intelligentsia of Kenyan people great progress has been made in many areas of education particularly that of "distribution of secondary education." Within five years of independence Kenya has achieved several times that which was accomplished during the sixty-eight years of the arrogant British rule, which was exploitative, oppressive and of an illegal occupation.

A better and great future must be aimed for, in all educational improvement keeping in mind that nothing will improve if not worked for along tortuous and difficult paths.

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[1]Sister Mary Janet Miller, Catholic Secondary Education (Washington, D.C.: The Catholic University Press, 1949), p. 49.

CHAPTER IV

A MODEL FOR THE DEVELOPMENT OF A CURRICULUM FOR THE SECONDARY SCHOOL PROGRAM OF STUDY

Introduction

The purpose of this chapter is to build a hypothetical model for the development of a secondary school program of study in the Republic of Kenya. It has also, in general, focused on developing the rationale for decision making in the curriculum changes, improvement, revision, and other related matters of which their rationality must be developed and based on the examination of the following five basic areas:

a) The cultural, social and political problems (i.e., from dependence to independence) that confront Kenya today.

b) Financial state and political stability versus the national needs.

c) The nature and structure of the subject (i.e., science) to be taught.

d) Availability of trained and qualified teaching staff and other essential school personnel, and lastly,

e) The learning processes (i.e., experiences) and the state (i.e., ability and potentiality) of the learner.[1]

A set of criteria and the major operational processes were developed from the literature examined to guide the construction and

[1]Ralph W. Taylor, Basic Principles of Curriculum and Instruction (Chicago: University of Chicago Press, 1963), p. 9.

development of secondary school curriculum. These operational objectives or processes include at least the following: (a) selecting of the suitable objectives of and the criteria of formulation the desirable and achievable goals, a break from the old school of thought (e.g., colonial educator(s) which attempted to teach children to be utterly quiet while in school, which is imposing an educational objective impossible of attainment.[1] (b) The effective organizational pattern of the learning experiences that will promote the behavioral changes in the learner.[2] (c) The implementation of a new, revised, or improved curriculum--that is the techniques and methods as proposed and suggested by the committee on the curriculum implementation, and lastly (d) the evaluating of the learners' performances which Taylor defines as a process of finding out how far and how much the learning experiences, as developed, organized, and directed, are actually producing the desired (i.e., learning) behavior changes in learners as an end product.[3]

According to Taba, curriculum development is to be a rationale and scientific process rather than a rule-of-thumb procedure, and the decisions about these elements must be made on the basis of some valid criteria.[4]

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[1]Ibid., p. 25.

[2]Ronald C. Doll, Curriculum Improvement: Decision Making and Process (Boston: Allyn and Bacon, Inc., 1964), p. 100.

[3]Taylor, op. cit., p. 55.

[4]Hilda Taba, Curriculum Development: Theory and Practice (New York: Harcourt, Brace and World, Inc., 1962), p. 10.

Criteria for Selection and Formulation of Suitable Educational Objectives

An emphasis upon maintenance of high educational standards and effectiveness should be the foundation of selecting and formulating suitable educational objectives of Kenya secondary school curriculum. Of course, this should be carried on without ever jeopardizing the already accomplished improvements in the entire educational system of the Republic. However, the new chosen objectives should be aimed at future improvement and a better Kenya for all.[1] The following criteria may be of great help!

a. The objectives must be clearly defined in terms of behavioral changes in the students and must conform to the process of changing the behavioral pattern of the people including their (1) thinking, (2) feeling, as well as their overt (3) actions. It is when the curriculum is viewed in this way, that the educational objectives then represent the kind of changes in the behavior that an educational program seeks to bring about in all its students.[2]

b. Second, the objective should be stated from the standpoint of the pupil's behavior rather than that of the teacher's.[3] For instance, it should always read, "TO LEARN THE SCIENTIFIC ATTITUDES" rather than "to teach the scientific attitudes to students," and therefore

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[1]Quoted from notes on Better Kenya for All by Prof. M. Mwaniki, July 5, 1969.

[2]Taylor, op. cit., p. 4.

[3]Doll, op. cit., p. 100.

given such a statement, it is then possible to infer the types and kinds of activities which the instructor might do in an effort to attain the goal--that is the desired behavior changes in the students. A statement of objectives must contain concreteness and clarity in its wording.[1]

c. The statement of the objective must mention as whether the outcome behavior or attainment is measurable and by what means or criterion. It should be pointed out that all educational outcomes should be evaluated by a predetermined standard of achievement or at least an observable change in the behavior pattern of the learner.

d. The objectives should be stated in a simple common language and never in a professional jargon. Such statements should be clearly and specifically stated to cast no doubt as to the kind of behavioral objectives are expected. Such as the following statements are irrelevant to the type of objectives described above--(1) to develop a method of inquiry; a mind that can cope with complexity of modern life; appreciation of the beauty; loyalty to truth; and a knowledge and attitude basic to being a responsible citizen are all too broad, too vague, or both.[2]

e. The chosen objectives must be attainable, achievable and feasible in the time limit and facilities allocated for the school and for the purpose of such instructions.

f. An objective should recognize the chronological and mental levels (CA and MA) of the students lest it may require the students to master some instructional tasks and skills which are too difficult for

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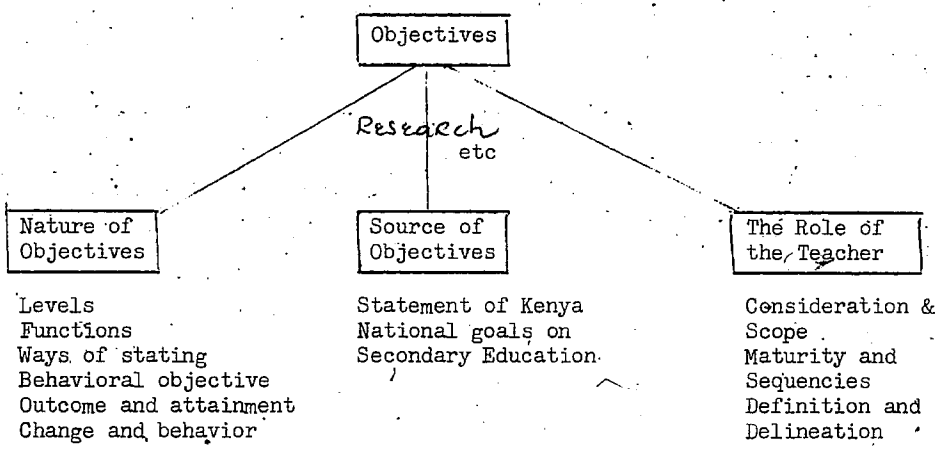
[1]Taba, op. cit., p. 201.

[2]Ibid., pp. 201-202.

their muscular and mental development and coordination or simply deals with concepts which cannot be conceptualized by the learners' age level. This is a topic dealt fully with in the psychology of learning.

g. The objectives must aim at desirable and attainable goals in the terms of a set of values derived from the values according to (1) culture, (2) national needs, (3) goals, and (4) programs instituted by the duly representative government or a ruling party.

OBJECTIVES OF SECONDARY EDUCATION IN THE REPUBLIC OF KENYA



In the objectives it should be made clear as to whether the secondary school is concerned with only general and common education or specialized education or both.[1]

[1]Griffith, et al., op. cit., p. 8.

h. The objective of any program of instruction must be clearly and unmistakably stated so to be understood by all students in the program. This can be accomplished by a series of pre-tests and post-tests, the latter as a criterion of evaluation. Here is what Mager has to say:

> An objective is an intent communicated by a statement describing a proposed change in a learner--a statement of what the learner is to be like when he has successfully completed a learning experience. It is (also) a description of a pattern of behavior (or performance) we want the learner to be able to demonstrate.[1]

i. Objectives must be descriptive enough to cover the (1) behavior expected that is any visible activity displayed by the learners, (2) terminal behavior--that is any pattern of behavior the instructor would like his students to be able to demonstrate at the end of the instruction, and lastly (3) criterion, which is a standard or test by which the terminal behavior is evaluated.[2] To illustrate this procedure the student will be provided with an objective and some test items. They will pick out the test item that is appropriate to the objective--which must be considered fair because it presents the intest described by the objective. Here is the objective:

> When asked a question in French the student (learner) must be able to demonstrate his understanding of the question by replying in French with an appropriate sentence.[3]

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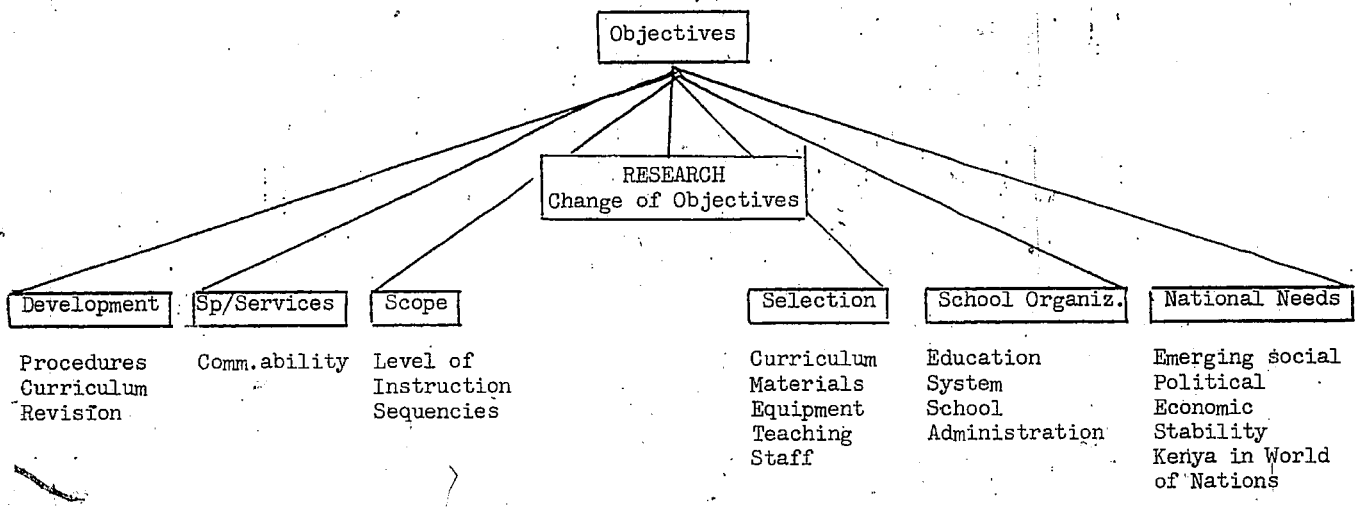
[1]Robert F. Mager, Preparing Instructional Objectives (Palo Alto: Fearon Publishers, Inc., 1962), p. 3.

[2]Ibid., p. 2.

[3]Ibid., p. 33.

THE COMPONENTS OF OBJECTIVES OF KENYA SECONDARY EDUCATION[1]



[1]Compiled from information gathered from Jomo Kenyatta, "Education Sets the Pace," The Prime Minister Speeches, 1963-1964 (London: Oxford University Press, 1964); Republic of Kenya, African Socialism and Its Application to Planning in Kenya (Nairobi: Government Printers, 1965, and Kenya Profile, Kenya Ministry of Information, Broadcasting and Tours in 1964. (Mimeographed.)

Suggestive List of Objectives for Teaching of Sciences in Kenya Secondary Schools

1. Fundamental.--The student will learn fundamental principles, concepts, facts and concentual schemes[1] that will help him to better understand (a) himself, (b) his environment, and (c) the universe.

2. Attitudes.--Among other things he will learn to assume a scientific attitude, that will equip him to accept (a) change as a universal phenomenon and learn how to cope with changes that do occur, (c) he will develop interest in tryouts experimenting, investigating and creating and therefore, develop interest and respect for manual work and possibly consider it for a future career, (d) he will also develop team or group concept. In short he will believe in cause and effect and reject superstitious beliefs by questioning, testing and experimenting to find out why, what, and how of things.

3. Thinking.--Through the process of scientific thinking a student will be able to acquire techniques of (a) precisely stating the problem, (b) carefully observing and investigating, (c) formulating hypotheses, (d) collecting and identifying data, (e) testing hypotheses and drawing conclusions, and lastly, (f) assimilating what he has learned into knowledge, including all the operations, procedures devices and types of processes similar to those by which scientists arrive at conceptual schemes.

4. Skills.--Reading, understanding and precisely reporting will be among his newly acquired skills. He will after training be able to

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[1]The relationship between a number of concepts.

follow matriculating details of a laboratory investigation while he writes down his observations. He will also be able to recognize opinion from facts.

5. Appreciation.--The student will develop interest in science and appreciation of knowledge. Scientific thinking and method of investigating will be his unique approach of inquiry.

Selection and Organization of Subject Matter Contents

The second process in any curriculum construction and development falls under the title of Selection and Organization of the learning experiences. Here the term "planning" is used interchangeably with organization. It is so important that in times the success and effectiveness of many instructors and their instructional programs will greatly depend on general organization and selection of the learning experiences. Through selection and organization the planner chooses the shortest, economical, and the most assuring route/method of achieving his predetermined objectives.

It was in 1952 when the Island of Greece (home of democracy) had to revise its construction to so-called Helleno-Christian ideal in order to convey their culture more effectively through schools.[1] This is how the new constitution reads:

> In all our elementary and secondary schools education should aim at the moral and intellectual training of youth and the development of their national consciousness according to the ideological principle of the Helleno-christian civilization.[2]

[1]R. Murray Thomas, Lester B. Sands, and Dale L. Brubaker, Strategies for Curriculum Change: Cases from 13 Nations (Scranton: International Textbook Company, 1968), p. 30.

[2]The New Constitution of Greece (1952), Article 16.

Secondary education has been given the highest priority in Kenya's 1964-1970 National Development Plan.[1] This is not strange at all for the nations change or put more emphasis in times and in areas considered weak or crucial in an effort to increase success and effectiveness of their instructional programs in an effort of achieving what is predetermined and formulated as goals and objectives.

In Kenya today, secondary education has multiple purposes, among which is to convey or promote the following:[2]

a. Social justices and political equality.

b. Rapid rate of economic growth and distribution--for the benefit of the people.

c. Provides the middle-and-high level of skilled manpower--an asset for the national development.

d. Increases the domestic capital and improves the balance (Kenya's) foreign exchange and lastly,

e. Promotes political stability.

Therefore, the selection and organization of the instructional content and the other learning experiences should be planned towards a given objective. The term "content" here refers to the fundamental principles, concepts, and facts while the latter (learning experiences) refer to the interaction between the learner and his environment which creates the behavioral changes in him.

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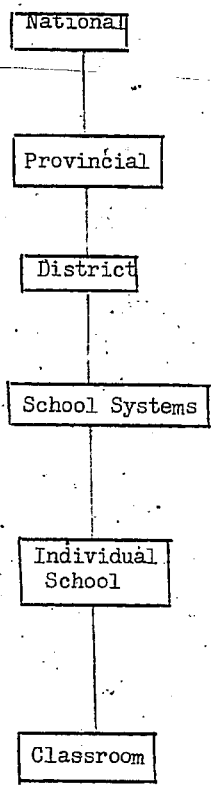
[1]Republic of Kenya, "Introduction," Ministry of Education Annual Report (Nairobi: Government Printers, 1966), p. 1.

[2]Republic of Kenya, African Socialism and its Application to Planning in Kenya (Nairobi: Government Printers, 1965), pp. 1, 3, 39-54.

The organization of the subject matter contents and the other learning experiences should provide, (1) continuity of the learning experiences which Travers calls vertical reinteration of major curriculum elements,[1] (2) early and late learning and (3) logical sequencies that will increase the students' mastery of the learned behavior and skills.

[1]Robert M. Travers, Essential of Learning (New York: The McMillan Company, 1963), pp. 501-507.

Hierarchy and Level of Administrative/ Organization of Kenya Secondary Education



a. For national curriculum, selection and organization of the subject content, the Ministry of Education in ghe functional hand of the government.

b. Kenya is divided into seven provinces, each with a (P.E.O.) provincial education officer

c. Provinces are further redivided into numerous districts (i.e., counties), each with one (D.E.O.) District Education Officer.

d. This includes church and other private schools of which the curriculum construction and development and the other learning experiences are directly planned by the agency concerned.

e. The principal in each secondary school is an influential figure in the matter dealing with selection, organization and planning of the subject contents and other learning experiences.

f. Each classroom teacher has the final word as to the effectiveness and success of any instructional program. Therefore, his representation and inclusion in all committees dealing with curriculum revision and development are vital to their success. Increase in the responsibilities of students should extend to their own consciously planned learning.[1]

[1]Ordway Tead, The Climate of Learning (New York: Harper and Brothers, 1958), p. 26.

Psychological Foundation of Secondary School Curriculum

The multiplicity of learning theories makes it indeed difficult to find a general principle that is acceptable to all educators in any given country and less so between two countries. It would be too much to ask (and expect) for a perfect agreement says Hilgard.[1] The author has only researched on the major ones in terms of acceptance. These include the following four types of theories namely, (a) reward and punishment, sometimes referred as positive and negative reinforcement; (b) transfer of learning; (c) motivation, and (d) development and concept formation.

1. Reward and Punishment

A reinforcer is a condition which follows a response and which results in an increase in the strength of that response[2] and therefore, good selection and planning of reinforcement contingencies is one of the best and most effective ways of shaping behavior(s).

Both Watson and Travers agree as to the superiority of reinforcement as a single factor of shaping the behavior of the learner. This is what Watson has to say: "No other valuable affect learning so powerfully . . . the best planned learning provides for a steady cumulative sequencies of successful behavior."[3]

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[1]Ernest R. Hilgard, Theories of Learning (New York: Appleton-Century-Crofts, Inc., 1956), p. 485.

[2]Travers, op. cit., p. 507.

[3]Watson, op. cit., p. 1.

The reinforcement becomes more effective when it follows directly to the right responses as both Travers and Hilgard speak of reward (positive reinforcement) to be most effective in learning, and must follow almost immediately after the desired behavior and be clearly connected with that behavior in the minds of the learner.[1] The reinforcements are most likely to be effective if they follow the performances immediately.[2] However, under some suitable conditions they may be delayed and still be equally effective, particularly when the subject reinforced maintain an orientation toward the task or behavior expected.

Also, a novel or an unusual event and experience may function as a good enforcement, declares Watson.

> Experiments indicate that the lower animals (mice, guinea pigs, dogs, monkeys, and chimpanzee) will learn as effectively when they receive the rewards of new experiences or satisfied curiosity as they will when the rewards gratify the physical desires. Similarly, stimulating new insights have been found to be effective as rewards for the learning efforts of the human beings.[3]

For this type of reinforcement the reader is referred to the studies by Montgomery and Segall[4], Olds,[5] and Butler[6] as all affirmed the above principle by Watson.

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[1]Ibid. [2]Travers, op. cit., p. 502.

[3]Watson, op. cit., p. 1.

[4]K.C. Montgomery and M. Segall, "Discrimination Learning Based on the Exploratory Drive," Journal of Comparative and Physiological Psychology, vol. XLVIII (December, 1955), 225-28.

[5]J. Olds, "Self-Stimulating of the Brain," Science, No. 127 (July, 1958), 315-24.

[6]R.A. Butler, "Discrimination Learning by Rhesus Monkeys to Visual Exploration Motivation," Journal of Comparative and Physiological Psychology, vol. XLVI (December, 1953), 95-98.

The author makes the following observations on the reward and punishment theory of learning:

1. The sense of satisfaction which results from achievement is the type of reward (reinforcement) that has the greatest transfer value to other life situations.

2. Threat and punishment have variables and uncertain effects upon learning. They may make the punished response more or less likely to reoccur; they may set up avoidance tendencies which prevent further learning.[1]

3. Experience without active participation and without reinforcement can conceivably produce learnings, but the learning process involved is inefficient compared with that which occurs when performance is directly reinforced.

4. The magnitude of the reinforcement provided is not necessarily related to the amount of learning produced.

The reader is once again referred to studies by Thorndike[2] and Mowrer[3] who have written extensively on general theories of learning and Prince[4] who writes on the theory of punishment.

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[1]Watson, op. cit., p. 1.

[2]E.L. Thorndike, Fundamental of Learning (New York: Teachers College, Columbia University, 1932); and The Psychology of Wants, Interest, and Attitudes (New York: Appleton-Century-Crofts, 1935).

[3]O.H. Mowrer, Learning Theory and Behavior (New York: Wiley Press, 1960).

[4]A.S. Prince, "The Effect of Punishment on Visual Discrimination Learning," Journal of Experimental Psychology, XXXII (December, 1956), 381-85.

The failure depresses those intellectual activities closely associated with school learning. However, failure experiences are likely to result in relatively inefficient learning in the period that immediately follows them.

It would be of great advantage for every classroom teacher in Kenya secondary schools to understand the theory of reward and punishment. This is how such a knowledge can enhance the teaching-learning situation.

a. Provide for rewarding experiences when selecting and planning for an instructional program.

b. Make evaluation a continuous process and therefore reinforcement of responses preferred to delay reinforcement. For instance, laboratory assignments (i.e., experiments) should be evaluated at the end of the same period if possible.

c. A wide variety of learning experiences should be planned to provide a sense of success to each and every pupil. For those who had little success and almost continuous failure at school tasks are in no condition to think, learn, or even pay attention. Often they will turn their anger outward against the respectable society or inward against themselves, says Watson.[1]

d. Use new approaches, methods, and media in teaching the dealt with principles, concepts and phenomena to create new novel situations.

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[1]Goodwin Watson, "What do we Know about Learning?" Special Features of the NEA Journal (March, 1963), p. 2.

2. Transfer of Learning

The transfer of learning and training is most likely to occur among the well-practiced skills rather than in those in which a lesser level of skills has been acquired.[1] Time devoted for learning principles rather than mere facts may provide superiof possibility of transfer of what has been learned.

Certain skills may be taught which have a wider and extensive applicability to the solution of the new problems. This is "an acquisition of learning sets," says Travers,[2] and according to studies by Harlow[3] and Judd,[4] the relevance of the transfer theory to the selection and planning for secondary school curriculum is as follows:

a. In the planning of the subject matter contents especially in sciences emphasis should be given to general principles, concepts and conceptual schemes rather than the mere facts, and whenever the mastering of certain skills is an objective a thorough mastery of the skill should be achieved by the learner by practicing the skill in question. Bruner says:

> In order for a person to be able to recognize the applicability or inapplicability of an idea to a new situation, and to broaden his

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[1] Ibid. [2] Travers, op. cit., p. 504.

[3] H.F. Harlow, "The Formation of Learning Sets," Psychological Review, vol. LVI (1949), 51-56; also S. Koch (ed.), "Learning Sets and Error Factor Theory," Psychology: A Study of a Science (New York: McGraw-Hill Book Company, Inc., 1959), pp. 492-527.

[4] C.H. Judd, "The Relation of Special Training to Special Intelligence," Educational Review, XXXVI (March, 1908), 28-42.

learning thereby he must have clearly in mind the general nature of the phenomenon with which he is dealing. The more fundamental or basic is the idea he has learned, almost by definition, the greater will be its breadth of applicability to new problems.[1]

3. Motivation

A motivated learner acquires what he learns more readily than one who is not motivated. A person's level of aspiration is related to his history of experiences of success and failure.[2]

According to the studies by Sears and Hilgard the following are the motives a secondary school teacher can utilize or arouse:[3]

a. Social Motive: This has to do with one's interrelationship with others. It is the desire to affiliate with others. In human beings there is dependability and motivational disposition commonly found in parent-child relations, friendship among others which is an important aspect of sex and marriage--the child is the welcome recipient of the warmth and nurturance of the adult. A study by Hartub supports this conclusion.[4]

b. Ego Integrative Motive-Achievement Motive: This is a group of motives that serve to maintain self-confidence and self-esteem in an individual. They possess characteristics of motive of self-actual-

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[1]Jerome S. Bruner, The Process of Education (New York: Random House, Inc., 1960), p. 18.

[2]Hilgard, op. cit., p. 486.

[3]P.S. Sears and E.R. Hilgard, Theories of Learning and Instruction, Sixty-third Yearbook of the N.S.S.E. (Chicago: University of Chicago Press, 1964), p. 184.

[4]Willard W. Hartub, "Nurturance and Nurturance Withdraw in Relationship to the Dependency Behavior of Pre-school Children," Child Development, XXIX (June, 1958), 191-203.

ization[1] or of competence.[2] The achievement motive (or ego integrative motive) is a representative of this group, and lastly,

c. Curiosity and Other Cognitive Motives: Among other related drives this group includes a group known as cognitive because they are concerned with "knowing" the environment or/and relationships between/among things and ideas.[3]

4. Development and Concept Formation

Evidence is accumulating that the learning occurs in two stages, namely, the early learning and the late learning. The former process is a slow one and involves the acquisition of basic discrimination while the latter learning builds rapidly upon the foundation laid upon the early learning.[4] This conclusion is supported by an extensive study on behavior organization.[5]

Sometimes failure to learn at any particular age may be attributed to the fact that the nervous system may not have developed to the point where such learning is possible, but an alternative reason may be lack of early learning,[6] a conclusion supported by a study by Melzack and Thompson.[7]

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[1]A.H. Maslow, Motivation and Personality (New York: Harper and Brothers, 1954), p. 78.

[2]R.W. White, "Motivation Reconsidered; The Concept of Competence," Psychological Review, LXXVI (June, 1959), 297-333.

[3]Sears and Hilgard, op. cit., p. 186.

[4]Travers, op. cit., p. 507.

[5]D.O. Hebb, Organization of Behavior (New York: Wiley Press, 1948), pp. 51-62.

[6]R. Melzack and W.R. Thompson, "Effects of Early Experience on the Responses of Pain," Canadian Journal of Psychology, X (June, 1956), pp. 87-91.

[7]Travers, op. cit., pp. 507, 508.

The attainment of concepts involve the identification of the defining attributes of the class phenomena included in the concept learning the attainment of a concept may be shortened by providing clues concerning the nature of the defining attributes.

Therefore, it seems that, since learning occurs in two stages it will be advisable to select and plan learning experiences in a way that allows accumulated progression where major principles, concepts, facts and conceptual schemes which are for sure to be used in the later grades (i.e., standards or forms) should be introduced in simple, non-complex terms in the elementary standards. Hopefully, this will facilitate the learning process and provide for continuity of learning experiences.

Taba speaks of curriculum to have paid too little attention to continuity and reenforcement concepts, and therefore resulting to inadequacy of preparation from one level to the preceding one.[1]

The Learner and the Learning Process

The word "learning" is an ancient term of psychological concept and conceptualization process where an individual internalizes and pairs words with symbols both carrying equal degree of presentation. The learning theory stems from the laborious study by Hull at Yale University and advanced by such men as Marquis, Sears, Miller, Spencer, Dollard, Mowrer and Watson.[2] Some modern theorists including Watson, in an attempt to explain the learning process would end up using a wide

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[1]Taba, op. cit., p. 297.

[2]L. Joseph Stone and Joseph Church, "Theory on Learning," Childhood and Adolescence (New York: Random House, Inc., 1957), pp. 405-406.

variety of psychological phenomena that are measurable in terms of behavioral changes. It is known today that the maximum learning situation only occurs where the learner is highly motivated. This clarifies the reasons of thinking, acting in one way or the other.

In education, motivation refers to the process which spurs the pupil (learner) to engage in some purposeful learning experiences--motivation has to do with the energy which impels a person's activity towards a particular goal. It is goal-oriented.[1] This goal may be an object or a situation, it may be remote or proximate.[2] Motivation is deeply connected with value and therefore value-oriented declare both von Hildebrand and Fromm.[3] Value and goal are among the strongest causes of motivation.

In a natural life situation the learner (student) should be guided (motivated) by his instructor (teacher) towards desirable goals and interests. Educational motivation by a classroom teacher should include clarification of the objectives of an instructional program and convincing of its/their value(s). It is hoped that each of the Kenyan secondary teachers will employ and use many varities of motivational techniques for there is no single one that would motivate all his students at all times.

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[1]James Michael Lee, "Motivating the Pupil," Principles and Methods of Secondary Education (New York: McGraw-Hill Book Company, Inc., 1963), p. 403.

[2]Francis L. Harmon, Principles of Psychology (Milwaukee: The Bruce Publishing Company, 1951), pp. 506-507.

[3]Diedrich von Hildebrand, Christian Ethics (New York: McKay Press, 1953), pp. 72-74; also Erich Fromm, Man for Himself (New York: Rinehart Press, 1947), pp. 7-14.

He should always give allowances due to the individual differences for 90 per cent of his pupils are in their teenage years. Adolescents have many differences in tastes, likes and dislikes, moods for theirs is a stage of flux.

Each teacher should guide his pupils towards the ultimate aim and major objective of education.[1] Education is also for self-improvement towards a richer-selfhood and self-motivation for the future learning, says Fitzgerald.[2] The latter will minimize the over-dependency on the teachers motivational techniques, cites Lynch.[3]

To understand the learning process it is always necessary to know something about motivation. While the motivation is not learning by itself, it remains the most indispensable adjunct to it, and has the following four effects on the learning.[4]

a. It assists in initiating learning for without motivation learning would not start.
b. It helps in directing the learner (student) towards a particular goal.
c. It aids in the continuity process of learning (i.e., self-motivating) even after obstacles arise.
d. It contributes to the reenforcement of learning. It impels pupils' activities which constitute its chief value in education.[5]

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[1]Theologically the ultimate aim of education is to know and serve God. Cf. Okafor, op. cit.

[2]James D. Fitzgerald and (Mrs.) Patricia Fitzgerald, "Motivating of the Child," Methods and Curriculum in Elementary Education (Milwaukee: Bruce Publishing Company, 1955), p. 13.

[3]William Lynch, Jr., An Approach to the Study of Motivational Problems in Education (Indianapolis: University of Indiana Press, 1955), p. 10.

[4]James Michael Lee, Principles and Methods of Secondary Education (New York: McGraw-Hill Book Company, Inc., 1963), p. 404.

[5]Ibid.

There are two classes of motivation, (1) intrinsic and (2) extrinsic. The former comes from the inside of the individual learner, while the latter is principally activated by some being (i.e., that is not nothing) external to the ontology of the learner. However, they both operate as one reality and are greatly interwoven.

Motivations may be brief or sustained, so also they may be stable or dynamic. Every person is motivated by desires for food, participation, and social approval. These are constantly experienced throughout life.

> Learning imputes values, creates some permanent differences in students' responses in point of attitudes, conducts (i.e., direct or indirect, present or future, conscious or unconscious, specific or general) these are evidences that learning has truly occurred.[1]

In general, motivation may be offered by guiding the youth's interests and efforts toward the desirable and valid objectives. Such motivation should remain permanently valuable to the pupils as they develop from one grade (standard or form) to another. This is the learning that makes the difference,[2] for learning is essential for richer-selfhood that may take a form between the self-centered to the self-transcendent.

The successful motivation by a teacher involves, (1) knowledge of psychological factors underlying the motivation, (2) knowledge of teaching processes and procedures likely to induce motivation and lastly,

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[1]Ordway Tead, "The Climate of Learning (New York: Harper and Brothers, 1958), pp. 24-25.

[2]Carl R. Roger, On Becoming a Person (Boston: Houghton Mifflin and Company, 1961), pp. 280-81.

(c) ability and skill to utilize and implement his knowledge on motivation in actual teaching situation.[1]

The learning process can be promoted by narrowing the intellectual and emotional and separation (i.e., gap) that exists in so many campuses particularly in the United States. It is true that between the teachers and students there exists differences in age, commitments, mental attitudes, tastes, and divergent exposure of historical, educational and social experiences of which reconciliation is necessary as an attempt to close the generation gap. However, to achieve this, it first requires the sobriety, mature judgment and solicitude of the teaching staff and school administration, suggests Tead.[2] It is the teacher who must nurture the sympathetic feelings of the academic and intellectual kinship which will in turn aid, promote and deepen the learning effort among his secondary school students.

The cause of motivation still remains a mooted issue among the psychologists and learning theorists.[3] To this come contend to be caused by the environment surrounding the subject (i.e., external), to some motives are merely operational forms of instincts (i.e., internal), still to others motives are caused by interactions between the inner-self and environments. Ryle, a materialistic philosopher, calls them (motives) ghostly thrusts.[4]

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[1]Lee, op. cit., p. 407.

[2]Tead, op. cit., p. 55.

[3]Lee, op. cit., pp. 406-407.

[4]Gilbert Ryle, The Concept of Mind (New York: Barnes and Noble, 1950), pp. 32-35.

However, from a theological point of view the above assertions are excessively narrow in scope for they fail to acknowledge the impetus given to a person's activities from both the material mind and by the divine grace of God--there but for the grace of God go I,[1] an off-quoted statement. Man has relationship not only to (fellow) man but to things too. Some of these things are products of man's activities, but others are the products of God's creative hand.[2]

What is clearly known at this stage is not the true cause of motivation, but that motivation is necessary for any learning to take place, and that motivational techniques and methods should be an essential part of secondary school teachers' training for the present and the future schools of the Republic of Kenya.

Kenya Youth and Education

The parents of Kenya African school children, particularly those of secondary schools' level often make a considerable sacrifice to send their youngsters to school. This sacrifice may be in the form of (a) separation with their children who often attended (and still do) boarding schools, (b) paying of the school fees, (c) providing uniforms and books, (d) contributing money and materials for the construction of

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[1]John Bradford (1510-1555), quoted in Burton Stevenson (ed.), The Home Book of Proverbs, pp. 1017-1018.

[2]John R. Cortelyou, "How Can Our Philosophy of Education Truly Influence our Educational Practices: Responses for the Sciences," The National Catholic Educational Association, vol. LII (August, 1955), 142.

school buildings and lastly, (e) indirect (or otherwise) forfeiture of the economic gains that their children would get in taking-up employment.

On the other hand, it is to the African youth from the Native Training Depot (N.T.D.) at Kabete that some of Kenya first rate secondary schools owe their start and existence. Mangu, a Catholic High School originally built at Kabaa is just but one example of early secondary schools completely built by young African artisans and apprentices from the above-named trade school which trained in masonry and other building trades.[1]

In the past, it was some of the primary school graduates who migrated to the cities and towns to find employment and often sent a substantial part of their earnings back home for the education of the younger brothers and sisters.[2] This helped to saturate the educational opportunities among more individuals in a family.

Lately, it has become increasingly more difficult for the youth to find employment even in large Kenya's metropolitan centers like Nairobi, Nakuru or Mombasa. This is not only an economic problem but also a social-political one too, that presents a threat to the stability of our country.[3]

To counteract this economic-social-political problem the Government of Kenya has instituted a Kenya Youth Service (K.Y.S.) where those willing are trained for various trades (i.e., carpentry and other

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[1]For details on contributions by African youth to other schools, cf. Kenya Colony and Protectorate, Department of Education Annual Report (Nairobi: Government Printers, 1932), pp. 9, 28, 41, and 64-66.

[2]Archibald Callaway, "Adult Education and Problem of Youth Unemployment in Africa," Foreign Educational Digest, vol. XXXI, No. 4 (April-June, 1967), pp. 38-39.

[3]Ibid., p. 38.

building trades, factory workers and skills, farming and social services), in an attempt to reduce unemployment among the youth. This type of arrangement allows this group of young Kenyans to earn while they learn. At the same time it delays the school leaving age, while it increases the holding power of various educational agencies that helped to equip the young people for a more prosperous future life. Ceylon, also a former British colony, has adopted similar projects to reduce unemployment among her youth.[1]

The studies on Kenya youth is almost non-existing. However, having examined some general literature on this subject the author wishes to make the following observations:

a. There exists many differences among the Kenya secondary youth and the more obvious ones can be detected within a few minutes of a classroom visit, others would only be revealed through very careful observations.

b. Universally, learners differ in abilities to perform various learning tasks. Some may be good in some instructional programs while very poor in others, especially when measured (evaluated) by arbitrary educational standards.

c. Growth and development of Kenya's youth apparently occurs in spurts--often referred as "thrustration" by child psychologists.

d. Kenya youth by far look much younger than their true (C.As.) chronological ages especially when viewed by outsiders.

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[1] Youth are given employment from which they earn part of their educational expenses and as a result, their graduation is delayed a year or two. This is the practice in many former British colonies.

e. Secondary school students portray great self-confidence in themselves and proud of what is theirs.

f. Differences in the growth-rates cause some children to be "early-bloomers" and others to be "late-bloomers."

g. Factors of growth are interrelated and there may be some learning difficulties at a given age level originating from hidden emotional upset or physical illness.[1]

h. Given desirable and improved educational conditions, youth of whom we would ordinarily expect little can often give much. This has been clearly demonstrated by Kenya youth studying abroad where such educational conditions exist.

i. Kenya secondary schools' adolescents are one to two years older than American or British students equivalent grade (standard) level. A factor accredited to their seriousness in school work.

j. Education should be aimed at cultivating individual differences rather than suppress or restrain them in the secondary school adolescents.

k. According to Lystad Kenya African secondary schools adolescents are most present minded young people.[2]

l. When individual differences are seriously taken into account then the school cannot in reality hope to maintain a single standard or measurement towards children in a given level or instruction.

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[1]Doll, op. cit., p. 32-35.

[2]Robert A. Lystad, The African World: A Survey of Social Research (New York: Frederick A. Praeger, Publishers, Inc., 1965), p. 222.

m. At this stage academic successes in secondary schools based on school certificate results is reported to be over satisfactory level (i.e., 81 per cent [14001] out of a total of 17247 candidates).[1]

n. Kenya youth (as well as the youth of other nations) are very active and a vital force of the society and they are the most precious commodity that the country has; they are also most eager and able to learn and the least conservative in their thinking.[2]

Criteria for Selection of Content and Learning Experiences

All the selected learning experiences (i.e., materials and subject matter contents) must work in rapport with the pre-determined instruction objectives. The following is a list of criteria of such a selection.

1. The Validity and Significance.--A valid significant content will focus on the fundamentals of the discipline of the program rather than facts.

2. Relevance.--The learning experiences selected must have some relevance to the social, personnel and human problems of the groups or individual undergoing the learning experiences. It must also be in tune with cultural, political and economic realities of the times.[3] For

[1]Letter from Moinde, May 16, 1969.

[2]For further details about the youth, see Stuart R. Schram (ed.), Quotations from the Chairman Mao Tse-Tung (New York: Bantam Books, Inc., 1967), p. 166.

[3]Taba, op. cit., p. 272.

example among other things a science program for a developing country like Kenya should include energy, power, natural resources and conservation.

3. Assimilation.--Subject matter content that is merely informational will fail to fit into a program that aims at training for thinking, skills and desirable attitudes.

4. Satisfying.--Motivation is said to be goal-oriented. It is always possible to motivate a person who seeks self-satisfying results. Therefore, any learning experience should motivate the student to practice his new required behavior/knowledge for without such little would be retainable. This is why a law school (i.e., University of East Africa at Dar-es-salaam) has a moot-court which allows the young lawyers to be able to see themselves as lawyers in the courts. Learning experiences should afford students an ample time for practice.

5. Building upon Previously Learned.--The learning experiences should be developmental.[1] That is, it should lead the learner to constant higher level of achievement by integrating what has been learned to what may be learned in the future.

6. Learning Experiences Validity.--Learning experiences should also be as valid as the instructional objectives for they should remain permanently valuable for the learner as he develops from one grade to another.[2]

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[1]William H. Burton, The Guidance of Learning Activities (New York: Appleton-Century-Croft, 1952), p. 423.

[2]Roger, op. cit., pp. 280-81.

7. Inter-relationship.--The suggested and selected learning experiences must be logically related and rooted in intrinsic and dynamic in nature.[1] The method of evaluation should be used to further the student's learning and not only to measure student understanding of the subject matter.

Aims and Objectives

The aims of any instructional program should be unequivocally drawn and stated according to the needs of the society and the ultimate goal of such instructions. Too, objectives ought to be metriculously planned and stated with a frequent re-evaluation from time to time. Objectives are more immediate and should describe an attainable, achievable and measurable behavioral change.

It should be mentioned here that both aims and objectives do change and more so for the latter, for we are living in an "AGE OF SCIENCE"--a fast-changing world best characterized by rapid changes[2] and in which (Kenya and elsewhere) we can never achieve an equilibrium or state of equanimity where all is calm and there are no changes.[3]

Aims and objectives should be made clear for the learner for their mental acceptance is vital to the motivation of effectiveness that helps to maximize the learning process.

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[1]James Michael Lee, "Planning for Teaching," Principles and Methods of Secondary Education (New York: McGraw-Hill Book Company, 1963), p. 276.

[2]Elwood D. Heiss, et al., Modern Science Teaching (New York: McMillan Company, 1950), pp. 12-13.

[3]John Vaizey, "The Importance of Education," Education for Tomorrow (Baltimore: Penguin Books, 1966), p. 11.

Learning Experiences

The role of evaluating the success and effectiveness of the learning experiences in a country-wide educational system in Kenya should be assigned to an appropriate committee of educators and learning specialists. The following is a partial list of factors to be used as criteria of evaluating of the learning experiences.

1. Does the outcome (i.e., learned skills) satisfactorily promote the rapport between the schools philosophical-psychological and sociological goals and theological goal for Christian schools?[1]

2. Are the behavioral changes similar to the ones described in the pre-determined objectives?

3. Does a constant equilibrium exist between the curricular factors such as scope and logical sequences?

4. Does the program stimulate the teacher to want to "initiate" his own procedure within the selected framework rather than rely exclusively on the printed guideline?

5. Does the process allow for a wide latitude for (a) suggestion, (b) more increased student activities and participation in the meeting of the expressed objectives.

6. Does the process afford a wealth of built-in suggestions for improvement of (a) methods, (b) materials, (c) techniques to arouse pupils' desirable interests, participation, excitement, intellectual level, and lastly, imagination?[2]

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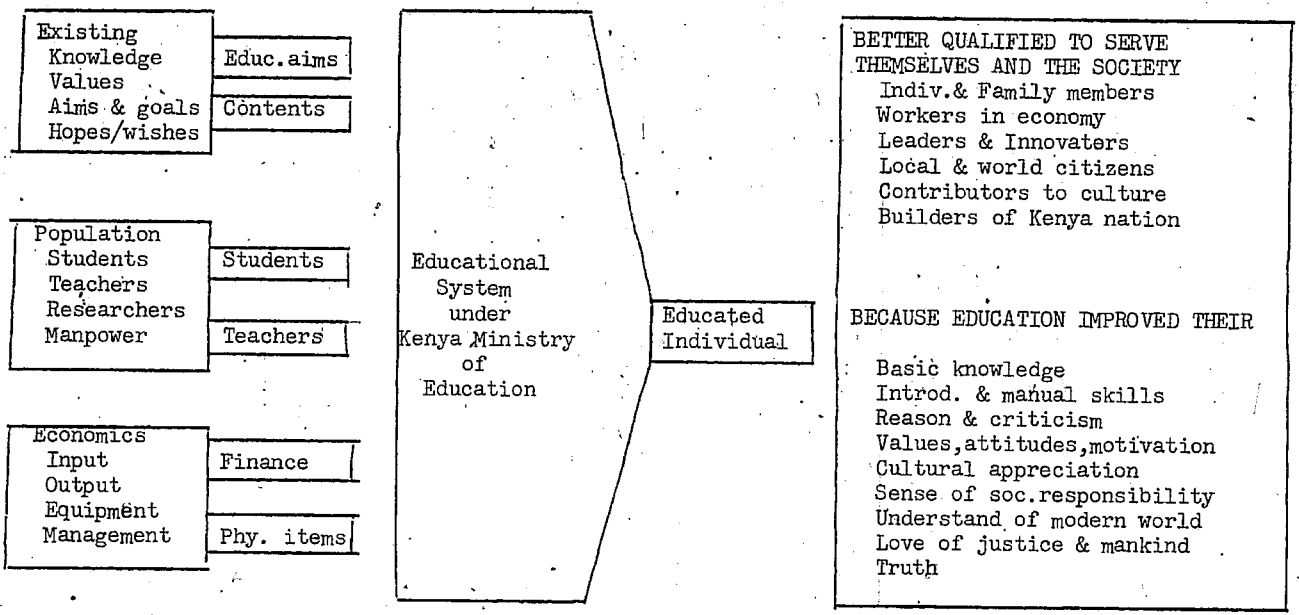
[1]Lee, op. cit., pp. 219-220.

[2]For details on the importance of imagination in the learning situation, cf. St. Thomas Aquinas, Summa Theologica, II-II, q 173, and Arthur D. Fearon, "The Imagination," The New Scholasticism, XIV (1940), 181-95.

7. Does it promote and allow for the future learning for self-improvement and yet a richer selfhood.

THE PROCESS OF EDUCATION IN KENYA



Criteria for Effective Organization

In assessing what might be done to improve the state of curriculum in a country-wide secondary education in the Republic of Kenya, we see that a well and metriculous organization will help do the job, for it is in organization that we distinguish between the long-run objectives one hopes to achieve and certain short-run steps that get one towards that objective. It is also in the meaningful organizational process through which the inter-relationships between the various forms and levels of education can be planned.

There are two types of organizational patterns commonly used in school systems, as an attempt at increasing the success, and effectiveness of various instructional programs.

1. Horizontal Organization/Planning.--This type of planning of learning experiences is done for a given group or level in a school, and does not concern other groups, or learning experiences carried in other classes. A multiple horizontal planning is a term used where the organization involves more than one instructional program.

2. Vertical Planning.--This refers to the type of planning done to improve the effectiveness and relevance of and instructional program (i.e., social study) between two levels or classes. A proposal for a method of teaching biology in secondary school is a good example for vertical type of planning.

It is clear that the human behavior is but a very complex association between stimuli (S's) and responses (R's) or multiplicity of both.[1]

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[1]Keith Davis (ed.), "Behavior Climate," Human Relation at Work the Dynamic of Organizational Behavior (New York: McGraw-Hill Book Company, Inc., 1967), p. 78.

Also it is known that changes in human behavior cannot be produced simultaneously by a single learning experience,[1] so in order to achieve the desired results a scrupulous organization and planning is necessary. This would promote change of learner's behavior in the same fashion as dripping water droplets cause on the rock on which they fall--an appreciable change on the rock's surface if given time.[2]

Thus, the sole aim of planning and organizing the learning experiences is to promote the full development of the learners thorough behavioral changes, which is the most important and wholehearted interest of any teacher, says Msgr. Kelly.[3]

After having examined a wide variety of literature on criteria for effective organization, the author makes the following observations:

1. In order for an organizational pattern to be valid, it must provide and promote continuity of learning, improvement and perfection of the learned behaviors or skills. This re-emphasizes the unit and relatedness of the content, material and sequences.[4]

2. A general organization of learning experiences should provide for both early and late learnings. The former is an essential foundation of the latter.

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[1]Tyler, op. cit., p. 54.

[2]Ibid., p. 54.

[3]Msgr. George A. Kelly, The Catholic Marriage Manual (New York: Random House Press, 1958), p. 61.

[4]Joseph A. Gorham, "Curriculum Construction and Organization," The Curriculum of the Catholic Secondary School (Washington, D.C.: The Catholic University of America Press, 1949), p. 10.

3. There must be logic in the organization and provide good successive sequences upon which to build new experiences and yet increase the learner's mastery of the acquired behavior and skills.

4. Formal planning and organization ensure cohesion and unity of the instructional program. It also focuses on specific learning experiences, methods and techniques of achieving what is held to be principle aims and objectives of a course of study, the unit and the lesson. Without planning the entire program would degenerate into an indigestibilis mass of unrelated learnings, productive only of chaos.[1]

In addition to the deliberate planning and execution of a given lesson by a teacher spontaneous, automatic and unplanned activities resulting from his personality, attitude, structure and so forth, are also important factors in a good teaching-learning situation, cites Stephens.[2]

Whom, How, and When to Teach What

The above questions and others of the similar type will be adequately settled for by a formal and meticulous planning and organizing of learning experiences. Good planning is particularly important for a new teacher who has never before had the experiences of structuring and directing an orderly unified set of learning experiences.[3]

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[1] James Michael Lee, "Planning for Teaching," p. 269.

[2] J.M. Stephens, "Nondeliberative Factors in Teaching," Journal of Educational Psychology, vol. XLVII (January, 1957), pp. 11-23.

[3] Lee, op. cit., p. 269.

The "what" of learning is crucial for facilitating the "how" of education, while the "whom" and "when" tell us more about the learner's personal growths. This information is vital in deciding and increasing the degree of relevance in what the student is asked to learn in the curriculum and other terms.[1]

At this stage how much of each subject will be decided to avoid too much of any given subject, which may result to some deprivations. It was Charles Darwin who regretfully admitted that, after years of devotion to science, he could no longer enjoy poetry, music, or art. This is what he has to say:

> . . . if I had to live my life again I would have made a rule to read some poetry and listen to some music at least once every week, for perhaps the parts of my brain now atrophied could thus have been kept (alive) active through use.[2]

It should be mentioned here that both the goals of education and the means of reaching them are always inter-dependent[3] and therefore unequivocally stated methods and means of achieving any attractive and valid instructional objectives will enlist much more enthusiasm and support from many individual citizens of the Republic.

Method of Instruction

The "problem solving" approach is to be used as an instructional method in Kenya secondary schools. It is a proven educational technique

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[1]Ordway Tead, "Learning how Versus Learning What," The Climate of Learning (New York: Harper and Brothers, 1958), p. 59.

[2]Quoted in F.B. Pinion, Educational Values in an Age of Technology (London: Pergamon Press, 1964), p. 147.

[3]Tead, op. cit., p. 60.

where the teachers and students purposefully and consciously attempt to arrive at an acceptable explanation or solution of any problem, major or otherwise that may be confronting them in any educational setting. It is also repeatedly said to be probably the most productive method in teaching learning situations,[1] and used by both Socrates in his platonic dialogues and St. Thomas in the Summa Theologica.

Many educators and philosophers have recognized this approach to be an indispensable tool in teaching and outdates the British traditionally held method of lecturing. In the latter approach the students are supposed to remain passive, take notes, memorize them and hand them back as nearly in the same words as they can.[2] In such a process the students function as a regurgitating device.

In short, our secondary school methods concerning objective, organization, administration, teaching and evaluation are confronted by great problems. It was from the beginning (1924) until the post-independent years when secondary schools were directed to train those who would fill up the chairs of leadership. This objective was invalid by then and more so at present time, for, "all of us are not capable of being leaders regardless of training or preparation."

Implementation: Techniques and Procedures

Based on the recommendation from the Ministry of Education a guidance and adaptation committee shall be formed by those who are

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[1]Lee, loc. cit., pp. 291-92.

[2]Siddiq, op. cit., p. 40.

members of the proposed Kenya Education Foundation (K.E.F.) which has helped to formulate the valid and acceptable objectives of Kenya secondary education within the framework of (a) philosophical, (b) sociological, and (c) psychological foundations of African education in the Republic. The committee will propose and decide the techniques best suitable for adaptation which must be at the beginning of the first term of any school year.

However, the ramification of the development of a new curriculum for the secondary schools of the Republic of Kenya may necessitate such steps as (a) development and adaptation of new instructional materials, (b) new teachers' training techniques and programs, (c) general reorganizational pattern of the school systems, and lastly (d) new method and techniques of evaluating of the learners performances. All this in turn will influence the teachers' classroom methods and practices within the guidelines provided by the model and hoped to improve the teaching and learning process.

The adaptation committee will also supervise the evaluation of effectiveness of the new curriculum through various sub-committees assigned for different subjects. It is hoped that within five years the new curriculum will receive the necessary revision, changes and the final approval by the Kenya Ministry of Education for general adaptation for secondary schools of the Republic.[1]

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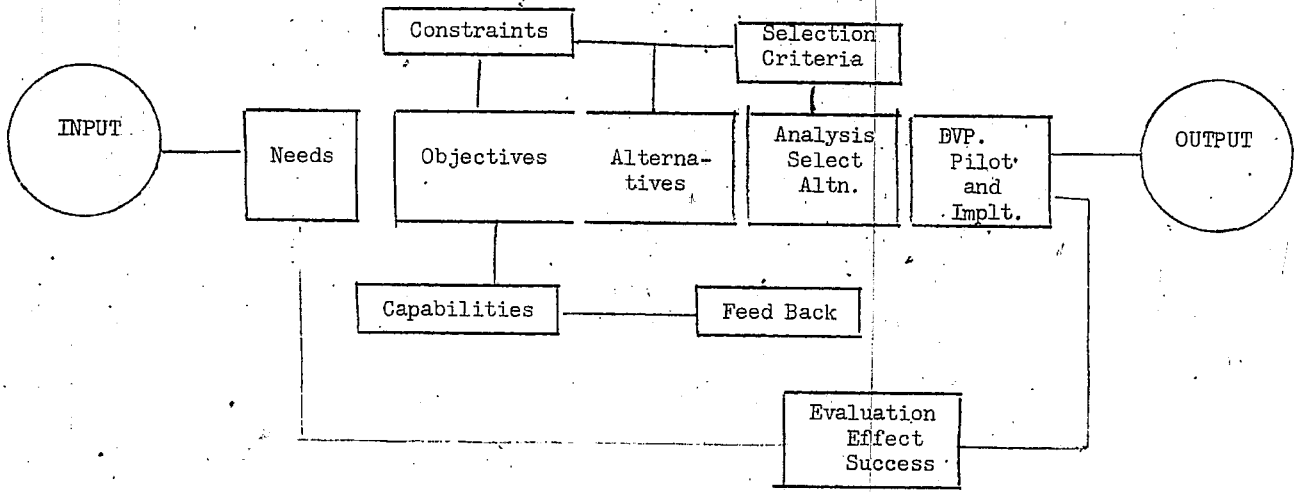
[1]See the following page.

SIMPLIFIED MECHANISM OF KENYA SECONDARY SCHOOLS CURRICULUM MODEL



General Improvements

The committee mentioned above will have professional and administrative rights to delete or aid anything that, to their altruistic judgment, will add and increase to the effectiveness of the new secondary school curriculum. To the same committee, the responsibility of organizing, planning, and conducting "refresher courses"[1] (to use a British terminology) will be vested, with an aim of acquainting the teaching staff and other involved personnel with the alternate aim and goals (i.e., immediate objectives) of the new curriculum and the employable means of achieving them.

Colonial Educator, Administrator, and Curriculum

As a matter of rule rather than an exception the colonial educator and administrator were least informed on matters dealing with the curriculum they are supposed to work under or about the African students they were training; in particular they lacked what Pope Pius XI calls qualities of mind and heart which their most important office demanded.[2] To possess such qualities the teacher becomes not only a communicator but also a model for his students and a symbol for the educational process, and a figure with whom his students can identify and compare, cites Bruner.[3]

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[1]Refresher courses are workshop type of instruction aimed at upgrading the effectiveness of teaching usually conducted between the school-terms.

[2]Pope Pius XI, Christian Education for Youth, p. 41.

[3]Bruner, op. cit., p. 81.

In Kenya, African education, and particular that of secondary levels, a turn was de mat en pis to the fact that the curriculum followed was by large if not totally alien to the student himself and the society he presented. The teachers, methods, subject content and the media of instruction offered visually nothing that the students would logically identify with. In short, all these were somehow foreign to students' experiences, imagination, and environment and were solely designed and programmed for students in England. Miraculously, and for Dei grantia, the African child survived this confusion to say the least.

Teachers should be well trained in the subject areas of their specialities (i.e., curriculum, student, and environment) stated the Pope.[1] A broad knowledge of all the essentials in the learning experiences is a necessity in good teaching-learning situations. Unfortunately this was not so with the colonial educator nor with the administrator.

The country or government must provide for facilities and equipment to enable all secondary school teachers to better qualify themselves for their work--that is guiding and leading the youth to desirable interests and goals, for it is to them the future (world) belongs.[2] The young people are the most active and vital force in (any) society, (and) they are the most eager to learn and the least conservative in their thinking.[3]

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[1]Pope Pius XI, op. cit., p. 41.

[2]Stuart R. Schram (ed.), Quotations from Chairman Mao Tse-Tung (New York: Bantam Books, Inc., 1967), pp. 165-66.

[3]Ibid., p. 166.

Evaluating the Model

It was the purpose of this chapter to develop and construct a hypothetical model on which a curriculum for Kenya secondary schools may be based on and after this essential part has been placed into practice, modified, and confirmed.[1] The last phase is reached through vigorous and rigorous experiment and critical analysis and evaluation largely based on the validity of its (model) aims and objectives. The evaluation of various parts will be conducted by appropriate subcommittees using acceptable and valid techniques. These sub-committees are responsible to a central committee.

The following are the five major factors to be used in the evaluation, (1) the ultimate aims and validity of the objectives, (2) the learning experiences chosen as means of achieving the objectives, (3) the evaluation program, (4) the process for improvement and, (5) the integrative factors that promote the unit of the instruction.

1. The Objectives.--According to Taylor,[2] the objectives must have high validity by reflecting the understanding in the growth and development of the learner through findings and values held by contemporary society's scientists, psychologists, sociologists, and philosophers.

2. The Learning Experiences.--The learning experiences are considered valid and effective when they are appropriately promoting

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[1]George A. Beauchamp, Curriculum Theory (Wilmette: The Kagg Press, 1961), pp. 121-22.

[2]Taylor, op. cit., pp. 3, 5, 26, 28-40.

and facilitating the achievement of the desirable behavioral outcome. The emphases are on different methods, approaches, procedures and subject matter contents.

3. The Evaluative Program.--This is judged according to the statement of purpose and the availability of techniques to evaluate the whole range of the learned behaviors or skills and a continuous built-in self-evaluation aimed at promoting of a continuous improvement within every learner.

4. The Process of Curriculum Improvement.--This phase is evaluated by the identification of the required tasks, individual involvement, development of leadership, students' participation, and provision for continuous growth.

5. Integrative Factors.--The integrative factors of curriculum evaluation include (a) design, (b) scope, (c) sequences, (d) continuity, (e) balance and, (f) integration.[1]

By design, it is meant to be the plan the teachers follow in providing the learning activities in a meaningful and orderly way, say both Saylor and Alexander.[2]

Evaluating Students' Performances

Generally speaking evaluations are the process of weighing evidence in order to ascertain the value of school program in the light

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[1]Lee, "Structural Elements of the Curriculum," pp. 190-213.

[2]J. Galen Saylor and Willkam M. Alexander, Curriculum Planning for Better Teaching and Learning (New York: Rinehart, 1954), p. 245.

of total growth of the student.[1] In the process of evaluation variety of instruments and devices are used in the gathering of the data useful in evaluation, and it is after this that valid changes can be instituted to increase the effectiveness of the instructional programs and curriculum. Teachers are often the individuals immediately involved and connected with evaluation of secondary school students' performances on day-to-day basis. However, and whenever the results would be considered for decisions of a country (i.e., Kenya) wide curriculum changes and revision, it is always logical to employ the services of some evaluation specialists from outside.

Evaluation should be a continuous process to help us determine the suitability, validity, stability and reliability of the instruction programs for it is after that that formation or revision of the following major objectives can be settled.

a. Requiring facts, concepts, conceptual schemes and generalizations.

b. Showing and exercising skills in handling of the above.

c. Developing desirable (1) attitudes, (2) interests, (3) goals/objectives and (4) appreciation.

d. Improving personal social adaptation.

e. Increasing power and critical interpretation of data.

Both the teacher-made tests and standardized tests are too commonly used evaluation devices in secondary schools.

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[1]Gerthon Morgan, "What is Effective Evaluation?" National Education Association Journal, XLVIII (November, 1959), 15-16.

1. Teacher Made Tests

In this type of evaluating device, the major objectives are defined in the terms of the learner behavior which shows the teacher that the student is achieving the programs described objectives. It also helps to clarify the purpose of both evaluation and instructions.[1]

In evaluating the teacher-made test involves the use of limited formal measure and extension of informal measures such as quizzes, reports, observations, interviews, anecdotal, and sociometrics methods which relate the pupils growth toward each instructional objective. Through the use of such techniques the teacher will be able to guide the developmental growth of each learner. Through very careful and informal classroom observations a teacher may be able to assess each pupil's power of data interpretation, thinking and individual's beliefs and immediate attitude on various ideas, persons and other phenomena around him. This is one of the advantages of teacher-made tests for the standardized test cannot measure such behaviors. The two major purposes of teacher-made tests are:

a. To help him determine how well his pupils have learned what has been taught in order to assign the terminal or unit and grade.

b. To aid the teacher in determining the areas of weakness and strength in order to adjust his instruction accordingly.[3]

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[1]J. Wayne Wrighstone, "Teacher-Made Test and Techniques," Education Leadership, XIX (December, 1965), 171.

[2]Ibid., p. 172.

[3]Walter N. Durost and George A. Prescott, "How the Teacher can Construct and Use His Own Tests," Essentials of Measurement for Teachers (New York: Harcourt, Brace and World, Inc., 1962), p. 37.

The teacher-made tests must also have acceptable validity, reliability and norms as do the standardized tests. Stamines and percentile ranks are both meaningful methods usable in the interpreting of results of the tests for his standardization population will be equal to the number of his class. However, there are far more greater problems in the establishing of the validity, reliability and norms for the latter type of test.[1]

The following are the six major steps for preparing and using teacher-made tests.

1. Determining what to Measure.--The first step is to determine what one is trying at aiming to measure. The answer to this may be in the area of (a) content, (b) skill, (c) knowledge, (d) attitude or (e) understanding of principles or facts.

2. Preparing the Test.--When what is to measure is decided, writing the test items (questions) should begin. Test items should only be written clearly and in logical sequences. Directions to the students must be stated non-equivocally. The scoring key with all acceptable answers must be prepared before the testing time.[2]

3. Administering the Test.--Administering of a test includes such factors as (a) spacing, where no one student is crowded and copying is impossible, (b) enough space for responding, (c) checking of the room's temperature, lighting, and ventilation, (d) making sure that all needed supplies are at hand, (e) avoiding outside interruptions which can be accomplished by hanging a "Do not interrupt--Test" board at the door,

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[1]Ibid., pp. 2-3. [2]Ibid., p. 39.

and lastly, (f) making sure that pupils who finish before time have something definite to do so they will not disturb those still working on the items.

4. Interviewing Students.--For educational evaluation programs interviewing students becomes very helpful in understanding each student.[1] Through such interviews, teachers and counselors may gain further information about the student making it easier to determine what type of educational program would suit the student best according to his ability, interests and goal.[2]

5. Test Scoring, Grading and Reporting.--Scoring a test must be much facilitated by a well and clear designed scoring key. More difficult and important items should weigh more than others.[3] There is no magic set as to the number of total points in all perfect scores. It is a practice by many teachers to make "100" as the total score number for all tests.

6. Test and Interpretation.--This is a major and final step for which all the others (steps) prepare. The interpretation of a test largely depends on the objectives of the individual test. Again all the factors related to a particular test should be put into consideration before the final mark is announced, assigned, or recorded.

2. Standardized Tests

Standardized tests are series of questions (items) that involve large populations from more than one geographical regions. They are

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[1]Griffith, et al., op. cit., p. 197. [2]Ibid.

[3]Durost and Prescott, op. cit., p. 42.

chosen with greater care and given to a representative group in order to establish its validity, reliability and norms as basis for its future interpretation.

The items of a standardized test are selected after primarily experimentation and because of the procedure they are of higher validity and reliability than the teacher-made tests. They may help the teacher to make unbiased comparisons of his students and those of other groups in the same or different geographical locations.

Due to the increased schools' enrollments the standardized tests have gained a wider usage and applicabilities, for they may be administered to larger individual groups with easiness and less cost per person. However, they are not without any disadvantage according to Durost and Prescott who have this to say:

> Important as they are, standardized tests represent only a small part of the total measurement and evaluation of a program. Two tests per pupil per year certainly constitute only a fraction of the evaluation the teacher must do in a school year.[1]

Standardized tests should only be administered and interpreted by only adequately trained individuals for each particular type of tests, but for those evaluating (a) mental ability, (b) personality, and (c) psychological problems call for those with extensive background of training and experiences great discretion is surely needed.

The administration, scoring and interpreting of the standardized tests should be made during and on school time. Classes may be suspended for half a day when a major test battery has been administered. In this way all the teachers may help to score it.[2]

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[1]Durost and Prescott, "The Present Status of a Standardized Testing," pp. 2-3.

[2]Ibid., p. 6.

Rationale for Evaluation

There are four broad and widely recognized rationale (purposes) of evaluation, namely, instructional, guidance, administrative, and curricular.[1] All are geared into making instruction process more interesting, effective and valid for the sake of the learner.

1. Instructional Purposes

In evaluation, the following are the major and principal purposes related to instruction.

a. To promote, increase, and improve the instruction through the following purposes.

b. To help ascertain the degree of pupil attainments and accomplishments toward the desired behaviors.

c. To enable the teacher to diagnose the students' weakness and strength in the light of instructional objectives.

d. To provide a basis for re-teaching and re-learning in those areas of the displayed weaknesses.

e. To reveal students' degree of implementation of what he has learned to his internalized behavior or knowledge.

f. To check on the effectiveness of teachers' methods and classroom practices.

g. To determine the degree to which the student relates his classroom learning to actual life situations.

h. To afford prognosis of each student success in a course or sequence.

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[1]Lee, "Purposes of Measurement and Tests," p. 438.

i. To determine the valid and suitability of the program in relationship to students (and sometimes parents) needs, goals, and ability.

j. To be able to inform the parents the accomplishments of their children in school programs or in a specific subject.[1]

2. Guidance Purposes

Evaluation help the teacher and the school counselor to better understand the student and improve the guidance program in which students reveal many of their non-evaluative problems. The following are the most common guidance programs in a secondary school:

a. The pick of human growth and development at adolescence may, and often does produce much cnfusion and uncertainty within the secondary school adolescents, which not only makes personal guidance essential but also a vital part of his education and a school's responsibility.

b. Based on students' abilities, interests and goals academic guidance is offered to each student as to what program best suits him.

c. In harmony with an academic program a student follows he is offered and assisted through vocational guidance in choosing and preparing for a future career.

d. In Christian secondary schools students are also offered religious guidance in connection with the Creator, nature, and student himself as a member of a human family.[2]

[1]Durost and Prescott, op. cit., pp. 108-17.

[2]For details on religious guidance at Christian secondary schools, see James J. Cribbin, "Guidance: Primary Function of the Catholic School," Catholic Educational Review, LIV (November, 1956), 508.

3. Administrative Purposes

There are at least eight administrative purposes that rationalize the secondary school measurement and evaluation process.

a. To obtain data useful for the student classification as related to his ability and level of achievements such as grading and grouping.

b. To provide necessary information for which promotion and graduation are based.

c. To provide data useful for student when he seeks employment after graduation.

d. Assemblage of a file of students who have ever attended the school and the level of academic and scholastic attainment.

e. To provide information useful in enlisting community support in numerous financial projects.

f. To provide information essential for determining the teaching efficiency, effectiveness, validity and reliability of instructional programs.

g. If any, what are the changes needed for the improvement of method, and content of the school's instructional program.

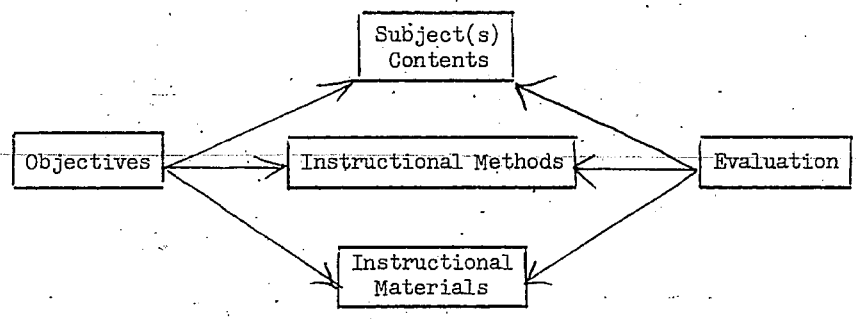
h. To provide the clues and suggestions of techniques of solving problems caused by one or more of the above factors or others, as related to the total school program.

4. Curricular Purposes

Evaluation serves as an indicator and periodic check of necessary school-wide (or individual subject) curricular revisions. It also

relates the instruction with the actual classroom practices as indicated in the following diagram on relationship of evaluation process and the school objectives.

THE INFLUENCE OF EVALUATION PROCESS OF THE SCHOOL INSTRUCTIONAL PROGRAM(S)



> In order to adequately place a value judgment on the quality or quantity of the achievement of a group of students, it is necessary to establish some goals or standard of achievement . . . developing of an evaluation program . . . the establishment of instructional goals or objectives.[1]

Criteria of Evaluating Process

Every instructional program should have a statement describing its ultimate aim and/or immediate objective. Then, as a functional quality and criterion a good evaluative process should be able to measure the degree of both the achievement and attainment toward the established and behaviorally stated objectives.[2]

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[1]National Education Association Council on Instruction, Toward Better Evaluation of Learning (Washington, D.C.: National Education Association, 1962), p. 1.

[2]Ibid., p. 189.

Both the objective and evaluation processes have a common function that is, of determining the (a) contents, (b) methods to be followed in instruction and, (c) materials and equipment to be used for instruction in any teaching-learning process as depicted above. As such evaluation helps in remodeling and reshaping the learner's (student) (1) attitudes, (2) knowledge, and (3) skills.

In addition to the functional criterion and evaluation process (i.e., test) must meet the following criteria of quality:

a. Validity.--The criterion of validity is met when a test (or anyother evaluative device) measures what it purports to measure. Perhaps, this is the most important single factor says, Griffith, et al.[1]

b. Reliability.--Reliability is the degree of consistency of results or outcome. This is to say if a test is given twice to an individual the results should be more or less the same reliability of a test solely depends on its internal factors such as sampling, objectives and the elimination of guess-work.[2]

c. Relevancy.--The items, procedure of scoring or marking, and the interpretation must be relevant to the life of the learner.

d. Utility.--The degree a test satisfies as specific educational problem in a given school and class.

e. Economy.--This refers to the amount of money each unit test costs. The mimeograph and other duplicating machines help reduce cost per unit.

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[1]Griffith, et al., op. cit., p. 190.

[2]Harry A. Greene, Albert N. Jorgensen, and J. Raymond Gerberich, Measurement and Evaluation in Secondary School (New York: Longman Greene and Company, 1954), pp. 66-73.

f. Administrability.--How easy can a test be presented to students by a practor determines the degree of administrability, which largely depends on (1) simplicity, (2) uniformity, and (3) self-explanatory.

g. Scorability.--How easy and rapid can a test be corrected? This largely depends on (1) adequate spacing, (2) letters for answers instead of words and (3) a separate score sheet or key.

h. Interpretability.--What is the degree the results can be made meaningful in terms of personal growth and accepted standard of achievement? Without interpretability a test is a mass of unintelligible scores, says Lee.[1]

What is to be Measured?

A test is one of the numerous tools commonly used for assessing mental, spiritual, emotional and many other kinds of learning. However, the effectiveness of a test largely depends on the imagination, knowledge, skills and experience of the person using it.

Tests used to evaluate the effectiveness of the curriculum are narrow instruments covering broad areas. Tests adequately covering individual's total learning are non-existing,[2] for results are usually reported in terms of individual learning and therefore posing an impossible task of separating the individual learning from group learning.

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[1]Lee, op. cit., p. 442.

[2]F.N. Hamblin, and R.A. Milliken, "What Tests Won't Do," National Elementary Principal, Vol. XLI, (November, 1961), pp. 34-38.

In the United States curriculum constructing is usually the function of the local school system reflecting the goals of the communities' professional staff and laymen, whereas the same function is undertaken by a centralized educational section in Kenya Ministry of Education.[1] Tests in both countries (the final secondary school examination for the latter) are usually made by professional test makers who attempt to measure and evaluate the commonly accepted goals and objectives of a subject, which means that the tests are not always community centered. Scoring procedures and test item weighing are affected for each is usually assigned a weigh (mark) which might not be consistent with the local curriculum for tests' results are likely to reveal only partially the specific relationships that exist between the individual tested and meaningful evaluation.

The individual is important as a test takes on meaning and the interpretation likely to bring about some behavior changes. Tests in many instances are designed for groups because individual test takes more time and more money per unit to be developed.

Among non-evaluative aspects, (a) social-economic level, (b) health, (c) interests and motivation, and (d) myriad cultural implications and others. The effects of the above may throw test norms and

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[1]The examination section of the Ministry of Education (Kenya) under the Assistant Chief Education Officer (Inspectorate) is in charge of (a) Kenya Preliminary Examination, (b) Teachers' Certificate Examinations, (c) Government Civil Service Examinations, and (d) local organization of various external examinations including Cambridge School Certificate and Higher School Certificate, The London University degree examinations and et al; cf. Republic of Kenya, Ministry of Education Annual Report (Nairobi: Government Printers, 1966).

values making the attempted evaluations no more or less than a guess-work about the individual and his environment.

Tests and other evaluative devices and tools should be used with the following in mind:

1. Tests will not develop the educational objectives.

2. They will not measure the effectiveness of the instructional program(s) unless they use the basic guidelines of the school curriculum.

3. The countless irrelevant and often unknown factors between the test and the pupil (the test taker) will not show up.

4. Tests cannot validly measure individual's accomplishments using group lists as the only criterion.

5. Test results reveal only in general terms of the imagination, attitudes, knowledge, skills, or experiences used by the test maker, test administrator, and the teacher.

6. Tests are likely to relate little of overall value of the individual tested.

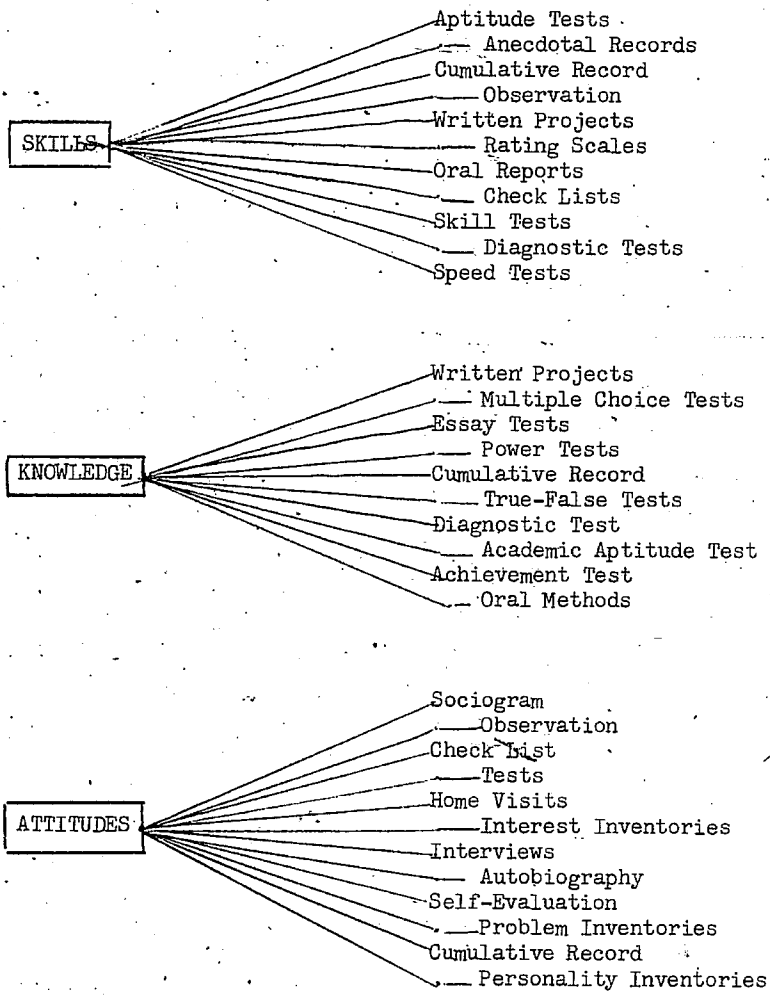
7. Tests are not a substitute for a good curriculum, good teacher, and other things of a fine instructional program but should be a part of such a program.

8. With the professional people's limited level knowledge, it is not possible to consider all potential factors of how little or how much has been learned by an individual pupil in a given situation.

The necessity of looking carefully over the test manuals and checking it thoroughly before deciding to use it is of vital importance. One should also remember that tests alone have no use but if the person using it uses his skill, knowledge, imagination, and experience, the test will be effective.[1]

[1]Hamblin and Milliken, op. cit., p. 38.

EVALUATION TOOLS AND PROCEDURES[1]



[1]Adapted from Griffith, et al., op. cit., p. 189.

Grading, Reporting, and Recording Students' Progress

There has been an undercurrent of great dissatisfaction about grading, recording and reporting of the student achievement in Kenya secondary schools since 1940. Unfortunately, much of it is caused by external examinations given as final in various educational and professional programs such as Cambridge School (and higher) examinations and various Universities of London degree examinations. The results of all these examinations took unnecessary delay to reach the students who took the tests often causing ruinous tensions upon the student himself. Today the external examinations plus the long wait should be absolute entities in Kenya Educational System for their reoccurrence is neither logical nor economical to the growth and development of Kenya.

1. Grading

A mark (or grade) is a specific indicator of the degree to which a given pupil is attaining desirable educational outcome.[1]

Among the literature reviewed dual marking system seems to rank high due to its progressiveness towards the objectivity in secondary school marking a problem close to the top among those about many schools and teachers are seriously concerned.[2] The dual marking system combines two major aspects of the current marking practices, namely (a) pupils' degree of achievement of the specific educational goals, and (b)

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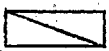
[1] Lee, op. cit., p. 468.

[2] William L. Wrinkle, Improving Marking and Reporting Practices (New York: Rinehart Press, 1947), p. 30.

individual's ability in achieving the stated educational objectives. The latter represents education in the ideal form, that is of self-realization based on ones own abilities and capabilities.

The recording of a grade in the dual marking system is done in a rectangular box divided by a diagonal line into an upper and lower section, thusly  . The learner's objective achievement mark is recorded in the upper section while the latter section is used to record that of one's relative ability. This makes it easy for parents, teacher and employer to have a well-rounded, accurate overall evaluation of a student's achievement.[1] The parents should be notified always in writing.

The two commonly used bases of marking are (a) percentage and (b) letter grades (i.e., A, B, C, D, and F; U and S) both of which teachers would have liked to replace with appropriate teachers comments if the latter were not highly subjective. The major fallacy of the current system in Kenya is that while a mark or a grade is an individual it evaluates the pupil in the terms of group achievement, of course, this is in addition that a mark does not indicate what it purports to indicate.[2] Dual marking system is closer than any other system to the ideal educational evaluation says the author.

2. Reporting

In most schools, students are kept ignorant of their achievements until their parents are notified and then show the report cards to their

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[1]Lee, op. cit., p. 473.

[2]Ibid., p. 464.

off-spring. However, in modern and progressive schools, particularly those using sound evaluative techniques, students are informed of their weakness and strength and also they would have mapped out the necessary remedial programs long before their parents are informed about their children's achievements.

3. Recording

Student grades and other useful information should be recorded in the school's permanent and fire-proof records. For such items recorded are important for (a) to record those who have ever attended the school and the dates of their enrollment, (b) to indicate the levels or their academic attainment and scholastic achievements.

Kenya Schools of the Future

The recent indications point out to the fact that Kenya secondary schools are in a major transitory phase that includes the following:

1. The schools will head towards an amalgamation similar to that which exists between many campuses within a university.

2. More and more the cooperation between the Republic's secondary schools and the university of East Africa at Nairobi will develop and increase through joint projects such as (a) entrance requirements, (b) the extension of college of education aimed to provide "self-sufficiency" for secondary school teaching personnel.

3. Due to the complexity of many factors including the above, the curriculum will be reorganized to meet the growing need of a secondary school education.[1]

[1]In existence there are two Curriculum Improvemental Centers (i.e., Sciences and Mathematics) at Nairobi; cf., Republic of Kenya, Ministry of Education Annual Report (Nairobi: Government Printers, 1966), p. 11.

CHAPTER V

SUMMARY AND CONCLUSIONS

Findings of the Questionnaires and Recommendations

The preceding chapters exposed some of the variabilities in which the African Secondary Education in Kenya grew and developed. Among such variabilities the major ones are (a) altruistic devotion of a larger sector of religious (all faiths) communities who are truly the founders of the African education in Kenya and elsewhere in the black man's continent, (b) the positive responses within many African communities, (c) the events resulting due to the occurrence of the two World Wars and finally, (d) the governmental regulations and the pattern of educational system.

Kenya African secondary education operated in the uniformity established on three periods of four years in length. The first four years' period consisted of an elementary section, while the second and third consisted of intermediate and secondary sections, respectively.

At the end of each section, there was a country-wide examination which tended to be highly selective and restrictive at the same

time minimizing the number of students likely to proceed on into the next higher level of education.[1]

Among the most immediate and serious problems confronting the secondary education today is the shortage of teachers (acute in the areas of mathematics and sciences), trained and qualified to teach in African schools. According to 146 schools surveyed over eighteen (18.2) per cent had approximately half of the teaching personnel they considered adequate[2] to man their schools. About sixty-three per cent (62.9) of the secondary school teaching personnel are non-Africans consisting of a large number of unqualified characters in terms of preparation.

Recommendation No. 1

A comprehensive in-service training for secondary school teachers trained outside Kenya should be made on an organized and compulsory basis allowing the enrollees to take such courses as (a) methods, (b) philosophy, and (c) aims and objectives of African education. For teachers trained within the continent such in-service training will be voluntary but encouraged. In-service training may be run at any teachers' Institute or at University College at Nairobi.

The materials and equipment used in Kenya secondary schools are by far less in meeting the daily classrooms' needs and demands. In some instances, a few of them were without any relevance to the life of the African students in schools and thereafter.

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[1]According to the available figure up to 1963, for every 100 pupils in elementary schools, 25 per cent would enter intermediate section while only 10 will proceed on to secondary school level. Cf. Koinange, op. cit., p. 4.

[2]Forty students per each teacher.

Recommendation No. 2

A committee of the concerned citizens should be formed to study and offer their recommendations on the following: (a) the usefulness of the locally produced and obtainable instructional materials and supplies, (b) materials useful from other sources, but non-relevant to any particular geographical boundary (i.e., biological, mathematical and scientific charts, et al.), and (c) the quantity to be purchased to ensure replacement of apparata or equipment under repair.

In terms of academic attainments and achievements, the foreigners teaching in Kenya secondary schools (94.6%) hold higher and advanced college degrees quantitively and in the areas of their specialization as compared to (18.9%) Waalimu Wananchi.

Recommendation No. 3

The present three years of science and mathematic teachers training should be extended by one year to cover an undergraduate degree in education. Teachers thus trained should sign a contract to serve as secondary school teachers for a period not less than five years or a refund of the expenses encountered through their training.

The survey revealed that there are no country-wide teachers' professional unions other than Kenya National Teachers Union (KNTU) which is led by Mr. S.J. Kioni and closely associated with the World Confederation of Organizations of the Teaching Profession (WCOTP), which has Washington, D.C. as its International Headquarters. It is the opinion of some anonymous Kenya teachers that the former can improve greatly under leadership of individuals who are less politically ambitious and more professionally (teaching) devoted and committed.

Recommendation No. 4

Local and national teachers' professional and academic organizations are essential factors in ensuring the continuous in-service growth of the (a) art of teaching, (b) subject-area(s) of ones interest and specialization, and (c) strengthening of teachers' common goal(s) through research, lex terrae and organized studies.

Recommendation No. 5

Teachers' salaries and other related fringe benefits should be increased and improved to attract many more young men and women into the teaching profession according to the recommendation by the Addis Ababa Committee on African education.[1]

Schools in Kenya urban centers are much better equipped than the rural Harambee schools, not only in instructional equipment and devices but also in the permanent physical facilities (i.e., building, et al. The schools in the Nairobi, Nakuru, Mombasa and Thika areas have most audio-visual (AV) equipment and devices than any other areas of the Republic. These education-technological devices by far improve the teaching-learning situations whenever properly used.

Recommendation No. 6

The Ministry of Education should see to it that every secondary school in Kenya has at least the necessary equipment, supplies and personnel to function properly for the betterment and interest of the students, people, and country.

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[1]This Committee recommended teachers' salary be raised by one-fourth(25%) as a means of attracting more teachers into African schools' classrooms. Cf. UNESCO, ED/180/181, loc. cit., p. 37.

A further check revealed that the British authored textbooks are the most popular texts in Kenya secondary schools. In some areas and topics the said textbooks do not adequately cover the subject necessary for individual study.[1] Here the teacher is left to explain, demonstrate and develop the concepts in viva voce of the teaching-learning environments. It is indeed sad to note that even books published thirty years ago and never revised yet find their way into Kenya secondary classrooms.[2]

Recommendation No. 7

The Ministry of Education should appoint a group of interested educators to serve as Committee on Textbooks Adaption to study and offer their recommendations on the following: (a) books most relevant to Kenya youth and the educational system, (b) five years' limit on any book (if not revised) adaption, and (c) areas that need immediate revision and changes.

Over seventy-six (76.1%) per cent of the present 601 Kenya secondary schools came to be between the 1964 and 1968 according to the Ministry of Education growth records.[3] As it might have been expected schools in urban centers are more dense (1-1/2 miles apart) than those in rural areas which have an average distant of 212 miles between schools.

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[1]See recommendation No. 11.

[2]Clement V. Durrell (whose mathematical books have won him an acclaim in Europe, America and Africa) is an excellent example to this group of textbooks.

[3]See Moinde, op. cit., p. 2.

Graduate teachers are but a rare species in these rural schools; there is .02 per cent per every 100 teachers as compared to national percentage of 18.9 graduates per every 100 secondary school teachers. Most (94.4%) of the multiple "streamed" schools are found in the major metropolitan centers that include Nairobi, Mombasa, Nakuru, Kisumu, Eldoret, Thika, Kakamega, and in Kiambu district.

Most of the foreigners teaching in Kenya secondary schools have been in the country for a period averaging two years.

Recommendation No. 8

For this reason it seems that a special program of localization would be in order, particularly for those who plan to continue their service and employment in Kenya schools. Such a program may include the learning of Swahili, history of Kenya and general studies on the culture of African people.

Due to the acute shortage of qualified secondary school teachers to man the ever expanding demand of education among the African communities there exists a few individual teachers in the rural areas' classrooms with less than twelve years of education in toto. Inasmuch as such conditions exist, it remains the sole responsibility of the Ministry of Education to direct a quick change in improvement for the benefit of all concerned.

On the techniques and methods of presenting and introducing new lessons it was found out that the lecturing method predominates, and by far the most popular means particular with those with British educational background. It is used so freely that in times the responses of

the students are ignored and disregarded, for in similar systems students are supposed to remain passive while the lecturer expounds, dictates, asks questions and explains them, leaving no room for individual (student) participation.[1] In such a method the lecturer assumes the monopoly of knowledge which further invalidates lecturing as an effective educational approach.[2]

Recommendation No. 9

The old colonial method of learn-by-lecture-only should be urgently (where still not yet) replaced by the newer and proven Discovery-oriented-method and philosophy.

As an explanation, let us hypothetically assume that there exists a fictitous Kerinyaga Secondary school in the central part of Nairobi City, and had to study a unit in ecology and on "K" species of the mountains' slopes. In the latter method such a topic can be adequately covered and taught out-doors and better still on the slopes of Mts. Kenya, Kilimanjaro or any other native mountain. In such an education approach the relationship between the environment and what is to be learned has been increased and made meaningful through (a) experiments and experimenting, (b) field trips, and (c) multimedia techniques.

School must be organized or reorganized to respond to the level of pupils' growth and development and in accordance to the preconceived

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[1] Martin J. Ross, et al., Kabul University: Its Roles in Education and Public Service in Afghanistan (Urbana: University of Illinois, 1959), p. 37.

[2] Mickey A. Palmer, "The New Science Teaching," The Sunday Magazine, Washington Star, April 27, 1969, pp. 12, 13, 20.

national needs and goals. Building must be built and constructed on a firm foundation to ensure the safety of the children.

Recommendation No. 10

All school buildings should be inspected regularly as a precautionary measure and reduction of hazards, and appropriate repairs must be done immediately.

Secondary education should be organized in the bases of simplicity, unity and coherence in achieving the goals and objectives.

Recommendation No. 11

All instructional presentations in a way facilitating and promoting individual student participation in and outside the classrooms, individual studies should always be encouraged through self-motivating techniques. Such individual project may need close supervision of the teaching staff for the guidance and unity-appraisal.

Examinations and tests should be constructed to ascertain and evaluate what has been covered and taught through schools' instructional programs rather than what is expected to have been learned.

Recommendation No. 12

Never again could an importation of a foreign made examination (i.e., Cambridge School Certificate, et al.) into an independent Kenya be justifiable. All the tests and examinations should be constructed with the local environment in mind, which conforms to the basic principle of education.

In the areas of the students' service the consciously planned guidance programs are lacking. However, it is the opinion of some of the secondary schools' administrators that students are doing fine as would be expected. Perhaps, this is due to the fact that families have not yet relinquished their primary role and responsibility--that of guiding their off-spring in matters dealing with adult life preparation. No doubt the western societies (i.e., U.S.A., et al.) have relinquished much of what a decade ago was considered a responsibility of the home.

Recommendation No. 13

As the country becomes more and more industrialized, organized and consciously planned vocational guidance programs must take its place in the Republic's secondary schools. As do the other types of guidance including (a) academic, (b) social, and (c) theological. The latter will aid in improving the students' rationale nature that is imago Dei.

As pointed out in an earlier page, teacher's daily load in Kenya secondary schools is as much as one and one-half times that considered to be a normal daily load, that is five hours daily classroom teaching.

Lastly, the study revealed that Kenya Government has enough materials, resources, personnel and know-how necessary for improvements of all secondary schools of the republic through maximum utilization of the available patriotic intelligentsia, equipment, and other educational devices available to the secondary schools today.

Recommendation No. 14

Consolidation of school districts is an essential part of general improvement of Kenya secondary schools. Studies should be conducted to

evaluate of how the available instructional equipment and devices, teaching personnel can be fully utilized.

It is hoped that the government's commitment in secondary education will resort to a better, happier, and prosperous Kenya for all, says this author.

Summary and Conclusion

There was education in Kenya long before we had the first contact with (our uninvited guests) European thrill seekers and in the later periods with colonial merchants largely composed with characters devoted to the British philosophy of territorial and empire expansion. However, what the European brought to Kenya was the type of western education mainly restrictive within the walls of a classroom plus its materialistic philosophy and technology.

Although for different motives the Christian missionaries of various denominations are to be accorded full credit for founding and laying a firm skeletal framework of African education in the Republic of Kenya, including that of secondary school levels.

> It is, of course well known that the missionaries have the credit for being the pioneers of education in Africa, and on the foundations which they laid with such devoted service government systems of education were built up.[1]

It was no later than 1926, the year The Alliance of Christian Missions started constructing what was later to house the first African secondary school at Kikuyu, did the colonial government decide to go

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[1]E.R.J. Hussey, C.M.D., "Educational Policy and Political Development in Africa," Africa Affairs: Journal of the Royal African Society, XLV, No. 179 (April, 1946), 73.

"Partnerships" with the missionaries in the education of the natives, to missionaries, education was completely identified with conversion to Christianity,[1] but to a colonialist it was viewed as a means of creating a separate and special class of Artisans among the African community. A class of intellectuals and true supporters of status quo, and often tends to be subjective and individualistic and impractical in their thinking and irresolute in actions.[2]

It was a miracle that instead of being promoters of the theory of divide et empira and loyal colonial subjects as expected by the British Government. Some of the earlier secondary school graduates provided the pillars for the Kenya African Nationalism[3] and it is due to these few exceptions that the cry for Uhuru was heard "We are determined to be free, we want education. . . . we demand for black Africa autonomy and independence."[4]

The sudden government's (hypocritical) interest in education was a general pattern in all the British colonies in Africa and elsewhere. According to tintinnabulous advice given by Joseph Chamberlain, once (1895-1903) a British Colonial Secretary, the young turks were supposed

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[1]Ibid., p. 73.

[2]Stuart R. Schram (ed.), Quotations of Chairman Mao Tse-Tung, p. 167.

[3]Salim Mchunguzi, "Kenya Political Evolution," Inside Kenya Today, vol. III, No. 3 (March, 1967), 27.

[4]T. Cullen Young, "Africa Talking," Africa Affairs: Journal for the Royal African Society, vol. XLVII, No. 189 (October, 1948), 215.

to "go education" by wrestling the education of the young out the hands of the Priests to whatsoever denomination they may belong.[1] Such was the prevailing practice in the early history of the British colonies, for whenever and usually after the Christian missionaries had successfully built up the framework ef educational and medical services to serve the natives, the government would step up and take over both the management of this institution and the credit, cites Stamps.[2] The improvement and the degree of distribution after the government takeover was highly questionable, to save the motive.

The mere Christian acceptance to go "partnership" with an oppressive government minimized the differences between both groups' aims and objectives on African education in Kenya. In addition, this earned them (missionaries) mistrust among Africans and abroad. Christian is the enemy of civilization, and at best he is the enemy of all human joys, declares Mouroux, a French philosopher.[3]

Among the impertinent changes instituted in secondary schools was that the student had to live in hostels commonly surrounding the main school campus. While this positively improved the learning and study conditions regardless of the intentions, it further alienated the student from his home and society and added to the incongruity of the

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[1]Christopher Dawson, The Crisis in Western Education (New York: Sheed and Ward, 1961), p. 103.

[2]Dudley L. Stamps, Africa: A Study of the Tropical Development (New York: John Wiley and Sons, Inc., 1953), p. 161.

[3]Jean Mouroux, The Meaning of Man (New York: Doubleday and Company, Inc., 1961), p. 19.

curriculum followed. The complexity of all these increased the chance of education leading to pure mechanical acquisition of knowledge and skills that are quite unrelated to the inner-self.

In practice the curriculum in Kenya secondary schools primarily tended to develop along the academic lines leading to white-collar jobs for most and liberal administrative posts for a few who would "help" in governing Kenya as a British colony. In the classroom the teacher, an ineffective communicator and a symbol of militarism rather than of a successful and effective education process as suggested by Bruner.[1] A front-line in a battle field would have been an apropos place for the most these colonial teaching staff, suggests the author.

The curriculum of secondary schools consisted of such subjects as history, geography and politics (civic) or government save English that was totally irrevelant to the life of an African student and his society. The mean and mode of communication in the above learning experiences were effectively designed for the English pupils in England and did not have any appeal, interest, or motivation for the African student. No wonder there was some "wastage" to use a British terminology meaning high school drop-out.

Under the colonial rule, the Department of Education greatly sacrificed the quantity in the African education for quality that was not necessary or desideratum. In 1950's this caused a lot of complaints within Kenya and added to the American complex.[2] Unfortunately, the

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[1]Bruner, op. cit., p. 81.

[2]This is a brief that a colonial status must be unbearable to the people colonized as America once felt it to be. Cf. Lord Hailey, op. cit., pp. 54-58.

modifications proposed for general improvements by various appointed educational committees were not much more than complacent of the old theory of "education for a few" rather than for a wider distribution.

The value of education, remarked the French philosopher and educator is not to shape a platonist man-in-himself, but to educate each particular child belonging to a given nation, a given social environment, and a given historical age.[1] Unfortunately, such were the virtues and value that lacked in the African secondary education in Kenya. In some instances it trained the African child to be against himself and therefore breaking down what it (education) ought to have reserved.

For the last five years and the year preceding Uhuru, Kenya secondary education has undergone through numerous changes and great gains. Quantitively, the gain was so tremendous that mathematically and at the established rate of changes taken by the British Colonial Authority--it would have taken the British Government in Kenya 281 years to achieve what the independent Kenya accomplished between the years 1962 and 1968. It is hoped that the combination of the quality and quantity thus far achieved will be an asset to the young Republic in catching up with the modern world of technology and sciences-- a five centuries' labor and achievement of many nations.[2]

Many and more changes have been predicted especially in the areas of (1) contents, (2) methods, and (3) organization. It is hoped that

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[1]Jacques Maritain, Education at the Crossroads (New Haven: Yale University Press, 1961), p. 1.

[2]Robert Ulich, The Education of Nations (Cambridge: Harvard University Press, 1961), p. 287.

Kenya will adopt the western technology in all the educational approaches in serving its goals and needs.[1]

We have now come to the end of the study where evidence brings us to the conclusion that the British Colonial Government did not start, establish nor promote wide distribution of secondary education among the African community in Kenya. The facts stand against a popular brief that the colonial government used large sums of money in African education, which was profuse British propaganda, and revealed through the following observation of research:

a. That both the elementary and secondary education started and were established at various missionary posts, and by the Christian missionaries themselves. To Christian missionaries, education was an effective means of converting the African masses into the Christianity.[2]

b. The money supposed to have been given to The Alliance of the Christian missions in 1926 while constructing what became to be the first African High school at Kikuyu came from the surplus and interest of a fund established with donations from the African soldiers and known as East African War Relief Fund.[3]

c. Teams of young African Artisans and apprentices enrolled for various building trades from Kabete Native Training Depot (N.T.D.) contributed by putting up the school buildings for the earlier secondary schools.[4]

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[1]For details of Kenya educational changes, cf. work of Karl W. Bigelow, "Prospects and Problems of Education in Africa," The Inglis Lecture Series for 1963-1964 (New York: Columbia University, 1964). (mimeographed.)

[2]Hussey, op. cit., p. 73.

[3]Kenya Colony and Protectorate, Department of Education Annual Report (Nairobi: Government Printers, 1926), p. 28.

[4]Kenya Colony and Protectorate, Department of Education Annual Report (Nairobi: Government Printers, 1932), p. 41; and Kenya Colony and Protectorate, Department of Education Triennial Survey, 1958-1960 (Nairobi: Government Printers, 1960), p. 9.

Suggestions for Future Study

As had been pointed out previously Kenya youth (particularly those of secondary levels) consist of unknown and unstudied entity[1] and in order to be able to formulate and construct an effective and appropriate program of study with valid and meaningful objectives it is imperative to know (i.e., through research and study) the "self" of the learner.

Therefore, any study that may be undertaken must serve, meet and satisfy the requirements, To Better Improve and Increase the Understanding about the Learner.

The following are some of the areas of Kenya Secondary Education that require some immediate contributions of new Research Findings:

a. Curriculum Changes and improvements.--(1) What are the most valid methods of curriculum change or construction?

(2) How to implement a new curriculum with least inconveniences to the school establishment?

(3) Is one curriculum system suitable for both Kenya rural and urban centers?

b. The Student Growth and Development.--(1) Research is overdue or urgently needed to ascertain various important developmental phases of Kenya children as they relate the school instructions.

[1]There has not been valid studies on Kenya youth for over twenty years. Unfortunately, some saucy and stereotyped writings by the British Colonialist have been used as valid in the past. See Charles Bowles, African Challenge to America (Los Angeles: University of California Press, 1956), pp. 11-12.

(2) Other researches which are needed are those dealing with the students (a) ability, (b) interests, (c) motivation, (d) goals and objectives, and (e) behaviors.

c. Teachers--Behavior and Personality.--(1) To what extent does the teachers' behavior and personality contribute to the learning process?

(2) Motivational methods and techniques.

(3) How to increase interest in teachers to do research and also what would be the method of reporting their findings to help others and avoid unnecessary duplication.

(4) Continuous in job growth and development.

d. School-Community Relations.--(1) How can the relationship between the school and the community be improved and kept in good standing?

(2) How can parental proper participation be increased for the improvement of their children's education and for the general improvement of the school's physical facilities and lastly,

e. Independent and Home Study.--According to the Trump Report, individual studies improve the student's abilities and skills particularly in (1) reading, (2) writing, (3) viewing, (4) reasoning, (5) using and working with an automated device.

Research and studies are needed to show learning can be made interesting, successful, effective, and self-motivating to the secondary school students in the Republic of Kenya.[1]

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[1]J. Lloyd Trump and Dorsey Baynham, Guide to Better Schools (Chicago: Rand McNally Press, 1961), pp. 27-28.

APPENDICES

(A copy of the following letter was sent to Kenya secondary schools with the following questionnaire.

Henry K. Githara
~~The Catholic University of America~~
Washington, D.C. 20017
U.S.A.

------th May, 1969

Dear Sir:

I am presently engaged in writing my doctoral (Ph.D.) dissertation at The Catholic University of America in Washington, D.C. My project deals with the secondary education and its multifarious phases with special emphasis in the area of sciences as the theme of my study and concentration.

To reach my desired objective in this project it will be necessary for me to contact quite a few important persons in Kenya, and at least one hundred and forty-six secondary-school principals and some members of the teaching staff. This I must do as a means of gathering information and advice which is locally non-available in the United States nor in our (Kenya) Embassy in Washington, D.C. and New York.

The following information is asked in order to be able to identify our schools' situation and its bearing on general secondary school curriculum. You need not sign your name nor that of your school unless you wish to do so. May I also assure you at this point that any particular or identifying information will be kept and treated with strict confidence.

Most of the following, if not all, questions are constructed for categorical responses, purposely to reduce the amount of time necessary in filling the attached form. Please feel free to add any further information regarding any point or part that you consider necessary and essential. This can be done either in the margins or on separate sheets.

Thanking you in advance, I am

Sincerely yours,

/s/
Henry Kamanu Githara

Encl.
Questionnaire

QUESTIONNAIRE

Republic of Kenya
Teaching in Secondary Schools
(Survey of Method and Philosophy)

Part I (General Information)

(Please put a check (tick) in the space by the answers which most nearly describe the situation in your school, or fill in the information as indicated:

1. This school is under the administration of:

_____A government agency
_____A religious group
_____"Harambee"
_____Some other not mentioned

2. The student body is predominantly:

_____African
_____Asiatic descent
_____European descent
_____Mixed (not over 2/3 of total by any group)

3. The school is:

_____For boys
_____For girls
_____A boarding school
_____A day school

4. The school is in an area:

_____Rural
_____Urban (larger populated centers of Kenya)

5. The general curriculum covered:

_____Academic or grammar
_____Modern
_____Technical/vocational

6. The science curriculum requires all students:

_____No. of years
_____No. of hours weekly
_____No. of laboratory hours weekly

7. How many science teachers do you employ?

_____Full time
_____Part time basis

8. How many teachers do you employ altogether?

_____Full time
_____Part time

9. What is the present enrollment of your school?

_____(1969)
_____(1968)
_____(1963)

10. What is the distance to the next full secondary school?

_____Miles

11. When did your school become a secondary school (i.e., with Form I)

19___

12. The first group of students set for Cambridge/or School Certificate in _____. Since then the picture has been as follows:

_____	Total;	_____	passed	(1959)
_____	" ;	_____	"	(1960)
_____	" ;	_____	"	(1961)
_____	" ;	_____	"	(1962)
_____	" ;	_____	"	(1963)
_____	" ;	_____	"	(1964)
_____	" ;	_____	"	(1965)
_____	" ;	_____	"	(1966)
_____	" ;	_____	"	(1967)
_____	" ;	_____	"	(1968)

Part II (Sciences in Kenya Secondary Schools)
(To be filled by a Science Teacher)

1. I was born in _____Kenya_____other parts
_____ Reared

2. I have taught in Kenya Schools for _____years.

3. I teach_____subject(s)

4. I have taught_____years, outside of Kenya

5. I received my formal education in
_____(country's name)

6. Please give any academic qualification or special studies in your subject area of concentration (i.e., Higher School Certificate, University, degree in)

_____
_____

7. For the syllabi covered in your school what are the required subjects to receive a school certificate? (subjects)

_____
_____

8. What syllabus does your school follow?

_____Government
_____School Certificate (Name)
_____Our own syllabus
_____Textbooks

9. Does the school plan to introduce an additional subject_____
Number_____When was the last such addition___19_____
What was it?_____

10. The following are some of the basic objectives for secondary/ education which are currently held among the education around the world. Please indicate the importance you accord to each one for student in the Republic of Kenya by placing either 1 for great importance; 2 for definite value, or 3 for little value.

____as an element of nation-building.
____as an enrichment for his cultural background.
____to share the body of human knowledge.
____a preparation for future vocational needs and training.
____to train in inductive, deductive, and abstraction processes.
____to train the mind for orderly systematic problem solving.
____approach to his daily life.
____as a help in understanding the development of the scientific age in which they live.
____to develop the spirit of "Harambee."

11. In the space below give the name, author and publisher of any science textbook(s) which you find to be particularly suitable in teaching sciences in Kenya secondary schools.

_____
_____
_____

12. What subject-matter is covered in No. 11?

_____

_____

_____

Part III--The Teaching Methods:

Check as many answers as will clearly describe your teaching practices. Two ticks (xx) may be checked for any method(s) which you have found to be particularly effective with your students.

1. In introducing a new course as topic in science(s) which of the following approaches do you use?

____A simple statement of the topics with a brief explanation of what it will involve.
____A brief history of the topic with some emphasis on its practical value.
____A brief history of the topic with its intellectual value.
____Linking of material to daily experiences of students.
____Linking materials with previous scientific knowledge.
____Reference to future vocational or academic requirements.
____An experiment (or game) that will arouse the student's interests and lead into the subject.
____A story telling technique for linkage.
____The National needs and supply of manpower
____Other approaches (Please indicate)

2. In developing new skills and understanding in the students, in what frequency do you use the following techniques?

a. lectures _____daily
_____for each new topic
_____for some topic only

b. Heuistic Method--(questioning)
_____as a part of explanation or demonstration
_____occasionally, depending on topic
_____extensively--In all phases of teaching

c. Blackboard demonstration
_____rarely use
_____the regularly, explaining new concepts and skills
_____extensively in all phases of teaching

d. Demonstrations with other equipment (i.e., charts, models, etc.)
_____never used
_____used occasionally
_____used frequently

e. Experimentation

_____Never used
_____sometimes used
_____used frequently

f. Students projects (Drawing, dissecting, model making, measurement, etc.)

___never assigned
___assigned occasionally
___assigned frequently

3. The following are typical student projects. Please check any which you have used in your classes. Be sure to check twice any which has the highest degree of effectiveness.

___dissecting___model making___practical measuration
___making charts and graphs
___solving of practical problems around their home, school or community
___any other graphic or three-dimensional experiments (please describe if you wish).

4. In securing mastery and retention of the material, with what frequency do you use the following techniques?

a. Drill and practice (by this is meant a repetition to facilitate the mechanics of a particular skill):

___daily ___weekly ___at end of each topic studied
___only with certain topics

b. The application of their newly learned skills to problems: (Check your own views on classroom experience).

___necessary for each topic studied.
___necessary for some topics only
___more important than drill
___less important than drill

c. Directed study time:

___10-15 minutes daily or almost daily
___half period daily
___a separate period weekly or occasionally (other than class time)
___some time at end of each new skill or topic
___no time given in class

d. During the directed study time or outside of class, individual attention to the problems of the weaker students is:

____sometimes necessary
____rarely necessary
____frequently necessary
____necessary, but time available is too limited to cope with all problems

e. Boardwork: (Please indicate the purposes for which you send students to the board.)

____for developing skills and concepts (explanatory stage of teaching)
____for drill and practice in work already explained
____for review work
____for uncovering student weaknesses
____for stimulating student interest and participation
____for show-off of the best students

f. Assignments (out-of-class or independent work):

____do not usually give outside work
____give one or two assignments weekly
____give work which takes 15-30 minutes daily
____give more than this daily.
____Have a schedule or policy which differs from any of these. (Please describe if you wish)

5. In revising material, which of the following approaches do you use?

_____an organization or topical outline of the material
_____a review of the main skills, theorems or formulas for meaning
_____a review of the main skills, theorems or formulas through drill and application

6. In evaluating the students' work, is it your practice to test them:

____daily
____weekly
____at two-week or three-week intervals
____at end of each topic covered
____before each marking period
____at end of semester only

7. Please indicate the types and contents of tests which you give your students:

___diagnostic tests
___self scoring tests (for self-evaluation)
___oral tests
___written tests
___scientific vocabulary
___memory work
___scientific skills (procedure of carrying a laboratory investigation, etc.)
___applied problem similar to those done in class
___new problems based on their knowledge, but which necessitate original thinking
___additional (please describe)

Part IV: Physical situation and student problems

1. Following is a list of equipment which most science teachers consider desirable (though not necessary for the teaching of science on the secondary school level. Pleach check those which you use in your school. Check twice any which you have found to be particularly useful or effective. Underline any which you believe would be valuable, but which you do not have.

___blackboard (enough space for teacher demonstrations)
___blackboard (enough space for two or more students to work
___a special room for teaching science
___textbooks for each student
___several textbooks as reference works for each course for the teacher
___textbooks other than required one for students for reference
___desks for each student
___tables (several students at each table)
___models for demonstrations
___other visual aids such as charts and filmstrips or slides
___equipment for technical and laboratory use
___supplies for student use (dissects, tools, rulers, etc.)
___other (please describe)

a. How many students do you teach per class?_____

b. What size class would you consider ideal for teaching science in Kenya?_____

2. Following is a list of skills and concepts which students learn previous to any secondary education. Please check the ones in which your students are usually well prepared. Underline those in which, generally, they could use better preparation:

___basic operations (adding, subtracting, multiplying, dividing)
___fractions
___decimals
___ratio, proportion and scales
___use of formulas
___measurement
___recognition and drawing of three-dimensional figures
___word problems
___use of language (i.e., use of English vocabulary at ease)

3. The following are representative areas in the field of secondary education. Please check those which generally present little difficulty to your students. Underline those which are frequently a source of difficulty:

___work with numbers (basic operations and calculations)
___ability to solve a word problem
___application of concepts and skills to practical problems
___memorization of formulas and theorems
___induction or generalization
___deductive reasoning
___mathematical vocabulary and symbols
___visual problems (locus, trigonometry, or graphs)
___ability to handle the language--understand the scientific and logical implications of sentence structure and vocabulary
___any other (Please mention any which you feel to be important, either for its ease or difficulty to the students)

4. The above answers, in nos. 2 and 3, are based on:

___classroom observation
___classroom testing
___results of certificate examinations
___a combination of the above

5. Does School Certificate Examination need revision, and if it does, what improvements do you suggest?

THANK YOU VERY MUCH FOR YOUR VERY VALUABLE CONTRIBUTION. PLEASE FEEL FREE TO MAKE ANY ADDITIONAL COMMENTS ON FOLLOWING PAGES

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