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VOCATIONALISING KENYA'S SECONDARY SCHOOL
CURRICULUM:
Career and Educational Aspirations of
Boys and Girls

By

Lucy W. Kibera

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(b) INSTITUTE FOR DEVELOPMENT STUDIES
/ (a) UNIVERSITY OF NAIROBI
P.O. Box 30197
NAIROBI, KENYA

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ABSTRACT

This paper investigates the effects of the 8-4-4 curriculum, with its emphasis on vocational education, on secondary school students' career and educational aspirations. Specifically, the study examines the extent to which the 8-4-4 curriculum has adequately prepared and oriented students towards self-employment, technical, and farm-related occupations. It also investigates whether the 8-4-4 curriculum has lowered students' educational aspirations.

Students' dislike of blue collar occupations and their manifestation of high educational aspirations have been blamed on the earlier curriculum (7-4-2-3) which was said to be too academic. The findings of this study suggest that the 8-4-4 curriculum has neither managed to orient students positively towards self-employment, technical, and farm-related occupations nor reduced their desire for white collar occupations and acquisition of post secondary education. The findings also revealed that male secondary school students have higher educational and career aspirations than female students. But when female students are educated in educational institutions of comparable quality to those of male students, they manifest higher educational and career aspirations than those of their male counterparts. A related finding is that mothers in middle and high socio-economic status have greater influence than fathers on their children's career and educational aspirations.

INTRODUCTION

The philosophy behind the introduction of a vocationally biased curriculum by the Kenyan government in January 1985 into the school system, the 8-4-4 system, was that the former 7-4-2-3 system of education was mainly academic in nature and thus it failed to equip its recipients with relevant employment and self employment skills (Ministry of Education, Science and Technology 1984). This paper examines the extent to which the 8-4-4 curriculum with its vocational bias at secondary level has positively influenced students' career aspirations to conform to the national employment policies. Education world-wide is expected to prepare and orient the youth towards the world of productive work in various fields of human endeavour. Most governments spend a sizeable proportion of their national budget on education in an attempt to prepare the future labour force for the world of work and also to orient them positively towards the available occupations. For instance, the government of Kenya spends over thirty percent of its national budget on education. (Republic of Kenya, 1989-1993 Development Plan). But whether the future workforce becomes positively oriented towards certain occupations and especially self-employment is the subject of investigation in this study. The study hopes to find out if future Kenyan workers receiving a vocationally biased education at secondary level in various categories of secondary schools aspire to enter farm and technical related occupations and especially self-employment as intended by the government and curriculum formulators. These categories of secondary schools have differential allocation of human as well as material resources (see appendix I).

Structurally, the 8-4-4 system of education translates into 8 years of primary education, 4 years of secondary education, and 4 years of minimum university education. The 7-4-2-3 system that preceded the 8-4-4 system stood for 7 years of basic primary education, 4 years of secondary education, 2 years of advanced secondary, and 3 years of minimum university education.

Because of the alleged academic nature of the 7-4-2-3 system of education, the government claimed that it failed to equip students at each terminal level of education with employment and self-employment

being expected to prepare and to orient students for self-employment is expected to prepare students for salaried employment, further training, and university education (Ministry of Education, Science and Technology, 1984:1). Apparently, the 8-4-4 system of education is expected to enable Kenya to create employment to absorb the rising numbers of unemployed school leavers through the inclusion and emphasis of vocational and scientific component in the curriculum.

A close look at Kenya's secondary school curriculum reveals that it is broad-based. Appendices II and III indicate the subjects taught in Forms I and II and Forms III and IV respectively. The broad based nature of the curriculum raises doubt whether a student can master all the knowledge and skills in ten examinable subjects within four years. This fear has been confirmed by the 1989 Kenya Certificate of Secondary Education (K.C.S.E) results (The Standard Newspaper, 1st March, 1990). The poor overall performance in this examination augurs badly for the 8-4-4 system of education for it may well mean that graduates at secondary level may not have acquired sufficient skills, particularly for self-employment. Makau (1985) had voiced a similar concern. Prior to the introduction of the 8-4-4 system of education, the Kenya National Examination Regulations stated that no candidate was allowed to enter for more than nine subjects for examination at one sitting. The student was further expected to pass in only six subjects (Kenya National Examination Council, 1987).

The question that lingers on is whether the Kenya Government has the human and material resources to effectively implement a vocational curriculum in over 2,600 secondary schools with 640,735 students (Republic of Kenya, 1990). Implementation of a vocationally biased curriculum such as the 8-4-4 system of education is financially costly (Rado, 1974; Republic of Kenya, 1976:64; and Pscharopoulos, 1985). In fact the Economic Survey (Republic of Kenya 1990:172, table 15:3) shows that the expenditure of the Ministry of Education has been sky-rocketing since the launching of the 8-4-4 system of education in 1985. The estimated development expenditure rose from Kenya Pounds 36 million in 1988/89 to Kenya Pounds 64.1 million in 1989/90, an increase of 74 percent and this is in spite of cost sharing in education between the government and the communities in the provision of physical facilities (Republic of Kenya, 1988:49). Clearly then, the

8-4-4 system of education places heavy financial burdens on the nation. Its justification depends on whether it meets its stated objectives.

Objectives of The Paper

The paper intends to critically examine whether female and male students of the 8-4-4 curriculum differ in their career and educational aspirations. Technically, the 8-4-4 curriculum is gender free. Both female and male students do the same subjects. However, before investigating the influence of the gender factor on secondary school students' career and educational aspirations, the study has examined the influences of the 8-4-4 curriculum on the students' career and educational aspirations by school category attended, in order to get a total picture of the success of the 8-4-4 curriculum in its stated objectives. In an attempt to assess the outcomes of the 8-4-4 curriculum on its recipients the following questions are raised:

1. Do secondary school students of the 8-4-4 curriculum attending different categories of secondary schools differ in their preferences for salaried employment, self-employment, training for jobs, and university education?
2. Do male and female students of the 8-4-4 system of education at secondary level differ significantly in their career and educational aspirations?.

Rationale for the study

The rationale for setting the above research questions is that the studies reported in the literature on career aspirations have been narrow in scope. The majority of studies in this field have concentrated on the investigations of variables that influence individuals towards either salaried, manual and technically oriented jobs or towards white-collar and professional careers and not self-employment.

Thus there have been very few research studies devoted to examination of factors that influence individuals to either undertake self-employment or not. The few studies that have commented on self-employment such as those of Court (1974), Kipkorir (1974), Sanda

(1978), and Ogutu (1985) have noted that self-employment is not popular among students from all levels of the school system. This paper has focused on the factors that make self-employment unattractive to most school students.

In the face of declining salaried career opportunities of all kinds, especially in less industrialised economies like Kenya, government and policy makers have popularised self-employment as the panacea for the unemployment problem of the educated youth. Given this goal, many governments have spent colossal sums of money and a lot of human effort in the vocationalisation of the school curriculum.

The argument has been that a vocational curriculum would equip students with knowledge, skills, and positive attitudes towards self-employment. There seems to be an implicit assumption that school leavers find self-employment unattractive because they lack the necessary skills to manage self-employment ventures. The assumption made is that, acquisition of self-employment skills would make it possible for school leavers to start self-employment ventures. This in turn would, it is hoped, effectively curb migration of school leavers into urban areas in search of salaried job opportunities. Logically, this is possible because school leavers with self-employment skills would set up self-employment businesses in the rural areas instead of migrating to towns in search of employment opportunities. Moreover, the process of acquiring self-employment skills through the school curriculum is expected to positively orient students towards self-employment.

However, the questions that immediately come to mind are: Why do students detest self-employment? Could the decline of salaried employment of all types in less developed economies persuade school graduates to want to start self-employment businesses? Would acquisition of self-employment skills through vocationalisation of the school curriculum be strong enough to positively influence school graduates to establish their own business ventures? Are governments in less industrialised economies right in their assumption that vocationalisation of the curriculum is the solution to the unemployment problem among the educated youth?

This study has tried to provide some insights into the above questions. Information on these issues is definitely expected to increase knowledge pertaining to career expectations of school graduates and

in particular those factors that make some of them undertake self-employment activities while others do not.

THEORETICAL FRAMEWORK

The literature closely related to the study objectives dealing with the curriculum, school quality, and the gender variables and their influences on career and educational aspirations on students is reviewed herein beginning with the literature on school curriculum and school quality.

The Influences of School Curriculum and School Quality on Students' Career and Educational Aspirations.

The school, through the curriculum programme, is expected to influence students' total orientation to life and in particular with regard to career aspirations. This is because the school, through the curriculum and other school practices such as co-curricular activities in form of clubs related to various aspects of school subjects and career guidance programmes impart knowledge, skills, and attitudes that are expected to be useful in working life.

However, in the last two decades, there has been considerable dissatisfaction with the failure of education particularly in developing countries like Kenya, to equip students with self-employment skills. The popular belief is that education in developing countries has imparted academic education which is geared to white-collar jobs. Since such jobs are difficult to find, the result has tended to be an increasing unemployment among school leavers.

To rectify this situation developing countries with the help of international donors have introduced practical, agricultural, technical and commercial subjects into the educational system. Through these subjects, teachers are expected to equip students with knowledge, skills, and attitudes that would make them self-reliant and self-employable (Pscharopoulos, 1985:12).

The belief in the curriculum to influence students positively towards the world of work, including increased productivity has been reinforced by writings of scholars such as McClelland (1961), Nyerere (1967), Kahl (1968), Colclough (1980), Breton (1972), and Grasso (1979:20). In fact Colclough, in a survey on the relationship between

educational and development noted that education increased productivity in all sectors of the economy. Further, he claimed that education reduced fertility, improved health and nutrition status and promoted significant attitude and behaviour changes. To this end, it is Kenya Government's hope that the 8-4-4 system of education which has a vocational bias will orient students towards self-employment. The Government has, therefore, popularized vocational oriented educational system as an answer to the unemployment problem (Republic of Kenya, 1976; Ministry of Education Science and Technology 1984; Report of the Presidential Committee on Unemployment 1982/83; Republic of Kenya, 1984-1988 Development Plan 1984; Republic of Kenya, Sessional Paper No. 1 on Economic Management for Renewed Growth 1986; Report of the Presidential Working Party on Education and Manpower for the Next Decade and Beyond 1988; and Republic of Kenya, 1989-1993 Development Plan). It should however, be pointed out that a number of scholars have noted that curriculum change per se does not influence students to want to take on certain jobs. These scholars include Watts (1967), Kinyanjui (1979), Martin (1980), Medvitz (1985), and Pscharopoulos and Loxley (1985). For curriculum to realise the desired outcomes, changes in a society must precede curriculum changes and innovations. This view has been expressed by Dumont (1969), Castle (1972), Dore (1972), Blaug (1974), Simmons (1980:24-27), Thompson (1983), and Bishop (1986). In fact, Simmons noted that educational reforms have only registered success in countries like China and Cuba where curriculum changes were preceded by social, economic and political changes in the society.

To date, no such revolutionary changes, socio-political or economic or otherwise, have taken place in the Kenyan society. So the question that lingers on is: Does the 8-4-4 system of education have any chance of success in its goal of influencing students at secondary level towards certain occupations and especially self-employment?

Court (1972) and Kipkorir (1974) noted that Village Polytechnics in Kenya have succeeded in equipping students with self-employment skills but they have not succeeded in instilling into students willingness to undertake self-employment. The training has however, bettered students' chances of getting employed in urban areas. Again, Kinyanjui (1974) observed that students were not interested in self-employment. In this study he had followed up Form IV leavers who

had graduated between 1965 and 1968 with a view to establishing what they were doing after leaving school. He found out that the best students in the academic results had joined Form V and others had been absorbed in the public and private sectors. Only ten school leavers were found in self-employment. Five of these had farms which they had acquired from their parents, four joined their parents as junior partners in business; and one had become a musician. These ten school leavers had on the whole performed poorly in the East African Certificate of Education (E.A.C.E) examination and had a mean aggregate of 45 points, in an examination where the best possible score was an aggregate of 6 points. Kinyanjui suggested that the small number of school-leavers going into self-employment could be explained by lack of capital to start the business and possibly lack of skills and confidence. What is interesting to note is that, those people who cannot be absorbed in the salaried employment in Kenya as well as in other developing countries end up in self-employment. While this is the case in developing countries, the story is quite different in developed countries. Duncan (1968) revealed that the majority of self-employed people in developed economies were highly educated and skilled. They also engaged in high status and prestigious self-employment professions such as those of doctors, lawyers, dentists and surgeons. Additionally, these people came from high socio-economic backgrounds, and therefore, had the economic power to undertake self-employment.

Given that self-employment requires adequate knowledge, skills, and substantial capital for success, the success of self-employment for secondary school leavers who may have little or none of the above mentioned prerequisites is in doubt. A related observation is that self-employment is relatively dwindling in developed economies while it is growing rapidly in less industrialised ones. Thus one is forced to view self-employment, popularly referred to in Kenya as Informal Sector or Jua kali sector, as an indicator of economic underdevelopment. The term "Jua Kali" stands for Kiswahili phrase "hot sun" and generally refers to people who set up their businesses in "open places" for lack of better business premises. These Jua Kali business people are often harassed by law enforcement agencies for they usually establish their businesses on unoccupied areas which do

not belong to them. The majority of people in the Jua Kali sector drift into it for mere economic survival due to lack of other financially rewarding activities. It is not a wonder then, that Ogotu (1985) found out that self-employed school leavers in Kisumu and Siaya districts were looked down upon by the rest of the community for failing to find jobs in the formal sector. This is partly because employment in the informal sector is hard and financially unrewarding for the majority of people. This is exacerbated by the unmarketability of crudely produced Jua Kali sector goods for the overseas markets on the one hand and by the flooding of local markets with imported commodities on the other.

The situation is similar elsewhere in Africa. For instance, Sanda (1978:429-437) has noted that students in Nigerian universities were not predisposed towards self-employment. However, when Achola and Kaluba (1989:174-175) examined the effects of Zambian society induced changes in the school curriculum, with respect to skill acquisition, they found a positive link. The political leadership in Zambia apparently succeeded in promoting the idea of respect for manual work among secondary school students by encouraging them to participate in production of goods while in school. While Achola and Kaluba found that the Zambian students who had undergone production unit programme felt they had acquired useful self-employment skills, they did not investigate whether the students were willing to engage in self-employment. This paper on career aspirations of the secondary school students of the 8-4-4 system of education has tried to fill up this gap by investigating the degree to which the 8-4-4 curriculum has succeeded in tuning up students towards Kenya Government's employment objectives, particularly with respect to self-employment in contrast to salaried employment and further education.

As far as the school quality is concerned, there is empirical evidence to support that schools that are better equipped and staffed produce students with higher educational and occupational aspirations. Such students are more likely to aspire to prestigious salaried employment than students coming from ill-equipped and staffed schools (Somerset, 1974:67-101; Foster, 1965: 260-290; and Boyle, 1966:268-639). Similar findings were also reported by Achola (1987).

Apparently, these students are aware that a quality school gives

them a better chance to pass examinations and as a consequence they know that they stand a better chance to obtain good jobs which are on the whole dependent upon academic merit. People with high educational achievement by and large hold high status and prestigious jobs in any given society. In fact researchers such as Foster (1965), Clignet and Foster (1966), Koff (1967: 390-412), Hejein (1967) and Chivore (1986) have reported that high educational plans are strongly related to career aspirations.

In modern societies and especially in developing countries, education is the most important means of social mobility. People in such countries make great sacrifices to ensure that their children get education and particularly post-secondary education. The possession of a university degree is in great demand as it is likely to guarantee salaried high status jobs. Bruce (1966: 735-746) asserted that entry to college gave an individual a variety of occupational options and in particular in white collar and professional fields.

With regard to teachers and their influence on students' career aspirations, it has been found out that teachers have tremendous impact on students' achievement and consequently on their career aspirations and expectations. Rosenthal (1968) and Rist (1970:411-451) confirmed that teachers' perception of students' potential abilities to succeed in school work affected their performance. Students believed by the teachers to have intellectual abilities for school work turned out to perform as expected by their teachers. Education in Kenya is examination oriented and the success of a secondary school is largely gauged against the number of students that qualify for university education. As a result teachers over-emphasise the importance of passing examinations. The question at hand then is: What effect does this have on students' attitudes toward self-employment?

Family Environment and its Influence on Career and Educational Aspirations of Male and Female Students

The family environment impinges on curriculum and also influences the quality of the school and school practices. This is possible in view of the fact that the family is represented in school organisations such as Board of Governors and Parents-Teachers' Association. These

organisations influence the school curriculum and practices through ideas and financial support.

Student's socio-economic background especially their parents' level of education and type of occupation held, indicate a strong relationship between students' socio-economic backgrounds and their occupational and educational aspirations (Kahl, 1953; Roe, 1957; Bordua, 1960; Sewell, 1957; Krauss, 1964; Foster, 1966; Kariuki, 1976; Borrow, 1984 160-184; and Super, 1984 27-54). For instance, Bordua states that motivation to achieve is learned from parents who encourage their children to develop attitudes which enable them to compete against standards of excellence. Such parents reward their children when they perform well in their competition and punish them when they fail. Over time parental expectations are internalised by their children who in turn reproduce them as their own.

However, boys have been found to have higher educational and occupational aspirations than girls. As far occupations are concerned Dixon (1958) and Turner (1961), agree that job attitudes for girls differ from those of boys. They found that girls prefer service jobs involving working with people rather than working with things while boys prefer professional and scientific careers. Chivore (1986) provided further evidence to the effect that girls have different job attitudes from boys. In addition, Blossfield (1984) noted that women compared to men in the Federal Republic of Germany are concentrated in relatively few skilled occupations and are proportionately over-represented in the lower ranks of the occupational pyramid. This state of affairs seems to have persisted over the years world-wide and it may have been reinforced by the fact that women, were traditionally expected to be housewives while husbands provided for them materially. Earlier Turner (1961) had suggested that career aspirations of women should be studied by asking them what jobs they aspired for their husbands to be. When this question was posed, on the whole girls aspired for professional careers for their would-be husbands. This is an indication that girls identify with people who are socially favoured to hold professional careers. Opala (1990) reported that women were discriminated against in gaining employment in the formal sector and that when employed they earned less than men even for equal status jobs. This is a pointer that other factors besides the curriculum

studied, influence students' career aspirations and their employment opportunities and especially those of girls.

As far as educational aspirations are concerned, boys have been found to have higher educational aspirations and expectations than girls. Generally, girls have had lower educational and occupational aspirations and expectations for they are expected to be homemakers rather than workers. However, Krauss (1964) and Pavolko (1971:58) found out that although fathers' educational level had greater influence on students' career and educational aspirations, in families in which the mother held a non-manual job or had completed high school, children had high educational aspirations. The mother in this case tried to realise her educational aspirations through her children by encouraging them to develop middle-class interests and objectives. In the Kenyan context these findings, which have been based on children of the Western countries' families, may be different. Generally, men in Kenya, whether educated or not, are expected to be models for their children. The status of a woman is expected to be subservient to that of a man regardless of her socio-economic status. The patriarchal family structures in which men are considered superior and rightful heads of family units in Kenya reinforce the low status of women.

In summary, this section has attempted, through the available and relevant literature, to justify the importance of assessing the curriculum innovations, like 8-4-4 system of education influencing students' career aspirations. In evaluating the role of curriculum innovations in bringing about the expected outcomes and in this case the success of the 8-4-4 system of education in orienting secondary students towards self-employment, its influence has been assessed against other factors that are known to have a bearing on career aspirations. The factors reviewed in addition to curriculum innovation are school quality, students' gender and students' family environment. This is done out of recognition that curriculum changes do not operate in isolation of the society's socio-economic structures and the characteristics of its individual members, for schools which act as transmitters and implementers of curriculum innovations are on the whole mirrors of a particular society with all its characteristics.

Having reviewed the relevant literature that have a bearing on career and educational aspirations of individuals, attention is now

focused on research methodology used in this study.

METHODOLOGY

This section is concerned with various aspects of the research methodology used in this study. It contains the research design and independent and dependent variables, sampling procedures, and data analysis techniques.

Research Design and Independent and Dependent Variables

The current study falls under the ex post facto research design. Kerlinger (1964) defines ex post facto research design as that research in which the independent variable or variables have already occurred and therefore, the researcher starts with the observation of the dependent variables. The independent variables are studied in retrospect for their possible relationships to and effects on dependent variables.

The ex post facto research design appears to be the most appropriate research design in this study. This is because the 8-4-4 system of education is already in operation while the former system of education, 7-4-2-3, which offered mainly academic curriculum has been phased out. Other independent variables used in this study are also a priori factors such as the gender of the students, the category of secondary schools attended by students and the students' socio-economic status (SES)/family environment. The socio-economic status of the students was calculated on the basis of the fathers' and mothers' level of education and type of occupation.

Information on the 8-4-4 curriculum on the above mentioned variables was collected by means of a questionnaire administered individually to each participating respondent, which included students and teachers.

The dependent variables in this study include career and educational aspirations of students. Careers in this paper stand for salaried employment, self-employment and occupations, such as, unskilled and semi-skilled jobs, artisan jobs, clerical, administrative and professional jobs. Details of these broad categories of occupations appear in Appendix IV. The other dependent variables in this study fall under educational aspirations and these are the students'

preference for job training after secondary cycle of education, or pursuit of university education or the students' desire to reach various educational levels ranging from Form IV to doctorate. Finally, a list of twenty four jobs generally held by Kenyans in the labour force also acted as dependent variables. These jobs are presented in table II.

The Sample and the Sampling Procedures

This study is based on data collected from Form IV students and teachers selected from a sample of twenty-three secondary schools in Kiambu, Kajiado, and Machakos districts. The sampling frame comprised Ministry of Education's list of secondary schools in these districts as of July 1990. The list revealed that there were 138 secondary schools in Kiambu, 250 in Machakos, and 19 in Kajiado. Using systematic random sampling procedure 5 percent of secondary schools from Kiambu, 4.4 percent from Machakos and 25 per cent from Kajiado were selected. Twenty five per cent of the schools in Kajiado were selected because of the smallness of the Kajiado sub-population.

The student sample came from different categories of secondary schools, that is, the national, public non-national/provincial, assisted, and private schools. These categories of secondary schools represent differential financial resources, quality of teachers and the ability level of students admitted into them. Selecting student-respondents from various categories of secondary schools was necessary in order to find out whether different types of schools produced individuals with different career and educational aspirations.

From the selected 23 secondary schools, a total of 741 students were randomly identified from the Form IV classes. These students included 75 students from national schools (10.1%), 149 students from public non-national schools (20.1%), 313 students from Harambee/Assisted schools (42.3%), and 204 students from the private schools (27.5%). In terms of gender the sample comprised 511 boys (69.4%), and 227 girls (30.6%). This percentage of boys vis-a-vis that of female students compares fairly well with national figures for boys (57.9%) and those of girls (42.1%) who were in secondary schools in 1990 (Republic of Kenya, 1992). Out of 741 of the sampled students, 250 students (33.7%)

were selected from Kiambu, 97 students (13.1%) from Kajiado, and 394 students (53.2%) from Machakos. Finally, 152 teachers who taught the Form IV students of 1990 that is, 101 males (70.4%) and 45 females (27.6%) and 22 headmasters/headmistresses participated that is, 12 males (54.5%) and 10 females (45.5%) participated in this study.

DATA ANALYSIS AND INTERPRETATION

The main data analysis technique used in this study is the chi-square test technique. The chi-square test is used to determine whether two or more sets of observed frequencies differ significantly. For instance, the chi-square test is able to indicate whether students from different categories of secondary schools, and students' gender differ in their career and educational aspirations.

Ranking is utilised to indicate the prestige rating of the twenty four occupations used in this study on a five point scale, that is, as having very high prestige, high prestige, average prestige, low prestige or very low prestige. One indicator of prestige position is the proportion of the respondents (among those rating an occupation) giving it either very high prestige, high, average prestige, and so on. Next, the responses of each prestige scale point are assigned arbitrary numerical values where 5 = very high prestige, 4 = high prestige, 3 = average prestige, 2 = low prestige, 1 = very low prestige. The mean scores of these values represent different levels of prestige for each occupation. Thus the occupation with largest mean score rating is assumed to be accorded highest prestige.

FINDINGS

The major findings of the study as they relate to each of the research objectives are now presented. The first research objective was concerned with whether secondary school students of the 8-4-4 system of education attending different categories of secondary schools differed significantly in their preference for salaried employment, self-employment, training for jobs, and pursuit for university education. The results of a chi-square test on students' career and educational preferences classified by type of school attended are presented in table I.

Table 1: SECONDARY SCHOOL STUDENTS' CAREER AND EDUCATIONAL PREFERENCES BY SCHOOL CATEGORY.(%)

students in Various Categories of schools	Type of Activity preferred				
	Salaried Employ- ment	Self- Employ- ment	Train for a job	Go to Univer- sity	Others
National(N-75)	2.5	1.3	4.0	92.0	0.0
Private (N-195)	6.2	12.8	46.2	34.9	0.0
Public Non- National(N-148)	7.4	7.4	23.7	54.1	1.4
Harambee/ Assisted(N-302)	8.9	12.6	41.4	36.4	0.7
Total Sample(N-720)	7.2	10.4	36.4	45.4	0.6

$\chi^2=106.5$ 120.D.F. P<0.01 (Critical Value $\chi^2=36.29$)

All chi square analyses in this study have been worked from frequencies of each sub-sample and also from the total sample. Although cell frequencies are not shown they can if necessary be worked out using the cell percentages and the relevant sample sizes.

A very large proportion of students particularly those from the national and public non-national schools prefer to go to university (see table 1). Thus, a staggering 92% of the students from the national and more than half the students from the public non-national schools (54.1%) prefer to join university. In contrast, only 34.9% of the students from the private and 36.4% of the Harambee/ Assisted schools prefer to go to University. These results suggest that students' career and educational aspirations are positively related to the quality of schools attended.

The above results concur with those of Somerset (1974: 67-110) which

indicated that students attending different quality secondary schools in Kenya had different career and educational aspirations. His findings revealed that two-thirds of students from well staffed and equipped schools had high educational and career aspirations followed by medium staffed and equipped ones. On the other hand, three-quarters of students from poorly staffed schools did not hope to pursue further education beyond secondary level. Students who attended such schools believed that they would not perform well in the examination at the secondary cycle of education on which further academic education depended.

As shown in table 2, the teachers' career and educational preferences for their students did not mirror those of the students except for the teachers in National Schools who would like their students to go to University (60%) and teachers in Harambee schools who would like their students to train for a job (49.1%).

Table 2. TEACHERS' CAREER AND EDUCATIONAL PREFERENCES FOR THEIR STUDENTS BY SCHOOL CATEGORY (%)

Teachers in various to categories of School	Types of Activity Preferred			
	Salaried Employ- ment	Self Employ- ment	Train for a job	Go to Univer- sity
National(N=15)	13.3	0.0	26.7	60.0
Private(n=42)	16.2	16.7	50.0	16.7
Public				
Non-National (N=39)	28.2	2.6	51.3	17.9
Harambee/ Assisted (N=55)	23.6	23.6	49.1	3.6
Total Sample(N=151)	21.9	13.9	47.7	16.6

$\chi^2 = 34.99$, 90 P., P(0.001). (critical value $\chi^2 = 27.38$)

Thus in spite of the National schools being advantaged in terms of educational facilities to prepare students for self-employment, the teachers like their students prefer university education. This relative advantage is presented in appendices V(a) to V(d).

When asked to indicate whether the 8:4:4 educational system was adequate in preparing students for the world of work, more than half the teacher (55%), irrespective of the category of school in which they taught stated that the system was not adequate in preparing the students for self-employment. On the other hand, 76.4% and 57.1% of the teachers indicated that the 8-4-4 of education had adequately prepared students for job training and university education respectively. The question then is, why is the 8-4-4 system of education regarded as inadequate in preparing students for the world of work and especially self employment.

First, the answer is provided by the fact that only 43.4% of the teachers felt that the syllabus had been adequately covered, while as many as 52.6% were doubtful about the coverage of the syllabus. They felt that the syllabus was too broad to be covered adequately within the prescribed time.

Second, the teachers said that they were handicapped by lack of physical and learning resources to implement the 8-4-4 curriculum, leading to poor coverage of the syllabus. Teachers in this study reported that their schools did not in some cases have as much as 50% of their requirements in terms of laboratories, equipment, and library (see appendices V(b), (c) and (d). Besides lack of material resources these teachers felt inadequate to teach a vocationally biased curriculum because they had only been trained to teach a basically academic curriculum. In fact, only 20% of the teachers out of 152 respondents had been inserviced to implement the 8-4-4 curriculum.

The third reason for failure of schools to train students for self-employment has to do with the fact that the majority of the teachers did not receive adequate help from secondary school inspectors in the mechanics of implementing the curriculum. With the exception of the national schools which had been visited at least five times by the secondary school inspectors since the launching of the 8-4-4 system of education, 90% of the other schools had not been visited at all by July 1990.

Fourth, a high proportion of headteachers (67.5%) felt that the teaching load for their teachers was either "heavy" or "very heavy". Therefore, it is not far-fetched to argue that when teachers are overworked, they may be unable to mark students' work quickly in order to give them feedback so vital in the learning process. Moreover, 72.7% of the headteachers also indicated that the students' workload was "too heavy". In fact the student-respondents (85.2%) concurred with their headteachers on the "heaviness" of their workload.

Fifth, it is unfortunate that with the exception of Agriculture other vocational subjects such as Home Science, Art and Design, Woodwork, Metalwork, Music, Building Construction, Power Mechanics, Electricity, Drawing and Design which were expected to impart self-employment skills into the students as well as positive attitudes towards technical-oriented occupations were not offered by a majority of schools that participated in this study. While Agriculture was taught in 15 out of 22 schools in the study, other vocational subjects were offered as follows: Home/science 9 schools (40.9%) Art and Design 7 schools (31.8%), Woodwork 3 schools (13.6%), Drawing and Design 2 schools (9.1%), Music 2 schools (9.1%), Power Mechanics 1 school (4.5%) and electricity 1 school (4.5%). Regrettably, Metal work and Building Construction were not taught at all. This is likely to be the general state of affairs concerning the teaching of vocational subjects in Kenyan secondary schools, which leads one to wonder whether in reality the 8-4-4 curriculum is vocationally oriented. Sixth, data in table 3 reveal that the involvement of the students in co-curricular activities such as career-related clubs did not influence students positively towards self-employment.

TABLE 3. STUDENTS' CAREER AND EDUCATIONAL PREFERENCES BY CAREER RELATED CLUB STATUS IN SECONDARY SCHOOLS (%)

Career Related Clubs	Type of Activity Preferred				
	Salaried Employment	Self Employment	Train for a Job	Go to University	Others
Present (N=492)	8.1	9.3	33.7	48.4	0.2
Absent (N=219)	4.6	12.8	42.5	38.2	1.4
Total Sample (N=711)	7.2	10.4	36.4	45.4	0.6

$\chi^2 = 14.14$, 4 D.F., $P < 0.05$ (critical value $\chi^2 = 9.49$).

Data in this table suggest that career - related clubs serve to reinforce educational aspirations in the direction of post secondary education. However, preference for university education is decidedly stronger among students in schools with career-related clubs, while preference for training for jobs is slightly stronger among students in schools without such clubs. It is noted that a slightly larger proportion of students (12.8%) from schools with career-related clubs than students without such clubs (9.3%) show a willingness to engage in self-employment. This finding gives credence to a claim by Kipkorir (1971) that career-related activities operating in Kenyan secondary schools do not contribute towards future career goals for students; such clubs are regarded as stop gap operations to keep students busy while they are at school and to be put aside as soon as schooling is completed.

Finally, the presence or absence of career masters in Kenyan secondary schools seems to have little influence on the students' career and educational aspirations. Table 4 carries these results.

TABLE 4. SECONDARY SCHOOL STUDENTS' CAREER AND EDUCATIONAL PREFERENCES BY STATUS OF A CAREER MASTER (%)

Availability of a Career Master	Type of Activity Preferred				
	Salaried Repayment	Self Employment	Train for a Job	Go to University	Others
Available (N=432)	7.0	11.5	35.2	45.9	0.4
Not Available (N=219)	7.4	9.9	36.8	45.2	0.6
Total Sample (N=711)	7.3	10.5	36.3	45.5	0.6

$\chi^2 = 0.675$ 4 D.F., Not significant at 0.05 (critical value $\chi^2 = 9.49$)

Results in this table reveal that about one third of the students did not have a career master which suggests that the Ministry of Education and its institutions do not take the role of a career master seriously. This is unfortunate, for curriculum changes that are not supported by other school programmes, for instance, career guidance programmes cannot be expected to yield the expected educational outcomes. This claim is supported by data in table 4 which reveal that there are not any significant differences between the career and educational preferences of students receiving education in schools with career masters and those without them. A related observation is that very few secondary school teachers (17.6%) ever talked to students about self-employment, an implication that teachers were not enthusiastic about informing students about self-employment undertakings. Alternatively, teachers did not view self-employment as a viable career option for the secondary school leavers.

Factors that Hindered Students from Undertaking Self-Employment

The foregoing discussion suggests that the majority of students and their teachers did not appreciate the role of the 8-4-4 curriculum in job creation through self-employment ventures. They also found the 8-4-4 curriculum over-burdening and this seemed to have been aggravated by the fact that schools were inadequately provided for in material and human resources for the implementation of the 8-4-4 curriculum. It is not surprising then that the 8-4-4 curriculum could not accomplish many of its stipulated goals at secondary level. The 8-4-4 system of education seems to have fallen short with respect to preparing and orienting students for the world work. In particular preparation of the students for self-employment as an important objective of the 8-4-4 system of education as it would have benefited most students whose education would terminate at this level, was inadequate. Indeed lack of sufficient skills and lack of capital are prominent factors in influencing students not to take up self-employment (see table 5).

Table 5. REASONS PREVENTING SECONDARY SCHOOL STUDENTS FROM ENGAGING IN SELF-EMPLOYMENT (%)

School Category	Reasons Hindering Self-Employment			
	Lack of capital	Insufficient skills	Risky business	Others
National (N=49)	46.9	26.5	8.2	18.4
Private (N=150)	26.0	45.3	13.7	15.0
Public				
Non-National(N=113)	57.2	32.6	6.2	23.0
Harambee!				
Assisted (N=255)	35.6	33.8	12.9	17.6
Total Sample (N=537)	34.3	36.3	10.4	19.0

$\chi^2=15.80$, 9 D.F. not significant at 0.05 (Critical value $\chi^2=15.51$)

Since insufficient skills are cited as the biggest obstacle to starting self-employment, the implication is that the 8-4-4 curriculum appear not to be fulfilling its major objective of giving sufficient skills to secondary school students for subsequent self-employment. Other reasons that seem to hinder students from engaging in self-employment include a desire to pursue university education and to train for jobs. In addition, students felt that they were too young to engage in the competitive world of self-employment or personal business.

The 8-4-4 curriculum has failed to instil positive attitudes into students about farming even though 68.2% of the schools in the study taught it. This is also in spite of the fact that 64.7% of the student-respondents ranked Agriculture first in its capability to prepare students for self-employment. The majority of students (70%) also reported that farming was less profitable than office work.

However, students' assessment of unprofitability of farming vis-a-vis office work should not come as a surprise when it is considered that 69.7% of the students reported that their parents land ranged between less than one hectare to ten hectares. This may mean that students do not see farming as a viable source of income due to the limited available land for farming. As shown in Table 6, most national and public non-national secondary schools' students aspire to enter administrative and professional occupations, while a fairly large proportion of students from Harambee/Assisted and Private schools aspire to enter clerical jobs. The table also shows that unskilled, semi-skilled, and artisan related jobs are unpopular among all the students irrespective of the category of secondary school attended. This suggests that the 8-4-4 curriculum has not positively oriented students towards technical and manual related occupations.

TABLE 6: OCCUPATIONS PREFERRED BY SECONDARY SCHOOL STUDENTS BY SCHOOL CATEGORY:

Occupations Aspired to

School Category	Unskilled Work	Semi-skilled	Artisan Jobs	Clerical	Administrative	Professionals	others
National(N=70)	2.9	0.0	1.7	12.9	7.1	75.7	0.0
Private(N=133)	2.6	6.2	4.7	25.9	14.0	44.6	1.0
Public Non-Mutual(N=142)	2.8	3.5	2.1	21.1	15.5	54.9	0.0
Public Mutual(N=296)	2.0	3.4	2.2	36.6	13.0	38.1	0.0
Total Sample	2.7	5.5	2.0	28.3	13.2	47.0	0.3

$r^2 = 54.71$, 13 D.F., $P < 0.001$ (Critical Value $r^2 = 42.31$)

Gender and Students' Career and Educational Aspirations

Having analysed the influence of the quality of schools and their non-formal activities on students' career aspirations, attention now shifts to the main focus of this study, that is, an investigation of the relationship between the gender and career and educational aspirations of secondary school students. The objective is to establish whether male and female students undergoing the 8-4-2 curriculum are similar in their career and educational aspirations. Table 7 contains the pertinent results.

TABLE 7: CAREER AND EDUCATIONAL PREFERENCES OF MALE AND FEMALES AT SECONDARY LEVEL (%)

Activity preferred.

Gender	Skilled Employment	Self Employment	Train for a job	Go to University	Others
Male (N=161)	7.5	12.3	33.5	46.8	0.2
Female (N=224)	7.1	6.3	42.5	42.4	1.3
Total (N=381)	7.2	10.4	36.4	45.4	0.6

$\chi^2 = 149.408$, P < 0.01 (Critical Value $\chi^2 = 12.591$)

More males (19.6%) than females (13.4%) prefer to immediately go to the world of work (see table 7). Nonetheless, a much larger proportion of the female students (42.5%) than male students (33.5%) desire to train for jobs. Additionally, slightly larger proportion of males (46.8%) than females (42.4%) prefer to join university.

More information about the students' career and educational preferences (males and females) were obtained by cross-tabulating their career and educational preferences by the type of school attended. These results are presented in table 8.

Table 8. CAREER AND EDUCATIONAL PREFERENCES OF SECONDARY SCHOOL STUDENTS BY SCHOOL TYPE (%)

Type of Activity Preferred

School Type	Skilled Employment	Self Employment	Train for a job	University	Others
All Female (N=84)	1.2	1.2	19.0	77.4	1.2
All male (N=146)	6.2	3.0	25.3	66.2	0.0
Cross-educational (N=199)	2.4	12.5	42.5	36.2	0.0
Total Sample (N=329)	3.2	10.4	32.3	45.5	0.6

$\chi^2 = 71.22$, 8DF, P < 0.001 (Critical value $\chi^2 = 26.121$) Jan 85

Seventy-seven percent of the girls who attend all female schools prefer joining the university, compared to 58.2% of the boys who attend all male schools. The case of career and educational preferences of students who attend co-educational schools is an interesting one. In these mixed gender secondary schools, only 36.2% of the students prefer to enter the university while 42.5% prefer to train for a job. Overall, the results show that a relatively large number of students from co-educational secondary schools prefer joining the world of employment immediately they complete schooling.

The explanation for the reduced career and educational aspirations for university education for students in mixed secondary schools can be attributed to a number of factors. First, most of the mixed secondary schools are Harambee/Assisted schools and these schools are ill-equipped and staffed. Second, these schools are day-schools and in addition they admit students from local environments. These students normally walk daily to and from school. Thus the students use a lot of time commuting from home to school and back which could otherwise be used on school work. Indeed, this study has established that relatively more students who are boarders (51.3%) than day scholars (35.8%) wished to pursue university education. On the other hand, a bigger proportion of day scholars (42%) than boarders (33%) preferred to train for jobs.

Third, mixed secondary schools admit their students after government maintained schools have selected students with best performance from primary schools. This means that mixed secondary schools recruit students who have not done very well at Kenya Certificate of Primary Examination. The learning environment at school for these students is further handicapped by lack of learning facilities, equipment, and qualified staff.

Finally, secondary school students are in a critical period of their adolescent stage of development. During this phase youth of both sexes are strongly attracted to each other. The close proximity of the two sexes in co-educational secondary schools accompanied by strong sexual attraction to each other could easily detract these students from their studies.

But while the career and educational aspirations of secondary school male students attending co-educational schools are low relative

to their counterparts in all male secondary schools, those of female students in such schools are more severely depressed. Table 9 presents the relevant findings.

Table 9: CAREER AND EDUCATIONAL ASPIRATIONS OF MALES AND FEMALES IN MIXED SECONDARY SCHOOLS (%)

Gender of Students	Type of Activity Preferred				
	Selected Employment	Self-Employment	Train for a job	Go to University	Others
Males (n=38)	7.3	1.3	38.7	38.7	0.3
Females (n=31)	3.3	18.1	50.3	21.1	1.2
Total (N=69)	5.4	12.3	42.5	36.2	0.5

Sample $\chi^2 = 10.19$, $df = 4$, $P < 0.05$ (critical value $\chi^2 = 9.49$)

In mixed secondary schools results show that more females than males prefer to go into job training. In these schools the attraction to join job training is stronger among females (50.3%) than among males (38.7%). Alternatively, fewer females (21.1%) than males (38.7%) in such schools aspire to pursue university education.

The career and educational aspirations of female students in mixed secondary schools are extremely low when compared to those of their counterparts in all female secondary schools (see table 9). This conclusion is supported by the data in table 8. While the career and educational aspirations of female students in all-female secondary schools are higher than those of male students in all-male schools, those of female students fall far below those of their male counterparts in co-educational schools. A possible explanation for the extremely low career and educational aspirations for female students relative to those of their male counterparts in mixed schools is that, while both male and female students live at home at the end of the school day, female

students have less time to study in the evenings, because girls are often called upon to help with home chores, particularly kitchen work. Since female students are aware that they have not put adequate time into their school work to be able to pass well for university admission, few of them aspire to join the university. From the results in table 9 it would appear that co-education is counter-productive particularly for female students.

Further insights into the occupational preferences of male and female students were obtained when they were asked to indicate the specific occupations they desired most (see Appendix IV Job Categories). As shown in table 10, the results indicate significant differences between occupations aspired to by male and female students.

Table 10. OCCUPATIONS ASPIRED TO BY MALE AND FEMALE SECONDARY SCHOOL STUDENTS (%)

Types of Occupations Aspired to

Gender	Unskilled work	Semi-skilled	Artisan work	clerical jobs	Administrative	Professional	Other
Male (N=486)	9.1	6.7	9.5	19.4	14.1	52.4	0.4
Female (N=214)	0.9	2.8	1.9	48.6	11.2	34.6	6.9

Total

sample (N=704): $\chi^2 = 44.31$, $p < 0.001$ (critical value = 23.46)

It is clear from table 10 that the leading job preference of female students are clerical jobs (48.6%). Only 19.4% of the male students prefer clerical jobs. At the same time while the majority of male students (52.4%) aspire to become professionals, only 34.6% of female students prefer the same. As it is to be expected more male students than their female colleagues prefer manual jobs which are designated as either unskilled, semi-skilled or artisan. Although this observation is correct, it is important to stress that male students who

aspire to these jobs are extremely few. A related observation is that the so-called practically oriented 8-4-4 curriculum seems to have done little to alter the strong dislike for manual occupations by both male and female students.

Finally, additional information about the occupations preferred by male and female students in secondary schools was obtained when students were requested to assign prestige ratings to a list of twenty-four occupations which are generally held by Kenyans in the labour force. The results that emerged indicate that there are marked differences in occupational prestige ratings among male and female students. Table 11 presents these findings.

Table 11: STUDENT RANKING OF TWENTY FOUR OCCUPATIONS BY MALE AND FEMALE STUDENTS OF 8-4-4 SYSTEM OF EDUCATION*

RANK ORDER

	Males			Females		
	Mean score	std. Deviation	Rank	Mean score	std. Deviation	Rank
Pastor	2.9	1.63	9	2.9	1.28	10
Lawyer	4.3	0.94	1	4.01	1.19	1
Politician	2.7	1.15	10	3.0	1.21	9
Artist	2.7	1.04	10	2.7	1.13	11
Chef/Caterers	2.6	1.02	11	3.0	1.16	9
Carpenter	2.3	1.05	13	2.5	1.17	13
Clerk	3.2	1.07	6	3.0	1.05	9
Chief	3.1	1.04	7	2.9	1.16	10
Barber	3.0	1.13	8	3.1	1.32	8
Secretary	3.1	1.03	7	3.5	1.08	4
Farm manager	3.6	1.00	3	3.4	1.07	5
Motorist						
mechanic	3.2	1.09	6	3.0	1.15	9
University lecturer	4.3	1.07	1	4.0	1.35	1
Soldier	3.1	1.20	7	3.2	1.16	7
volly trader	2.5	1.05	12	2.6	1.15	12
Secondary teacher	3.1	1.00	7	3.1	1.06	6
Politician	3.5	1.30	4	3.2	1.07	7
Nurse	3.1	1.08	7	3.7	1.45	3
Farm worker	2.2	1.23	14	2.6	1.21	12
businessman	3.4	1.09	5	3.3	1.16	5
Medical						
doctor	4.3	1.06	2	4.0	1.35	1
Engineer	4.2	1.07	2	3.8	1.36	2
Janitor						
worker	2.2	1.23	14	2.5	1.34	14
Domestic worker	1.4	0.89	15	1.8	1.35	15

* the ranking procedure is explained in the section on data analysis and interpretation.

Notice that the occupation of nursing, secretary and chef/cateress are better rated by females than males while males rate the jobs of the politician, motor-mechanic and chief markedly better than female students. The well rated jobs of nursing, secretary, teaching, and chef/cateress by female students are traditionally the "preserve" of females, while those of the politician, motor mechanic, businessman and chief are occupations that mainly attract men. The gender difference in prestige ranking of a politician's job is a pointer to the fact that there are more men in politics than women. Women are expected by the society to be wives or supporters of men in politics rather than being directly involved in politics. Even when they get elected to go to parliament by popular vote, the male dominated Kenyan parliament has not upto now assigned any woman a full ministerial responsibility. So far a woman member of parliament who has been "picked" for an assistant ministerial post in Kenya has been usually assigned a job in the Ministry of Culture and Social Services which is not deemed to be as prestigious as, say, Ministry of Finance or Education or Defence, just to name a few.

The most lowly rated jobs by both male and female students are those of the chef/cateress, pastor, policeman, artisan, petty trader, carpenter, farm worker, jua Kali worker and domestic worker. All these jobs tend to be poorly remunerated.

The jobs of the secondary school teacher, clerk, chief, and soldier are fairly well rated by both sexes although those of a clerk and chief are better rated by males than by female students while the latter rate secondary school teacher better.

Contrary, to the common belief, the Kenyan farmer is not at the bottom of the prestige hierarchy. The results in table 11 indicate that the farmer is ranked eighth which is higher than that assigned to the policeman, the artisan, the carpenter, the pastor, and the chef/cateress by both male and female students. It is also ranked higher than the occupation of a motor-mechanic, clerk, and chief by female students. It should however, be noted that the farmer, who by and large owns the land, is ranked lower than the farm manager. The farm manager who is usually charged with the responsibility of managing large coffee, tea, sugarcane, and orchard estates has been given extremely good

prestige rating. Male students have rated the occupation of the farm manager third while females have rated it fifth. Strikingly, though, the job of a farm worker has been poorly rated by both sexes, that is, fourteenth by males and twelfth by female students.

The fact that the occupations of the farmer and that of the farm worker have been rated far lower than the occupation of a farm manager may be an indication that students are more willing to be involved in the administration of farming activities rather than being involved in the actual farming activities.

As expected male and female students have concurred in assigning high prestige ratings to the occupations of the lawyer and a university lecturer. Other highly rated occupations by both male and female students are those of engineers and medical doctors. It is important to note that these occupations require a minimum of a relevant university degree. These occupations are also very well remunerated.

In summary there are differences as well as similarities in occupational prestige ratings by male and female students. Both sexes have rated professional occupations extremely well. However, the traditionally "preserved" occupations for females such as nursing, teaching, catering, and secretarial work have been better rated by females. Male students on the other hand have assigned more favourable ratings to artisan, chief, and motor mechanic jobs when compared to their female counterparts.

The next section analyses the influence parental socio-economic status (fathers' and mothers') on their children's career and educational aspirations.

The influence of Socioeconomic status on Students' Career and Educational Aspirations

Differences in the career and educational aspirations of male and female students suggest that the fathers' and mothers' socio-economic status (SES) may also influence their children's career and educational aspirations differently. Earlier findings on this subject by scholars such as Kraus (1964) and Parolko (1971) had revealed that fathers on the whole have stronger influences on their children's career and educational aspirations. Table 12 presents data on fathers' influences on their children while table 13 carries information on mothers'

influences on the same.

Table 12: STUDENTS' CAREER AND EDUCATIONAL PREFERENCES BY FATHERS' SES %

Fathers' SES	Preferred Activity				
	Salaried employment	Self employment	Train for a job	Go to university	Others
Low (N=284)	6.7	10.2	43.1	39.6	0.4
Middle (N=290)	8.6	16.3	37.6	42.8	0.7
High (N=113)	5.3	7.1	20.4	66.4	0.9
Total sample (N=687)	7.3	9.8	37.0	45.0	0.6

$\chi^2 = 28.15$ D.F. 5 $P < 0.001$ (Critical value $\chi^2 = 15.51$)

The results in table 12 show that about two thirds (66.4%) of the students whose fathers are in high SES prefer to obtain university education compared to 42.8% of the students whose fathers were in middle SES and 39.6% in low SES. Similarly, students' job training preference is negatively related to fathers' SES. In other words as the fathers' SES increases students' preference for job training declines. Lastly, table 12 reveals that very few students with fathers in high SES desire immediate salaried employment or entry into self employment relative to students with fathers in middle and low SES categories.

The relationship between mothers' and students' career and educational preferences is considered next.

Table 13. STUDENTS' CAREER AND EDUCATIONAL PREFERENCES BY MOTHERS' SES (%)

Preferred Activity	Mothers' SES				
	Salaried Employment	Self Employment	Train for a job	Go to University	Others
Low (N=409)	7.8	11.2	42.5	39.1	0.2
Middle (N=219)	8.2	8.2	24.8	52.9	0.5
High (N=50)	0.0	8.0	20.0	72.0	0.0
Total sample (N=678)	7.4	10.5	30.4	45.4	0.3

$\chi^2 = 35.37$ 80 D.F. $P < 0.001$ (Critical value = $\chi^2 = 26.12$)

When one compares students having mothers in high SES, with those of fathers it appears that their preferences for university education are very pronounced. Furthermore, a large number of students with mothers in middle and high SES prefer university education to job training, self-employment, and salaried employment. The need to train for jobs or join salaried employment or to go into self-employment appear to be for those students whose mothers are in low SES. Over three-fifths (61.5%) of students with mothers in low SES opted for these career alternatives. The great influence that mothers in middle and high SES have more influence on their children's career and educational aspirations than fathers in similar statuses was quite unexpected. The phenomenon therefore requires more investigation. Do mothers in Kenya with the comparable socio-economic statuses with fathers have more influence on their children's career and educational aspirations because they interact more with their children in the evenings while fathers are out there in places of leisure? Could it be that the improved socio-economic status of women neutralize the patriarchal family structures in which men are considered superior to women as material providers and sources of inspiration, and therefore

ideal models for the children? All the same it should be observed that secondary school students of the 8-4-4 system of education have extremely high educational aspirations, irrespective of whether such aspirations are influenced by fathers' or mothers' SES. In each case well over 81% of the students aspired to obtain education beyond the secondary level.

Students' Reasons for their Educational Aspirations

When secondary school students were requested to explain why they desired to acquire a particular level of education, the results that emerged revealed that obtaining a good job was the leading response for the majority of the students. Table 14 presents these findings.

Table 14. STUDENTS' REASONS FOR ASPIRING FOR SPECIFIC LEVEL OF EDUCATION (%)

Level of Education	Reasons for Aspired Level of Education						
	Success and Prestige	Good Job	Acquire Knowledge	Support Family	Build Nation	Not able to Achieve more Education	Others
Form (N=59)	0.0	21.4	21.4	17.3	8.3	10.7	19.8
Post Sec. Diploma (N=107)	7.5	37.4	20.6	4.8	6.5	9.3	14.0
University Degree (N=205)	12.3	55.1	21.8	4.2	1.4	0.4	4.9
Master Degree (N=116)	15.5	44.0	24.1	3.4	6.9	0.0	6.0
Doctorate Degree (N=157)	18.5	36.3	22.9	5.1	12.7	0.6	5.8
Total Sample (N=725)	12.5	46.0	22.2	5.4	6.1	2.5	11.3

$\chi^2 = 132.96$, 24 D.F. $P < 0.01$ (Critical value $\chi^2 = 51.18$)

Students aspire for a particular level of education mainly because they feel that it can guarantee them a good job. For instance, 44% of the total student sample subscribes to this view. It is clear

that gaining a good job was the leading response of the students across the board of various levels of education except for those who aspire to terminate schooling in Form IV where there is a tie between "Good Job" and Acquire Knowledge". The mention of success and prestige is related to the idea of a good job. The next factor cited as underlying students' educational aspirations is the desire to acquire more knowledge. Around one-fifth of the students, irrespective of their level of educational aspirations mentioned out this reason.

Other reasons that may influence the students' educational goals such as support for the family and service to the nation are apparently less important to them. A sizeable proportion (17.9%) of students who do not aspire to more education beyond Form IV are motivated by support for the family, while a good proportion (12.7%) of those who aspire for doctorate degree are motivated by notion of service to the country or nation. Nevertheless, these reasons are not that important in the minds of the students studied.

In summary it can be said that prospects of good careers and the success and prestige associated with them are the most important factors in students' decisions concerning desired levels of education. Another important factor is the acquisition of more knowledge, a reason which may in fact be related to good performance in an important and prestigious occupation.

CONCLUSIONS

On basis of the research findings presented here above the following conclusions can be made:

First, the present research findings have failed to support the hypothesis that the 8-4-4 educational curriculum with its emphasis on vocational and agricultural subjects has oriented students positively towards self-employment pursuits. Apparently school curriculum reforms cannot by themselves be expected to enhance students' liking for blue collar occupations including self-employment. Thus in spite of the introduction of the 8-4-4 system, students continue to prefer occupations that are secure and well remunerated. Unfortunately, the students do not accept that self employment would generate enough income for them.

Second, the study has found evidence to support the view that

8-4-4 curriculum has not reduced the students' (male and female) preference for job training and university education relative to entering salaried employment immediately on completion of the secondary education cycle. In fact salaried jobs are hardly available and secondary school students know that this level of education is not sufficient to help them acquire salaried jobs immediately. They are equally aware that many students with post secondary diplomas and even university degrees are jobless. A situation like this only heightens the quest of certification in the hope that those with highest educational qualifications will get the few available jobs. Third, the results of this study provide evidence to support the hypothesis that secondary school students have a persistent desire for either university education or training for a job. By implication, therefore, the 8-4-4 curriculum does not seem to have prepared and oriented students to feel that they have acquired sufficient knowledge and skills to either join salaried jobs or self-employment. It does not also seem to have succeeded in lowering or making more realistic students' career and educational aspirations.

Fourth, secondary school students attending different categories of secondary schools have different career and educational aspirations. A large proportion of students from good quality schools preferred to pursue university education and also desired to enter professional careers. By implication therefore, these students see the 8-4-4 curriculum as a means to gain admission to university and not as an immediate preparation for the world of work. Even the majority of students in poor quality schools do not anticipate to enter the world of work on completion of secondary cycle of education. Instead, they prefer to join job training programmes as well as entering clerical occupations.

Fifth, male and female students have displayed different educational and occupational aspirations. Traditional gender role differentiation remains crucial in spite of the intention of the 8-4-4 curriculum formulators and planners to narrow the gender gap in occupational and educational aspirations. On the whole males have higher career and educational aspirations than the female counterparts. However, it is noted that the female students educated in all-female and quality secondary schools manifest higher educational and career

aspirations than their male counterparts. These findings strongly suggest that when female students are given quality education comparable to those of their male counterparts, they manifest higher career and educational goals. It should also be noted that well educated mothers seem to have more influence on their children's career and educational aspirations than do fathers of comparable socio-economic statuses. By implication, therefore, investment in good quality education for girls as future mothers would have multiplier effect for the whole society.

Finally, occupations which require at least a university degree are extremely well rated by both sexes. Nonetheless, the traditionally "preserved" jobs for women such as nursing, catering, teaching, and secretarial work are better rated by women students. The poorly remunerated jobs of a domestic worker, farm labourer, jua Kali worker, and petty trader are also poorly rated by both sexes.

RECOMMENDATIONS

A number of recommendations arise from the findings and conclusions. First, the 8-4-4 curriculum seems to have been too ambitious in its goals of preparing students for self-employment and salaried employment. The goals are unrealistic unless students are given post-secondary job training and in some cases higher education. Consequently, students have expressed preference for job training or university education, which implies that students do not feel well prepared either to enter salaried employment or self-employment. It would appear, therefore, that secondary education should mainly concentrate on academic learning which should be followed by post secondary vocational training. Thus more post-secondary institutions should be set up for this purpose.

Second, some 36.3% of the students in the study indicated that they did not have sufficient skills to handle self-employment. It follows that short courses and on-the-job training should be given to the individuals who find themselves in self-employment ventures.

Third, the government should set aside funds for lending at concessionary interest rates to school leavers to enable them start self-employment undertakings. In fact 34.3% of the students felt that

lack of funds was an impediment to embarking on self-employment ventures. The majority of students (69.7%) come from large and peasant families. These parents are not able to finance their children to enable them take up self-employment ventures.

Fourth, if self-employment is seen as the key to job creation in Kenya by curriculum formulators and policy makers, the Government should give more support to this sector. To this end the government can enact laws to protect individuals in it from "unwarranted harassment from the law enforcing agencies" and from foreign produced goods' competition. This kind of protection can help individuals in the sector to earn "reasonable" incomes for their upkeep and for expansion of their businesses.

Fifth, the self-employment sector should not be a phrase being associated with unskilled workers and "academic failures". Efforts should therefore be made to attract bright individuals and professionals into self employment ventures in order to positively change the image of self-employment. The working conditions in the self-employment sector must continually be improved to remove the negative image of harsh working conditions.

Sixth, a conscious effort should be made to educate society at large about self-employment. Those who participated in this study in general had negative attitudes towards self-employment. And since the overwhelming majority of secondary school students did not aspire to engage in self-employment, it can be hypothesized that parents have negatively shaped their children's attitudes toward self-employment. Instead they appear to have encouraged their children to train for jobs or join university.

Seventh, adequate human and physical resources should be provided to all secondary schools to give every student an opportunity to learn as much as possible, if the 8-4-4 is to be taken seriously. This would prevent the 8-4-4 curriculum from being viewed as meant for students attending poorly equipped and staffed schools. Past examination performance of students at Kenya Certificate of Secondary Education (K.C.S.E) has shown that the majority of students who pass well enough to be admitted to public universities and other post secondary institutions come from well equipped and staffed secondary schools. In fact as it is now, the 8-4-4 curriculum which is said to be

practically oriented is being taught theoretically due to lack of physical and learning resources. Indeed, subjects which are expected to impart self-employment skills like woodwork, metal work, building construction, power mechanics, art and design, home science, and drawing and design in most cases are not offered in schools due to lack of human and material resources. Because of lack of adequate human and material resources to implement a vocationally biased curriculum, are lacking it is futile to expect students to graduate from secondary schools with the employment and self-employment skills.

Eighth, a conscious effort should be made by Kenya Government to provide quality education to female students. This recommendation is made in the view of the finding that girls educated in quality and single-sexed secondary schools have very high career and educational aspirations. Female students do not have inherent low career and educational aspirations, rather they end up being so because they are marginalised in the provision of educational opportunities relative to male students.

Finally, in order to ensure that the 3-4-1 curriculum is adequately covered, the number of subjects done in forms III and IV should be reduced to seven. As a recognition that the curriculum has been too broad leading to poor coverage, The Kenya National Examination Council has lately reduced the examinable subjects for Kenya Certificate of Secondary Examination for 1993 candidates from ten to eight subjects (See appendix VI). The rationale for recommending the reduction of examinable subjects at KCSE from eight to seven is that this reduction would provide additional time for in depth study of languages and mathematic subjects. There is evidence that proper mastery of these two subjects is a prerequisite to effective acquisition of knowledge and skills in other fields.

APPENDIX I

CATEGORIES OF SECONDARY SCHOOLS

Maintained secondary schools are those schools that receive grants from the Ministry of Education or the local government for current and capital development. The government also pays all the teacher as well as the support staff. Usually, these schools are staffed by the best teachers in the Republic. They also admit the best students.

Maintained secondary schools fall into two categories that is, the national secondary schools that admit the best students from all over the Republic and Public non-national/ Provincial ones which admit students mainly from one province.

Assisted secondary schools are schools that receive financial assistance from the government towards the payment of an agreed percentage of the teachers salaries. The finance for the running of the school and for capital development is contributed by the parents whose children attend these schools. Assisted secondary schools select students after the maintained secondary schools have done their selection.

Harambee secondary schools are built on a self-help basis by the parents of the community or other organizations. The government has very little say in the running and development of harambee secondary schools. These schools are registered by the Ministry of Education. The schools have few teachers and the majority of them if not all, are untrained. Harambee secondary schools are relatively non-selective in their admission of students. Thus in general, they admit any student who can pay appropriate fees.

Private secondary schools are registered with the Attorney General's office and are managed by private individuals or organizations mainly on commercial basis. The Ministry of Education has very little control on the running of these schools. By and large these schools are not selective in the admission of pupils. They take students who are able to pay the high fees.

APPENDIX II

SUBJECT DONE BY STUDENTS IN FORM I AND II IN KENYAN SECONDARY SCHOOLS:

- I English
- II Kiswahili
- III Mathematics
- IV Physical Sciences
- V Biological Sciences
- VI Geography
- VII History & Government
- VIII Religious Education
- IX Agriculture
- X One Subject from * Home Science * Industrial Education *
Business Education
- XI One subject from: * Music * Art
- XII Social Education and Ethics
- XIII Physical Education Optional
- XIV A foreign language.

APPENDIX III

KENYA CERTIFICATE OF SECONDARY EDUCATION:

SUBJECTS AND THEIR GROUPINGS: DONE IN FORMS III AND IV (1989-92)

Group I subjects

.English .Kiswahili .History and Government .Geography
 .Mathematics and combinations of : either Biology, Physics, and
 Chemistry or Physical Sciences and Biological Sciences.

From group II which comprises:

.Christian Religious Education .Islamic Education .Social
 Education and Ethics. A student must choose one Subject.

From group III and IV: A student must choose one subject if he is
 doing Biology, Physics and Chemistry. On the other hand if a student
 is doing Biological Sciences and Physical Sciences, he must choose a
 subject from group IV subjects.

Group III has the following subjects:

.Home Science .Art and Design .Agriculture .Woodwork
 .Metalwork .Building Construction .Power Mechanics
 .Electricity .Drawing and Design

Group IV subjects are: .French .German .Music
 .Accounting .Commerce .Economics .Typewriting with Office
 Practice.

APPENDIX IV

JOBS FALLING UNDER MAJOR OCCUPATIONAL CATEGORIES

UNSKILLED AND MANUAL LABOURERS

Peasant, Unemployed, Labourers, Gardeners, Cooks, Orderlies, Office Messengers, Security Guards, Waiters, Petty Traders etc.

SEMI-SKILLED WORKERS

Train drivers, Automobile drivers, boilermakers, Fitters, Miners, Forestry workers, Brick layers, Plumbers, Maintenance workers, Small scale builders, Laboratory attendants, Policemen, Prison warders, Firemen, Soldiers, Typist, Card punch, machine operators and fishermen etc.

ARTISAN AND RELATED SKILLED WORKERS

Technicians, Artisans, Technologists, Assayer, Draughtsman, Radiographer, Forestry ranger, Auto-mechanical, Electrician, Nutritionist, Radio and T.V. Technicians, Hostel chefs etc.

CLERICAL, SERVICE AND RELATED SKILLED WORKERS

Clerical officers, Junior executives officers, Customs officers, Community service workers, Library Assistants, Journalists, Salesmen, Nurses, Medical Assistants, Teachers, Cashiers, Statistical officers, Bank clerks, Book keepers, Stenographers, Secretaries etc.

ADMINISTRATIVE AND RELATED WORKERS

Executive officers, Sales representatives, Whole sale and Retail proprietors, Commercial farmers, Assistant Registrar, Assistant Secretary, Hospital Administrators, College and Secondary school administrators, Prosecutors Assistant, Magistrates, Inspector of schools, Hotel Managers etc.

PROFESSIONALS

District Commissioners, Under Secretary, Deputy Registrar, Members of Parliament, Major General, Brigadier General, Commissioner of police, Engineers, Accountants, Surveyors, Medical Doctors, Scientists,

Lawyers, Judges, Solicitors, Accounts, Lecturers, Dentists, Pharmacists, Provincial commissioners, Permanent secretary, Librarian, Registrar, Geologist, Chemist, Botanist, Army commander, Inspector, General of Police, Cabinet Ministers, Veterinarian, Computer analyst etc.

APPENDIX V

HUMAN AND MATERIAL RESOURCES IN KENYA'S SECONDARY SCHOOL BY SCHOOL CATEGORY

Visi	M.RD	B.PD	B.A	DIPLOMA	FORM VI	FORM IV
TSACHRR QUALIFICATIONS(%)						
School category National(N=15)	26.0	66.7	6.7	6.7	0.0	0.0
Private(N=40)	10.0	35.0	7.7	7.5	25.0	12.5
Public Non National(N=35)	26.6	43.6	0.0	15.4	5.1	2.6
Herumbee Assisted(N=54)	22.2	13.0	10.0	40.7	7.4	16.7
Total sample(N=148)	19.6	32.4	5.4	9.5	23.0	10.1

$\chi^2 = 55.3, 15 D.F., P < 0.001$ (Critical value $\chi^2 = 37.70$)

V(b) LABORATORIES

	Very Adequate (%)	Adequate (%)	Inadequate (%)
School category			
National N=15	33.3	53.3	13.3
Private N=41	12.2	68.3	19.5
Non-National N=39	0.0	48.7	15.3
Assisted N=55	0.0	23.6	76.4

Total sample N=150 (6.745.48.0)

$\chi^2 = 55.6, 6 D.F., P < 0.001$ (Critical value $\chi^2 = 16.81$)

V(c) ADEQUACY OF EQUIPMENT

School category	Very Adequate	Adequate	Inadequate
	%	%	%
National: N=15	20.0	46.0	40.0
Private: N=33	20.6	59.0	38.5
Public: Non-National: N=39	0.0	46.2	55.8
Harambee/ Assisted: N=54	1.9	22.2	75.9
Total sample: N=149	3.4	40.1	56.5

$\chi^2 = 23.99$, 6 D.F., $P < 0.01$ (Critical value $\chi^2 = 22.46$)

V(d)

Library Facilities (%)

School Category	Available	Not Available
National (N=15)	100.0	0.0
Private (N=42)	71.0	28.5
Public: Non-National (N=39)	41.0	59.0
Harambee/ Assisted (N=55)	25.0	75.0
Total sample (N=150)	49.3	50.7

$\chi^2 = 44.7$, 3 D.F., $P < 0.001$ (Critical value $\chi^2 = 16.27$)

APPENDIX VI : THE KENYA NATIONAL EXAMINATION COUNCIL

1993 Kenya Certificate of Education (KCSE) Regulations and Syllabus:

Subjects to be offered for the examination.

Group 1 Compulsory Subjects

- . English
- . Kiswahili
- . Mathematics

Group 2 Subjects

- . Biology
- . Physics
- . Chemistry
- . Physical Science] should not be taken either with Biological

science]

Biology, Physics and Chemistry.

Group 3 subjects: Only one subject to be taken

- . History and Government
- . Geography
- . Christian Religious Education
- . Islamic Education
- . Social Education and Ethics
- . Hindu Religious Education.

Group 4 subjects: Only one subject to be taken.

- . Home science
- . Art and design
- . Agriculture
- . Woodwork
- . Metal work
- . Building Construction
- . Power Mechanics
- . Electricity and Design
- . Aviation Technology.

Group 5: only one subject to be done

- . French
- . German
- . Arabic
- . Music
- . Accounting
- . Commerce
- . Economics
- . Typewriting with office practice.

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