THE INSTRUCTIONAL PLACEMENT OF LEARNERS: A CASE STUDY OF THREE GOVERNMENT-MAINTAINED SECONDARY SCHOOLS IN BUSIA DISTRICT, KENYA.

By

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DECLARATION

This thesis is my own original work and has not been presented for a degree in any other University.

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DEDICATION

This thesis is dedicated to the memory of the late Mrs. Margaret A. Dondi, a mother, sister, teacher, a constant reincarnation of hope and to my parents Edward and Grace Lukhoba from whose "Universities" I first graduated.

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ABSTRACT

The study set out to describe the modes of grouping adopted by the sample of three government-maintained secondary schools in Busia District and to attempt a taxonomy of those modes. The study was also aimed to test hypotheses and to attempt identifying whether or not grouping practices and the sex of the learners were significantly related to educational aspiration, interest in classwork and academic achievement.

A sample of two hundred and seventy four students, three school headteachers and seven class teachers participated in the study. Data related to the dependent variables was acquired by way of a student questionnaire, teacher test scores and interviews. Questionnaire and test score data was analysed by use of a chi-square (X^2) test of significance because of its nominal nature. These data were analysed to determine hypothetical relationships. Interviews helped to highlight the descriptive aspects of grouping in the sample schools. Student interviews were conducted to supplement questionnaire data on interest in classwork.

In the streaming mode of grouping, it was found that the following two criteria were used for placement of students:

(a) Overall student ability on the primary school-leaving examination and

(b) Curriculum ability in certain school subjects.

The Non-streaming mode, on the other hand, showed that those criteria for placement were as follows:

(a) Splitting the alphabetical list of students on intake into learning sets.

(b) Placing students into learning sets depending on how punctually they report for secondary schooling after admission.

(c) Seperating students into learning units determined by curriculum options.

Streaming and Non-streaming, the two general modes of grouping identified in the study were not significantly different in relation to outcomes such as educational aspiration, interest in classwork and academic achievement.

It was concluded that streaming was an institutional feature of schools in Kenya which was militated upon by administrative realities of the schools, curriculum and student perceptual factors and had propensity to emerge among groups of learners even in those schools which did not officially profess it.

On the basis of the collected data, it was generally recommended that the Education Act be revised to give parents a fair amount of power in educational management. It was also recommended that there was a seemingly strong link betweeen primary schooling and secondary school outcomes and for that reason the catchment area of the secondary could be developed if secondary schooling was to be qualitative. It was further recommended that sociological theories of structural functionalism and symbolic interactionism could be applied in re-addressing the problem.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

The approaches to the organisation of learning in Kenyan Secondary Schools are varied, unsystematic and school-specific at most. The schools are not guided by a clear and uniform ministerial policy with regard to how they should organise learning groups[1]. Because of this lack of uniformity and given that there is a wide range of approaches to choose from, the policy decisions on grouping are left at the exclusive discretion of each school if not the individual headteachers in some circumstances. This phenomenon is due, in part, to the ambiguous ministerial stand[2].

There are two ways, generally speaking, in which secondary schools categorise learners. In the first way, learners are classified according to year-groups and may be conveniently identified as Form One, Two, Three and Four. This is a chronological or vertical grouping practice which is not the domain of interest to this study. However, the second manner and which is of crucial interest to this study is whereby learners of any

one year-group (Form Two, for example) are sub-divided further so that such sub-categories as Form Two 'Red' or 'Blue', 'A' or 'B' and so on are identified. This sort of grouping may be referred to as the horizontal grouping practice.

In the context of the variant approaches to the organisation of learning, it was the purpose of this study to investigate whether or not the manner in which students were grouped at the secondary school level contributed significantly to:

(1) their performance in school examinations,
(2) their interest in classwork and
(3) the level at which to terminate formal learning.

This study was therefore concerned with the learning groupings organised by the school administration. The issue in the study was whether or not approaches to the organisation of learning bear any significant consequence upon cognitive and non-cognitive outcomes. Does the mode of grouping practised affect academic performance, a cognitive outcome? Do such practices

affect a student's interest in classwork and his level of educational aspiration, non-cognitive outcomes? These questions were fundamental to this study and are re-expressed below in hypothesis-form.

From this standpoint it becomes clear that the independent variable was 'horizontal grouping practices'. This independent variable was examined with the aid of researchable hypotheses to determine whether it had any effect on the three dependent variables named above.

1.1.0: Research Hypotheses

HO_1: Boys and girls do not differ significantly in their educational aspiration.

HO_2: Students placed in different horizontal learning groups do not differ significantly in their educational aspiration.

HO_3: Boys and girls do not differ significantly in their interest in classwork.

HO_4: Students placed in different horizontal learning groups do not differ significantly in their interest in classwork.

HO_5: Boys and girls do not differ significantly in their academic achievement.

HO_6: Students placed in different horizontal learning groups do not differ significantly in their academic achievement.

There is need at this stage to distinguish terms and operationalise meanings which emanate from the problem and its hypotheses. The terms to be defined here are stream, streaming, interest in classwork, educational aspiration and academic achievement.

1.2.0: Definition of Terms

1.2.1: Stream:

The ordinary meaning of the term 'stream' as understood from the Oxford Advanced Learners' Dictionary of Current English is the steady flow of subjects and objects[3]. Implicit in this definition is the concept of continuous and smooth uni-directional movement of things and persons. However, in common educational usage, the term

implies numerical quantity. In this manner, schools are referred to as 'two-streamed', 'three-streamed' and so on meaning that among learners of any one year group, there are two, three or more learning units. This is the numerical usage of the term and it is an implied policy within the Ministry of Education to restrict the term thus[4].

The term is also commonly used in an administrative sense to refer to the 'Yellow' stream, for example, as opposed to the 'Blue' or 'Red' set of learners. Underlying this usage, is the need to identify and categorise learners for both administrative and organisational efficiency. In both the numerical and administrative usage, the term is used in its noun-form and it is in this sense that the term was used in this study.

However, there is a second level at which this term may be used. At this level, the term is used in its verb-form to denote the practice of dividing a class of learners according to ability as judged by standard academic criteria. It is from this usage that 'streaming' is derived, meaning the separation of learning groups on the basis of academic excellence so that the most able are

assigned to a stream relatively higher than their less excellent counterparts[5].

For purposes of this study, both terms "stream" (administrative noun-form usage) and "streaming" (seperation of abilities verb-form usage) were applied. For those schools in the sample that did not stream; they did not group students on the basis of academic excellence; they were referred to as "non-streaming" schools. There were two schools in the sample that did not group according to ability and it was their officially declared policy to maintain heterogeneous learning groups[6]. It is, therefore, to be understood that there were two broad categories of grouping practices identified in this study as "streaming" and "non-streaming".

1.2.2: Interest in Classwork

This was one of the dependent variables of this study and was operationalised to mean the students' willingness to attend to, initiate and expend effort on or persist at academically desirable tasks. A quantum of academic indicators were set to define this term. The students' punctuality on handling academic assignments was

one of such indicators. The students' persistence and independence in handling difficult academic tasks was another indicator on which measurement of interest was based. If a learner showed satisfaction in participating in class lessons, he or she would have shown interest in classwork. If the learner indicated signs of academic competetiveness, that too was inferred to indicate interest in classwork. A sum total of the mentioned indicators, on a questionnaire score, provided what this study referred to as "interest in classwork"[7].

A student whose sum score on the questionnaire was between the range of sixty three and eighty five was considered of "high" interest in classwork. One whose questionnaire score was between forty and sixty two was considered as having "medium" interest. Finally, the one whose score ranged between seventeen and thirty nine was considered of "low" interest.

1.2.3: Educational Aspiration

This term was operationalised to mean the educational level at which a Form two student wanted to terminate formal schooling. If such a student wanted to terminate formal schooling at Form Four,

he or she was considered of "low" educational aspiration. College or Polytechnic as a terminal level exemplified "medium" educational aspiration. A student who indicated his or her intention to terminate schooling at the University was seen to have exhibited "high" educational aspiration.

1.2.4: Academic Achievement

This is a complex and loaded term which is not only hard to measure but also difficult to describe. A lot of factors play an influential role on the sum total of what is normally referred to as 'academic achievement'. 'Academic Achievement' is an outcome of numerous interacting variables much more than could be assessed within the scope of this study. Very simply, this dependent variable was operationalised to mean a student's performance on a school test of English Language, Biology and Mathematics.

A test score between zero percent and forty percent on such a test mentioned above signified "low" achievement. A test score falling in the range between forty-one and sixty-four percent denoted "medium" achievement. "High" achievement

was signified by a score which fell between sixty-five and one hundred percent.

1.3.0 : Purpose/Aim of the Study

This study had two tasks, namely;

(1) To find out the procedure employed by the sample schools for placement of learners into horizontal learning groups. In other words, the study aimed to find out whether or not the sample schools employed any criteria for placement of students into learning sets and if so what criteria did they employ to place learners into those particular learning groups.

(2) To find out whether the manner in which students were placed into learning sets, the horizontal mode of grouping, had any effect on their academic achievement, educational aspiration and interest in classwork.

The objectives of the study having been outlined, the next most important issue is whether the study had any scope of focus.

1.4.0: Scope of the Study

A sample of two hundred and seventy-four students drawn from among form two students of three government-maintained secondary schools in Busia District was studied. Each of the three schools and its system of organising learning was studied. The three schools altogether, therefore, formed the case study.

The sample was composed of a girls' boarding, a boys' boarding and a co-educational day and boarding school. These were Namenya Girls Secondary School, Sigalame High School and Mundika High School respectively. Details on this sample structure are provided in Chapter Three.

1.5.0: Significance and Justification of the Study

The next important question, is whether this study was significant at all. What was the worth of the study? Did the problem of study merit scholarly attention? This study may be justified by way of answering these questions.

The research area within which this study was based namely the organisation of learning has not generated enough interest to educational researchers in Kenya[8]. For this reason, this exploratory study was aimed to help break ground in this area so as to encourage and develop interest among researchers. The findings of this study were geared, among other things, towards producing researchable hypotheses in this area of study.

This study also aimed to highlight some of the grouping practices adopted by the Kenyan government - maintained secondary schools with a view of creating public awareness so that the existing organisational practices and patterns are understood. The emerging patterns in Kenyan secondary schools were complex and it would be simplistic to adopt Western matrices of 'streaming' and 'unstreaming' to describe them[9]. This study attempted to raise awareness on the

diverse varieties of organising learning groups with a desire to systematise and regulate their operation in Kenyan secondary schools, all these in view of the fact that the Ministry of Education did not operate a systematised grouping policy[10].

The findings of this study were designed to benefit teacher educators, teacher trainees and practitioners. The study facilitates an understanding of the classroom ecology-the social, academic, emotional and general developmental consequences associated with grouping and in this way enables educators to cope with such consequences. In turn, the educators would be aided in their management of the different learning environments, even among learners of a similar age, that they encountered.

1.6.0: Limitations of the Study

Because this was a case study limited to Form Two students from three-government secondary schools, conducted within the limits of a one year period, the findings of the study were bound to be limited in the sense that they could not be generalised to all secondary schools in Busia District let alone the national population of

schools. In this respect, the findings of the study could not be said to be conclusive because of the low power of generalisation.

The study was a case study and did not allow for control-experimental comparisons. The before-after effects were not accounted for. Furthermore, the data were collected from single unsampled groups. Given these factors, the study allowed for limited manipulation of the independent variable and there was little control over the intervening variables. These are the symptoms of an explorative design such as this one which render it limited in the testing of causal relationships. The study, therefore, lacked the rigour of an experimental design.

However, the explorative nature of this study lends it credence in the sense of what Sellitz[11] calls 'stimulating insight'. In a high priority research area such as this one, an explorative approach was instrumental in generating hypotheses for further research.

1.7.0: Asumptions of the Study

There were three assumptions that were held in this study. All of them relate to academic achievement as a dependent variable. The first assumption was related to the achievement data. These data were collected from school test scores in Biology, English language and Mathematics. These three subject areas were used because they had a fairly long history in the curriculum. They were also taught across all the schools in the sample. The content areas were, prior to the inauguration of 8:4:4 education system, cardinal in grading O'level candidates. Data on this variable were specific to each school and in some cases teacher-specific. It may not, therefore, be said to be objective data in so far as comparison between schools was concerned. Even within a specific school, the three content areas were taught by different teachers to different sets of learners using varying teaching approaches which were not standard and uniform. The assumption being raised forth is that these differences were not as significant as to affect the interaction between the independent and dependent variables.

It was further assumed that data on these content areas was a true measure of all intended and relevant skills taught. If, for example, English language test score data is taken, the assumption was that such a test score was an expression of desirable English language skills such as comprehension, composition, syntax and other grammatically relevant skills.

The third assumption underlying the study was related to the equality of students in the sample. These students were drawn from different schools but shared one commonality in that they all belonged to government-maintained secondary schools. The purpose of this commonality was to deliberately reduce the amount of intervening variables to a bare minimum.

However, the interaction between grouping and academic achievement, for example, is mediated by many intervening variables, school-type being but just one among them. The fact that school-type was controlled was not in itself foolproof. The assumption being made here is that other uncontrolled extraneous variables were not as significant as to obsecure the interaction between grouping and the dependent variables.

Before concluding this chapter, a brief resume of the chapters to follow will suffice. Literature review forms the second chapter of this study. Review of past findings was conducted for purposes of using it as a middle range theory from which the preceding hypotheses of the study were drawn. This review also determined the strengths and weaknesses of existing literature so that once identified, it fell within the province of this study to attempt to bridge some of the gaps. The review was also conducted to determine the applicability of such literature to the Busia school sample.

In 'Research Design and Methodology', the third chapter of this study, the sample was described in more detail. Tools of data collection namely the questionnaire and interview schedules were described. Criteria for choice of sample and justification of data gathering tools were also explained.

In the fourth chapter, data was presented using tables and other graphic means. The tables presented summarised information by percentages, frequencies, means, standard deviations and the chi-square (X^2)

cross-tabulations. The degrees of freedom (d.f.) and the 0.05 alpha level were indicated. The computed X^2 was compared to the X^2 critical value to determine significance. All the mentioned data were analysed by use of the Statistical Package for Social Science (S.P.S.S.) Computer Programme[12].

In the fifth chapter, discussions and conclusions were made. These conclusions were derived from the analysed data. A brief review of the objectives of the study was conducted and on that basis suggestions and recommendations for areas of further research were made.

FOOTNOTES

1. A.C. Kimokoti; 'The Extent to which Streaming is Practised: A Survey Study of Nairobi Secondary Schools', Unpublished M.A. Thesis, University of Nairobi, 1982, p. x.

2. Government of Kenya, Ministry of Higher Education Inspectorate; The Organisation of School Curricula in Non-Technical Schools, Nairobi: Jomo Kenyatta Foundation, 1980,p. 4. This is the only official document available which articulates the ministerial position on streaming. Written in pamphlet form, this document aims to define streaming and does not clearly specify the modalities to be followed by schools in affecting streaming or grouping in general.

3. A.S. Hornby; Oxford Advanced Learners' Dictionary of Current English, London: Oxford University Press, 1963, p. 997.

4. Government of Kenya; op. cit.,p. 6.

5. This definition is postulated in J.C. Barker Lunn; Streaming in the Primary School, London: NEFR; 1979,pp. 11-12.

6. The facts are based on an interview conducted with the headmaster, Sigalame High School, Busia District on the 21st of November, 1986. The second headteacher, the headmaster, Mundika High School, Busia District interviewed on the 24th November, 1986 was in favour of non-streaming as a school policy and he stated that a heterogeneous approach to learning organisation was pedagogically efficient.

7. See Appendix A on the questionnaire as an instrument which was a modification of W. Brookover, et. al; School Social Sytems and Student Achievement, New York: Praeger, 1979,pp. 149-162.

8. There has, so far, been only one recorded study in Kenya on the grouping of students. See A.C. Kimokoti, op. cit., D. Court in 'An Inventory of Research on Education in Kenya', Discussion Paper No. 108, Institute of Development Studies, University of Nairobi, May, 1971 pp. 32-33 seems to lament

the state of lack of enough studies on the organization of learning. The picture painted by Court in 1971 seems to reflect itself todate. The lack of research interest in this area is, in part, a justification of this study.

9. Research literature of Britain and United States as summarised by M.L. Goldberg, A.H. Passow and J. Justman, The Effects of Ability Grouping, New York: Teachers' College Press-Columbia, 1966 and J.C. Barker Lunn, op. cit. seem to classify schools into 'streaming' and 'non-streaming', mutually exclusive categories. Despite the fact that the same categories are used in the same manner in this study, they are too broad, limited and may camouflage the complex phenomena of grouping as practised in the Kenyan educational context. For this reason, a descriptive analysis has been attempted in this study to highlight the essence of this complex situation.

10. A.C. Kimokoti, op. cit. and Government of Kenya, op. cit. p. x.

11. W.Sellitz quoted in D. Nachimias and C. Nachimias, Research Methods in Social Sciences, London: Edward Arnold, 1976, pp. 56-57.

12. N.H. Nie et. al; Statistical Package for the Social Sciences (2nd Edition), New York: McGraw-Hill, 1975, pp. 223-224.

CHAPTER TWO

LITERATURE REVIEW

The purpose of this chapter is to review existing literature on the horizontal mode of grouping with the aim of aiding the understanding of the problem. The purpose in this respect is also to explain the derivation of the hypotheses of this study, which are in part, a consequence of loopholes in the content of existing literature. In these ways, literature would serve its utility of what R. Merton referred to as middle range theory[1].

Literature on the organisation of learning seems to exhibit trends of two diametrically opposed schools of thought. On one hand are those who favour grouping by ability. On the other hand, are those who advocate for a mixed ability approach to the organisation of learning. Ability grouping, sometimes referred to as homogenous grouping or streaming is defined by the Dictionary of Education as the classification of pupils for purposes of forming instructional groups with a relatively high degree of similarity in regard to academic factors[2]. It is

the practice of seperating learning abilities. Mixed ability grouping, on the other hand, refers to the practice of dispersing or spreading ability levels within the learning groups. It is also referred to as the heterogeneous approach. These incongruent views are identified in the following text.

2.1.0: Support for Streaming

Those who support the policy of streaming or ability grouping perceive it as a means of providing for each child the kind of educational environment that is most conducive to his or her academic development. The child, it is argued, is afforded the degree of stimulation which enables him to realise his potential at his own pace[3]. If the child is hampered by the presence of duller children and thereby prevented from the pace that he finds congenial, he may become frustrated, demotivated and may begin to exhibit behavioural problems that are academically undesirable.

This sort of grouping was supported by the majority of primary school teachers according to Daniels[4]. These teachers saw the practice as pedagogically sound since less able students in

particular benefited from being taught in classes made up of children with similar ability. The children were able to work alongside others of comparable abilities, were protected from unequal competition and they did not feel discouraged since they would not find themselves outwitted and outpaced by those of high ability levels.

Furthermore, groupwork and the goals of such work were fairly easily achieved since student participants were likely to share interests, values and information almost equally[5]. This was also seen as advantageous because of the capacity of such groups to stimulate lively and healthy discussions during lessons of that nature. This mode of grouping was therefore considered ideal among discussion groups because learners were likely to share in the relevant abilities including information on the subjects of discussions thereby inducing a productive discourse.

To illustrate the above standpoint, reference was made to skill subjects like music and drama. Equality or homogeneity of skill and expertise is necessary before a group can enact a musical

or dramatic performance. It would be outragenous, so the proponents of streaming argued, for two musical performers to vary in the mastery and eloquence of skill. This would distort the harmony. In the same way as in the music analogy, discussions, so the argument continued, were more productive if equality of information among learners was ensured.

2.1.1. Status and Expectation

Status socialisation was achieved more effectively in homogeneous grouping than in the heterogeneous approach[6]. In homogeneous grouping, so its proponents held, the isolated bright child was indoctrinated to expect that he would go to university, hold a top job, belong to a club suitable to that level of society and cultivate the 'right' tastes, etiquette and mannerism. Therefore, ability grouping was an effective medium of segregating future statuses and roles especially among societies which held this as a virtue. In this way the school, it could be deduced, was an effective agent of status and role socialisation. However, as it shall be

observed later, this functional utility of the streaming practice had its own social consequences.

Streaming was also advocated because of its teaching convenience. The teaching situation, those in favour held, was made more manageable since teachers would be enabled to adjust their lessons and teaching methods to a class of learners whose ability level could be approximated. In this way, teachers were predisposed to take cognizance of inter-class learning differences. They were better placed to understand and approximate the ability levels of the learners and enhance teaching effectiveness.

2.2.0: Alternative Viewpoints

According to Barker Lunn[7] streaming was not full-proof in terms of effective separation of abilities. It was an ideal practice, elusive and difficult to achieve. According to Barker Lunn, some children were allocated to 'wrong' streams no matter the criteria of allocation. This standpoint was shared by research evidence by Daniels and Yates[8] who reckoned that streaming was far from separation of attainments. Using English

language test scores in a streamed school, Lunn found that between thirteen and eighteen percent of students were assigned to 'wrong' streams. Even among those identified as being in the wrong streams, very few of them were promoted or demoted. What is significant in Barker Lunn, Daniels and Yates perceptions is that there is a seemingly high overlap in abilities between learners so that even among those students who are streamed on aggregate performance, there may be differences among them in regard to each curriculum area. This means that students streamed may not exhibit homogeneity when they are compared on each and every class subject.

2.2.1: Ten Percent Error

Taking the argument further, it was observed that whereas a half of those who were in the wrong' streams conformed and took on characteristics of their specific streams, their academic standards deteriorated if they were in too low a stream and improved if they were in too high a stream. Those who did not conform were consistent, neither improving nor deteriorating. According to Yates[9], there was ten percent error in

allocation of students to streams. This figure seems to underscore the argument that the so called homogeneity seem to exhibit a small but considerable heterogeneity.

The above findings also seem to imply that less able students in upper streams ('wrong' streams on the basis of homogeneity) improved whereas relatively brighter students in lower streams ('wrong' streams for their ability) fell behind and conformed to the standards of less able students. This means that a less able student stands to benefit more than his brighter counterpart if both are 'wrongly' streamed. In view of these, the opponents of streaming tend to concur that the practice is a coarse, unsatisfactory and potentially unjust form of horizontal grouping.

Those who argued against streaming empathised for the low ability learner. They argued that when these students were isolated, they were likely to develop a sense of inferiority which reduced their motivation and hindered realisation of potential. To such students, the school represented a constant and humiliating reminder of their inadequacy. They were more prone to a sense of failure and frustration.

According to Bailey and Bridges, this institutional arrangement produced demoralised, unteachable pupils bad for themselves, teachers and other children[10].

2.2.2: Learned Helplessness

From the foregoing arguments, it is possible for streaming to erode the less-able student's ego-strength. Streaming would seem to affect what Rotter[11] called the students' "locus of control" or the tendency to perceive events that influence one's life as a consequence of either one's own actions or external powers beyond one's personal control. Students who were labelled as less able were stigmatised and were likely to construct an "external locus of control" adopting a fatalistic perception of life. Conversely, their more able counterparts would be more likely to construct an "internal locus of control", to perceive of themselves as being in control of their consequences. The former may think of themselves as incapable of overcoming failure, what Seligman[12] refered to as 'learned helplessness'. The latter would not subscribe to this sort of helplessness. At the same time, those

students in the 'top' stream, so it was believed, may suffer anxiety as a result of pressures which compelled them to justify their status. They may develop inflated notions concerning their 'intellectual superiority'[13].

Delamount[14] pointed out one of the consequences of streaming. While using evidence from Hargreaves, Lacey and Willis' studies, she observed that academic segregation in streamed boys schools led to polarised sub-cultures within schools. In upper streams, boys looked to a pro-school clique of 'goodies' and in the lower to an anti-school group of "baddies". According to this study, the anti-school reactions of less able students was reinforced by the behaviour towards them of teachers and the pupils in upper streams. Furthermore, these boys, according to Hargreaves[15] had very little opportunity to interact with those in upper streams, and were under constant pressure to inhibit any desire for academic progress. This withdrawal from academic engagement was substituted for by adoption of anti-school feelings.

Significant in these findings are the implications they bear upon the Kenyan Secondary school for it would seem that grouping has innate potential to influence the school social environment. Would there be a link between streaming and the school strikes? From the findings of Hargreaves, it would seem that the mode of horizontal grouping was linked to school problems via the students' degree of interest in academic work. The second implication would be that low-ability streamed boys pose potential disciplinary problems because of their resultant low academic interests.

2.2.3: The Widening Gap

It was further argued that as children advanced through a streamed school, the gap that was alleged to seperate them at the outset, widened partly because of the tendency, notable in many schools, to assign the most effective teachers to the most able students. Not only did such students lack resources and facilities but were also taught by teachers, who, if they were not inferior to their colleagues, often come to feel they were[16].

More importantly, the teachers' attitudes towards them down-played their endeavour. In Kelly's own words: "once streamed, pupils were set on a pre-determined course with little likelihood of being deflected from it. They were victims of an inbuilt finality of judgement ..."[17]. It was also alleged that no matter how allocation to separate streams was determined, children from less favourable home backgrounds tend to find themselves in lower streams[18]. This viewpoint implies two things. One, if these allegations were true, then there would seem to be an association between academic ability and the socio-economic status of the learner. Secondly, those students would suffer double penalty. Their home backgrounds would penalise them and the school would reinforce this penalty[19] by assigning them to unfavourable streams.

Crossland was more articulate on this concept of 'separatism' that streaming seemed to promote. He observed that:

> ... by selecting ... superior school children already favoured by (home and primary school) environment, we are not merely confirming, we are hardening and sharpening an existing social division ... as long as

> we choose to educate our children in seperate camps, reinforcing and seeming to validate existing differences, ... for so long will our schools exacerbate rather than diminish our social divisions[20].

These social divisions would work against the social values of fraternity, communal values of co-operation and all that is related to integration and social cohesion.

Most of the research evidence presented here is Western in orientation and background. Studies on the organisation of learning have yielded a significant amount of literature from Western countries, Britain and United States in particular. It is unfortunate that so far only one study has been recorded in Kenya and it was for this reason, partly, that this study was justifiable.

2.3.0: Streaming: A Historical Account

The practice of grouping students in the present meaning of streaming reached its peak in the United States in the 1920s[21], almost the same time as in Britain. However, the origin of grouping practices goes as far back as in the nineteenth century in the

case of United States. The Harris Plan of 1867 at St. Lious is often cited as one of the first attempts at homogeneous grouping.

The earliest forms of streaming in the United States involved the selection of brighter children which was followed by promoting them rapidly through grades. At times, as is evidenced by the Santa Barbara Concentric Plan in the early 1900s, higher ability pupils would cover the curriculum extensively in comparison to their counterparts of less ability[22].

Rankin[23] observed that there were differences in the educability of pupils, even among those of like age and sex. These differences were revealed as early as the twentieth century upon the development of Intelligent Quotient tests and other standardised instruments of measuring ability. This development was instrumental in the practice of streaming in the United Kingdom. Thus, the period from 1920s onwards, educational research and classroom practice were heavily influenced by streaming with reason that the practice was pedagogically sound and accounted for individual differences among learners. This period was also marked by developments of academic disciplines such

as psychology and such related sub-fields as psychometry contributing substantially to the notion that individuals differed among themselves and were better taught under seperate academic environments.

However, with intensified scientific research, movements of democratisation, continued agitation for human rights and global forums that agitated for equality of opportunity both economically and educationally, the tide of streaming was seen to change. Until the late 1950s, a majority of research findings seem to have found favour with streaming[24]. The Research Committee of the Indiana Association for Supervision and Curriculum Development of 1960 in America, for example, was able to highlight the side effects of streaming. Eash and Daniels, in their reviews of research from United States and Britain were already pointing towards alternative changes from streaming. Briefly, this was the political-economy within which un-streaming was articulated. These developments since the late 1950s up to the contemporary situation have highlighted inconclusive research evidence.

2.3.1: Kenya

On the other hand, the historical account of the grouping practices in Kenya is very elusive and complex to account for. This is so because of the scanty literature in this area. However, one plausible source of historical information on the phenomena of grouping is the report of a committee appointed to inquire into the scope, content and methods of African education; its administration and finance and to make recommendations. In this report, popularly referred to as the Beecher Commission, proposals of the dimension of the school system were made. It was proposed that Standard One and Two classes in the primary school accomodate between fifty and one hundred pupils per class. It was also recommended that these classes run in double sessions. Primary schools, allowing for the rate of school drop-outs, were to become double-streamed[25] throughout. This plan was not foreseen to take off immediately.

In the late 1940s, the method of selecting pupils into junior secondary schools had instead of remaining a method of selection become a

school-leaving examination[26]. The population of Standard Five was made up of very many pupils who were repeating the work of that standard for a second, third or even fourth time. This was so because of the intense competition created by the systems of examination. It was, as a result, recommended that more places be provided at Standard Six to make room for those 'second triers'[27].

The key question therefore concerns the implications of the Beecher Commission for the organisation of learning in Kenya during the late 1940s and thereafter. It is evident that demand for primary school education had continued to grow. It is equally evident that the examination system was very selective, created both drop-outs and repeaters. In this process, the quantitative demand for education was destined to be met with expansion of the number of learning space. From 1951 to 1958, the rate of development of proposed secondary school classes showed evidence of up to four streams[28]. There were, for example, to be two Form Three Streams in Alliance High School in 1951. They were to increase to three in 1953 and to become four in 1955. Kakamega High School had to have two Form Three Streams from 1952 to 1958.

The above historical facts are testimony to the fact that, quantitatively, both primary and secondary schools had started to show signs of what Beecher Commission referred to as "streams" between the late 1940^{S} to the late 1950^{S}. This was because of the quantitative demand for schooling. This meant that in each yearly intake, there would be more than one learning unit. What is, however, not clear is whether the term 'stream' was then used in reference to placement according to ability. This in turn leads to a hypothesis that the history of grouping in Kenya has been shaped and influenced by educational expansion since the late 1940^{S}. The continued demand for education amidst restrained resources in a highly selective educational structure influenced grouping, generally speaking,in a major way.

In the context of the above proceedings, it is not clear whether academic ability as a criterion was used in the process of grouping. Given the immense influence British colonialism had over formal education in Kenya, it would not be an explanatory scapegoat to argue that streaming may have been an inertia aspect of that heritage. It is also clear that the term "stream" as observed by the Beecher

Commission seemed to imply division of learners into many units of learning and was not necessarily based on academic competence. In this sense, therefore the term "stream" was used administratively.

However, archival evidence can be adduced to testify to the fact that "streams" existed in both Kenyan primary and secondary schools as early as the 1930s[29]. These streams were identified as 'A' and 'B'. The 'A' stream was composed of students who were proficient in an academic curriculum and were so regarded as possessing higher academic abilities relative to those in the 'B' stream who were regarded as suitable for a technical curriculum[30]. This technical curriculum included among others, Arts and Crafts, Agriculture and Nature Study.

The students were aware of the practice of streaming by ability and the intended consequences of such a practice. In 1933, for example, an inspection report of Kakamega Government African School by H.O. Weller[31] revealed that primary school boys were disenchanted to learn in the 'B' stream because this carried along with it the potential of the boy being condemned to Bukura school for agricultural training.

The example of Alliance School, Kikuyu in 1949[32] is perhaps more illustrative of the phenomenon of grouping by ability at the secondary school level. Here, as elsewhere, students were grouped into 'A' and 'B' streams. It was evident from the examination scores of the two streams that the 'A' stream was superior to the 'B' one in performance. The 'A' stream of Form One had twenty-six students. The 'B' had twenty-two. The best performing student in the 'B' stream was only fit for the last half,infact just above the last quartile, among those of the 'A' stream.

On comparing the two classes at Alliance, the teacher's remarks were even more interesting. The teacher singled out students mostly from the 'A' for mention and attributed to them such phrases as "good, lively and interested ... should do well". He,on the other hand,had very few words of praise for those in the 'B' stream whom he described with phrases such as "little effort", "rather disappointing" and "content with low standards"[33].

What is evident from the archival records, perhaps the strongest evidence about Kenya so far, is the fact that grouping by ability both in primary and secondary schools is an old phenomenon in Kenya's education

system. Further to this is an implication that curricula and ability formed the basis on which grouping was determined. Added to this is that students and teachers alike were aware of streaming and both were more in favour of the 'A' stream. Grouping by ability, also, determined future careers and occupations for students.

2.4.0: Learning Organisation: Specific Findings

Rudd[34] used an experimental design to test the hypothesis that attainments, attitudes, behaviour and personality of pupils in a streamed school depended on that organisation. Using a sample of one hundred and eighty pupils, she concluded that there were no statistically significant differences between streamed and non-streamed groups on ability tests that could be attributed to streaming.

Tests of attitudes towards examination, school lessons and school life generally yielded no significant differences between groups. However, samples of classroom behaviour revealed that in the experimental group, few social contributions to the lessons were made by pupils. There was more aggressive behaviour and less

attention to work. Estimates of the personality students by teachers revealed no significant differences.

These findings are corraborated by evidence from Borg[35]. He found that grouping patterns had no consistent, general effect on achievement at any grade level. However, he observed that ability grouping seemed to motivate brighter pupils to realise their achievement potential more fully but that it had little effect on slow or average pupils. He further observed that grouping patterns did not have any effect on the aspiration levels of learners.

At the International Conference on grouping held at the Unesco Institute for Education in Hamburg in 1964, it was observed that grouping, whether homogenenously or heterogenously produced at most, the same academic results. It was further observed that self-attitude was the only non-academic variable on which grouping had any consistent effect.

From Rudd's study in which boys and girls were studied, the study concluded that competition in ability grouping was keener and the pupils would be

more likely to work to their capacities. She also noted that teachers justified streaming on the basis that it made easier the differentiation of curricula. Slow progress pupils were not discouraged in ability groups by the superiority of others. There was less tendency for pupils of above average ability to develop tendencies of idleness and in-attention. The manipulation of the experimental group was in form of pupil transfers between streams for two years. The pupils were matched for age. Only pupils of eleven years participated.

2.4.1: Drawbacks

There were a number of drawbacks in Rudd's study which deserve mention. Some of the drawbacks are hereby mentioned to draw the hypotheses of the present study. One of those which is crucial for the present study was that Rudd employed a case study centred exclusively on an unstreamed school. This could have made it difficult to generalise the findings. The students in the case had not been exposed to the true climate of streaming. They were merely put under experimental conditions. To alleviate these shortcomings, the present study employed a sample of three schools, two which practised

non-streaming and one which practised streaming. It was also expected, as a result, that the sample of the present study would have been exposed to true climates of streaming and non-streaming.

It was possible in Rudd's study that students in the experimental group, given that the study was limited to two years, reacted to the experiment in a manner to influence the findings. For that reason, the present study did not employ an experimental design. Instead, a descriptive study in case form was considered appropriate.

Goldberg[36] who used a bigger sample of two thousand found that by simply narrowing the ability range, greater achievement was not necessarily achieved. Ability grouping seemed to have a more significant and consistent effect on self-attitudes than on academic achievement. The presence of gifted children resulted in improved self-attitudes among brighter pupils and less self-appraisal for the slow ones. This seemed to indicate that grouping by ability on itself was unlikely to raise academic attainments. In the absence of specific plans to change content and method and to provide challenging situations for each group of learners, ability grouping was insignificant.

2.5.0: Summary of Literature and Implications for The Present Study

From the review of literature, it appears as if there were only two approaches to the horizontal organisation of learning. The review identified them as streaming and non-streaming meaning homogeneity and heterogeneity respectively. In the Kenyan educational context, however, the situation is not simply that of a reduced dichotomy between streaming and non-streaming. These categories are very broad, general and simple. In Kenya, there exists a seemingly large range of approaches. The pilot survey preceding this study revealed that some schools grouped students according to ability as judged by overall performance in Kenya Certificate of Primary Education (K.C.P.E.). Other schools grouped students according to subject abilities. These may claim, officially, to practice mixed-ability grouping but because they place students on the basis of ability and interest in certain curriculum sets, they could be said to practise a proportional dosage of both homogeneous and heterogenous grouping.

In some other schools, there was an apparent lack of a systematised procedure. Grouping, in these category was conducted on the basis of "first come, first streamed". Those who managed to report to schools earlier on intake into Form One were assigned to the most highly rated stream. In this case, teachers tried not to waste the valuable academic time because filling two or three streams would hold back the school programmes and affect the syllabi consequently. Students were assigned to one stream at a time to hasten the process of teaching and learning. This "haphazard" assignment of students to learning groups depended, to a large extent, on the potential ability of parents to meet school financial demands.

In some cases, the alphabetical list of Form One entrants was simply divided to correspond to the number of learning units. The split list was then used on admission and learners were assigned to their specific learning units at random.

2.5.1: Harambee

One major feature of Kenyan secondary schools, even among those which were fully government-maintained, was the operation of a learning unit of students commonly referred to as the "harambee stream". In some schools the students in harambee streams pay higher fees. In others the school fees structure is uniform. What is distinct about harambee streams from others, in most situations, is the quality of education offered in them. These classes are considered academically inferior because of the quality of student intake, the status in which they are held and the class sizes. The enrolled students are usually of inferior K.C.P.E. grades, the classes are mostly over-enrolled, crowded and difficult to teach. Such classes are referred to as "harambee" because of the parental subsidy of the tuition that the government provides. In most of them, parents pay extra money to subsidise the students tuition and upkeep.

The harambee classes are also supposed to cater for the local catchment area so that students who might have had higher aspirations or a choice of a better school and failed to gain their ways could be catered for, locally. Put differently,

these streams are substitutes in event of lack of a better choice for local K.C.P.E. candidates. The quality of intake into harambee streams is very low but this is relative to given localities. In some areas, competition for secondary school places is keener and intake into harambee streams may be as good, if not better than that of government streams elsewhere in Kenya. At the same time, some localities lack academic competition. Schools in such areas may be under-enrolled so that the calibre of harambee candidates is desperately pathetic.

From the reviewed literature, there are various emergent themes which are of special significance to the hypotheses of this study. For purposes of helping identify and define hypotheses, there are four major themes which are outstanding.

One, from the review, the mode of grouping did not have any consistent effect on academic achievement and this inconsistency, both at the primary and secondary school levels, renders the debate on the subject inconclusive.

Two, ability grouping seemed to create polarised sub-cultures within the school system and students from less able streams were said to have the least interest in the academic goals of the school. Three, the review seemed to indicate that grouping, whether streaming or non-streaming, did not seem to have a consistent effect on the aspirational levels of the learners. Fourth and lastly, the review indicated that ability grouping did not seem to affect achievement but seemed to affect the students' self-attitudes.

In view of the four major themes salient from the review of related literature, the preceding hypotheses already cited in Chapter One were established to be tested for statistical significance in the context of three government secondary schools in Busia District. Indeed, the questions arising from this review were of fundamental importance to the sample schools. If for example, Rudd, Ferri, Barker Lunn, Kelly and others found a significant correlation between modes of grouping and the students interest in academic goals in their respective studies, could the same be said of the sample schools in the present study? If, as the review suggested, there was no consistently

significant association between modes of horizontal grouping and academic achievement, could the same conclusions arise for the Busia sample? And if, as was evident in the literature, students of low ability streams exhibited low aspirational levels in Western countries, would the same be true for the present sample in Busia District? In answering these partinent questions, literature review, on its own, formed a frame of reference from which the research questions, expressed as hypotheses, emanated.

FOOTNOTES

1. R. Merton, On Theoretical Sociology, New York: Free Press, 1967, pp. 39-72.

2. This definition is cited in M.L. Goldberg, A.H. Passow and J. Justman, The Effects of Ability Grouping, New York: Teacher's College Press, 1963, p. 2.

3. A. Yates, The Organization of Schooling, London: Routledge and Kegan Paul, 1971, pp. 80-82.

4. J.C. Daniels; 'The Effects of Streaming in the Primary School', The British Journal of Educational Psychology, Vol. 31, February, 1961, p. 69.

5. J.W.B. Douglas quoted in M.L. Goldberg, A.H. Passow and J. Justman, op. cit, p. 5.

6. H.A. Thelen, Class Grouping for Teachability, New York: John Wiley and Sons Inc., 1967, p. 31.

7. J.C. Barker Lunn, Streaming in the Primary School, London: NFER, 1970, pp. 1-10.

8. J.C. Daniels, "The Effects of Streaming in the Primary School", The British Journal of Educational Psychology, Vol. 28, June 1961, p. 119.

9. A. Yates, op. cit., p. 91.

10. C. Bailey and D. Bridges, Mixed Ability Grouping: A Philosophical Perspective, London: George Allen and Unwin, 1983, p. 15.

11. J.B. Rotter cited in J. Worrel (Ed.), Psychological Development in the Elementary Years, New York: Academic Press, 1982, p.279.

12. M.E.P. Seligman quoted in J. Worrel (Ed.) Ibid., p. 369.

13. A. Yates, op. cit., p. 91.

14. S. Delamont, Interactional in the Classroom, London: Methuen, 1976, p. 78.

15. D. Hargreaves cited in S. Delamount, ibid, p. 78.

16. S.J. Ball, Beechside Comprehensive: A Case Study of Secondary Schooling, Cambridge: Cambridge University Press, p. 36, 1981.

17. A.V. Kelly, Mixed Ability Grouping: Theory and Practice, London: Harper and Row, 1978, p. 11.

18. A. Yates, op. cit. p. 82. See also: B. Jackson, Streaming: an Education System in Miniature, London: Routledge and Kegan Paul, 1964, p. 76.

19. S. Niles, 'Social Class and Academic Achievement : A Third-World Reinterpretation', Comperative Education Review, Vol. 25, No. 3, October 1981, p. 421.

20. A.C.R. Crossland quoted in C. Bailey and D. Bridges, op. cit., p. 21.

21. M.L. Goldberg, A.H. Passow and J. Justman, op. cit., p. 2.
See also: B. Jackson, op. cit., pp. 146-151 where the earliest form of streaming practised was influenced by a system of "payment by

results" and teachers were renumerated according to how many students they helped pass. Less bright pupils were isolated and neglected.

22. M.L. Goldberg, A.H. Passow and J. Justman, ibid., p. 3.

23. P.T. Rankin cited in W.G.A. Rudd, "The Psychological Effects of Streaming", The British Journal of Educational Psychology, Vol. 28, February 1958, pp. 47-60. The role of researchers such as Binet on "intelligence" and Burt on "backwardness" and the Haddow Report of 1926 are acknowledged in B. Jackson, op. cit., p. 148 as having influenced streaming.

24. Findings of research reviews cited in M.L. Goldberg, A.H. Passow and J. Justman, op. cit.,, pp. 1-8.

25. African Education in Kenya, report of a committee appointed to inquire into the scope, content and Methods of African Education, Nairobi, September 1949, p. 70.

26. Ibid., p. 72.

27. Ibid., p. 70.

28. Ibid., p. 88. Table XXVIII is particularly illustrative.

29. K.N.A. DC/FH/6/4 (1949) Fort Hall District Annual Report 1949, p. 75.
K.N.A. PC/NZA/3/6/79 (1932-39), Government African School, Kakamega, p. 7.

30. Ibid.
K.N.A. ED/1/2033 (1936) Government African Schools, Kagumo, p. 87.

31. K.N.A. PC/NZA/3/6/79 (1932-39) op. cit, p.7.

32. K.N.A DC/FH/6/4 (1949), op.cit., p. 75.

33. Ibid.

34. W.G.A. Rudd, op. cit., p. 48.

35. Borg (1964) cited in M.L. Goldberg, A.H. Passow and J. Justman, op. cit., p. 14.

36. M.L. Goldberg, A.H. Passow and J. Justman ibid., p. 7.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

The prime concern of this chapter is to outline the method of study. The sampled schools, tools of data collection, the modes of data analysis and the sampling procedures are described.

3.1.0: The Field of Study

Busia District is one of the rural districts in Kenya which has registered remarkably poor educational standards with a considerable amount of consistency (see Appendix A). The District has forty operational secondary schools[1]. Eighteen of these are fully government-maintained, seven are government-assisted and fifteen are self-help secondary schools. There is no private secondary school in the District.

The low standards of education in the district are persistent despite the fact that forty-five percent of those schools are financed and run for the most part by the government. This performance has been the cause for concern among educationists

and politicians but little educational effort, at least in the form of research, has been directed towards providing solutions. It is partly for this reason that the field of study merits attention. This rural district does not seem to exhibit any major economic contrasts within and between its various locations.

It had been the original intention of the researcher to select a representative sample from among the forty schools, but given the magnitude of variables to contend with, the scarce resource and the limits of time within which the study was conducted, it was considered necessary to conduct a case study of three government-maintained secondary schools. This, it was hoped, would narrow the scope of the study and permit for a sufficiently exhaustive focus on the three schools.

3.1.1: Sample Schools and Their Justification

The sample schools in this study were Namenya Girls Secondary School, a girl's boarding; Sigalame High School, a boys boarding; and Mundika High School, a co-educational day and boarding school. The criteria for choice of these

schools was based on a number of considerations. First of all, the three schools were government-maintained. They were directly affected by government policies and practices in so far as education was concerned. Unlike harambee schools, they were under the direct jurisdiction of the government. They may be said to be homogeneous in so far as government support and policy are concerned. For these reasons, studying them together was aimed at minimising the amount of infrastructural differences and to allow for realistic comparisons between them.

The variable of gender was also instrumental in the choice of the sample. Since sex was a variable among the hypotheses, it was inevitable to draw students from among both sexes. It was with this in mind that the sample included Namenya, an exclusively girls' school, Sigalame which is exclusively for boys and Mundika which is a co-educational school. Furthermore, these schools were drawn from the different administrative locations of Busia District, a factor which accounted for regional representativeness.

A total sample of two hundred and seventy four students made up of eighty six girls and one hundred and eighty eight boys participated in this study. The total population of Form Two students as indicated in the official school registers was two hundred and eighty eight. Fourteen students did not participate in the study for reasons that ranged from absentiism to suspension. One student had been suspended for misconduct. Eleven students were away on official school functions in one of the schools and could not be reached during the administration of the questionnaire. Two students in one of the schools had been sent away for non-payment of school fees.

A total of three headteachers participated in the study. They were the chief sources of interview data. Seven classmasters were also interviewed to cross check information already provided by the headteachers. One classmaster in one of the schools objected to being interviewed.

It is perhaps necessary at this stage to introduce a few historical facts about each of the three schools with the purpose of aiding understanding of the phenomena of grouping in each of them.

3.1.2: Grouping Procedures in Sigalame High School: Historical and Contemporary[2]

This school was started as a harambee day and boarding secondary school under the sponsorship of the Anglican Church in 1965. It had only one stream then. A second stream was introduced in 1967. In 1968, the school registered, for the first time, a group of thirty seven candidates for national examination. The school acquired government maintenance in 1970. In between the years, the school experienced a general change of curriculum from general science to pure science.

In its historical period, grouping practices in Sigalame were, to a large measure, influenced by curriculum considerations. Although the school practiced mixed-ability grouping in its initial years after the maiden Form One intake, the students were 'set' for separate curricula on reaching form three.

Students of varying academic abilities would be mixed upon recruitment in Form One and their curriculum progress assessed. On reaching Form Three, the students so judged, would be re-allocated

to different streams on the criteria of subject ability. Those who showed proficiency for Physics and Chemistry between the first two forms would be allocated a pure science curriculum, labelled 'Blue' and prepared for O'level examinations accordingly. Those who were judged as 'average' on performance in the sciences were allocated to the 'Green' stream where Agriculture and Chemistry were prominent. Then there was a third stream called 'Red' whose composition was of students regarded as 'artists'. An arts curriculum content of areas like Commerce, Accounts and other humanities was offered. It was therefore clear that the concept of 'ability' came into significant use on reaching Form Three.
In so far as curriculum was concerned, this school may be said to have practised streaming despite the fact that the school officially professed a mixed-ability approach.

The Contemporary 8:4:4 educational programme has not altered the policies and practices considerably. Selection for entry into Form One was conducted at the province level. The school's catchment area was sixty-five percent district, twenty percent provincial with the remaining percentage drawn from beyond the two local categories.

The students were selected and their names arranged, randomly, in a nominal alphabetical list. This nominal list was then split to form three classes of equal numbers of learners. This process of stratification allocated a student to any of the three learning groups. In case it became necessary for the school to fill up the number of places available in that year's intake, the second selection, too, would be conducted at the Provincial level. This selection was based on merit.

Under the prevailing 8:4:4 system of education, students at Sigalame were 'set' for seperate curricula right away on intake into Form One. No inter-stream transfers were allowed. Among the 8:4:4 content areas, with its emphasis and bias for practical subjects, Building Construction and Technical Drawing were the electives available in Sigalame which determined placement. Two streams namely 'Red' and 'Green' offered Building Construction. The 'Blue' stream offered Technical Drawing. It therefore follows that the students' whose elective was Technical Drawing could not at any one time in their Secondary School be offered Building Construction and the reverse was equally true.

There are two issues which emerge out of this policy. Students of mixed-ability across the three streams were allocated seperate curricula on the basis of a split alphabetical list. This allocation was neither based on student interests nor on parental approval. It was at the exclusive discretion of the school administration. The second emergent feature of this policy resided partly in the history of grouping in this school. The 'Blue' stream, having been associated with high ability in science performance, and now offering Technical Drawing had come to be associated with excellence.

Whereas Building Construction as a content area was common among the other two streams, Technical Drawing was the exclusive reserve of the 'Blue' stream. Therefore, despite the fact that the official policy of the school was to unstream (mix the abilities of learners), there was an implicit tendency among the learners to associate the 'Blue' stream with higher performance. The total sample from this school was one hundred and twenty two boys.

3.1.3: Grouping Procedures in Namenya Girls Secondary School: Historical and Contemporary[3]

This school was started in 1973 as a one-streamed girls' boarding secondary school. It began on self-help basis under the sponsorship of the Catholic Church acquiring government assistance in 1975. In 1981, the school became fully government-maintained acquiring two streams then.

Between 1973 and 1975, the school had offered lower secondary education up to Form Two. Then students would transfer to other schools to sit their O'level examination after two more years of study. The first Form Three class was established in 1977 and the first O'level candidates were registered in 1978.

Despite "full" government-maintenance status, the school operated a harambee stream, enrolling pupils whose Kenya Certificate of Primary Education (K.C.P.E.) grades were inferior. In this stream, too, were pupils who failed to acquire secondary school places in other highly competitive schools. However, the fees structure was uniform across both government and "harambee" streams.

In this school, the criterion for placement of students was academic ability as judged by K.C.P.E. performance. The best overall students out of each yearly intake were placed into the 'Green' stream which had come to be identified, even among students, as the government stream. The students in this stream were mostly selected on the first provincial selection.

The 'Blue' stream, identified as harambee, recruited most of its learners from the local administrative level and were mostly of inferior grades. This school could therefore be said to practise streaming since the criterion for grouping of learners was based on seperation of abilities. Inter-stream transfers were greatly encouraged. At the very beginning of each year those students who performed poorly in the government stream were demoted to the harambee stream. Consequently, those from the harambee stream who exhibited excellent performance were promoted to the government one. It is therefore explicit that in this school students were not only streamed but that this practice was maintained by a systematic and continuous separation process which ensured isolation of abilities. This approach to grouping had been in

existence in this school since 1981. The total sample of students from this school was fifty three girls.

3.1.4: Grouping Procedures in Mundika High School: Historical and Contemporary[4]

This school was began on a harambee basis in 1966. In mid 1976, the school experienced a big student revolt in which among other damages, the administrative building was razed with most of the official documents. As a result, certain vital historical details on the school could not be traced at the time of this study. In the aftermath of the revolt, the school experienced a heavy student turn-over to other schools and lost parental confidence altogether. Consequent on this was under-enrollment which was severest in 1979.

Like Sigalame High School, this school practised mixed ability grouping only up to Form Two. Thereafter, students would be grouped into curriculum sets as judged by subject abilities on a variety of teacher tests. The 'Green', 'Yellow' and 'Red' streams offered different subject combinations which would lead and determine their O'level options.

The 'Green' stream in which the subject combination was biased towards the physical sciences enjoyed higher social status and prestige according to the teachers interviewed[5]. Physical Sciences were looked upon as prestigious, non-ordinary and worth pursuit. More female students, according to the teachers, found themselves in non-physical science streams.

Under the new 8:4:4 system of education, this school professed a mixed ability approach to organising learning. The nominal list of the student intake was equally split into three sets to correspond to the 'Red', 'Yellow' and 'Green' streams. Those selected were assigned to these classes on admission. However, this approach to mixing abilities was not rigid. In practical terms, some students failed to turn up for varying reasons while some would report late in the school term. These inconsistencies would hold up the learning programme. To avoid this situation, the split nominal list was not strictly observed. Instead, one stream was filled up at a time. The policy of 'first come, first grouped' reigned. For those who reported late or the new entrants, they were assigned to under-enrolled classes. For these

reasons, the situation of grouping seemed to depend on the punctuality of students upon selection. The total sample in this school was one hundred and nineteen students; thirty three girls and eight six boys.

From the descriptive aspects of the sample schools, it was noticed that there were two broad categories in regard to grouping. These were streaming and mixed-ability grouping. The mixed-ability approach was noticed to have many variants and differed from one school to another. It was also noticed, as was the case with Mundika High School, that mixed-ability grouping, generally referred to as "non-streaming", took many forms and was the most flexible of the approaches.

3.2.0: Tools of Data Collection

Three types of data collection tools were employed in this study as explained below:

3.2.1: The Questionnaire

A nineteen-item questionnaire was developed and administered to students (see Appendix B). This instrument was aimed at collecting data on two dependent variables namely interest in classwork and academic aspiration.

The researcher personally administered this tool in a face to face interaction with the respondents. The purpose here was to facilitate a high rate of return and also to help explain the instrument to the respondents.

In this instrument, eighteen items were designed to measure interest in classwork and all of them were adapted and modified from Brookover's[6] instrumentation. One item in the questionnaire was devised to measure educational aspiration.

All the items in the questionnaire were highly structured for data analysis convenience. The items on 'interest in classwork' were put on a five-point Likert Scale[7] and students were expected to indicate a scale of their choice. A summed value of each student's choice would indicate his or her

'interest in classwork'.

There were specific items on the 'interest' variable which were deliberately constructed to cross-check response so as to avert the respondents' perceptual errors and deliberate deception. The administration of the instrument was such that in anyone school, respondents would fill the questionnaire during one morning school session. The purpose here was to reduce the amount of inter-respondent communication and consequently minimise rehearsed responses.

The instrument had been piloted in three secondary school in Kakamega District to enhance its validity and reliability. Two research experts were consulted to evaluate the instrument's face validity. Its content validity and ambiguities were upgraded at this stage. The order of items in the questionnaire was also upgraded to facilitate a progressive and motivative structure. Some items that did not directly relate to the hypotheses were eliminated. One such item was the respondents' socio-economic status.

Since the socio-economic status of the students was not hypothesised, it was considered unnecessary to include it in the instrument. Data on this variable would have provided an added insight into the problem of study and probably called for additional hypotheses. However, given the limits of time and restrained resources, the scope of the study had to be delimited. Besides, Busia District being rural and devoid of extreme economic contrasts, the influence of such a variable was considered minimal.

Because of the closed nature of the instrument and its consequent limitation of in-depth probing, the questionnaire was supplemented by use of informal interviews.

3.2.2: Interviews

There were three groups of respondents who were interviewed in this study. Eighty students who had responded to the questionnaire were interviewed to enhance data collected through the questionnaire.

These interviews were fairly informal and were conducted both inside the classrooms and outside formal classroom situations. Students were asked if they were happy to be in the streams in which they were learning. They, too, were asked what they liked and what they did not like about their particular streams.

The students were also expected to give their reactions were they to be transferred to other streams. Of the eighty students, ten were drawn from each class and were so selected as to represent the entire geographical space of each classroom. In the case of Mundika where the sex variable was significant, the selection of interview respondents was conducted on the basis of male to female ratio in each stream. If, for example, a stream had thirty seven learners; ten female students to twenty seven males, the researcher would interview three females and seven males.

The second group of respondents to whom interviews were administered were school headteachers. There were three school headteachers who were interviewed both formally and informally, during the pilot stage and afterwards. These interviews

were aimed at bringing to light the histories of the schools, the grouping policies and practices (both historical and contemporaneous), mechanisms for intake of students, between-stream transfers of learners and the procedures for assignments and placement of students. In some of the cases, school history was traced by use of school files and records. This was done to up-grade and supplement the headteachers' memory.

The third goup of interviewees were eight class-masters from the eight streams of classes in the study. These teachers were considered of vital information because they were the direct implementors of school policies on grouping and the general organisation of learning. They were interviewed to corraborate and correct, where possible, information provided by the school headteachers.

3.2.3: Teacher Test Scores

This was the third instrument of data collection. Three areas within the school curricula were used to yield test score data. These were Biology, English language and Mathematics. They were used

as indicators of academic achievement. The rationale for use of these three content areas resided in the fact that they were fairly old in the curriculum and were taught across all schools in the sample. Because these data were teacher-oriented and were collected from different schools and different teachers, they could not be said to be standard. Conversely, these raw data were unreliable and deficient in comperative terms. Their frequency distribution would not be standard.

For the above reasons, certain statistical transformations were applied to standardise these data so as to facilitate valid and realistic comparisons between schools. The assumption for that undertaking was explained by the fact that any raw score in itself was meaningless unless when compared to some reference group[8]. For the purpose of this study, the reference group was the entire sample composed of three schools.

3.3.0: Data Analysis

3.3.1: Analysis of Interview Data

For each item in the interview, categories were developed into which to fit the students' responses. Thereafter, the interview data were analysed by use of descriptive statistics in the form of percentages. These percentages were expressed by graphical tables.

Interview data from school headteachers and classmasters were not analysed by use of statistical procedures. This was due to the fact that the information was used in describing the sample and could not be analysed any further. Data provided from these interviews was only instrumental in providing background information on sample schools.

3.3.2: Analysis of Questionnaire Data

All items in the questionnaire aimed at measuring 'interest in classwork' were developed on a five-point Likert Scale[9]. The item were coded on a contiuum and quantified accordingly. The 'most favourable' responses were designated a quantity value of 5. The 'least favourable' responses were assigned a value of 1. 'Undecided' responses were designated a value of 3.

A quantity value was computed for each student total score on the questionnaire. Each students' score was expressed as one single quantity. The maximum score that was achievable on the questionnaire was eighty-five. The minimum was seventeen. For computer purposes, a student whose score fell in the range of sixty three to eighty-five was coded in the code-book as 'high interest'. A score between forty and sixty-two was coded as 'medium interest'. Between seventeen and thirty-nine was coded 'low interest'.

There was one item on the questionnaire targeted to measure the students' educational aspiration. This was developed on a three-point Likert Scale meaning that there were only three levels of aspiration to which students were expected to react. Students who indicated a desire to terminate formal schooling at Form Four were coded 'low aspiration'. Those who indicated college or Polytechnic training as their terminal level were coded 'medium' educational aspiration. The ones who indicated the university as their terminal level of schooling were coded as 'high' educational aspiration. All the responses were analysed accordingly by use of Statistical Package for Social Sciences Computer Programme[10].

3.3.3: Analysis of Test Score Data

Each raw test score collected in Biology, English language and Mathematics was transformed into a standard score using the formula below:[11].

$$z = \frac{x - \mu}{\sigma}$$

Where z = the standard score

x = each raw score in the distribution

μ = mean of the distribution

σ = standard deviation of the distribution.

Attempts were not made to normalise non-normal test scores. This would have been achieved by use of percentile rank[12] transformation but the statistical test used in testing hypotheses did not necessitate such a transformation.

3.3.4: Method of Statistical Analysis

This study employed a chi-square (X^2) statistical test of significance in the analysis of data. Chi-square is a non-parametric statistical analysis of relationships between variables whose

data are in nominal form[13]. This statistical analysis deals with data presented in frequency form. Its validity is based on its ability to compare the empirically observed frequencies with those frequencies that are expected on the basis of some hypothesis. It is a test that deals with frequency data falling in category sets[15] such as male and female or streamed and non-streamed. It is basically with those reasons in mind that a chi-square of statistical significance was applied to the questionnaire and test score data.

The chi-square itself is statistically defined[16] as:

$$X^2 = \frac{(f_o - f_e)^2}{f_e}$$

Where

f_o = observed frequency

f_e = expected (null hypothetical) frequency.

However, this test has several assumptions and limitations which need to be explained.

3.3.5: Assumptions of a Chi-Square Test

One of the most fundamental pre-requisites before this test is employed is that the observations from which data were derived were independent[17]. That is, that the observations of each variable were not dependent on one another. Data collected in this study met this assumption because data on each variable was collected independent of the others.

The second assumption of the statistical test is that each research subject must fall in one and only one category[18]. For the purposes of this study, there were only four categories. These were: males and females, streaming and non-streaming schools. Each two categories were analysed at a time. This meant that the gender variable was analysed independent of the grouping variable. It was therefore hardly likely that any one research subject would fall into two categories at any one analysis. For example, there was no possibility of a female subject being male at any one time during the analysis. Similarly, there was no possibility that a student from a streamed school would belong, at the same time, to a non-streamed school.

The categories on which the analyses were conducted were definitely independent.

The final assumption of this test is that computation must be based on all subjects in the sample[19]. To this extent, therefore, the data which were analysed met the statistical assumptions of a chi-square test.

3.3.6: Limitations of a Chi-Square Test

Chi-Square is a non-parametric statistical test. Its limitations are hence a consequence of its non-parametric nature. Statisticians agree[20] that parametric tests of significance such as F-test, t-test and so on are preferrable to non-parametric ones because they have a high power of efficiency in detecting a real difference as significant. In other words, non-parametric tests are more likely to lead to Type II error, to accept a false null hypothesis, especially if the population is normally distributed. The distribution-free tests also have a low power efficiency where cases to be studied are few. The sample size henceforth affects the statistical power of a non-parametric test.

However, agreeing that parametric tests are preferrable, in event of failure to meet their assumptions, non-parametric ones become the only suitable option. Reasons leading to the use of chi-square, a non-parametric test, in this study arose out of the nature of the data that was available. The data was nominal and did not meet the assumptions of any parametric test. The data was neither expressed in interval nor in ratio scales. The scores were not near homogeneous in their variance. For those reasons, parametric tests could not apply.

It was on the basis of these proceedings that a chi-square Statistical Package for Social Sciences (S.P.S.S.) Computer Programme was used to test hypotheses. Chi-square tables, the degrees of freedom (d.f.) and the level of significance (α) are laid out in the next chapter.

FOOTNOTES

1. The information and the list of schools was obtained from the office of the District Education Officer, Busia, on the 21st November, 1986.

2. Historical and other background information on Sigalame High School was acquired as a result of several informal and formal interviews with the headmaster of the school between November, 1985 and April 1987. See also: School letter to the Provincial Education Officer No. SSS/E/5/12 dated the 7th June, 1978. Also: The Standard, 9th of July, 1974, p. 1.

3. Information on the school was provided by the headmistress and Mr. Kudwoli, one of the oldest serving members on the staff by way of interviews between November 1986 and April 1987.

4. The schools background information was provided by the headmaster between November 1986 and April 1987 through formal and informal interviews.

5. Two classteachers interviewed at Mundika High School who had taught there for five and six years respectively seemed to draw a correlation between the 'Green' stream and prestige status.

6. W. Brookover, et. al., School Social Systems and Achievement, New York: Praeger, 1979, pp. 149-162.

7. A.N. Oppenheim, Questionnaire Design and Attitude Analysis, London: Heinemann, 1966, p. 110. This Likert model of attitude measurement was used as a guide in questionnaire construction.

8. P.R. Runyon and H. Audrey, Fundamentals of Behavioural Statistics (Fourth Edition), Manila: Addison-Westley Publishing Co. Inc., 1980, pp. 105-107. See also: pp. 417-422.

9. A.N. Oppenheim, op. cit., p. 110. On the Likert model subjects responded to items about 'interest in classwork' on a five-point continuum, that is 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree'. For a positively stated item, a score of five (5) was given for a strongly agree response in that order to a score of one (1) for a 'strongly disagree' response. If an item was

negatively stated, the reverse scoring method was used.

10. N.H. Nie et. al, Statistical Package for Social Sciences (2nd Edition), New York: McGraw-Hill, 1975, pp. 223-224.

11. J.E. Freund, Modern Elementary Statistics (5th Edition), New Dheli: Prentice Hall of India, 1979, p. 191.

12. The use of Percentile ranks in normalising a non-normal raw score distribution is explained in P.R. Runyon, op. cit., p. 66.

13. J.P. Guildord and B. Frutcher, Fundametal Statistics in Psychology and Education (Sixth Edition), Auckland: McGraw-Hill, 1981, p. 193. See also: N.H. Nie et. al., op. cit, p. 223.

14. R.E. Slavin, Research Methods in Education: A Practical Guide, New Jersey: Prentice-Hall, 1984, p. 198.

15. J. Welkowitz, R.B. Ewen and J. Cohen, Introductory Statistics for the Behavioural Sciences, New York: Academic Press, 1976, p. 193.

16. Ibid., p. 195 See also: R.E. Slavin, op. cit., p. 185. R.P. Runyon and H. Audrey, op. cit., p. 106.

17. R.E. Slavin, op. cit., p. 186.

18. Ibid., p. 307.
See also: S. Siegel, Non-Parametric Statistics for Behavioural Sciences, New York: McGraw-Hill, 1956, p. 43 and p. 110.

19. J.P. Guilford and B. Frutcher, op. cit., p. 212.
See also: K.A. Yeomans, Applied Statistics, Hamondsworth: Penguin, 1968, p. 276.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

The first task in presenting the collected data resides in the knowledge of its distribution characteristics. To aid the understanding of these data, it is necessary to present frequency tables so as to highlight the nominal character of these collected information. This descriptive information is aimed to introduce the data as well as to determine and justify the statistical test in use. Presented below are, therefore, frequency tables in relation to each variable of study.

4.1.0: Basic Descriptive Data: Frequency Distributions

Table 4.1: The Sex of the Learners in the Sample

Sex	Number	Percent
Male	188	68.6
Female	86	31.4
TOTAL	274	100.0

Table 4.2: Modes of Grouping Adopted by the Sample Schools

Mode	Number	Percent
Streaming	53	19.3
Non-streaming	221	80.7
TOTAL	274	100.0

As shown by Table 4.2, out of a total sample of two hundred and seventy-four learners, only nineteen point three percent of them were streamed indicating that the streaming mode of grouping was under-represented in the sample. Eighty point seven percent of the sample students were not streamed, they learnt under academically heterogeneous conditions. This showed a realistic picture of the situation in Busia District for in the pilot survey preceding this study, it had been found that out of a total of twelve schools (all government-maintained), only two practised streaming by ability. These findings seemed to negate the observations in Kimokoti's study[1] where a high percentage of maintained secondary schools were found to practise streaming.

Table 4.3: The Students' Educational Aspiration

Aspiration Levels	Number	Percent
Low	3	1.1
Medium	15	5.5
High	254	92.7
No response	2	0.7
TOTAL	274	100.0

It is to be observed from Table 4.3 that the biggest percentage of students in the sample exhibited 'high' educational aspiration meaning that over ninety percent of the sample students aspired to acquire a university education. Only five point five percent wanted to terminate formal learning at the college or polytechnic level. The percentage of those aspiring to terminate formal schooling at Form Four is even smaller; a mere one point one percent.

Table 4.4: The Students' Interest in Classwork

Levels of Interest	Number	Percent
Low	0	0.0
Medium	23	8.4
High	251	91.6
TOTAL	274	100.0

The data presented in Table 4.4 reflect a skew towards 'high' interest in classwork. This means that almost all the students in the sample exhibited 'high' interest in classwork.

Table 4.5: The Students' Academic Achievement

Levels of Achievement	Number	Percent
Low	18	6.6
Medium	254	92.7
High	2	0.7
TOTAL	274	100.0

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Most of the students, ninety two point seven percent to be exact, registered tendencies of 'medium' achievers. A small percentage of learners in the sample showed 'low' achievement. Those who showed 'high' achievement were a negligible, zero point seven percent.

From the characteristics of the collected data, it was noticeable that these data were in frequency form. For that reason alone, the only statistic appropriate for testing hypotheses was to be a non-parametric one. The independent variables were categorised meaning that they could only take a limited set of values. In fact, the variables assumed a limited dichotomy in the form of male/female and streaming/non-streaming. Even the dependent variables which normally express themselves in a continuous form had been re-expressed in limited categories such as 'low', 'medium' and 'high' achievement, for example. It was basically for these reasons that the chi-square (X^2); a non-parametric statistical test was brought into use to test hypotheses.

4.2.0: Hypotheses Testing

HO_1: Boys and girls do not differ significantly in their educational aspiration.

Chi-square test.

Table 4.6: Educational Aspiration of the Learners By Sex

Sex:	Male		Female	
Educational Aspiration	Number	Percent	Number	Percent
Low	3	1.6	0	0.0
Medium	14	7.5	1	1.2
High	170	90.4	84	97.6
No response	1	0.5	1	1.2
TOTAL	188	100.0	86	100.0

Calculated Chi-square (X^2) at 0.05 level of significance, (d.f = 3) = 6.3

The critical X^2 value = 7.8

The critical X^2 value exceeded the calculated X^2 value. Therefore, the null hypothesis that boys and girls do not differ significantly in their educational aspiration was accepted. It was apparent from Table 4.6 that the level of aspiration was not significantly influenced by the sex of the learner. Ninety point four and ninety seven point seven percent of both boys and girls respectively exhibited 'high' educational aspiration meaning that they aspired, almost equally, to terminate their formal schooling at the University. A neglible one point six percent of boys exhibited low aspirational levels. For the girls, no 'low' aspirations were recorded. 'Medium' aspiration was seven point four percent for boys and one point two percent for girls.

HO_2: Students placed in different horizontal learning groups do not differ significantly in their educational aspiration.

Table 4.7: Educational Aspiration of the Learners By Mode of Grouping

Modes of grouping:	Streaming		Non-streaming	
Educational Aspiration	Number	Percent	Number	Percent
Low	0	0.0	3	1.4
Medium	1	1.9	14	6.3
High	51	96.2	203	91.8
No response	1	1.9	1	0.5
TOTAL	53	100.0	221	100.0

The calculated X^2 at 0.05 level of significance, (d.f = 3) = 3.56

The critical X^2 = 7.82

Since the critical value of X^2 was greater than the tabular X^2, the statistical test confirmed the null hypothesis. The two modes of horizontal grouping did not show any appreciable difference with regard to educational aspiration. Therefore, the mode of horizontal grouping seemed to be an insignificant variable in so far as educational aspiration was concerned.

From the observed data, it seemed that most students, irrespective of gender and mode of grouping, recorded "high" educational aspiration. This observation seemed to agree quite well with Kinyanjui's contention that learners were quickly adjusting their aspirations to the diminishing training and job opportunities. As a symptom of this adjustment, so contended Kinyanjui, they had continued to aspire for higher education to enable them to compete effectively on the labour market[2]. In other words, Kinyanjui contended that in a situation of a constrained labour market dictated by reward structures which favoured the elite, students would continue to aspire for higher education to enhance their elitedom and employment.

Considering that the respondents in this study were Form Two students, one would have to search for ánswers to their "high" aspiration in other factors beyond the immediate variables of the school. The alternative hypothesis in this case would be that those students' aspirations were not guided by a realistic evaluation of the job and training opportunities. Being in Form Two, young, inexperienced and deficient in knowledge on careers open to them, those students could have set themselves aspiration levels devoid of informed opinion.

However, when an interaction between dependent variables was tested on a chi-square of significance, as is shown in Table 4.8, it was revealed that educational aspiration was strongly related to academic achievement. This revelation would seem to invalidate the alternative hypothesis that those students' aspirations were devoid of informed opinion and instead confirm, after all, that those students based their educational aspiration on their assessment of their achievement potential, among other factors.

Table 4.8: The Educational Aspiration of the Learners By Their Academic Achievement

Academic Achievement: / Educational Aspiration	Low		Medium		High	
	Number	Percent	Number	Percent	Number	Percent
Low	0	0.0	3	1.1	0	0.0
Medium	0	0.0	14	5.1	1	0.4
High	17	6.2	236	86.1	1	0.4
No response	1	0.4	1	0.3	0	0.0
TOTAL	18	100.0	254	92.6	2	100.0

The tabular value of X^2 at 0.05 level of significance, (d.f = 6) = 15.02

The critical value of X^2 = 12.59

Because the critical X^2 exceeded the tabular X^2, Table 4.8 showed that a strong association existed between educational aspiration and academic achievement.

In attempting to explain the students' 'high' aspiration, the second explanatory alternative would be that those students operated within a framework and period of high educational output in which the labour market lacked elasticity, was selective and abound with competitiveness. As a result they exhibited equal competitiveness as a response to the demands of the labour situation. However, evidence from elsewhere[3] seemed to suggest several factors that militated on educational aspiration. One among those was the quality of the intellectual and cultural environment which affected the values that students attached to higher education. Sommerset identified career guidance programmes, the pupil's own estimation of achievement potential and alumni factors as crucial in determining aspiration levels.

Sommerset and Court[4] shared the view that students' attitudes were conditioned by the nature of the societal expectations which applied to the educational system and within it to particular schools and types of individuals. Those contentions would seem to support Mbilinyi's thesis on the supremacy of societal expectations in shaping the value system of learners. She argued that the aspiration of girls in Tanzanian schools were shaped by the societal definition of females in that country[5].

'Given the foregoing argument, it was hardly surprising that the sample students exhibited high educational aspiration. Their aspirations were enhanced by the privileges that accrued from more acquisition and certification in formal education, more so because the Kenyan school was closely paged to the reward structures which were in turn biased towards the most educated.

The sample students seemed to operate within an aspiration syndrome which was evident as early as Form Two and it became doubtful if the technologisation and the scientification of the 8:4:4 education system would do enough to avert those tendencies. The students, so it seemed, were anchored, attitudinally, for a university place by

1990 and it was hardly likely that the public universities would have capacity to absorb all of them. If the University failed to rehabilitate those attitudes, then, they stood to be displaced, frustrated and resigned: the very symptoms that the 8:4:4 system was attempting to dislodge.

Perhaps it is too early to make predictions on the new 8:4:4 system of education, but on the basis of indications from this study, it seemed that education alone could not be counted upon to provide solutions to the students' value system, expectations and aspirations included.

On the basis of indications from the sample, though small, and the findings of Sommerset, educational aspiration, it seemed, was a function of responses to societal imperatives and priorities and was not contingent upon the internal dynamics of grouping. This bore testimony to the fact that there was lack of significant relationships between horizontal grouping modes and educational aspiration (Table 4.7).

HO_3: Boys and girls do not differ significantly in their interest in classwork.

Table 4.9: The Learners' Interest in Classwork by Sex

Sex:	Male		Female	
Interest in Classwork	Number	Percent	Number	Percent
Medium	18	9.6	5	5.8
High	170	90.4	81	94.2
TOTAL	188	100.0	86	100.0

The calculated X^2 value at 0.05 level of significance, (d.f. = 1) = 0.65

The critical value of X^2 = 3.84

The results of Table 4.9 above demonstrated that there was insufficient relationships between the gender of the learners and their interest in classwork. Students of both sexes tended towards 'high' interest in classwork. Ninety point four percent of boys and ninety four point two percent among the girls recorded high amounts of interest

in classwork. Nine point six percent and five point eight percent of boys and girls respectively registered 'medium' interest. None among them was inclined towards 'low' interest in classwork.

HO_4: Students placed in different horizontal learning groups do not differ significantly in their interest in classwork.

Table 4.10: The Students' Interest in Classwork by Mode of Grouping

Modes of Grouping:	Streaming		Non-Streaming	
	Number	Percent	Number	Percent
Interest in Classwork				
Medium	3	5.7	20	9.0
High	50	94.3	201	91.0
TOTAL	53	100.0	221	100.0

Tabular X^2 at 0.05 level of significance, (d.f. = 1) = 0.05.

Critical X^2 = 3.84.

As hypothesised, the modes of grouping did not significantly affect the students interest in classwork. Students who were streamed and those who were grouped on criteria other than streaming did not show appreciable differences in regard to their amount of interest in classwork.

HO_5: Boys and girls do not differ significantly in their academic achievement.

Table 4.11: The Students' Academic Achievement by Sex

Sex:	Male		Female	
Academic Achievement	Number	Percent	Number	Percent
Low	11	5.9	7	8.1
Medium	176	93.6	78	90.7
High	1	0.5	1	1.2
TOTAL	188	100.0	86	100.0

Tabular X^2 at 0.05 level of significance, (d.f. = 2) = 0.85.

X^2 Critical = 5.99.

Since the Critical X^2 value was greater than the tabular X^2 value, there was no significant association between the learners' gender and their academic achievement. Most of the learners in the sample were 'medium' achievers irrespective of their gender.

HO_6: Students placed in different horizontal learning groups do not differ significantly in their academic achievement.

Table 4.12: The Students' Academic Achievement by Mode of Grouping

Mode of Grouping	Streaming		Non-Streaming	
Academic Achievement	Number	Percent	Number	Percent
Low	4	7.5	14	6.3
Medium	48	90.6	206	93.2
High	1	1.9	1	0.5
TOTAL	53	100.0	221	100.0

The computed value of X^2 at 0.05 level of significance, (d.f. = 2) = 1.3.
The critical value of X^2 = 5.99

Since the tabular value of X^2 exceeded the computed X^2 value, the null hypothesis was accepted that grouping mode did not significantly influence academic achievement. Both streaming and non-streaming as modes of grouping did not register remarkable differences on academic achievement. Even after testing the interaction between grouping and each of the three content areas, namely Biology, English Language and Mathematics, no significant relationships emerged. In each of three content areas, students showed characteristics of 'medium' achievement, consistently.

4.3.0: Student Interview Data

In the interviews, students responded to a battery of four questions which were supposed to complement questionnaire data on interest in classwork. These data are presented in Tables 4.13 to 4.16 below.

Table 4.13: The Students' Feelings of "Happy/Unhappy" to Learn in Their Streams by Mode of Grouping

Mode of Grouping:	Streaming		Non-Streaming	
Feelings of Students	Number	Percent	Number	Percent
"Feel Happy"	18	90.0	49	81.7
"Feel Unhappy"	2	10.0	9	15.0
Undecided	0	0.0	2	3.3
TOTAL	20	100.0	60	100.0

It was observed through the interviews as shown by Table 4.13 that once grouped, students become loyal to and content with their learning sets. This was so irrespective of the mode of grouping adopted. This observation would seem to contradict popular thinking that students of low-ability in streamed schools felt uncomfortable being in streams in which they found themselves. However, on the second question in the battery, the responses depicted a contrasting variation from those showed by Tabl 4.13. This contrast is shown in Table 4.14.

Table 4.14: The Students' Reaction To Transfers By Mode of Grouping

Modes of Grouping	Streaming		Non-Streaming	
Reactions	Number	Percent	Number	Percent
Accept	8	40.0	14	23.3
Reject	12	60.0	46	76.7
Undecided	0	0.0	0	0.0
TOTAL	20	100.0	60	100.0

As illustrated by Table 4.14, students in streamed schools were more willing to accept transfers than their non-streamed counterparts. The contrast in that respect is that whereas only ten percent of streamed students (Table 4.13) felt unhappy being in their streams, forty percent (Table 4.14) would readily accept transfers to other streams.

The contrast being mentioned was, however, not paradoxical. The apparent contrast would seem to emanate from the students' perception of streaming. In the one school where streaming was practised, students were aware that they were streamed and knew

what it meant to be streamed. It was conspicuous that feelings of conflict had been cultivated in their surroundings. The students of the highly rated 'Green' stream, which also admitted the best performing girls, defined themselves as 'great'. This was evident on the classroom wall and blackwall writing .

The 'Blue' stream students, on the other hand, referred to themselves as 'beautiful' and 'best'. That sort of phenomenon served to underline the importance of student-reaction to streaming. In that respect, girls tried to minimise their feelings of being in a lower stream by pretending that differences did not exist between the then 'Green and 'Blue' streams, after all. Those feelings among low ability learners in the 'Blue' stream helped to mollify their feelings of academic inadequacy.

In the context of the above proceedings it means that if the students perceived streaming as a deliberate attempt to isolate the less-able students from the more-able ones, they would aspire for a transfer into the more-able streams. Besides, if the students were conscious about their being streamed as was the case in this study and they

come to perceive of the practice in bad taste, then they would be inclined to seeking inter-stream transfers. If, on the other hand, students were conscious of their being streamed and approved of the practice, then they would not seek such transfers.

One of the students in a non-streamed school when asked for his response were he to be transferred to another stream retorted: "I will not feel good because I will have lost a chance of division one". He felt his chances of good performance were determined by the stream in which he learnt.

A student of Namenya Girls Secondary School summed up her feelings thus: "I would feel as if I am in a foreign country and it would take time to communicate with them ...." She also expressed her fear that she would feel lonely. What was of importance in her response was the "in-group" feelings as contrasted to the "out-group". She identified with the "we" and isolated the "them".

Some of the reasons given by students for liking their learning sets were to do with the perceived status differences between their streams and others. A majority of them, whether streamed or non-streamed

were content with being in their classes and derived pleasure in doing so. This incompatibility was enhanced because they were in one another's continuous presence. A boy in a non-streamed school expressed his possible dissapointment because he would lose his familiar friends. On the contrary, one streamed girl approved inter-stream transfers with reason that she would improve her work.

From the views of the students', interest in classwork', it seemed, was influenced to a big extent by the prescence in that class of peers and familiar friends to whom the learner would readily relate to and identify with. It was also apparent from the observations that the social proximity conduced by learning together and the social discourse it produced, bred peer identification and moulded friendship patterns which were neat and difficult to disintegrate.

Curriculum reasons were also significant in enhancing the students' interest in classwork'. A student in one of the school which used placement by curriculum sets said:

> In Form Two Blue, we do Technical Drawing instead of Building and Construction and it is a harder subject anyway.

For that reason, he would reluctantly accept any transfer. In the context of this thinking, it seemed that the subject combination offered in any stream, and how well that combination was perceived by learners reinforced their interest in classwork. In other words, the status that a given curriculum package conferred upon the students was crucial in inducing their 'interest'. Added to this, it appeared that grouping, on its own, did not affect 'interest' but the structural components of and perceptions attendant on grouping were vital in enhancing 'interest in classwork'. Perhaps this was best demonstrated by reasons that students gave for liking their streams. Those reasons are provided below.

Table 4.15: Reasons for Student Liking of Their Streams by Mode of Grouping

Mode of Grouping:	Streaming		Non-Streaming	
Reasons	Number	Percent	Number	Percent
Affinity	2	10.0	26	43.3
Academic Competetiveness	16	80.0	16	23.3
Good Social Conduct of the Class	-	-	9	15.0
Curriculum	-	-	6	10.0
Teacher Competence	2	10.0	1	1.7
Physical Environment of Learning	-	-	1	1.7
Status	4	20.0	1	1.7
Teacher Attitudes	-	-	3	5.0
TOTAL	24	120*	63	101.7*

* The percentages exceed 100% because some students provided more than one reason. Such 'extra' reasons were not disregarded.

For students in streamed schools, the two most important reasons why they liked their streams were 'academic competitiveness' and the 'status' that the stream awarded them. It was to be noticed that all those students in streamed cases who gave status reasons as cause for liking their streams came from those streams which were highly rated. For students from non-streamed schools, the two most significant reasons were 'affinity' and 'academic competitiveness'.

In Table 4.16, reasons were provided why students did not like their streams.

Table 4.16: Reasons Why Students Did Not Like Their Streams by Mode of Grouping

Mode of Grouping:	Streaming		Non-Streaming	
Reasons	Number	Percent	Number	Percent
Social Conduct	4	20.0	42	70.0
Curriculum	-	-	8	13.3
Teacher Incompetence	-	-	2	3.3
Teacher Transfers	4	20.0	5	8.3
Physical state of classroom	-	-	4	6.7
Academic Inertia	12	60.0	-	-
TOTAL	20	100.0	61	101.6*

* Some students in non-streamed schools provided more than one reason why they did not like their streams.

For those streamed students in the sample, 'academic intertia' was cited as the most important factor why they disliked their streams. Considering that eighty percent of them had cited 'academic competitiveness' as reason for liking their streams, the observations seemed contradictory and inconsistent. But bearing in mind that streamed students were under-represented in the sample, these percentages were not a good basis on which to anchor authentic judgement.

On the other hand, non-streamed students cited unfavourable social conduct as the most significant reason why they did not like their streams. Given that they were attracted to their streams for reasons of 'affinity' and 'academic competitiveness', there was sufficient reason to conclude that a classroom was a contextual base from where students drew and constructed several perceptions and meanings. It was, at the same time, a context for social encounter that developed and shaped the student value systems.

The foregoing argument would seem to account for the inconsistencies abounding in the reasons that students gave for liking or not liking their streams. It would be a futile exercise to engage into comparisons of reasons provided for liking or failing to like their streams. The reasons were abundant and did not obey any systematic pattern that would warrant comparisons and contrasts. However, the importance of these qualitative data was that they provided added insights into the subjective feelings of students vis-a-vis their 'interest in classwork'.

4.4.0: Summary of Findings

There were two very important findings from the presented data. On the basis of collected data, the sex of the learner and the mode of horizontal grouping adopted by the sample schools seemed to be insignificant in so far as educational aspiration, interest in classwork and academic achievement were concerned. However, it seemed, on the basis of Table 4.8 that aspiration levels of learners were partly based on their approximation of their achievement potential. But there was no suggestible interaction between

interest in classwork' and 'academic achievement' as dependent variables.

The second most important finding was related to interview data. All students, irrespective of the mode of grouping, enjoyed the learning experiences in their streams but streamed students had a higher propensity to accept inter-stream transfers than their non-streamed counterparts. Besides, social factors were as important as academic ones in determining the amount of student interest in classwork. Among the academic factors which attracted the students interest in classwork were academic competitiveness, curriculum and teacher competence (Table 4.15). Among the social factors which repelled students from interest in classwork were the bad social conduct among their learning mates (Table 4.16).

FOOTNOTES

1. A.C. Kimokoti, "The Extent to which streaming is Practised: A Survey Study of Nairobi Secondary Schools"; Unpublished M.A. Thesis, University of Nairobi, 1982, p. 68.

2. P.K. Kinyanjui; "Education, Training and Employment of Secondary School Leavers in Kenya", Institute of Development Studies, Discussion Paper No. 138, University of Nairobi, August, 1972, p. 11.

3. H.C.A. Sommerset, "Educational Aspiration of Fourth Form Pupils in Kenya"; Institute of Development Studies, Discussion Paper No. 117, University of Nairobi, September, 1971, pp. 13-19.

4. Ibid. See also: D. Court, "The Social Function of Formal Schooling: The Views of Forster and Experiences of Tanzania"; Institute of Development Studies, Discussion Paper No. 128, University of Nairobi, January 1972, p. 22.

5. M. Mbilinyi, "Traditional Attitudes Towards Women: A Major Constraint on Rural Development"; a paper cited in D. Court, ibid, p. 8.

CHAPTER FIVE

CONCLUSIONS, SUGGESTIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

This study set out to investigate the modes of horizontal grouping adopted by the sample schools in Busia District for which data were collected by way of unstructured interviews with school headteachers and classteachers. The aim of the study was, in this respect, to highlight, in a descriptive manner, the kinds of grouping adopted and the criteria upon which they were based.

The second objective of the study was to test hypotheses and establish relationships between modes of grouping (independent variable) and academic achievement, interest in classwork and educational aspiration (the dependent variables). Data on these relationships were collected by way of student questionnaire and test scores in Biology, English Language and Mathematics. Questionnaire data were supplemented by further unstructured interviews with students.

Let it suffice here to highlight, by way of conclusion, the salient aspects inherent in the two modes of grouping identified in the study.

5.1.0: The Streamed School

When the headmistress of Namenya Girls Secondary School was asked what criteria she used in assigning student to different learning sets, it was found that performance on primary leaving examinations was a cardinal criterion. This criterion was supplemented by constant promotion and demotion of students to maintain learning groups with a narrow ability range. These demotions and promotions were based on internal assessment methods.

The school took into account the fact that a student good at one school subject would not, necessarily, be equally good in other subjects In other words, the relationship of skills between different school subjects was not perfect. For that reason, promotions and demotions were based on an aggregate performance and even that did not ensure perfect homogeneity.

The majority of government secondary schools in Busia District did not practise streaming contrary to Kimokoti's findings of an urban-based study in Nairobi[1]. Out of the twelve schools in the pilot survey preceding this study, it was found that only two of them practised streaming. This deviation was due, in part, to the recent changes in the Kenyan education system and partly because of sample differences between Kimokoti's study and this present one. The present study dealt exclusively with government-maintained secondary schools. Kimokoti's study emphasised the fact that most streaming was conducted at Form Three and was mostly by subject. Students were thus categorised as 'Science' or 'Arts' upon reaching their third form. These classification were no longer adhered to at the time of this study.

The degree of influence of streaming by curriculum factors had been substantially minimised by the new education system of 8:4:4. The practice of classifying students on the basis of the curriculum package so that there emerges 'Science' and 'Arts' students had been reduced by these changes.

From the foregoing proceedings, streaming seemed to exhibit only two variations in this study. Those were:

5.1.1: (a) Streaming by overall ability on entry into Form One. This variety used student performance on K.C.P.E. as a powerful index upon which to assign students to seperate learning environments.

5.1.2: (b) Streaming by subject ability on reaching Form Three. This had been a very formidable practice before the advent of 8:4:4 students were streamed such that those with higher abilities in Science would pursue curricula different from those of higher 'Arts' abilities.

5.2.0: Non-Streaming

Non-streaming was a blanket category. The variation in non-streaming cases was higher than that of the streaming case. This mode also seemed to be the most flexible. The following were approaches to non-streaming identified in the study.

5.2.1: (a) Split-alphabetical roll approach

In this approach, the alphabetical list of all admitted students was split into learning units irrespective of K.C.P.E. performance.

5.2.2: (b) Punctuality-on-admission approach

Here, those students who reported early upon selection into schools were grouped into one learning unit and the process repeated with every on-coming learner until all the learning units were filled. Each class of learners was filled at a time.

5.2.3: (c) The seperate curricula approach

Students were grouped on a random basis right from From One but subjected to seperate curricula. This mode would be used together with the first two approaches to non-streaming. It was noted that primary school academic records and internal assessment methods were not determinant in the non-streaming mode of grouping.

5.3.0: General Conclusions and Recommendations

In none of the sample schools was parental authority sought before adopting the grouping policies. Evidence showed that parental opinions on grouping were not solicited. This state compared favourably well with the state in the 1971 N.E.F.R. study[2] where out of twenty-nine schools, none involved parents in the grouping policies. Information on grouping was deliberately obscured from parents. The same was true with this study. Grouping policies were oversimplified or vaguely explained to parents. The parents were peripheralised. Some headteachers seemed to fear eroding parental confidence and trust thereby choosing to be discreet.

In view of the above practice, this study, as one of the areas of its recommendations, calls for the revision of the 1968 Education Act[3] which did not fully empower parents as an interested group in the education process. Headteachers are directly involved in the day to day management of schools but they lack exclusive competence and need informed support from parents. The school is, after all, accountable to parents in many ways. This study emphatically advocates for collaborative efforts among interested

parties; parents, teachers and board of governors; in such organisational procedures as grouping. Parents should not just be consulted in situations when finances are sought for capital development. With the recent orientation towards a cost-shared system of education, the parents' role in school management takes a central position.

When students do not do well in public examinations, the school management and the teaching process are brought into serious question. The extent of parental accountability in such institutional failures is hardly seen or even questioned. Their role is marginalised. Perhaps one of the ways through which their roles could be de-marginalised is by involving them through a revised Education Act so that they may be responsive in sharing the blames as well as the successes of the school system.

5.3.1: The Educational Heritage

It was observed that all sample schools had a catchment area which was sixty percent district-specific. This meant that the majority of secondary school learners were drawn from among the local primary schools. That factor was very important

in this study as it pointed to the linkage between the quality of primary schooling and what went on in secondary schools[4]. Since the majority of learners in this sample were derived from a geography of specific educational characteristics, their educational heritage was a crucial determinant of secondary school outcomes. For that reason, it is hereby recommended that any attempts to better the educational standards of secondary schooling must be preceded by equal efforts to develop the educational standards and character of the immediate catchment area. Any improvement in secondary schooling must take cognizance of the quality of schooling at the primary level because the latter has a cummulative heritage over the former.

5.3.2: Curricula and Perceptions

The students' perception of the grouping practice was very important. In situations where grouping depended on curricula considerations, the status that a curricula package conferred upon the learners was vital in shaping their self-attitudes and could in some cases inflate into them polarised feelings of superiority. This was noticeable in those streams which, prior to the advent of 8:4:4,

offered a predominantly science curricula. This was probably how the school not only acted as an agent of socialisation but also as an agency through which future positions and personalities were developed[5]. This specific phenomenon calls for further research than was hereby undertaken. This is even more crucial given the fact that schools are value-laden institutions that define persons as members of educational categories possessing certain knowledge and skill. Even when groups are given names that hide their rank, students know that a hierarchy exists[6].

5.3.3: Effects of Grouping

It was revealed that the students' academic performance on school-based examinations, interest in classwork and educational aspiration were largely unaffected by the type of organisational practice and the learners' gender.

Most of the learners, irrespective of gender and mode of horizontal grouping, were medium achievers, had a higher interest in classwork and aspired for university education. For that reason, there were no sufficient grounds to argue for

or against streaming since grouping, per se, was largely insignificant. The study, therefore, recommends that the decision on the grouping mode to adopt should rest with each school but should fully involve parents, boards of governors and school committees. The school headteachers should share the powers of school management with the parents whose children they teach.

5.3.4: Streaming: an Emergent Phenomenon

Teacher attitudes, intake quality and curriculum electives (options) all had potential influence over self-perception. Some students accepted the definition of them by teachers and fellow students[6]. Others could let curriculum options to define their status for them so that even in non-streamed situations, elements of streaming could feature. Streaming, therefore, had the capacity to emerge among groups of learners depending on how they perceived and related to one another as groups.

All students, irrespective of gender and grouping modes, found pleasure learning in their classes. They showed tendencies to be loyal and content with their learning sets once grouped. However, most

low stream students in the streamed school, being aware of their relative status and the definition of them by others, showed intentions to transfer to 'higher' streams.

A student's interest in classwork tended to rely on affiliation factors, curriculum electives, teachers, social and academic conduct of fellow learners. Whereas affinity factors ranked high among non-streamed students, the academic conduct of fellow students was the single most important influence of interest to streamed students.
In the event of all these conclusions, what role would theory play in re-dressing the problem of study?

5.4.0: The Role of Theory in Redressing the Problem

The sociological theories of structural functionalism as popularised by Talcott Parsons[7] and the symbolic interactionism of George H. Mead[8] are plausible grounds within which to generate hypotheses for further research.

Using structural functionalism as a potent framework for further research, one would perhaps visualise the school as a miniature social system replete with a definite anatomy and a specialized physiology. This organic view of the school would perhaps counter the inconclusiveness of the studies on grouping. Grouping is just but a segment of what generally constitutes the school environment of achievement. It is a mere organ in the anatomy of the school. On its own, it may not possess explanatory efficiency in accounting for the dependent variables. For that reason, a longitudinal survey which utilises the structural functionalism model is recommended. This would perhaps explain sufficiently the interaction between various segments of the school anatomy which determine cognitive and non-cognitive outcomes.

5.4.1: Symbolic Interactionism

The second model which has explanatory potential on the phenomenon of grouping is the sociological school of symbolic interactionism. In this school, human beings are defined as complex symbol-manipulating subjects and for that reason have capacity to construct meanings out of the objective

material world which they inhabit[9]. They extract those meanings through social encounters. The meanings so constructed are not fixed, universal or absolute. They are dynamic, plural and contextual in the sense that they change through history, culture and context.

Humans, so the school of thought identifies, are also defined as possessing 'selves'[10] and this makes them capable of taking the role of others. They define and interpret their performance in regard to the 'generalised other' but do not necessarily compromise their individuality.

The third premise of this school of thought is that experience, personality and value are objective properties of nature which emerge only under (and hence relative to) specific sets of conditions[11]. Accordingly, the classroom could be seen as a specific set of conditions, an environment of human intercourse, which shapes the learner's personality and value systems.

Because of the three premises mentioned above, this school of thought accounts for the development of values among closely bound groups (learners in

our case) under specific sets of conditions (the classroom situation for our case). Governed by these explanatory powers, the theory is helpful in testing causal relationships between grouping and students' self-attitudes. This is necessary given the argument that grouping only affects academic achievement via the students self-concept of ability.

For further research, an experimental design employing the rigour of control and experimental groups is feasible given the many intervening variables which went uncontrolled in this study.

It is also suggested that a longitudinal survey involving both the primary and secondary schools be attempted as further study. In this way, the values, attitudes and teaching methods attendant on grouping may be explored and the extent to which a parallel could be drawn between primary and secondary schools established.

The fact that this study pauses more questions than those that it answers was in-itself an objective. It was an intended consequence of this study to raise problems and by so doing invite new perspectives within which to redress them.

FOOTNOTES

1. A.C. Kimokoti, 'The Extent to Which Streaming is Practised: A Survey of Nairobi Secondary Schools, an Unpublished M.A. Thesis, University of Nairobi, 1982.

2. E. Ferri, Streaming: Two Years Later, London: N.F.E.R., 1971, p. 2.

3. Government of Kenya, Laws of Kenya, The Education Act (Revised Edition), Nairobi: Government Printer, 1970, p.9.

4. D.N. Sifuna, Short Essays on Education in Kenya, Nairobi: Kenya Literature Bureau, 1980.
See also: D.N. Sifuna, "The Quality of Primary Schools and Pupils Achievement in Kenya", a Paper presented in the Department of Educational Foundations, Kenyatta University on the 25th of November, 1987.

5. A. Gamoran, 'Instructional and Institutional Effects of Ability-Grouping' in Sociology of Education, Vol. 59, No. 4, October 1986 p. 195.
See also: A.H. Halsey et. al. (ed.), Education, Economy and Society: A reader in Sociology of

Education, London: Macmillan, 1961, p. 124.

6. A. Gamoran, ibid., p. 195. See also: G.H. Mead, 'Play, The Game and the Generalised Other', in L. Coser and B. Rosenberg (ed.), Sociological Theory: A book of Readings, New York: Macmillan, 1969, pp. 228-243.

7. M. Mann (ed.), The Macmillan Student Encyclopaedia of Sociology, London: Macmillan, 1983, p. 138.

8. A.M. Rose (ed.), Human Behaviour and Social Processes, London: Routledge and Kegan Paul, 1962, pp. 11-13. See also: pp. 181-187. Refer also to: M. Mann (ed.), ibid., p. 387.

9. A.M. Rose (ed.), ibid., pp. 5-10 and p. 180.

10. G.P. Stone, "Appearance and the Self" in A.M. Rose (ed.), ibid., pp. 86-117.

11. M. Mann (ed.), op. cit., p. 386.

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APPENDIX A: The National Order of Merit of Busia District in the Primary School Leaving Examination By Year

Year	Total Number of Candidates	Position	Total Population of Schools	Mean Total Standard Score
1979	-	33	39	141.60
1980	5712	28	39	145.73
1981	6641	29	39	144.05
1982	6602	27	39	142.79
1983	6666	28	39	141.56
1985	5937	31	45	273.04
1986	5775	38	45	276.98

APPENDIX B

STUDENTS QUESTIONNAIRE

DIRECTIONS

You have been selected to take part in this research which is organised from the Department of Educational Foundations at Kenyatta University. In this research, we are trying to learn more about students and their work in schools. We would, therefore, kindly ask you to help us acquire information in regard to your work in school. This is not a test of any sort and will NOT affect your performance in school work. Your responses (answers) will be treated confidentially and will NOT be seen or used by anyone else but the researcher who is based at Kenyatta University. There are no right or wrong answers, we simply want you to tell us your own answer to each question.

1. Name of your school: _____

2. Name of your stream: _____

3. Your name: _____

4. Your Sex: Male ☐

Female ☐

SECTION I:

The following are some of the statements students feel could BEST describe their interest in classwork.

Of the following alternatives:

Strongly Agree (S.A.),

Agree (A.),

Undecided (U.),

Disagree (D) and

Strongly Disagree (S.D.)

tick (✓) against any ONE box of the alternative that BEST describes your own interest in classwork.

5. I enjoy doing class tests and assingments

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

6. Doing well in classwork is most important to me.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

7. I feel satisfied asking the teacher to explain what I think is not clear to me during class lessons.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

8. I would feel bad if I got all my classwork wrong.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

9. Class lessons are boring.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

10. I am more interested in games and other school activities than in classwork.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

11. During class lessons I feel satisfied if I answer questions that the teacher poses to the whole class.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

12. In my spare time, I usually discuss with my fellow students interesting points raised during class lessons.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

13. In my spare time, I usually discuss with my subject teachers interesting points raised during class lessons.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

14. I usually hand in my class assignments on time.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

15. When the teacher goes out of the classroom, I'play 'about'.

S.A. ☐ A. ☐ U. ☐ D. ☐ S.D. ☐

Now, read each statement below and tick the box of the answer that best describes your own work.

16. What do you think of your own work.

Excellent ☐

Good ☐

Average ☐

Below Average ☐

Poor ☐

17. What kind of grades do you think you really can get if you try harder?

A^S (70% and above) ☐

B^S (60-69%) ☐

C^S (50-59%) ☐

D^S (40-49%) ☐

E^S (39% and below) ☐

SECTION II

Please tick [✓] the box of the answer that best describes classwork in your own stream as compared to other streams.

18. Compared to students in other streams, how much do students in your stream learn?

a lot more ☐ a little more ☐

the same ☐ a little less ☐

a lot less ☐

19. What percentage of students in your stream feel it is important to do well in classwork?

Over 90% ☐ 75% ☐

50% ☐ 25% ☐ less than 10% ☐

20. What percentage of students in your stream make fun or tease students who get very good grades in class tests?

Over 90% ☐ 75% ☐ 50% ☐

25% ☐ less than 10% ☐

21. What percentage of students do not do as well as they could do in classwork because they are afraid other students would not like them as much.

Over 90% ☐ 75% ☐

50% ☐ 25% ☐

less than 10% ☐

22. What percentage of students in your stream will work hard to get a better grade on their tests than their stream-mates?

Over 90% ☐ 75% ☐

50% ☐ 25% ☐

less than 10% ☐

23. What percentage of students in your stream do not care if they get bad grades?

Over 90% ☐ 75% ☐

50% ☐ 25% ☐

less than 10% ☐

Please read the statement below and then tick [✓] <u>one</u> alternative that best describes your own reactions to class assignments.

24. If your teacher gave you a hard assignment, would you rather solve it by yourself or would you want your teacher to tell you how to do it?

1 always prefer to solve it for myself ☐

I usually prefer to solve it for myself ☐

Sometimes I prefer to solve it for myself ☐

I usually like the teacher to tell me how to do it. ☐

I always like the teacher to tell me how to do it ☐

<u>SECTION III</u>:

25. If you could go as far as you wanted academically, how far would you like to go?

Form Four ☐ College/Polytechnic ☐

University ☐