

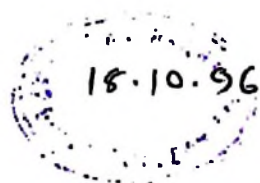
**THE ACADEMIC PERFORMANCE OF CO-EDUCATIONAL AND  
SINGLE-SEX AGRICULTURAL SECONDARY  
SCHOOLS IN TANZANIA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT  
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**ABSTRACT**

The co-education system in Tanzania has been criticized as being ineffective in up-bringing students at secondary school level. The criticisms have centered on poor academic performance of co-educational schools in Certificate of Secondary Education Examination (CSEE) when compared to single-sex secondary schools.

This study, therefore, sought to determine the differences in the academic performance between single-sex and co-educational secondary schools and subsequently suggesting ways of improving their academic performance.

Data were collected firstly from documents of National Form Four Examination results between 1989 to 1993 from the Ministry of Education and Culture, National Examination Council of Tanzania and sampled schools. Secondly, interviews were conducted to 120 students, 60 teachers and 12 heads in twelve agricultural boarding secondary schools. Thirdly, a checklist was used to observe activities done in those schools. Data from each source were analysed by using Personal Computer facilities at Sokoine University of Agriculture.

The study found that there were differences in the academic performance between seminaries, girls' and co-educational secondary schools. Similar differences were found between boys' only, girls' only and co-educational secondary schools. The study,

however, failed to establish significant differences in the academic performance between seminaries and boys' only secondary schools at national level, and between girls' only and co-educational secondary schools at sample level.

Both boys and girls were found to be more committed to academic work when in single-sex secondary schools. However, when mixed together in co-educational secondary schools, girls were found to be more affected academically and socially than boys.

Adolescence problems, differential social and disciplinary control, sub-standard composition of teaching staff, inadequate recreational and out-of-school activities, lack of trained student counsellors and weak administration in schools were found to affect the academic performance of students in the schools.

The study recommended that : (1) although co-education should be encouraged to foster education equalities in the country, single-sex secondary schools should continue in order to provide a base for academic comparisons; (2) well trained student counsellors be provided to handle adolescent problems in secondary schools; (3) guidance and counselling programmes should be introduced in schools to enhance gender-positive attitudes; (4) differential treatment between sexes in schools should be discouraged; and (5) parents and the society at large should cooperate in the maintenance of proper school discipline.

**DECLARATION**

I, HARRY MBONEA SECHOME CHALI, do hereby declare to the Senate of Sokoine University of Agriculture that the work presented here is my own original work, and that it has not been submitted for a higher degree in any other University.

Signature ..... *H. Chali* .....

Date ..... *25 April 1996* .....

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;

**DEDICATION**

To my mother, Nighenjiwe Halima Nangasu who passed away on 3rd October, 1992, a few days after being registered to the MSc programme. She had been a constant inspiration for all my successes in life.

**TABLE OF CONTENTS**

	<b>Page</b>
<b>ABSTRACT</b> .....	ii
<b>DECLARATION</b> .....	iv
<b>COPYRIGHT</b> .....	v
<b>ACKNOWLEDGEMENT</b> .....	vi
<b>DEDICATION</b> .....	viii
<b>TABLE OF CONTENTS</b> .....	ix
<b>LIST OF TABLES</b> .....	xii
<b>LIST OF APPENDICES</b> .....	xvii
<b>ABBREVIATIONS</b> .....	xviii
<b>1.0 INTRODUCTION</b> .....	<b>1</b>
1.1 Background to the study .....	1
1.2 Justification of the Study .....	5
1.3 Objectives of the Study .....	6
1.4 Assumptions of the Study .....	7
1.5 Significance of the Study .....	8
1.6 Definition of Terms .....	9
<b>2.0 REVIEW OF LITERATURE</b> .....	<b>12</b>
2.1 An Overview on Development of Co-education .....	12
2.2 The Maxim of Co-education .....	13
2.3 Education and Social Inequalities in Schools .....	15

2.4	Different Treatment Between Sexes in secondary Education . . . . .	17
2.5	The Organization of Education in Tanzania . . . . .	18
2.6	Secondary School Management . . . . .	19
2.7	The School Discipline and Its Management . . . . .	24
2.8	Teacher Traits in Controlling School Discipline . . . . .	28
2.9	Determinants of School Achievement . . . . .	31
2.10	The Academic Performance of Girls in Schools . . . . .	32
2.11	Quality of Schools . . . . .	34
2.12	Summary of Literature Review . . . . .	38
<b>3.0</b>	<b>METHODOLOGY . . . . .</b>	<b>39</b>
3.1	Location of the Study . . . . .	39
3.2	Research Design . . . . .	39
3.3	Sampling Procedures . . . . .	40
3.4	Instrumentation . . . . .	41
3.5	Validation of the Instruments . . . . .	43
3.6	Data Collection . . . . .	43
3.7	Data Analysis . . . . .	44
3.8	Generalizability of Findings . . . . .	45
<b>4.0</b>	<b>RESULTS AND DISCUSSION . . . . .</b>	<b>46</b>
4.1	Academic Performance of the Sampled Schools in the National Form Four Examinations, 1989-93 . . . . .	47

4.2	Academic Performance Tests at the National Level . . . . .	52
4.3	Opinions of Teachers and Students on the Academic Performance Differences Between Boys and Girls and the Different Type of Schools . . . . .	54
4.4	Effects of Social Relationships in the Academic Performance of Schools . . . . .	64
4.5	Effects of Personal Characteristics of Teaching Staff on the Academic Performance . . . . .	72
4.6	Effects of School Discipline on the Academic Performance of Schools . . . . .	82
4.7	Effects of Recreational Activities on the Academic Performance of Schools . . . . .	95
4.8	Effects of Student Guidance and Counselling on the Academic Performance . . . . .	100
4.9	Effects of Teaching/Learning Facilities on the Academic Performance . . . . .	103
4.10	Effect of School Management and Administration on the Academic Performance . . . . .	105
4.11	The Importance of Co-education in Tanzania . . . . .	122
5.0	<b>CONCLUSIONS AND RECOMMENDATION</b>	<b>145</b>
5.1	Conclusions . . . . .	145
5.2	Recommendations . . . . .	154
5.3	Suggestions for Further Studies . . . . .	157
6.0	<b>REFERENCES</b> . . . . .	<b>158</b>

## LIST OF TABLES

<b>Table</b>	<b>Page</b>
1. Quality of schools by school type using mean SPA 1989-93 . . . . .	3
2. The number and percentage scores of students in the National Form IV Examination by sex, division and type of school, 1989-93 . . . . .	49
3. Sampled schools' academic performance tests by division and type of school, 1989-93 . . . . .	50
4. Sampled schools' academic performance SPA mean tests by type of school, 1989-93 . . . . .	51
5. T-tests of national academic performance by type of school, 1989-93 . . .	52
6. Teachers' opinions on the type of school in which boys and girls are more committed to academic work . . . . .	55
7. Teachers' responses on the most adversely affected students in terms of academic performance in co-educational secondary schools . . . . .	56
8. Teachers' opinions on the differences in the academic performance between boys and girls in secondary schools . . . . .	57
9. Teachers' responses on the category of students which performed better in examinations . . . . .	58
10. Students' responses on the academic performance differences between boys and girls by type of school . . . . .	59
11. Type of subjects most liked by students by type of school . . . . .	60

12.	Students' opinions on the type of subjects most liked by each sex . . . . .	61
13.	Teachers' opinions on the relative ability of boys and girls in different subjects . . . . .	62
14.	Teachers' opinions on the category of students most affected socially in co-educational secondary schools . . . . .	65
15.	Heads of schools' opinions on the degree of social relationships in their schools . . . . .	66
16.	Teachers' description of their social relationships with students by type of school . . . . .	67
17.	Students' responses on mixing freely in studies and other school activities	68
18.	Students' responses on inter-school relations with other neighbouring schools . . . . .	69
19.	Heads of schools' responses on social and academic relations with other neighbouring schools . . . . .	69
20.	The researchers' observations on social interactions in schools . . . . .	71
21.	Distribution of teachers by gender and type of school . . . . .	74
22.	Recommendations of teachers on the ideal ratio of male to female teachers for the different types of schools . . . . .	75
23.	Heads of schools' recommendations on the ideal ratio of male to female teachers for the different types of schools . . . . .	76
24.	Distribution of teachers by marital statuses and type of school . . . . .	76

25.	Heds of schools' recommendations for the ideal marital status of teachers for the different types of schools . . . . .	78
26.	Age distribution of teachers in the sampled schools by type of school . . .	79
27.	Distribution of teachers by academic qualifications in the sampled shools	80
28.	Teaching experience of teachers in the sampled schools by type of school	81
29.	Heds of schools' opinions on the age group of students that violates most the school rules . . . . .	83
30.	Opinions of teachers and students on the frequency of occurrence of offenses by sex in the sampled schools . . . . .	85
31.	Students expelled on disciplinary offenses in the sampled schools by type of schools between 1989 and 1993 . . . . .	86
32.	The researchers' observation on students' behaviours in respect to school discipline . . . . .	88
33.	The researchers' observations on the teaching and non-teaching staff behaviours with regard to school discipline . . . . .	91
34.	General observations on the school discipline . . . . .	92
35.	Responses of teachers and students on availability and participation in recreational activities . . . . .	96
36.	Heds of schools' responses on the frequency of recreational activities .	97
37.	Researchers' observations on the availability of recreational activities and participation by students . . . . .	98

38.	Teachers' responses on training in guidance and counselling of students .	100
39.	Institutions where teachers received training in guidance and counselling .	101
40.	Heads of schools' responses on the formation of committees on guidance and counselling of students . . . . .	102
41.	Heads of schools' responses on the adequacy of teaching facilities . . . . .	104
42.	Type of facilities most lacking in schools . . . . .	105
43.	Students' opinions on the leadership system in their schools . . . . .	106
44.	Teachers' opinions on the type of leadership style in their schools . . . . .	107
45.	Teachers' opinions on who should head each type of secondary school . .	108
46.	Students' responses on the suitable persons to head the different types of secondary schools . . . . .	109
47.	Teachers' recommendations on who should hold different supportive posts in school administration . . . . .	111
48.	Students' responses on the person they considered suitable to be students counsellor in the different types of schools . . . . .	113
49.	Heads of schools' opinions on the degree of importance of teacher traits on the control of students . . . . .	115
50.	Heads of schools' experiences as school heads in years . . . . .	117
51.	Heads of schools' responses on the headship in other secondary Schools	118
52.	Heads of schools' previous administrative experience by school-post and type of school . . . . .	120

53.	Heads of school consideration on the advantages of co-education . . . . .	123
54.	Heads of schools considerations on the disadvantages of co-education . . .	124
55.	Opinions of teachers and heads of schools on statements associated with academic performance . . . . .	128
56.	Type of secondary school heads of school would like to head . . . . .	132
57.	Type of school recommended for daughters and sons of teachers . . . . .	134
58.	Students' preferences for the type of school preferred to attend . . . . .	137
59.	Number of students transferred to the sampled schools between 1989-93 . . . . .	138
60.	Number of students transferred from the sampled schools between 1989-93 . . . . .	139
61.	Students' responses on the stage of education where co-education could be allowed . . . . .	140
62.	Heads of schools' opinions on the stage of education level where co-education should be allowed . . . . .	142

**LIST OF APPENDICES**

<b>APPENDIX</b>	<b>PAGE</b>
1. Letter grade distribution by type of school in numbers and percentages 1989-93 . . . . .	164
2. Certificate of secondary education examination summary statistics, 1989-93 . . . . .	165
3. Students' questionnaire . . . . .	166
4. Teachers' questionnaire . . . . .	172
5. Heads of schools' questionnaire . . . . .	182
6. Checklist on school discipline, social interactions and recreational activities . . . . .	195

**ABBREVIATIONS**

1. MEC - Ministry of Education and Culture  
- Ministry of Education  
- Ministry of National Education  
- Wizara ya Elimu
2. NECTA - National Examination Council of Tanzania
3. URT - United Republic of Tanzania
4. SPA - School Point Average
5. CSEE - Certificate of Secondary Education Examination  
- National Form Four Examination
6. ACSEE - Advanced Certificate of Secondary Education Examination  
or National Form Six Examination
7. UPE - Universal Primary Education
8. MANTEP - Management Training of Educational Personnel Institute
9. EMAU - Elimu ya Malezi ya Ujana
10. TTC - Teachers Training College
11. UMISSETA - Umoja wa Michezo ya Shule za Sekondari Tanzania
12. PCT - Percentage

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.0 Background to the Study

The desire to conduct a study on the academic performance of co-educational and single-sex agricultural secondary schools in Tanzania was urged by a paper titled "The Management and Academic Performance of Co-educational Secondary Schools in Tanzania" presented by Musaroche and Mazigo (1990) at the 1990 Annual Conference of Heads of Secondary Schools in Tanzania. It was noted in the paper that over the years, the academic performance of co-educational schools lagged behind that of single-sex schools. They attributed the poor academic performance of co-educational schools to the sex-mixing factor, adolescence problems, management and control in these schools. Consequently, the conference resolved that deliberate efforts be undertaken to study the performance of students in "O" level co-educational secondary schools so as to get empirical evidence for decisions to abolish co-education in favour of single-sex secondary schools, a step contrary to the government policy of increasing enrolment of girls in secondary schools through expansion of co-education.

The education system in Tanzania has for a long time been in favour of boys. For instance, while in 1938, there were 56 boys pursuing secondary education there was not even a single girl pursuing the same education (Kamwela, 1977). It was only in 1949 when the first 25 girls were admitted in secondary schools.

By 1961, the enrolment of girls was 371 (17%) compared to 1,792 boys 83% (Kamwela, 1977). Even after the massive expansion programme of secondary schools, there were by 1967 only 13 girls' secondary schools compared to 38 boys' secondary schools with an enrolment of 24% girls and 76% boys respectively (URT, 1967).

In order to redress the enrolment problem of girls in secondary schools which was still 39.6% by 1987, the Ministry of Education and Culture (MEC) established a policy of making sure that any newly established secondary school should either be girls' or co-educational school (MEC 1987, 1984a). Other government strategies to promote women's education are listed by Mbilinyi et al. (1991) as: (a) introducing a quota system of separate selection of boys and girls into form one, (b) reserving at least one third of the places in urban day public schools for girls and (c) admitting girls into what were formerly all boys' schools. The aim was to attain a ratio of 1:1 for boys and girls students in secondary education.

Following this policy, there were 33 girls' only, 30 boys' only, 32 seminaries and 254 co-educational secondary schools which registered for the Certificate of Secondary Education Examination (CSEE) in 1992. During this period, the enrolment of girls in secondary schools was 43% and that of boys stood at 57% (MEC, 1992). By 1993, the number of girls' only secondary schools shot up to 38, co-educational schools increased to 312 while the number of schools for boys

only dropped to 28 (MEC, 1994). Seventeen former all boys' secondary schools were converted into co-educational schools.

A comparison in the academic performance in all categories of schools between 1989 and 1993 shows that the overall academic performance of boys' secondary schools had always excelled that of girls' secondary schools. The results also show that the performance in examinations of co-educational secondary schools lagged behind that of single-sex secondary schools. Table 1 shows the quality of schools by school type using mean School Point Average (SPA) for the years 1989-93.

Table 1: Quality of schools by school type using mean school point average (SPA), 1989-93

Year	Type of school				Overall mean
	Seminaries SPA mean*	Boys' only SPA mean	Girls' only SPA mean	Co-educ. SPA mean	
1989	21.08	22.49	25.30	28.29	26.43
1990	21.69	22.28	26.04	28.75	27.04
1991	21.81	24.54	27.89	29.95	28.48
1992	23.11	25.19	28.32	29.89	28.71
1993	23.88	26.56	28.82	30.31	29.41
Mean	22.31	24.21	27.27	29.43	28.0

\* The lower the SPA means the better the quality of the school

Source: Computed from Ministry of Education and Culture CSEE Summary Statistics, 1989-94

The quality of schools on the basis of letter grades computed by the Ministry of Education and Culture (MEC) for the years 1989 to 1993 shows that the number of boys' secondary schools which got grade A ranged from 4-15 (14.3% - 45.5%) while the number of schools which got grade B varied from 13-20 (39.4% - 60.6%) in the same period. Girls' secondary schools which got grade A varied between 0-4 (0% - 13.8%) and those which obtained grade B varied from 5-10 (15.2% - 33.3%). During the same period, the number of co-educational schools which got grade A varied from 1-9 (0.4% - 2.9%) while those which got grade B varied between 15-27 (8.7% - 10.7%). Most schools in the lower quartiles are co-educational schools. For example, in the same period (1989-93) co-educational schools which got grades D and F ranged from 54-82 (26.3% - 31.2%) while girls' secondary schools which obtained grade D and F varied between 2-5 (6.9% - 13.2%). During the same period, there was no boys' secondary school which obtained grade D or F. Appendix 1 shows the summary statistics of letter grade distribution by school type from 1989-93.

The above observations indicate that in general, the performance of co-educational secondary schools has been lower than single-sex secondary schools. This warranted an investigation to ascertain the reasons for academic performance differences between co-educational schools and single-sex secondary schools in Tanzania.

## **1.2 Justification of the Study**

The establishment of co-educational secondary schools in many countries is based on the premise that there are no intellectual differences among pupils based purely on sex (Castle, 1976). In addition, Tanzania adopted this system to offset the imbalance in enrolment between girls and boys in secondary schools which existed at independence and a few years after (MEC, 1987). However, the examination results between 1989 and 1993 show that the performance of students in co-educational secondary schools lagged behind the performance of single-sex secondary schools. Furthermore, there is an indication that girls in co-educational secondary schools performed worse than boys, and although boys performed better than girls, they were disadvantaged when mixed with girls at ordinary level secondary schools especially in boarding schools. The lower examination performance of girls has been noticed in science, technology and maths subjects to the extent that it affects their opportunity of joining universities especially in sciences (Mbilinyi et al. 1991). Mbilinyi et al. (1991), lamented further that enrolment of girls in science subjects in higher education was dropping at an alarming rate. This drop is attributed to poor examination performance which has steadily declined for both men and women.

Since the government policy is still emphasizing expansion of co-educational schools, it was important to conduct a study to identify and analyse factors that contributed to the poor academic performance of these schools in Tanzania.

### **1.3 Objectives of the Study**

The main aim of the study was to identify and analyse causes for academic performance differences between co-educational and single-sex agricultural secondary schools in Tanzania. The specific objectives were:

- a. To document the academic performance level of selected secondary schools in the National Form IV Examination from 1989-93.
- b. To solicit opinions of teachers, students and heads of schools on academic performance differences between single-sex and co-educational secondary schools.
- c. To determine the differences in the academic performance between co-educational and single-sex secondary schools.
- d. To establish the degree of relationships and associations of the following variables in the academic performance of co-educational and single-sex secondary schools.
  - i) Social relationships in the schools
  - ii) Personal characteristics of teaching staff
  - iii) School discipline
  - iv) Availability of recreational activities
  - v) Student guidance and counselling services
  - vi) School administration

#### **1.4 Assumptions of the Study**

The following assumptions were made:

- a. That the academic performance of co-educational schools lags behind single-sex secondary schools.
- b. That boys and girls are more committed to academic work in single-sex schools than in co-educational schools.
- c. That inadequate control of students' discipline in co-educational secondary schools is among the contributing factors to poor academic performance in those schools.
- d. That girls are more adversely affected in co-educational secondary schools than boys.
- e. That the ratio of girls to boys contributes to poor academic performance of students in co-educational secondary schools.
- f. That the ratio of female to male teachers in co-educational secondary schools contributes to poor academic performance of students.
- g. That male chauvinism and bullying of girls contributes greatly to poor academic performance of girls in co-educational secondary schools.
- h. That the lack of trained student counsellors especially in co-educational secondary schools contribute to the poor academic performance of boys and girls in those schools.

### **1.5 Significance of the Study**

Modern schools of thought prefer co-educational schools than single-sex schools on the assumption that there are no intellectual differences among students purely on sex differences (Castle, 1976). Furthermore, as boys and girls are educated together in schools, the experiences gained through interactions will make both sexes discover common interests in school academic and other school activities. They will learn to respect each other as equals intellectually and are likely to reduce emotional strains due to differences in sex (Castle, 1976). Economically, there is a double gain secured in co-education than in single outlay. Blake (1968), supposed that where the provision for educating both sexes is not made "it is the girls that will go to the wall" and that in places where large endowments are not available "women will definitely suffer unless the same schools can meet the wants of both sexes"(p 344).

In spite of the advantages given in favour of co-education, the co-education system in Tanzania has been criticized for being ineffective in enhancing academic standards in secondary schools (MEC, 1990). Even at the primary school level where girls' enrolment has reached at par with boys due to the Universal Primary Education (UPE) programme, girls' performance as measured by the final examinations in standard seven has continued to be lower than that of boys in all subjects (Mbilinyi et al. 1991). The recent general academic performance

of secondary schools is better summarized by Osaki (1991) who pointed out that results of the National Examination at both ordinary and advanced levels are a clear indication that standards have fallen sharply because over 50% of students have failed in a number of subjects especially in science.

It is surprising that while the government has been struggling to promote women's education in secondary schools through quota system of separate selection of boys and girls, introducing intake of girls into what were formerly all boys' schools, opening of new boarding schools for girls, de-boarding some of the boys' boarding schools and introducing double session system in urban day schools, the education standards have continued to decline sharply. This study was intended to identify the factors that enhanced or hindered the academic performance of co-educational secondary schools and to use these findings to make recommendations for improving co-educational secondary schools for effective academic achievements.

## **1.6 Definition of Terms**

The following terms used frequently in the text are operationally defined to provide a common basis for conveying the meaning:

**Academic performance:**

In this study academic performance means the success or failure in the examinations as measured by National Form Four (CSEE) or Form Six (ACSEE) examinations.

**Adolescence:** The period in human development between the end of childhood and the beginning of adulthood. The ages referred to here are between 12 and 18 years.

**Co-education:** The education of boys and girls in the same school and in the same classes.

**Discipline:** Refers to a condition or a state of affairs in which there is order, smoothness or lack of friction, turmoil or chaos in a school. It may also be used to refer to an activity of subjecting a student to a code of behaviour.

**Primary education:**

Means full-time education given during the first 7 years of formal education.

**Private school:**

Means a school wholly owned and maintained by a person or body of persons other than the government or a local authority.

- Public school:** Means any school directly maintained and managed by the Ministry of Education and Culture.
- Pupil/student:** Means a person who is enrolled at any school for the purpose of receiving education.
- School:** Unless otherwise specified the term is used in this study to refer to a secondary school.
- School biases:** According to the vocationalization of secondary school curriculum, all public secondary schools were grouped into one or more of the four biases, namely agriculture, commerce, technical and home economics.
- School category/type:**  
In this study the term is used to indicate whether a school is seminary, boys' only, girls' only or co-educational secondary school.
- Secondary education:**  
Means formal full-time education continued immediately after primary education. In this case from Form I to Form VI.
- Single-sex school:**  
Means a school predominantly composed of one sex only, either boys or girls.

## CHAPTER TWO

### 2.0 REVIEW OF LITERATURE

#### 2.1 An Overview on the Development of Co-education

Plato is believed to have been in favour of a parallel education for men and women. He proposed that young children should play supervised educational games together. On the other hand Aristotle, had strong convictions that distinctive functions of females required different education. His belief influenced many generations and became a dominant mode in many societies (Frost, 1966; A Society of Gentlemen in Scotland, 1973). For instance, USSR, Japan and some countries in Europe notably Scandinavia and Germany posed strong resistance to introduce co-education up to the 20th Century. Even today, most countries in the Middle East do not accept mixed schools. Also in religious foundations, there has been a hot debate about co-education especially at the adolescent stage. Whereas, the Roman Catholic Church and most of the Islamic societies adopted a more cautious approach in introducing co-education, the Protestant Foundations favoured co-education (Castle, 1966; 1976; Blakemore and Cooksey, 1981).

In most African countries, the educational system reflected the policy of the ruling class. For example, Tanzania inherited the British secondary education

system which was largely in favour of separate sex schools. The country had up to 1964, 51 single-sex secondary schools compared to 17 co-educational secondary schools (URT, 1967). Co-educational secondary schools gained popularity only after independence.

In a bid to increase enrolment of girls in secondary schools, it was categorically stated that all new secondary schools to be opened must be co-educational and that some of the existing boys' boarding secondary schools should start enrolling girls as day scholars (MEC, 1976; Mbilinyi et al. 1991).

## **2.2 The Maxim of Co-education**

The maxim of co-education, as defined by MacCarthy and Hausknecht in Fraser (1968) and Castle (1976) is that boys and girls should be educated together, up to any age in the same school, classroom and subjects. Although co-education has many advocates among prominent educationists on apriori grounds, parents and communities believe that it is bristled with practical difficulties (Mac Carthy, 1968). Our experiences in secondary schools tell us that most students are of ages between 14 and 20 years and are drawn from different homes. In such situations, Blake (1968) contented that separate education of sexes was more appropriate than co-education.

This view is supported by Hausknecht (1968) who advocated that boys and girls in the ages of 14-18 years must be treated differently both intellectually and emotionally. Hausknecht (1968) saw co-education to be possible in America more than Germany or elsewhere because customs and education in America have given girls and women greater freedom and determination in their manners and appearance, and have given them protection against encroachment and improprieties. In Africa, the situation is a bit different. For example, Castle (1976) reported that in Africa, there is understandable reluctance of mothers to send their daughters to mixed schools where they may be subjected to the sexual attention of male staff and even fellow students. He observed further that co-education was good for primary schools but very strongly disagreed with the idea of co-education in secondary schools. His main arguments were that:

- a. There was quite a difference between living with brothers and sisters at home and living with other people's brothers and sisters at school.
- b. During adolescence, it was quite natural for boys and girls to live separately as their interests and occupations were different.
- c. The competition in class between boys and girls usually resulted in overstraining girls who were more conscientious and suppressed by the more vigorous and self-confident boys.

Apart from criticising co-education, Castle (1976) raised the following strong points in its favour:

1. as brothers and sisters living together in the home, boys and girls should be educated together in school, and
2. the experiences gained through the interactions will make both sexes discover common interests in school work and social activities,
3. they will learn to respect each other as equals intellectually and are likely to reduce emotional strains due to differences in sex.

Economically, Blake (1968) observed that in co-educational systems there was a double gain secured by providing more education chances for women.

### **2.3 Education and Social Inequalities in Schools**

In most parts of the world, women are the victims of educational inequalities. This situation can be traced back to the times of Xenophon (430-355 BC) who believed that women should remain in seclusion in the home where they would rear children as the state wished and manage the servants. He held that their education should aim at skills in these wifely duties and loyalty to the state (Frost, 1966).

Education and social inequalities in modern Africa have been attributed to the class background, race, sex, ethnicity, culture, religion, region, birthplace and intelligence (Blakemore & Cooksey, 1981; Mascarenhas and Mbilinyi, 1983; Mbilinyi et al. 1991). For example, a study by Blakemore (1981 p.65) on Younde primary school leavers demonstrated that parental occupation and education were the two major determinants of secondary school access. These factors were closely followed by the sex of a student. Mascarenhas and Mbilinyi (1983) reported that in Tanzania, resistance to the enrolment of girls still remains among pastoralists. The reasons given included sexual division of labour, the nature of patriarchal production relations and their ideological expressions, and sexual practices. The views are inline with earlier observations by Castle (1976) that, where the customs of bridewealth are firmly established, parents tended to sacrifice their daughter's educational prospects for early marriage and immediate gain.

However, young girls and women are also blamed for undervaluing themselves and adjusting down their own goals in accordance with a lower estimation of their own abilities. Mascarenhas and Mbilinyi (1983) observed that school performance was not important to some of the secondary school girls because they felt that after graduation they would find a husband who would provide them with economic support. The idea that University graduates are not

"marriageable" due to age plus male preferences for wives with less education and economic status is also given as an explanation for women's lowered struggle to attain higher education.

#### **2.4 Differential Treatment Between Boys and Girls in Schools**

Few studies carried on the differential treatment between boys and girls in secondary schools have shown that teachers discriminated against girls, albeit unconsciously. The studies cited in Mbilinyi et al. (1991) include that of Kalunga conducted in 1988, Diyamet conducted in 1989 and Damball conducted in 1983. The researchers revealed that teachers in science, technology and maths subjects tended to push boys to achieve more, whereas girls' performance at average or below average level were considered "normal". Teachers were in the opinion that girls were very slow in answering questions, were not as active as boys and were not capable of thinking critically or logically. Moreover, girls were believed to be over concerned about their physical appearance and were therefore hesitant to engage in laboratory experiments for fear of harming their physical appearance or spoiling their clothes. Some teachers openly concentrated more on boys because they were more active and therefore more rewarding to teach.

Regarding school discipline, Manase and Kisanga (1978) observed that in co-educational and girls' secondary schools, there are school rules purposely made to protect girls. Although protection of girls is a good thing and is a societal demand, they warned that differential treatment in schools between boys and girls may contribute to sex inequality. It may also create an attitude that girls are dependent, cannot take care of themselves and as such their security is somebody else's business.

## **2.5 The Organization of Education in Tanzania**

The education system in Tanzania is partly centralized and partly decentralized. Secondary, teachers' and higher education are centralized while primary and adult education are decentralized (MEC, 1984b).

Generally, primary education starts at the age of 7 years and lasts for 7 years. The introduction of Universal Primary Education (UPE) in 1977 makes all children aged 7 to 12 years eligible for enrolment. Secondary education is a six years programme punctuated at the fourth year with a Certificate of Secondary Education Examination (CSEE). Those who pass form four examination well, are enrolled for form five, where they are required to sit for a national form six examination after 2 years of study. This leads to Advanced Certificate of Secondary Education Examination (ACSEE). Most students in secondary schools

are between 14 and 20 years old. The traditional practice in the Tanzania educational system was to mix boys and girls in primary schools and separate them in secondary schools. However, in recent years, the maxim of co-education requires both boys and girls to study together at the secondary school level. In post-secondary education like universities, male and female students are educated together.

Perhaps, what is important to note here is the age at which students are expected to attend each level of education. Whereas primary education is attained during the latency period of children's life, secondary education is obtained in the adolescence period and higher education is attained when students are already adults.

## **2.6 Secondary School Management**

The school is the meeting point of a large number of intertwined social relationships and interactions. Waller (1932) suggested that some of the important social relationships arising in the school should be decided from the following schema:

- I Community - school relationships:
  - relation of community to school in general,
  - relation of community to students individually and in groups,

- relation of community to teachers,
- relation of special groups and individuals in the community to the school (the school board, alumni, patrons, ex-teachers, patriarchs etc).

**II Pupil to pupil relationships:**

- pupil to pupil relationships as not affected by the presence of teachers,
- pupil-group to pupil-group relationship,
- pupil to pupil-group relationships,

**III Teacher to pupil relationships:**

- teacher to pupil relationship,
- teacher to pupil-group relationship,
- pupil to pupil relationship as affected by the presence of the teacher.

**IV Teacher to teacher relationships:**

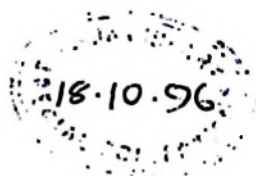
- relation of teacher to teacher as not affected by the presence of students,
- teacher to teacher relationship as affected by the presence of students,
- relation of teacher to teacher groups,
- relation of teacher groups to teacher groups,
- relation of teaching force to administrative officers (pp 12-13).

These relationships are reciprocal and some have greater impact in the management and academic performance of secondary schools. One of the most useful relationship is that of parents and teachers. From the ideal point of view,

parents and teachers have much more in common. They all wish things to occur for the best interests of the student, but infact, as noted by Waller (1932), parents and teachers live in conditions of mutual distrust and enmity. The fundamental conflict between the school and the parent is accentuated by the fact that parents and teachers are involved in different alignments of the group life affecting the student (child). For parents, a child is a fellow member of the closest of all the primary group, but for the teacher that child is seen as a member of secondary group.

Another aspect of relationship is that of students and their teachers. Since most teachers are adults, they are expected to have attained a much more mature and normal attitude toward life and their student. A large proportion of teachers are responsible persons, but there remains a small group among them whose conduct is pitiful. This group, often consciously and intentionally transmit immoral attitudes to their students, school and even to the community.

The relationship between pupil and pupil in the school life is immensely complicated by intellectual transition with which sex relations are conceived. Waller (1932) divided these intellectual transitions into three periods of life. Firstly, he said that in earliest years of life, over a period corresponding approximately to that of infertile sexuality, there is acceptance of the male-



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female relationship with complete naivety. The second classification covers the latency period where there appears to be a surface of antagonism between the sexes, but this antagonism usually covers both interest and difference. During this period, there is between the sexes an immense social distance. The life pattern of girls is more completely separated and differentiated from that of boys than any other period of life. Between the latency period and the stage of adolescence, there appears a transitional stage of sub-adolescent courtship. In this period, there is a limited amount of social and physical contact, but such contacts are very meaningful and are often reworked into endless fantasy. There is a tendency to worship from a far.

:

In adolescence courtship, there is much greater contact. Starting out with an even greater idealization than before, there is a tendency for adolescent love to turn into cynicism, especially if there is physical contact and if that contact is a taboo. There is a stage, nearly inevitable, in which adolescents think of the association between male and female as a game. In this game, pretence is allowable, and it is long before a boy is as truthful with girls as he is with other boys. A noteworthy fact concerning adolescent love is that it very readily submits to sublimation.

The theory of human needs stipulates that there are four wishes at the school which are linked to the intellectual transitions discussed above. Thomas in Waller (1932) proposed these wishes as the wish for response, the wish for recognition, the wish for new experience and the wish for security. These wishes are found in every human being and some arrangement for satisfaction of each one is necessary for the normal life.

When surveying the social life of the school in an attempt to discover what opportunities it offers for satisfaction of the various sorts of human wishes, Waller (1932) classified nearly all the intimate and informal attitudes that spring up in school as manifestations of the wish for response. He contended that in schools, there is growth of friendly and affectionately attitudes between student and teachers and among students themselves. He, however, cautioned that the school is not certainly a favourable environment for the flowering of these personal approachements expressed by the easy give and take response. For example, nearly all sexual activities in schools are unsanctioned, and much of them are directly in conflict with the formal order of schools.

This information is important to understand how the social order of the school stands up under the impact of undisciplined impulse welling up from original nature, and how schools manage students' discipline. The theory of adolescence

and observations have shown that it brings with it severe problems of personal adjustment which cause many administrative problems in secondary schools. For example, the sudden awakening of sex at adolescence is assumed to entail personal disorganization. There is a conflict of the inner needs of the individual and the frames of behaviour which the school or society demands from them (Reichel, 1977; Musgrave, 1969; Waller, 1932). It has been found that a society which imposes less rigid controls upon sexual behaviour of adolescents, adolescence is apparently not a serious personal crisis. Castle (1976) contention was that the more rules there are, the more rules will be broken and that ample provision for out of school activities can make children enjoy life in their own creation. Other studies by Castle (1976) has shown that if students are allowed to mix freely (especially in co-education), the struggle for associations will be minimized particularly if the ratio of girls to boys is 1:1 rather than having an imbalance ratio of either sex.

## **2.7 The School Discipline and Its Management**

Dominance and subordination in schools are usually discussed as "discipline". On the objective side, discipline is a social arrangement whereby one person is consistently able to exert control over the actions of others. Subjectively, discipline is the moral obtaining under institutionalized leadership. It is observed in the social interactions of the persons concerned, and it rests upon psychic

arrangements in the minds of those persons. "Discipline" is often used as a value term to denote something regarded as constructive and healthful for the student or something which the teacher approves (Waller, 1932).

Thus, reward, encouragement, responsibility and punishment are all part of school discipline. All of them, if properly used, can help students to make the best of their abilities. The techniques used by teachers to maintain discipline may be classified according to their utilization in institutions. These techniques are command, punishment, management, temper and appeal (Castle, 1976; Ndunguru, 1976). However, Castle (1976) and Ndunguru (1976) put the following precautions which need consideration when applying any or a combination of these techniques:-

- a. The technique(s) should aim at manipulating the social relations and a change in the general attitude of the student.
- b. Control by temper is far down on the scale of social distance and high on that of actual human influence.
- c. Punishment used for personal ends (revengeful) ceases to be punishment and becomes a feud or struggle for status.
- d. The mixture of control by punishment and personal influence which is now usual in schools does not contribute to the healthy development of

personalities of either students or teachers.

- e. Whatever merits corporal punishment may have, it must be used judiciously for it easily produces estrangement and hostility between teachers and students.
- f. As a general principle, general punishment should be given very rarely because to inflict pain on the innocent is to abuse punishment as a social institution.

Studies on school discipline in Tanzania (Umba, 1975; Ndunguru, 1976; Reichel, 1977; Manase and Kisanga, 1978; Kihwili, 1981) revealed that:

- a. Students complained about unfair/unreasonable punishment.
- b. Students were convinced that teachers did not listen to their problems.
- c. Students complained about teachers' authoritarian attitudes and mediocre teaching.
- d. Whereas the majority of students wished corporal punishment to be abolished, the majority of teachers and parents were of the opinion that corporal punishment should not be abolished but used for specific offences.
- e. Administering of punishment differed from one teacher to another over the same offence and the intensity of the punishment differed from one school to another depending on the head of school.

Teachers, on the other hand, complained about indiscipline problems like the refusal by pupils to get up when teachers enter class-rooms, or disobedience toward school rules such as refusing to wear school uniforms. Furthermore, teachers disliked pupils who neglected their homework and those with frequent absenteeism (Umba, 1975). Other major disciplinary problems observed by Manase and Kisanga (1978) included disrespect, drug abuse, parents' interference, late comers, truancy, bad language, fighting, shouting in school/classes, pregnancy, laziness, and other minor offenses which become major because of their high frequencies.

Ndunguru (1976) proposed that before we decide upon what punishment to give, it was important that we satisfy ourselves about the degree of responsibility with which an offence was committed. Our main interest in school should be to develop the moral responsibility of children by giving them opportunities to exercise moral decisions and self-control. In order to minimize punishments, we should use less negative sanctions, do more diagnosis of children's problem, intensify the application of our knowledge of child psychology and endeavour to minimize authoritarian and teacher-dominated situations, and maximize participation of students.

## **2.8 Important Teacher Traits in Controlling School Discipline**

The important traits that affect the prestige of the teacher and her/his ability to control the classroom discipline are discussed by Waller (1932) and Musgrave (1969) to include the following: age, social background, physical characteristics, dress, mannerism, attitudes towards students, tempo of reactions, range of mental expression of features and nature of the organization of personality. Among these, age, social background, physical characteristics and mannerism are the most pronounced in our school situation.

Age, as it affects the teacher relationship to his/her students is not only a matter of years. It is rather an affair of social experience, poise, maturity, understanding, judgement and interests. Teachers who are young, commonly suffer from inability to maintain social distance between themselves and their students. On the other hand, older teachers secure subordination easier. For example, the research by Manase and Kisanga (1978) on an insight into management of co-educational and disciplinary problems in Tanzanian schools in general concluded that:

- a. In co-educational secondary schools, it was not easy for male teachers to punish girls because of suspicion on the part of administration that such punishments were meted out because of unusual relationship between female students and male teachers.

- b. In co-educational secondary schools, male students defined male teachers as suspected rivals. Equally, female students defined female teachers as their rivals.
- c. In co-educational secondary schools, there was a tendency of female teachers to suspect male teachers when they exchange ideas or smiles with female students.
- d. In urban schools such as in Dar es Salaam, female students decided to punish strict female teachers by having love affairs with their husbands.
- e. Sometimes male teachers be-friend female pupils which led to absent-mindedness of girls in class.
- f. Teachers who were "hated" by students were those who "observed strict discipline".

Studies of gains in teaching efficiency through experience and the passage of years, show that the point of maximum efficiency is reached after three years of experience.

With regard to the socio-economic background of the teacher, it is expected that in most instances the teacher must represent the level of attainment in certain formal values of education above the average level of community members. However, in Tanzania, students are taught by teachers who have less economic

standings than their parents. Such teachers, are bound to fail to play their role effectively.

Concerning the effect of the physical characteristics of a teacher, it is argued that body size, health, strength, stamina and absence of ridiculous characteristics are important for both male and female teachers. Teachers who are below the average body size are at a handicap in disciplining students because of inferiority complexes.

Although it is difficult to generalize what mannerism is, we think it is referred to the total expression of a general attitude or peculiarity of behaviour of a person. However, it should be noted that students learn the mannerism quickly and judge accurately their significance. They learn to mimic the mannerism of the teacher, which helps to make life more bearable for them and only in the extreme cases less bearable for the teacher.

The traits of a teacher have direct effect on school discipline. This is among the factors hypothesized to lead to the failure in examinations by many students and a general poor academic performance in co-educational secondary schools.

## **2.9 Determinants of School Achievement**

Several studies have been conducted with regard to school achievement in general. Among them are those by Coleman of 1966 in USA and Thomson of 1985 in Ireland cited in Sekwao (1986). The two researchers emphasized that home background factors were important than those within the school in determining school achievement. Siann and Egwuegbu (1980) discussed the home background variables as the physical environment in the home, parental attitudes to school, child care practices and preparation for the kind of thought helpful in the school situation. However, these views have also been refuted by other researchers. Several researchers have been cited by Sekwao (1986) to have wrote that "what happened to students in schools was important in determining their academic achievements.

Studies conducted in Tanzania on factors which affect students' academic achievement in various subjects comprise those by Nyonyi (1980), Boma (1980) Komba (1983) and Sekwao (1986). Their findings show that there are several factors which hinder smooth teaching and learning of subjects (especially sciences) in Tanzanian secondary schools. Among the limiting factors mentioned are inadequate teaching facilities, teachers low morale, poor teaching methods, inadequate time to cover syllabi, high teacher-pupil ratio, low knowledge of the language of instruction (english) and lack of funds. They thus recommended that

more funds be allocated to procure equipment and chemicals; opportunities be provided for inservice training of science teachers, science syllabi be reviewed and adjusted in order to allow adequate subject coverage, teachers be encouraged to employ teaching techniques which generate interest and curiosity in pupils and the Ministry of Education should devise means of motivating teachers to ensure effective learning of subjects.

#### **2.10 The Academic Performance of Girls in Schools**

When conversing with Oberlin Co-education College professors on relative abilities of male and female students, Blake (1968) noted that in chemistry and physiology, girls played their part in recitation as well as boys but were not considered so well qualified for lengthened consideration of scientific subjects. However, on the part of languages, she was unable to see much difference between students of the two sexes. Similar opinions prevailed in many other subjects. A few studies done in Tanzania also show that women outperformed men in certain subjects for example accountancy, commerce and Kiswahili (Mbilinyi et al. 1991). However, in general, female students performed less well in form four and form six level examinations, inspite of their often high performance in school activities. These remarks were based on Malekela's analysis of performance of form four examination from 1971 through 1980 cited by Mbilinyi et al. (1991). A close examination of students' performance in the

1986 form six examination by TADREG (1986) indicated that girls performed worse in basic science subjects especially biology, chemistry and mathematics. Even at the primary school level, girls' performance continued to be lower than boys in all subjects including languages (Mbilinyi et al. 1991). The poor performance of girls in examinations has also been reported in the Western countries. For example, Siann and Egwuegbu (1980) observed that in the West, girls tended to fall behind boys at the later stages of secondary school in science subjects.

Sex differences in behaviour, cognitive ability and academic performance have also been attributed to the culture of the community. For example, Siann and Egwuegbu (1980) contended that in many societies women who compete on an equal footing with men on academic tasks particularly those of technical and scientific nature, are perceived to be "less feminine". This contention discouraged girls from trying to compete in those fields because they have been influenced by the attitude which regards being good at science and technology as unfeminine and therefore undesirable. This leads to the assumption that boys/men are more intelligent than girls/women. However, Malekela (1983) cited by Mbilinyi et al. (1991) attributed the better academic performance of boys than girls to their own struggle and efforts. Malekela's supposition was that since boys had to establish their own families and be responsible, they study

harder than girls.

Contrary to the above contentions, Mbilinyi et al. (1991) termed such views as "stereotyped attitudes and behaviours". They attributed the poor performance of girls to the imbalance in the teaching staff. Their main argument was that, since the majority of teachers in secondary schools (especially in science, technology and maths subjects) were men, they failed to provide "models" to girl students. Nevertheless, due to the recent developments in women's movement, such stereotypes are beginning to disappear. For example in the West a growing trend is emerging for girls to take and excel in subjects such as engineering (Siann and Egwuegbu, 1980). Furthermore, girls are beginning to study subjects such as medicine, law and architecture which were regarded as male only courses.

### **2.11 Quality of Schools**

Factors influencing the reputation of secondary schools also include the examinations, the range of examinable subjects, the proportion of graduates on the staff list and the quality of teaching. High quality schools have good examination records (Blakemore and Cooksey, 1981). School test and examination results are often assumed to be the main motivating force for learning. Low marks and frequent failure experiences are therefore an index of low quality learners/schools all over the world (Osaki, 1991).

Mukyanuzi (1975) identified four functions of examination. Firstly is that the information provided by examinations was used by school authorities to guide and counsel their pupils and parents. The second function of examinations was that they serve as checks for the effectiveness of new curricula and teaching methods. The third function was that students tend to study harder when they expect to be tested than when they do not. The fourth function of examinations was that they enhance the psychological and social security of a school as an institution which serves the community. Members in the society especially parents tend to respect a school which is thought to be fulfilling its obligations as an educating agent. Schools can win confidence and respect of the people whom they are designed to serve through satisfactory examination results of their pupils.

There are two methods used to measure schools academic performance in Tanzania. The first method is by using Division Point Awards (DPA) commonly practiced by the National Examination Council of Tanzania (NECTA). The second method is by using School Point Average (SPA), a system of rank-ordering of schools commonly employed by the Ministry of Education and Culture (MEC). The use of SPA is said to be a better indicator of school academic achievement than NECTA's Divisional Point Awards because the latter undergoes more transformation which immensely diminishes the original

contribution of candidates.

The School Point Average (SPA) of any particular school is the sum total of all points awarded to each candidate present in that school divided by the number of candidates present. Point scores are obtained by assigning numbers to the letter grades achieved in the National Examination. Each candidate is awarded points by the Examination Council for the best seven subjects. The points are awarded as follows: A = 1, B = 2, C = 3, D = 4 and E = 5. With this scale, the best student can score a total of seven points from seven subjects and the poorest student can score 35 points. Similarly, the best school should have a mean score (SPA) of seven and the poorest should have an SPA of 35 points.

Very few studies have been done in Tanzania to determine the quality of schools. Malekela (1983) cited in Mbilinyi et al. (1991) analysed the performance of schools in form four examination from 1971 through 1980. His findings were that public school students performed consistently better than private school students with the exception of boys' Seminaries which had exceptionally better performance records. All but one of the top 25% schools were single-sex and were all boarding schools. The bottom quartile consisted entirely of private and schools in Zanzibar with exception of two public schools.

Coulson (1976) examined results of form four examination in mathematics from 1973 to 1975 and found that the performance of girls was much less than boys for all three years. But, girls seemed to perform better in co-educational schools than in girls' only secondary schools. Leshabari (1978), tested secondary schools in mathematics and analysed the test according to the sex of students in the schools involved in the study. Results of the test showed that the performance of boys' only schools was better than that of co-educational and girls' schools. It was also found that girls in co-educational schools performed better in mathematics than girls in single-sex schools.

Despite the generalization that boys' secondary schools perform better than girls' secondary schools and co-educational schools, there are some girls' only and co-educational secondary schools which compared mostly favourably with better boys' only secondary schools especially those founded by missions. According to Castle (1976), such schools have well trained women teachers capable of understanding and dealing with problems of adolescent girls. To him it mattered less whether a school was co-educational or not than being a good school.

The quality of a school depends less on its organization or curriculum than on the quality of the people who run it. According to Castle (1966), the main difference between a good and a bad school was that a good school develops

mental habits that assist pupils to acquire and use knowledge in the right way, while a bad school tends to impart knowledge in a wrong way and remains indifferent about its use. He further argued that no school can have quality unless three conditions were satisfied: (a) the school staff must work under a sense of purpose; (b) the head and staff must work as a team and ; (c) the school must be properly staffed.

These conditions seem to be more evident in the religious foundation than in public and private secondary schools. This is probably the reason why seminaries over the years have excelled other secondary schools in academic performance. Moreover, most seminaries are single-sex institutions.

## **2.12 Summary of Literature Review**

This review of literature defined co-education and highlighted the development of co-education in various parts of the world. Advantages and disadvantages of having co-education in secondary schools were propounded. School management problems associated with adolescence and general school discipline were noted. Likewise, academic performance differences between sexes and between schools were discussed. Determinants of school achievement and factors which contribute to the quality of a school have also been discussed.

## **CHAPTER THREE**

### **3.0 METHODOLOGY**

The primary purpose of this study was to identify and analyse causes for academic performance differences between co-educational and single-sex agricultural secondary schools in Tanzania. Information was obtained from students, teachers, heads of schools and other education administrators. The collected data were used to determine the implications, suggestion and recommendations on the improvement of academic performance in co-educational secondary schools in Tanzania. The following methods and procedures were used.

#### **3.1 Location of the Study**

The study was conducted in 12 secondary schools distributed in four zones from the seven educational zones in Tanzania Mainland. The selection of the zones namely Southern, Eastern, Central and Northern was based on the existence of the three types of schools (boys' only, girls' only and co-educational secondary schools).

#### **3.2 Research Design**

The design was a cross-sectional survey of secondary school form four students, teachers and heads of those schools. Observations and content analysis were used

to provide supporting evidence on the information collected from surveys. This triangulation of methods has the advantage of establishing a strong case of relationships and correct information among variables by making comparisons.

### **3.3 Sampling Procedure**

The population for the study consisted of all form four students and all teachers in the agricultural boarding secondary schools in the four zones of Tanzania Mainland.

A sample of 12 agricultural boarding secondary schools was purposely obtained of which four were girls' only, four boys' only and four co-educational secondary schools. The selected secondary schools were:

- a) Boys' secondary schools: Kigonsera, Bihawana, Lyamungo and Galanos
- b) Girls' secondary schools: Songea, Kondoa, Machame and Korogwe
- c) Co-educational secondary school: Tunduru, Karatu, Ruvu and Kilosa

The reasons for selecting these schools were that:

- i) All schools were agricultural boarding secondary schools. It was hypothesized that the problem of co-education is more severe in boarding schools than day secondary schools
- ii) These schools use the same curriculum in ordinary level education. Adolescence problems were thought to be rampant in ordinary level

than advanced level of education. iii) Tunduru, Karatu, Ruvu and Kilosa are co-educational schools with roughly a 1:1 ratio of boys and girls.

It should be noted, however, that during data collection Kigonsera and Lyamungo secondary schools had started to enrol girls as day scholars but these girls had not yet reached form four.

A sample of 120 form four students was selected from their attendance registers where 10 students per school were selected using a systematic sampling technique with a random start. Where co-educational schools were involved, five students were picked from each sex. Form four students were chosen on the assumption that their four years of secondary education has provided them with sufficient exposure to tests, examinations, and experiences in schools. The study also sampled 60 teachers, that is, five teachers were systematically picked from each school. All 12 heads of the sampled secondary schools were also studied.

### **3.4 Instrumentation**

Data were obtained by primary and secondary collection methods and document analysis. Primary data were collected using three types of questionnaires designed to elicit characteristics, opinions, and attitudes of students, teachers and heads of secondary schools on the academic performance differences between co-

educational and single-sex secondary schools. The questionnaires were prepared to measure the following variables:

- a. Subject(s) and school preferences between the sexes,
- b. Personal characteristics of teaching staff,
- c. Social relationships in the school,
- d. School discipline,
- e. Availability of recreational activities,
- f. School administration issues.

The questionnaires are attached as appendices 3, 4 and 5. In addition to questionnaires, a checklist was developed and used to observe what was actually happening in the sampled schools with regard to students' behaviours, attendance, evening preparation, school uniforms, punctuality, school boundaries, cleanliness, social interactions, teachers and non-teaching staff behaviours, availability and participation in recreational activities (Appendix 6).

Secondary data were obtained from the Ministry of Education and Culture Headquarters, National Examination Council of Tanzania and school files. Some of the obtained documents were used as primary sources. The data collected included mainly the Nation Form IV Examination result records from 1989-93 and the quality of schools using the School Performance Average (SPA) ranking system.

### **3.5 Validation of the Instruments**

Before pre-testing of questionnaires and the checklist, consultations were made from Sokoine University of Agriculture (SUA) professionals who had experiences in research procedures, and two education administrators who had experiences in education matters. Their suggestions were incorporated into the questionnaires, the checklist and the study design.

The instruments were then pilot-tested in three secondary schools within the Morogoro Municipality (Mzumbe boys'; Kilakala girls'; and Morogoro co-educational) to check on their relevance to the context, clarity of wording and meaning of questions. Necessary revisions were made and the final drafts of the questionnaires and the checklist were used to collect the required data.

### **3.6 Data Collection**

Data were collected during the months of May and August, 1994. Primary data were collected by interview schedules administered by the researcher aided by heads of schools and/or their deputies. It was revealed by See (1957) cited in Best and Khan (1989) that a better return of questionnaires was obtained when the original request was sent to the administrative head of an organization rather than directly to the person who had the desired information. Unstructured interviews were held with key people who included an Assistant Commissioner

of Education, Head of Planning Section of the Department of Secondary Education, Zonal Inspectors of schools and Heads of sampled schools. These were chosen on the assumption that they were better informed on the academic performance of schools.

Secondary data were collected from file records on school academic performance in the Ministry of Education and Culture Headquarters and from the sampled schools. These included:

- a. Certificate of Secondary Education Examination (CSEE) results from 1989-93 for the sampled schools (Table 2).
- b. Certificate of Secondary Education Examination (CSEE) summary statistics for 1989-93 (Appendix 2).
- c. School Point Average (SPA) summary statistics for 1989-93 period (Table 1).
- d. Distribution of letter grades awards for the period of 1989-93 (Appendix 1).

### **3.7 Data Analysis**

The collected data from questionnaires and checklists were coded and entered into the Personal Computer at Sokoine University of Agriculture, Morogoro for analysis. Two statistical procedures from the Statistical Package for Social

Sciences (SPSS) programme were used to analyse the data. The "FREQUENCIES" sub-programme was used to determine the distributional characteristics of each of the variables used and a t-test was performed to determine the difference in academic performance between boys', girls' and co-educational secondary schools. The "CROSS-TABS" sub-programme was used to provide joint frequency distributions of several variables. The Chi-Square test was applied to establish the degree of relationships and associations of the variables studied.

### **3.8 Generalizability of Findings**

This study was conducted in 12 public agricultural boarding secondary schools in Tanzania. The schools are distributed in four zones out of seven education zones in the country. However, it is felt that findings generated can be generalizable beyond the schools studied and beyond agricultural biased schools because the situation from which the findings were derived is not unique to the agricultural schools only. It is therefore considered by this study that the implications drawn from the available findings will have direct reference to all forms and types of secondary schools.

**CHAPTER FOUR****4.0 RESULTS AND DISCUSSION**

The purpose of the study was to identify and analyse possible causes of academic performance differences between co-educational and single-sex agricultural secondary schools and suggest possible solutions to improve the academic performance of co-educational secondary schools.

The specific objectives of the study were:

1. To document the academic performance of the sampled schools in the National Form IV Examination (CSEE) from 1989-93.
2. To determine the differences in the academic performance between different types of secondary schools.
3. To determine the effect of the following factors in the academic performance of co-education and single-sex secondary schools.
  - . Social relationships in the schools
  - . Personal characteristics of teaching staff
  - . School discipline
  - . Availability of recreational activities
  - . Student guidance and counselling
  - . School administration

#### **4.1 Academic Performance of the Sampled Schools in the National Form IV Examinations, 1989-93**

The National Form IV Examination results for the sampled schools are shown in Table 2. The results show that whereas 54.9% the boy students in single-sex secondary schools obtained divisions I-III, only 47.6% of those students obtained the same divisions in co-educational secondary schools. The results further show that 34.7% of female students achieved divisions I-III in single-sex secondary schools, but only 23.1% of female students obtained division I-III in co-educational secondary schools. The percentage of boy students scoring the lower divisions of IV and "0" was 45.1% in single-sex schools and 52% in co-educational secondary schools. Likewise, girls who obtained the lower division of IV and "0" was 65.3% in single-sex secondary schools and 76.9% in co-educational schools respectively.

However, the t-test analysis of the academic performance of the national examination results show that there was a significant difference between the performance of boys in single-sex and boys in co-educational secondary schools for those students who scored divisions I-III (t value = 3.11,  $p < 0.05$ ). The respective mean score for boys in single-sex secondary schools was 215.8 and for boys in co-educational secondary schools was 114.6 as shown in Table 3.

Table 3 reveals further that the performance of girls in girls' only secondary schools was better than that of girls in co-educational secondary schools for divisions I - III (t value = 4.94,  $P < 0.01$ ). Girls' performance in divisions IV and "0" had also a significant difference (t value = 2.70,  $P < .05$ ) for those in single-sex and those in co-educational schools. The mean scores for girls in those schools were 167.0 and 43.4 for divisions I - III and 314.8 and 144.8 for divisions IV and "0" respectively.

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Table 2: The number and percentage scores of students in the national form IV examination by sex, division and type of school, 1989-93

Year	Boys' performance				Girls' performance				Co-educ No. (PCT)
	Division I-III		Division IV-0		Division I-III		Division IV-0		
	Boys' sch. * No. (PCT)	Co-ed. No. (PTC)	Boys' sch. No. (PCT)	Co-ed. *** No. (PCT)	Girls' sch. ** No. (PCT)	Co-ed. No. (PCT)	Girls' sch. No. (PCT)	Co-ed. No. (PCT)	
1993	136 (31.9)	50 (17.9)	290 (68.1)	229 (82.1)	121 (20.7)	07 (3.3)	463 (79.3)	205 (96.7)	
1992	218 (52.5)	93 (33.2)	197 (47.5)	187 (66.8)	121 (21.6)	17 (8.2)	440 (78.4)	190 (91.8)	
1991	205 (52.2)	110 (51.4)	188 (47.8)	104 (48.6)	168 (36.8)	46 (25.4)	288 (63.2)	135 (74.6)	
1990	290 (74.7)	171 (76.7)	98 (25.3)	52 (23.3)	223 (53.9)	79 (45.9)	191 (46.1)	93 (54.1)	
1989	230 (66.7)	149 (71.3)	115 (33.3)	60 (28.7)	202 (51.3)	68 (40.2)	192 (48.7)	101 (59.8)	
Mean	215 (54.9)	114.6 (47.6)	177.6 (45.1)	126.4 (52.4)	167.0 (34.7)	43.4 (23.1)	314.8 (65.3)	144.8 (76.9)	

Source: Computed from Ministry of Education and Culture CSEE Summary Statistics 1989-94.

\* Boys' schools - Bihawana, Kigonsera, Lyamungo and Galanos

\*\* Girls' schools - Korogwe, Machame, Songea and Kondo

\*\*\* Co-educational schools - Karatu, Kilosa, Ruvo and Tunduru

Table 3: Sampled schools' academic performance tests by division and school type, 1989-93

Test	Division	N	Mean score	SD	T Value	2-Tailed Probability
Boys in single-sex Vs	I - III	5	215.8	55.22	3.11	0.014*
Boys in co-educ. Boys in Single-sex Vs	IV - O	5	114.6	47.50	1.04	0.33
Boys in co-educ. Boys' schools Vs	I - III	5	126.4	78.49	1.35	0.21
Co-educ. schools Boys' schools Vs	IV - 0	5	158.0	78.19	-1.39	0.20
Co-educ. schools Boys' schools Vs	I - III	5	271.2	129.23	1.51	0.17
Girls' schools Boys' schools Vs	IV - 0	5	167.0	46.35	-2.02	0.08
Girls' schools Girls in single-sex Vs	I - III	5	314.8	131.11	4.94	0.0011**
Girls in co-educ. Girls in single-sex Vs	IV-0	5	43.4	31.23	2.7	0.03*
Girls in co-educ. Girls' schools Vs	I-III	5	144.8	50.90	0.22	0.83
Co-educ. schools Girls' schools Vs	IV-0	5	158.0	78.19	0.53	0.61
Co-educ. schools		5	271.2	129.23		

\* P < 0.05 \*\* P < 0.01

Table 4: Sampled schools' academic performance SPA mean tests by type of school, 1989-93

Test	N	SPA Mean	SD	T Value	2-Tailed Probability
Boys' schools Vs Girls' schools	20	24.13	2.19	-4.17	0.0002***
Boys' schools Vs Co-educ. schools	20	24.13	2.19	-3.50	0.0012**
Girls' schools Vs Co-educ. schools	20	27.06	2.26	0.02	0.98

\*  $P < 0.05$  \*\*  $P < 0.01$  \*\*\*  $P < 0.001$

Other academic performance tests showed no significant differences between boys and girls and between the different types of schools divisionalwise. The comparison of the academic performance of the sampled schools using the School Point Average (SPA) means is shown in Table 4.

No significant difference was found between the performance of girls' and co-educational secondary schools. There was, however, a significant difference (t-value = -4.17,  $P < 0.001$ ) between the performance of boys' only and girls' only secondary schools. Likewise a significant difference (t value = -3.50,

P < 0.01) was tested between the academic performance of boys' only and that of co-educational secondary schools. The mean was SPA 24.13, 27.06 27.04 for boys' only, girls' only and co-educational secondary schools respectively.

#### 4.2 Academic Performance Tests at the National Level

The analysis of academic performance at the national level for all types of schools in the National Form IV Examination between 1989 and 1993 is shown in Table 5.

Table 5: National academic performance T-test by type of school, 1989-93.

Test	N	SPA mean	SD	T-Value	2-Tailed prob
Seminaries	5	22.3	1.14		
Vs				-1.97	0.084
Boys' schools	5	24.2	1.82		
Seminaries	5	22.3	1.14		
Vs				-5.82	0.0004***
Girls' schools	5	27.3	1.52		
Seminaries	5	22.3	1.14		
Vs				-11.08	0.0000***
Co-educ.	5	29.4	0.87		
Boys' schools	5	24.2	1.82		
Vs				-2.88	0.0204*
Girls' schools	5	27.3	1.52		
Boys' schools	5	24.2	1.82		
Vs				-5.79	0.0004***
Co-educ.	5	29.4	0.87		
Girls' schools	5	27.3	1.52		
Vs				-2.76	0.0248*
Co-educ.	5	29.4	0.87		

\* P < 0.05

\*\* P < 0.01

\*\*\* P < 0.001

four examination from 1971 through 1980. Malekela established further that all but one of the top 25 schools were all single-sex and boarding secondary schools. This implies that apart from the type of school, there are other factors influencing the academic performance of schools which need to be researched.

#### **4.3 Opinions of Teachers and Students on the Academic Performance Differences Between Boys and Girls and the Different Types of Schools**

Although the study did not intend to establish the academic performance differences between boys and girls in different subjects, an interest developed to seek opinions of teachers and students on the relative abilities of boys and girls in different subjects. Teachers' opinions on the type of school in which boys and girls are more committed to academic work are shown in Table 6. The hypothesis that boys and girls are more committed to academic work when they are in single-sex schools than in co-educational schools was accepted (chi-square = 7.99, DF = 2,  $P < 0.05$  for boys and chi-square = 10.91, DF = 2,  $P < 0.01$  for girls). Sixty one percent of the teachers were of the opinion that boys were more committed to academic work when they were in boys' secondary schools and 63.3% of teachers thought that girls were more committed to academic work when in girls' only secondary schools than when mixed together in co-educational secondary schools.

Teachers' opinions on which sex is adversely affected academically when mixed together in co-educational secondary schools are shown in Table 7. Over fifty percent (53.3%) of the teachers were of the opinion that girls are the most adversely affected academically in the co-education programme. Only 8.3% of teachers thought boys to be mostly adversely affected. However, there was no significant difference in the opinions of teachers from the different types of schools.

Table 6: Teachers opinions on the type of the school in which boys and girls are more committed to academic work.

Type of School	Boys ;			Girls		
	Single-sex No (PCT)	Co-Educ. No. (PCT)	Total No. (PCT)	Single-sex No. (PCT)	Co-educ No. (PCT)	Total No. (PCT)
Boys' schools	8 (42.1)	11 (57.9)	19 (32.2)	12 (60.0)	8 (40.0)	20 (33.3)
Girls' schools	11 (55.0)	9 (45.0)	20 (33.9)	8 (40.0)	12 (60.0)	20 (33.3)
Co-ed. schools	17 (85.0)	3 (15.0)	20 (33.9)	18 (90.0)	2 (10.0)	20 (33.3)
Total	36 (61.0)	23 (39.0)	59 (100.0)	38 (63.3)	22 (36.7)	60 (100.0)

Chi-square = 7.99	Chi-square = 10.91
DF = 2	DF = 2
Significance = 0.0183	Significance = 0.0043

Table 7: Teachers' responses on most adversely affected students interms of academic performance in co-educational secondary schools

Type of School	Boys No. (PCT)	Girls No. (PCT)	Uncertain No. (PCT)	None No. (PCT)	Total No. (PCT)
Boys' schools	1 (5.0)	13 (65.0)	2 (10.0)	4 (20.0)	20 (33.3)
Girls' schools	2 (10.0)	8 (40.0)	9 (45.0)	1 (5.0)	20 (33.3)
Co-educ.	2 (10.0)	11 (55.0)	5 (25.0)	2 (10.0)	20 (33.3)
Total	5 (8.3)	32 (53.3)	16 (26.7)	7 (11.7)	60 (100.0)

Chi-square = 8.21 DF = 6 Significance = 0.22

Again, there was no significant difference in the opinions of teachers on the reasons given for the sex which is most adversely affected academically in co-educational schools. The reasons given to support the opinions were:

- a) Sexual harassment of girls by boys (56.1%)
- b) None is affected as they are the same and depend on each other (14.6%).
- c) Girls behave fermininely and are shy in class (12.2%)
- d) Superiority tendencies of boys over girls (7.3%)
- e) Girls devote more time decorating themselves in co-educational secondary schools (4.9%)
- f) Laziness of girls in class when mixed with boys (4.9%)

Table 8 shows the responses of teachers on whether there was any difference in the academic performance between boys and girls in secondary schools. About eighty four percent (83.9%) of teachers agreed that there was a difference in the academic performance between boys and girls in secondary schools. However, there was no significant difference between the opinions of teachers among the different types of schools.

The responses to which category of the student's sex perform better are shown in Table 9. An examination of the responses shows that 87.8% of teachers were of the opinion that boys performed better than girls. Again, there was no significant variation in the responses given by the teachers among the types of schools.

Table 8: Teachers' opinions on the difference in the academic performance between boys and girls in secondary schools.

Type of school	Yes No. (PCT)	No No. (PCT)	Uncertain No. (PCT)	Total No. (PCT)
Boys' schools	15 (88.2)	2 (11.8)	0 (0.0)	17 (30.4)
Girls' schools	15 (78.9)	4 (21.1)	0 (0.0)	19 (33.9)
Co-educ.	17 (85.0)	3 (15.0)	0 (0.0)	20 (35.7)
Total	47 (83.9)	9 (16.1)	0 (0.0)	56 (100.0)

Chi-square = 0.60 DF = 2 Significance = 0.74

Table 9: Teachers responses on the category of students which performed better in examinations

Type of school	Boys No. (PCT)	Girls No. (PCT)	Total No. (PCT)
Boys' schools	16 (94.1)	1 (5.9)	17 (34.7)
Girls' schools	12 (75.0)	4 (25.0)	16 (32.7)
Co-educ. schools	15 (93.8)	1 (6.3)	16 (32.7)
Total	43 (87.8)	6 (12.2)	49 (100.0)

Chi-square = 3.60    DF = 2    Significance = 0.17

Students themselves were also convinced that boys performed better academically than girls. The results of students' responses are shown in Table 10. Over three-quarters (77.3%) of students indicated that the performance of boys in examinations was above that of girls. There was, however, a great diversity (chi square = 20.2, DF=4,  $p < 0.001$ ) of opinions on the type of subjects which were liked most by students of each sex.

Table 10: Students' responses on the academic performance differences between boys and girls by type of school

Type of school	Performance of boys in exams				Performance of girls in exams					
	Above girls No. (PCT)	Equal to girls No. (PCT)	Below girls No. (PCT)	Don't know No. (PCT)	Total No. (PCT)	Above boys No. (PCT)	Equal to boys No. (PCT)	Below boys No. (PCT)	Don't know No. (PCT)	Total No. (PCT)
Boys' schools	36 (92.3)	3 (7.7)	0 (0.0)	0 (0.0)	39 (32.8)	0 (0.0)	3 (7.5)	37 (92.5)	0 (0.0)	40 (33.9)
Girls' schools	26 (65.0)	10 (25.0)	2 (5.0)	2 (5.0)	40 (33.6)	2 (5.0)	13 (32.5)	22 (55.0)	3 (7.5)	40 (33.9)
Co-educ. schs.	30 (75.0)	7 (17.5)	0 (0.0)	3 (7.5)	40 (33.6)	1 (2.6)	7 (18.4)	27 (71.1)	3 (7.9)	38 (32.2)
Total	92 (77.3)	20 (16.8)	2 (1.7)	5 (4.2)	119 (100.0)	3 (2.5)	23 (19.5)	86 (72.9)	6 (5.1)	118 (100.0)

Chi-square 12.2

DF = 6

Significance = 0.06

Chi-square 15.4

DF = 6

Significance 0.02

Table 11: Type of subjects most liked by students by type of school

Type of school	Science No. (PCT)	Arts No. (PCT)	All No. (PCT)	Total No. (PCT)
Boys' schools	25 (62.5)	5 (12.5)	10 (25.0)	40 (33.3)
Girls' schools	17 (42.5)	18 (45.0)	5 (12.5)	40 (33.3)
Co-educ. sch.	13 (32.5)	9 (22.5)	18 (45.5)	40 (33.3)
Total	55 (45.8)	32 (26.7)	33 (27.5)	120 (100.0)

Chi-square = 20.2, DF=4, Significance = 0.00046

Table 11 summarizes students' responses on the type of subjects liked most in each category of school. Whereas 45.8% of students indicated that science subjects were liked most in all types of schools, 26.7% indicated that arts subjects were the most liked and 27.5% would go for both science and arts subjects.

The analysis of students' preferences for subject types by sex are shown in Table 12. The table reveals that whereas 83.3% of students believed that boys liked science subjects most, 81.4% of them were of the opinion that most girls preferred arts subjects. While there was a significant difference (chi square = 11.2, DF = 4,  $p < 0.05$ ) in opinions about the type of subjects which were mostly liked by girls, there was no significant differences in the opinions on the type of subjects mostly liked by boys. Whereas most of the respondents in boys' only secondary schools were convinced that girls would only go for arts subjects,

a good number of respondents in girls' only and co-educational secondary schools believed that girls could also manage science subjects.

Table 12: Students' opinions on the type of subjects mostly liked by each sex

Type of school	Subjects liked by boys				Subjects liked by girls				
	Science No. (PCT)	Arts No. (PCT)	Both No. (PCT)	Total No. (PCT)	Science No. (PCT)	Arts No. (PCT)	Both No. (PCT)	Total No. (PCT)	
Boys' schools	30 (75.0)	1 (2.5)	9 (22.5)	40 (33.3)	1 (2.5)	39 (97.5)	0 (0.0)	40 (33.9)	
Girls' schools	38 (95.5)	0 (0.0)	2 (5.0)	40 (33.3)	5 (12.5)	29 (72.5)	6 (15.0)	40 (33.9)	
Co-educ.	32 (80.0)	3 (7.5)	5 (12.5)	40 (33.3)	6 (15.8)	28 (73.7)	4 (10.5)	38 (32.2)	
Total	100 (83.3)	4 (3.3)	16 (13.3)	120 (100.0)	12 (10.2)	96 (81.4)	10 (8.5)	118 (100.0)	
	Chi-square = 9.2 DF = 4 Significant = 0.06				Chi-square = 1.2 DF = 4 Significant = 0.02				;

The relative ability of boys and girls in different school subjects is shown in Table 13. An examination of Table 13 reveals that boys scoring above average out-numbered girls in the following subjects: Physics (59.3% vs 24.4%); Maths (56.0% vs 27.0%); Chemistry (64.4% vs 45.8%); Civics (75.4% vs 63.2%); History (64.4% vs 57.6%); English (69.5% vs 57.6%); and Agricultural science (52.4% vs 50.9%). On the other hand, girls scoring above average out-numbered boys in Biology (63.1% vs 44.8%); Religion (57.9% vs 48.3%) and Kiswahili (78.0% vs 76.3%). It was in Geography only where teachers thought the performance of boys to be equal to that of girls (67.8% vs 67.8%).

Table 13: Teachers' opinions on the relative ability of boys and girls in different subjects

Name of Subject	Ability of boys				Ability of girls					
	Below average No. (PCT)	Average No. (PCT)	Above average No. (PCT)	Chi-square	Signifi- cance	Below average No. (PCT)	Average No. (PCT)	Above average No. (PCT)	Chi-square	Signifi- cance
Civics	4 (7.0)	10 (17.6)	43 (75.4)	12.38	0.14	1 (1.7)	20 (35.1)	36 (63.2)	8.36	0.21
Kiswahili	0 (0.0)	14 (23.7)	45 (76.3)	3.92	0.42	2 (3.4)	11 (18.6)	46 (78.0)	4.24	0.64
English	0 (0.0)	18 (30.5)	41 (69.5)	10.71	0.03*	4 (6.8)	16 (27.1)	39 (66.1)	16.90	0.03*
History	4 (6.8)	17 (28.8)	38 (64.4)	14.51	0.02*	7 (11.9)	18 (30.5)	34 (57.6)	14.82	0.06
Geography	2 (3.4)	17 (28.8)	40 (67.8)	10.56	0.23	4 (6.8)	15 (25.4)	40 (57.8)	10.01	0.12
Maths	12 (20.3)	14 (23.7)	33 (56.0)	12.06	0.15	28 (47.5)	15 (25.4)	16 (27.6)	14.16	0.08
Biology	14 (24.1)	18 (31.0)	26 (44.8)	5.10	0.75	9 (15.8)	12 (21.1)	36 (63.1)	8.33	0.40
Chemistry	8 (13.6)	13 (22.0)	38 (64.4)	19.78	0.003**	16 (27.1)	16 (27.1)	27 (45.8)	10.63	0.22
Physics	12 (20.3)	12 (20.3)	35 (59.3)	14.35	0.07	25 (42.4)	19 (32.2)	15 (25.4)	6.84	0.55
Agric. Science	14 (23.8)	14 (23.8)	31 (52.4)	9.63	0.29	10 (16.9)	19 (32.2)	30 (50.9)	7.61	0.47
Religion	7 (12.1)	23 (39.6)	28 (48.3)	9.18	0.38	8 (14.0)	16 (28.1)	33 (57.9)	19.62	0.01*

Significant differences in opinions of teachers on the relative ability of boys and girls in different school subjects as shown in Table 13 occurred in English (chi square = 10.71, DF =4,  $p < 0.05$ ; chi square =16.90, DF=8,  $p < 0.05$ ) for boys and girls respectively, History (chi square = 14.51, DF = 6,  $p < 0.05$ ) for boys, Chemistry (chi square 19.78,DF= 6  $p < 0.01$ ) and Religion (chi square = 19.62, DF = 8,  $p < 0.05$ ) for girls.

No significant differences were observed in civics, Kiswahili, Geography, Maths, Biology, Physics, Agricultural science, History (girls), Chemistry (girls), and Religion (boys).

An analysis of students preferences for types of subjects conformed to the earlier findings by TADREG (1989) and Malekela (1983) both cited in Mbilinyi et al. (1991) and those of Siann and Ugwuegbu (1980) that boys liked science subjects most while girls preferred arts subjects. However, findings on the relative ability of boys and girls in different school subjects seem to differ from some of the earlier observations made by different researchers. For example, whereas girls were said to perform worse in all basic science subjects and maths (Mbilinyi et al. 1991), this study shows that girls were considered to perform better than boys in biology. Again, Blake (1968) noted that she was unable to see much difference between girls and boys in languages, chemistry and maths. In this study and that of Coulson (1976), girls were found to perform much less than boys in maths and chemistry. Also this study established that boys were found

to perform better than girls in arts subjects such as English, Civics and History. Furthermore, these results suggest that boys and girls are more committed to academic work when they are in single-sex secondary schools than when mixed in co-educational secondary schools. The results have also confirmed the second assumption that girls are more adversely affected both academically and socially than boys in co-educational secondary schools. What is generally implied here is that boys performed better academically than girls in co-educational secondary schools. Although boys performed better than girls in co-educational secondary schools, it appears that they are also disadvantaged when mixed in co-educational secondary schools than when they are in single-sex secondary schools.

#### **4.4 Effects of Social Relationships in the Academic Performance of Schools**

The majority of teachers were convinced that girls are the mostly affected socially in co-educational secondary schools. This is indicated in Table 14. The table reveals that 50% of teachers were of the opinion that girls were the most affected socially in co-educational secondary schools. Only 20% of teachers indicated that boys were most socially affected in those schools. Reasons given to support their views that girls are mostly adversely affected include that: (a) girls are not confident when mixed with boys, (b) girls are affected more because of gender issue, and (c) girls are affected more because of shyness.

Table 14: Teachers' opinions on the sex which is mostly adversely affected socially in co-education secondary schools

Type of School	Boys No. (PCT)	Girls No. (PCT)	Uncertain No. (PCT)	None No. (PCT)	Total No. (PCT)
Boys' schools	3 (15.0)	11 (55.0)	2 (10.0)	4 (20.0)	20 (33.3)
Girls' schools	6 (30.0)	9 (45.0)	2 (10.0)	3 (15.0)	20 (33.3)
Co-educ.	3 (15.0)	10 (50.0)	4 (20.0)	3 (15.0)	20 (33.3)
Total	12 (20.0)	30 (50.0)	8 (13.3)	10 (16.7)	60 (100)

Chi-square = 2.90, DF = 6, Significance = 0.82

Those who thought that boys were mostly affected gave sex attraction to girls as the reason affecting them socially in co-educational secondary schools. For those who were uncertain on which sex was adversely affected said that all students regardless of sex can be affected equally depending on the administration of the school.

Heads of schools' responses on the degree of social relationships in their schools are shown in Table 15. Except for the relationship between female students as a group and male students as a group, other kinds of relationships were perceived to be generally good. However, teachers' perceptions of their relationships with students as shown in Table 16 reveal that 69.0% of teachers felt that their social relationships with students were unsatisfactory. Only 17.2% of teachers described their relationships with students as satisfactory and 13.8% felt that their relationship with students was bad.

Table 15: Heads of schools opinions on the degree of social relationships in their schools

Type of social relationship	Degree of relationship			Chi- square	Significance
	Poor No. (PCT)	Satisfactory No. (PCT)	Good No. (PCT)		
. Community with school in general	0 (0.0)	2 (16.7)	10 (83.3)	7.50	0.11
. Community with students	1 (8.3)	3 (25.0)	8 (66.7)	11.00	0.09
. Community with teachers	0 (0.0)	1 (8.3)	11 (91.7)	5.80	0.21
. Special groups in the community with the school (school boards)	0 (0.0)	4 (33.3)	8 (66.7)	6.00	0.02
. Pupil with pupil in general	2 (16.7)	0 (0.0)	10 (83.3)	3.29	0.51
. Individual male and female students	2 (25.0)	1 (12.5)	5 (62.5)	8.0	0.43
. Male student group with female student group	1 (20.0)	2 (40.0)	2 (40.0)	5.0	0.08
. Older students with younger students	1 (11.1)	1 (11.1)	7 (77.8)	4.23	0.38
. Students of higher classes with those of lower classes	3 (25.0)	1 (8.3)	8 (66.7)	7.29	0.51
. Female teachers with female students	0 (0.0)	0 (0.0)	10 (100.0)	0.63	0.73
. Female teachers with male students	0 (0.0)	2 (28.6)	5 (71.4)	3.71	0.05
. Male teachers with female students	2 (20.0)	0 (0.0)	8 (80.0)	8.75	0.19
. Male teachers with male students	0 (0.0)	1 (14.3)	6 (85.7)	2.10	0.35
. Female teachers with male teachers	0 (0.0)	1 (8.3)	11 (91.7)	4.25	0.37
. Female teachers with female teachers	0 (0.0)	1 (8.3)	11 (91.7)	3.40	0.49
. Male teachers with male teachers	0 (0.0)	3 (25.0)	9 (75.0)	5.0	0.29
. Male teachers with head of school	0 (0.0)	3 (25.0)	9 (75.0)	3.6	0.46
. Female teachers with head of school	1 (8.3)	1 (8.3)	10 (83.3)	7.0	0.32

Table 16: Teachers' description on their relationships with students socially by type of school

Type of School	Bad No. (PCT)	Unsatisfactory No. (PCT)	Satisfactory No. (PCT)	Total No. (PCT)
Boys' schools	3 (15.8)	14 (73.7)	2 (10.5)	19 (32.8)
Girls' schools	2 (10.0)	14 (70.0)	4 (20.0)	20 (34.4)
Co-educ.	3 (15.8)	12 (63.2)	4 (21.0)	19 (32.8)
Total	8 (13.8)	40 (69.0)	10 (17.2)	58 (100.0)

Chi-square = 1.22, DF = 4, Significance = 0.87

There was no significant difference between teachers' opinion on their social relations with their students among the schools.

Students' responses on whether they interact freely in studies and other school activities are shown in Table 17. About 62% of students expressed that they mix freely in school activities. A highly significant difference (chi-square=42.8, DF=2,  $P < 0.001$ ) was noted between students responses in the different categories of schools. Whereas 54.4% of students in boys' only secondary schools indicated that they mixed freely in school activities, 71% of students in girls' only secondary schools indicated that they did not mix freely in school activities. On the other hand, 100% of students in co-educational secondary schools indicated that they mixed freely in school activities.

Table 17: Students' responses on mixing freely in studies and other school activities

Type of school	Yes No. (PCT)	No No. (PCT)	Total No. (PCT)
Boys' schools	22 (56.4)	17 (43.6)	39 (33.3)
Girls' schools	11 (28.9)	27 (71.1)	38 (32.5)
Co-educ. schools	40 (100.0)	0 (0.0)	40 (34.2)
Total	73 (62.4)	44 (37.6)	117 (100.0)

Chi-square = 42.8, DF = 2, Significance = 0.00000

Regarding the inter-school relations, Table 18 shows that 96.7% of students agreed that their schools had social and academic relationships with other neighbouring secondary schools. However, a significant difference (chi-square = 8.27, DF=2,  $P < 0.05$ ) occurred between their responses according to the type of school. It was only in co-educational secondary schools where some of the respondents indicated that their schools had no relations with other secondary schools. Students views were also supported by their heads of schools as shown in Table 19. The table reveals that 91.7% of the school heads indicated that their schools have inter-school relations with other secondary schools. Both students and heads of schools expressed that the form of relationship with other schools was in one or more of the following events: sports (especially UMISSETA), debates, drama, music, school visits and religious meetings.

Table 18: Students' responses on inter-school relations with other neighbouring secondary schools

Type of School	Yes No. (PCT)	No No. (PCT)	Total No. (PCT)
Boys' schools	40 (100.0)	0 (0.0)	40 (33.3)
Girls' schools	40 (100.0)	0 (0.0)	40 (33.3)
Co-educ. schools	36 (90.0)	4 (10.0)	40 (33.3)
Total	116 (96.7)	4 (3.3)	120 (100.0)

Chi-square =8.27, DF=2, Significance=0.02

Table 19: Heads of schools' responses on social and academic relations with other neighbouring schools

Type of School	Yes No. (PCT)	No No. (PCT)	Total No. (PCT)
Boys' schools	4 (100.0)	0 (0.0)	4 (33.3)
Girls' schools	3 (75.0)	1 (25.0)	4 (33.3)
Co-educ. schools	4 (100.0)	0 (0.0)	4 (33.3)
Total	11 (91.7)	1 (8.3)	12 (100.0)

Chi-Square=2.18, DF=2, Significance=0.34

The significant difference established in students' opinions whether they mix freely in school activities or not was due to the fact that 100% of students in co-educational secondary schools indicated that they mixed freely in school activities while those in single-sex secondary schools indicated that they did not mix freely since those schools have no students of opposite sex.

It has been found that if students are allowed to mix freely especially in co-educational secondary schools, the struggle for social associations is minimized particularly when the ratio of girls to boys is 1:1 (Castle, 1976). Although the results show that the distribution of students by sex in co-educational secondary schools was not exactly 1:1, the difference is not extremely high (54.1% vs 45.9%) for boys and girls respectively. The imbalance of girls and boys in co-education is assumed to be caused by dropouts which occur during school time especially girls who dropout due pregnancies.

The researchers' observations of what was actually happening in the sampled schools with regard to social interactions are shown in Table 20. No major differences were observed in social interactions among the different categories of schools. Generally, the result show that there was a good social relationship in schools. Students' interactions in different school activities were also good.

Table 20: The researchers' observations on social interactions in schools. N=12

Activity observed	Frequency of occurrence			Chi-square	Significance
	Rarely (PCT)	Occasionally (PCT)	Often (PCT)		
Students cooperate and help each other in performing various school tasks assigned to them	0.0	16.7	83.3	1.50	0.83
Students mix freely in the following:					
a) Classes	0.0	0.0	100.0	2.67	0.26
b) Manual work	8.3	0.0	91.7	5.74	0.22
c) Sports	0.0	8.3	91.7	3.67	0.45
d) Recreations	0.0	0.0	100.0	3.0	0.22
e) Dormitories	0.0	25.0	75.0	9.0	0.17
There is bullying of smaller pupils by bigger ones	83.3	8.3	8.3	10.50	0.11
There is harassment of girls by boys and vice versa	58.3	8.3	33.3	13.8	0.09
Teachers respect each other and show good examples of behaviour to the school community	8.3	16.7	75.0	4.29	0.64
Teachers and non-teaching staff acknowledge respect given to them by their students	8.3	8.3	83.3	10.50	0.11
The head of school respect his/her teachers, non-teaching staff and students	0.0	33.3	66.7	4.0	0.41
The school has interhouse and interschool competitions for cleanliness, sports etc.	16.7	0.0	83.3	6.0	0.42

#### **4.5 Effects of Personal Characteristics of the Teaching Staff on the Academic Performance**

The Ministry of Education and Culture (1980) issued the following directives with regard to the characteristics of the teaching staff in its secondary schools:

a) **Academic qualifications:**

Teachers for 'A' level classes should have at least a first degree. Teachers for 'O' level classes should possess either a degree or diploma but the number of graduates in a particular school should not be less than 25% of all teachers. Furthermore, teachers with certificates should not be allowed to teach secondary schools.

b) **Experience:**

Half of the teaching staff in a particular school should have teaching experience of not less than 2 years. For someone to be appointed as a head of department he/she should have an experience of not less than 2 years. The deputy head of school (second master/mistress) should have teaching experience of not less than 4 years if male and not less than 3 years in case of a female.

c) **Male-female ratio:**

In a girls' secondary school the number of female teachers should be more than half of all teachers. Similarly in a boys' secondary school the number of male teachers should be more than half of the teaching staff.

For co-educational secondary schools the composition should not have less than 25% of either sex.

d) Marital status:

There was no specification set upon the marital status of a teacher. However, the heads of schools were urged to ensure that at any given moment, there should be a reasonable ratio of married and unmarried (single) teachers.

The study set to determine whether the teaching staff in the sampled schools met these standards or not. Distribution of teachers by gender in the sampled schools is shown in Table 21. It is revealed from table that there were more male teachers than female teachers in boys' and co-educational secondary schools. In boys' only secondary schools male teachers comprised 80.3% and female teachers comprised 19.7% of all teachers. In co-educational secondary schools, the teaching staff composed of 71.5% males and 28.5% females. The number of female teachers was slightly higher than that of male teachers in girls' secondary schools where female teachers totalled 55.4% of all the teachers while male teachers formed 44.6%. The overall distribution of teachers in the sampled schools shows that male teachers comprised 63.9% of all teachers in those schools. There was, however, a significant difference ( $\chi^2=15.37$ ,  $DF=2$ ,  $P<0.001$ ) in the distribution of teachers by gender in the sampled

schools (Table 21). Boys' and co-educational secondary schools had more male teachers while girls' schools had also a substantial amount of male teachers.

Recommendations of teachers on the ideal ratio of male to female teachers for the three categories of schools are shown in Table 22. Seventy five percent of teachers proposed that boys' secondary schools should have more male teachers than female teachers.

Table 21: Distribution of teachers by gender and type of school

Type of School	Male No. (PCT)	Female No. (PCT)	Total No. (PCT)
Boys' schools	102 (80.3)	25 (19.7)	127 (31.2)
Girls' schools	70 (44.6)	87 (55.4)	157 (38.6)
Co-educ. schools	88 (71.5)	35 (28.5)	123 (30.2)
Total	260 (63.9)	147 (36.1)	407 (100.0)

Chi-square = 15.37, DF = 2, Significance = 0.0005

On the other hand, 51.7% of teachers proposed that girls' secondary schools should have more female teachers than male teachers. About 73% of teachers proposed further that co-educational secondary schools should be composed of equal numbers of teachers of each sex, that is, they should have a ratio of 1:1

between male and female teachers, and these opinions revealed a significant difference (chi-square=13.36, DF=6,  $P < 0.05$ ).

Table 22: Recommendations of teachers on the ideal ratio of male to female teachers for the different types of schools N=60

Type of school	Proposed ratio					Chi-square	Significance
	More Males No. (PCT)	More Females No. (PCT)	Equal number No. (PCT)	Males only No. (PCT)	Females only No. (PCT)		
Boys' schools	45 (75.0)	1 (1.7)	9 (15.0)	4 (6.7)	1 (1.7)	14.10	0.08
Girls' schools	5 (8.3)	31 (51.7)	21 (35.0)	0 (0.0)	3 (5.0)	4.85	0.56
Co-educ.	10 (16.7)	5 (8.3)	44 (73.3)	1 (1.7)	0 (0.0)	13.36	0.04*

\*  $P < 0.05$

Similarly, the heads of schools recommended that boys' only secondary schools should have more male teachers (90.9%), girls' only secondary schools more female teachers (81.8%) and co-educational secondary schools a balanced ratio of the two sexes (70.0%). Their views on the ideal ratio of male to female teachers for the different types of schools are shown in Table 23. No significant difference occurred on the views of the headmasters/mistresses on the ideal ratio of teachers for the different types of schools.

Table 23: Heads of schools recommendations for the ideal ratio of male to female teachers for the different types of schools

Type of school	Recommended ratio					Total	Chi-square	Significance
	More males No. (PCT)	More females No. (PCT)	Equal No. (PCT)	Males only No. (PCT)	Females only No. (PCT)			
Boys' schools	10 (90.9)	0 (0.0)	0 (0.0)	1 (9.1)	0 (0.0)	11 (100.0)	2.93	0.23
Girls' schools	0 (0.0)	9 (81.8)	0 (0.0)	0 (0.0)	2 (18.2)	11 (100.0)	1.48	0.48
Co-educ.	0 (0.0)	1 (10.0)	7 (70.0)	2 (20.0)	0 (0.0)	10 (100.0)	2.50	0.64

Concerning the marital statuses of teachers, Table 24 shows that whereas 59.7% of teachers in the sampled schools were married, 38.1% were single, 1.2% divorced and 1.0% widowed. No significant difference existed with regard to marital statuses of teachers across the different types of schools.

Table 24: Distribution of teachers by marital status and type of school

Type of School	Single No. (PCT)	Married No. (PCT)	Divorce No. (PCT)	Widowed No. (PCT)	Total No. (PCT)
Boys' schools	46 (36.2)	80 (63.0)	0 (0.0)	1 (0.8)	127 (31.2)
Girls' schools	56 (35.7)	93 (59.2)	5 (3.2)	3 (1.9)	157 (38.6)
Co-educ.	53 (43.1)	70 (56.9)	0 (0.0)	0 (0.0)	123 (30.2)
Total	155 (38.1)	243 (59.7)	5 (1.2)	4 (1.0)	407 (100.0)

Chi-square 5.70, DF = 6, Significance = 0.46

The heads of schools recommendations for the ideal marital status of teachers for the different types of schools are shown in Table 25. The table indicates that 58.3% of school heads expressed that teachers of any marital status can teach boys' only and co-educational secondary schools and 50% were of the opinion that teachers of any marital status are suitable for girls' only secondary schools. Reasons advanced to support their recommendations for teachers' status for boys' only secondary schools were: (a) any qualified teacher can teach boys' secondary schools (66.7%) (b) married teachers have good social moral (33.3%). However, reasons given to support their views on ideal marital status of teachers for girls' secondary schools are: (a) female teachers will reduce sex harassment (30%) (b) any teacher provided he/she is well behaved (30%) (c) female teachers understand girls problems (20%) (d) female teachers will provide good morals (10%) and (e) male teachers are weak to female students (10%).

The reasons given to support the opinions of heads of schools on the suitable marital status of teachers suitable for co-educational secondary schools are as follows: (a) any teacher provided that she/he is a qualified teacher (18.2%) (b) married teachers can easily understand the problems of adolescents (18.2%) (c) married teachers can easily check and control students' relations (18.2%) (d) married teachers can control school discipline (18.2%). Other mentioned reasons include: (e) married female teachers are motherly (9.1%) (f) male teachers are weak to girls (9.1%) (g) single male teachers can destruct girls (9.1%)

Table 25: Heads of schools' recommendations for the ideal marital status of teachers for the different types of schools

Recommended marital status	Type of school		
	Boys' schools No. (PCT)	Girls' school No. (PCT)	Co-educ. No. (PCT)
Single male	0 (0.0)	0 (0.0)	0 (0.0)
Single female	0 (0.0)	0 (0.0)	0 (0.0)
Married male only	1 (8.3)	0 (0.0)	1 (8.3)
Married female only	0 (0.0)	2 (16.7)	1 (8.3)
Married female and male	2 (16.7)	1 (8.3)	1 (8.3)
Single and married male	2 (16.7)	0 (0.0)	0 (0.0)
Single and married female	0 (0.0)	3 (25.0)	2 (16.7)
Any	7 (58.3)	6 (50.0)	7 (58.3)
	Chi-square = 8.14 DF = 6 P = 0.23	Chi-square = 13.0 DF = 8 P = 0.11	Chi-square = 10.29 DF = 8 P = 0.25

Again, there was no significant difference in the recommendations and reasons given by heads of schools on the suitable marital status of a teacher for different types of schools.

The age and academic qualifications of teachers are given in Table 26 and 27. Table 26 gives a summary of the distribution of teachers by age in the sampled schools. An examination of the table reveals that 44.7% of teachers were

between 31-40 years of age, 27% were between 41-50 years and 25.8% were below 30 years.

Table 26: Age distribution of teachers in the sampled schools by type of school

Type of school	< 30 yrs	31-40 yrs	41-50 yrs	> 50 yrs	Total
	No. (PCT)	No. (PCT)	No. (PCT)	No. (PCT)	No. (PCT)
Boys' schools	27 (21.2)	59 (46.5)	39 (30.7)	2 (1.6)	127 (31.2)
Girls' schools	34 (21.7)	76 (48.4)	44 (28.0)	3 (1.9)	157 (38.6)
Co-educ. schools	44 (35.8)	47 (38.2)	27 (22.0)	5 (4.0)	123 (30.2)
Total	105 (25.8)	182 (44.7)	110 (27.0)	10 (2.5)	407 (100.0)

On the academic qualifications of teachers in the sampled schools, Table 27 shows that only 13.3% of teachers were degree holders. The rest (86.7%) were either diploma or certificate holders. No significant difference was established with regard to the distribution of teachers by academic qualifications among the different types of schools.

Table 27: Distribution of teachers by academic qualifications in the sampled schools

Type of school	Graduate No. (PCT)	Diploma No. (PCT)	Total No. (PCT)
Boys' schools	14 (11.0)	113 (89.0)	127 (31.2)
Girls' schools	25 (15.0)	132 (84.1)	157 (38.6)
Co-educ. schools	15 (12.2)	108 (87.8)	123 (30.2)
Total	54 (13.3)	353 (86.7)	407 (100.0)

Chi-square=10.37, DF=10, Significance=0.41

The teaching experience of teachers in the sampled schools is shown in Table 28. Whereas most of the teachers (60.4%) had a teaching experience of more than 3 years, 21.4% had a teaching experience of 1-3 years and 18.2% had a teaching experience of less than one year. Teachers in boys' secondary schools had a mean teaching experience of 5.12 years with a standard deviation of 3.57. Those in girls' secondary schools had a mean teaching experience of 7.04 years with a standard deviation of 5.95, while teachers in co-educational secondary schools had a mean teaching experience of 6.75 years with a standard deviation of 4.87.

Table 28: Teaching experience of teachers in the sampled schools by type of school

Type of school	< 1 yr No. (PCT)	1-3 yrs No. (PCT)	> 3 yrs No. (PCT)	Total No. (PCT)	Mean	SD
Boys' schools	12 (9.5)	36 (28.3)	79 (62.2)	127 (31.2)	5.12	3.57
Girls' schools	29 (18.5)	26 (16.5)	102 (65.0)	157 (38.6)	7.04	5.95
Co-educ.	33 (26.8)	25 (20.3)	65 (52.9)	123 (30.2)	6.75	4.87
Total	74 (18.2)	87 (21.4)	246 (60.4)	407 (100.0)		

Although the overall composition of teachers by gender in the different types of schools met the standards set by the Ministry of Education and Culture, it was observed that 50% of girls' secondary schools had more male teachers than female teachers. It was noted further that half of co-educational secondary schools had female teachers comprising less than 25% of all the teaching staff. Mbilinyi et al. (1991) contended that in such situations students lack role models to emulate.

Agewise, the findings show that the majority of teachers were aged between 30 and 40 years. This age group is considered to be ideal for teaching secondary school students. Waller (1932) observed that teachers who are young commonly suffer from the inability to maintain social distance between themselves and their students. On the other hand, older teachers secure subordination more easily. They seldom become involved with social life of students because of their

age and social distance that go with age differences.

Again, the majority of teachers had teaching experience of more than 3 years. Studies of gains in teaching efficiency through experience and passage of years conducted by Waller (1932) showed that the maximum efficiency is reached after 3 years of teaching.

Academically, the findings revealed that only 13.3% of the teachers were graduates. The rest 86.7% were either diploma or certificate holders. Since there was no significant difference in the composition of teachers by academic qualifications among the schools, it implies that all schools generally lacked teachers with recommended educational standards. It was observed that in most schools it was only the head who was a graduate. This implies that the target of having not less than 25% graduate teachers in every secondary school is far from the reach.

#### **4.6 Effects of School Discipline in the Performance of Schools**

Opinions of heads of schools on the age group of students which violate most the school rules are shown in Table 29. More than 58% of school heads expressed that those students aging between 17 and 19 years were the most violators of school rules. This age group was closely followed by those between 14 and 16

years of age which was rated by 33.3% of heads of schools. Only 8.3% of the headmasters/mistresses felt that students above 20 years of age were trouble makers. The heads of schools described the behaviour of the age group for violators as follows: (a) they are at adolescence age (b) they have much confidence and they like freedom (c) they are naughty, stubborn and aggressive (d) they have no sense of responsibility. Those who thought that the age group of violators was 20 years and above felt that students in that category are disobedient, self-confident and tend to know much.

Table 29: Heads of schools' opinions on the age group of students that violates most the school rules. N=12

Type of school	< 13 yrs No. (PCT)	14-16 yrs No. (PCT)	>17-19 yrs No. (PCT)	>20 yrs No. (PCT)
Boys' schools	0 (0.0)	0 (0.0)	3 (75.0)	1 (25.0)
Girls' schools	0 (0.0)	2 (50.0)	2 (50.0)	0 (0.0)
Co-educ.	0 (0.0)	2 (50.0)	2 (50.0)	0 (0.0)
Total	0 (0.0)	4 (33.3)	7 (58.3)	1 (8.3)

chi-square = 6.00, Df = 6, Significance = 0.42

Teachers' and students' opinions on the degree to which the different sexes violated the school rules are shown in Table 30. Generally, all offenses were perceived to be less of a problem to both sexes. However, a thorough

- b) Theft (48.3%, 55.0%) vs (6.7%, 11.7%)
- c) Drunkenness (37.9%, 55.0%) vs (3.3% , 5.0%)
- d) Cigarette smoking (30.0%, 50.8%) vs (8.3%, 5.0%)
- e) Brawls (30.0%, 45.8%) vs (8.3%, 12.6%)
- f) Vandalism (42.4%, 39.5%) vs (18.3%, 23.7%)
- g) Bullying younger pupils (35.6%, 50.0%) vs (3.4%, 7.6%)

Offenses which were found to be more of a problem to girls than boys include:

- a) Marriage (5.1%, 16.8) vs (15.3%, 40.2)
- b) Pregnancy (7.0%, 8.5%) vs (25.0%, 46.6%)
- c) Abortion (5.2%, 5.2%) vs (8.5%, 50.4%)

There was, however, a difference of opinions between teachers and students with regard to promiscuity and drug abuse offenses. Teachers felt that promiscuity and drug abuse were less of a problem to boys than girls (10.0% vs 15.0% and 10.0% vs 11.7% for promiscuity and drug abuse respectively) but students felt that the two offenses (promiscuity and drug abuse) were more of a problem to boys than girls (42.4% vs 34.5% and 41.5% vs 17.1%).

Table 30: Opinions of teachers and students frequency of occurrence of offenses in the sampled schools

Type of offense and degree of occurrence		Teachers' opinions N=60		Students' opinions =120	
		Boys (PCT)	Girls (PCT)	Boys (PCT)	Girls (PCT)
Truancy	a) Less of a problem	61.7	88.3	48.3	71.7
	b) A problem	38.3	11.7	51.7	28.3
Theft	a) Less of a problem	51.7	93.2	45.0	88.3
	b) A problem	48.3	6.7	55.0	11.7
Promiscuity	a) Less of a problem	90.0	85.0	57.6	65.5
	b) A problem	10.0	15.0	42.4	34.5
Drunkenness	a) Less of a problem	62.1	96.7	45.0	95.0
	b) A problem	37.9	3.3	55.0	5.0
Cigarette smoking	a) Less of a problem	70.0	91.7	49.2	95.0
	b) A problem	30.0	8.3	50.8	5.0
Drug abuse	a) Less of a problem	85.0	88.3	58.5	82.9
	b) A problem	10.0	11.7	41.5	17.1
Brawls	a) Less of a problem	70.0	91.7	54.2	87.4
	b) A problem	30.0	8.3	45.8	12.6
Vandalism	a) Less of a problem	57.6	81.7	60.5	76.3
	b) A problem	42.4	18.3	39.5	23.7
Marriage	a) Less of a problem	94.9	84.7	83.2	59.8
	b) A problem	5.1	15.3	16.8	40.2
Pregnancy	a) Less of a problem	93.0	75.0	91.5	53.4
	b) A problem	7.0	25.0	8.5	46.6
Abortion	a) Less of a problem	94.8	91.5	94.8	49.6
	b) A problem	5.2	8.5	5.2	50.4
Bullying	a) Less of a problem	64.4	96.6	50.0	92.4
	b) A problem	35.6	3.4	50.0	7.6

Table 31 shows the extent to which students were expelled from the sampled schools on the offenses listed in Table 30 between 1989 and 1993. The table shows that students expelled from school because of these offenses were 4.9% in girls' secondary schools, 4.2% in co-educational secondary schools and only 1.8% of students in boys' secondary schools. Leading offenses mentioned included pregnancy for girls, truancy, and theft for both boys and girls.

Table 31: Students expelled on disciplinary offenses in the sampled schools by school type between 1989 and 1993

Type of School	Expelled students No. (PCT)	Schools enrolment No. (PCT)
Boys' schools	32 (1.8)	1734 (28.40)
Girls' schools	112 (4.9)	2309 (37.8)
Co-educ.	87 (4.2)	2061 (33.8)
Total	231 (3.8)	6104 (100.0)

Observations made by the researcher on students' behaviours in respect to school discipline are presented in Table 32. With the exception of students use of abusive language (chi-square = 19.20, DF=4,  $P < 0.001$ ) students returning to school in time (chi-square = 16.80, DF=8,  $P < 0.05$ ) and students visiting dormitories of opposite sex (chi-square = 9.75, DF=4,  $P < 0.05$ ) which were significantly different among the three categories of schools, other observations showed no significant differences. Some students failed to report in school in time during school openings on grounds of getting school fees late. The use of abusive language was only common in some of the boys' and co-educationl secondary schools. The significant difference observed in visiting dormitories of opposite sex was brought due to the fact that single sex secondary schools had no such dormitories.

Table 32: The researcher's observation of students' behaviours in respect to school discipline N = 12

Observed behaviour	Frequency of occurrence			Chi square	Significance
	Rarely (PCT)	Occasionally (PCT)	Often (PCT)		
1. Students stand up when greeting elders and visitors	8.3	8.3	83.3	8.50	0.20
2. Students use abusive language among themselves, teachers and other people	58.3	41.7	0.0	19.20	0.000***
3. Students respect teachers and all non-teaching staff as their guardians	8.3	16.7	75.0	6.00	0.42
4. Students cooperate and help each other in performing various school tasks assigned to them	0.0	16.7	83.3	1.50	0.83
5. Students value both academic and manual work	0.0	25.0	75.0	5.00	0.29
6. Students					
(a) smoke cigarettes	83.3	0.0	16.7	9.75	0.14
(b) keep long nails and dirty hair	91.7	0.0	8.3	4.25	0.37
(c) Keep beards	83.3	8.3	8.3	12.0	0.06
(d) Quarrel with each other	75.0	25.0	0.0	4.06	0.40
(e) Wear undisciplined clothes	91.7	0.0	8.3	4.25	0.37
(f) damage public property (vandalism)	75.0	25.0	0.0	0.90	0.92
7. Students respond quickly when called/summoned by their seniors	8.3	8.3	83.3	9.0	0.17
8. Students respect the					
(a) assembly hall	0.0	8.3	91.7	4.60	0.33
(b) dining hall	0.0	25.0	75.0	3.29	0.51
(c) school offices	0.0	16.7	83.3	1.29	0.86
(d) school properties	0.0	41.7	58.3	6.60	0.16
9. Students demonstrate good behaviour all the time	0.0	8.3	91.7	3.67	0.45

Table 32: Continued

Observed behaviour	Frequency of occurrence			Chi square	Significance
	Rarely (PCT)	Occasionally (PCT)	Often (PCT)		
10. Students queue when receiving services	0.0	8.3	91.7	4.25	0.37
11. Students raise hands and stand up when answering questions	0.0	16.7	83.3	3.67	0.45
12. Students observe silence in classes	0.0	25.0	75.0	5.30	0.26
13. Students ask for permission when they want to get out of the classes	0.0	25.0	75.0	4.40	0.35
14. Students attend school throughout the course i.e. there is no truancy	0.0	16.7	83.3	2.25	0.69
15. Students attend subject periods in and out of the classes	8.3	16.7	75.0	8.0	0.24
16. Students attend to manual work activities	0.0	16.7	83.3	3.0	0.56
17. Students attend to all school-organized meetings e.g. school 'baraza', flag raising etc.	0.0	8.3	91.7	3.64	0.46
18. Students know and appreciate the importance of having evening preparation	0.0	25.0	75.0	0.00	1.00
19. Students do assignments given to them during preparation time	0.0	25.0	75.0	5.14	0.27
20. Students keep time and follow closely school's timetable	0.0	0.0	100.0	1.2	0.55
21. Students respond quickly to alarms	8.3	8.3	83.3	8.4	0.21
22. Students arrive at the school punctually during school openings	16.7	8.3	75.0	7.29	0.30

Table 32: Continued

Observed behaviour	Frequency of occurrence			Chi square	Significance
	Rarely (PCT)	Occasionally (PCT)	Often (PCT)		
23. Students wear school uniforms when					
(a) they are in classes	0.0	0.0	100.0	1.20	0.55
(b) they are going out of school on official visits	0.0	8.3	91.7	4.80	0.31
(c) they are in school "baraza"	0.0	0.0	100.0	2.18	0.34
(d) attending organized processions	0.0	8.3	91.7	4.20	0.38
(e) travelling to and from vacation/holiday	50.0	16.7	33.3	7.00	0.54
24. Students mix uniforms with other forms of dressings such as hats, decorators etc.	75.0	16.7	8.3	5.25	0.51
25. Students keep school uniforms clean all the time	16.7	8.3	75.0	9.0	0.17
26. Students go out of school boundaries without official permission	75.0	8.3	16.7	6.90	0.55
27. Students return to school in time when given permission to go out of school compound	16.7	8.3	75.0	16.80	0.03*
28. Students visit the following places without permission					
(a) staff-room	83.3	8.3	8.3	6.29	0.39
(b) school offices	83.3	8.3	8.3	5.25	0.51
(c) laboratories	75.0	8.3	16.7	9.75	0.14
(d) kitchen	66.6	16.7	16.7	9.0	0.34
(e) staff quarters	91.7	8.3	0.0	4.60	0.33
(f) dormitories of opposite sex	91.7	0.0	8.3	9.75	0.04*
29. Students go to the following strictly forbidden places:-					
(a) bars and 'pombe' shops	100.0	0.0	0.0	2.67	0.26
(b) guest-houses and lodgings	100.0	0.0	0.0	1.20	0.55
(c) un-authorized recreational centres	83.3	16.7	0.0	3.67	0.45

\* P&lt;0.05    \*\* P&lt;0.01    \*\*\* P&lt;0.001

Table 33: The researcher's observations on the teaching and non-teaching staff's behaviours with regard to school discipline (N = 12)

Observed behaviour	Frequency of occurrence			Chi-square value	Significance
	Rarely (PCT)	Occasionally (PCT)	Often (PCT)		
1. Teaching and non-teaching staff attend to and fulfil their responsibilities	0.0	25.0	75.0	4.40	0.35
2. Teaching staff adhere to the profession regulations and observe the code of professional conduct	0.0	16.7	83.7	6.67	0.15
3. Teaching staff give assignments and ensures that the assignments have been done	8.3	25.0	66.7	6.40	0.38
4. Teaching staff on duty supervise thoroughly the evening preparation	0.0	25.0	75.0	9.0	0.06
5. Teaching staff use roll-calls to ensure students participation in various school activities	8.3	8.3	83.3	6.0	0.42
6. Teaching staff are punctual in all activities to show good example of punctuality to their students	8.3	8.3	83.3	4.20	0.38
7. Non-teaching staff are punctual in all activities to show good example of punctuality to the students	8.3	0.0	91.7	3.0	0.56
8. Teaching staff dress smartly and carry out routine inspection of students for discipline and cleanliness	0.0	25.0	75.0	4.25	0.37
9. Teaching staff inspect houses/dormitories and school grounds regularly	0.0	8.3	91.7	4.60	0.33

Table 34: General observations on school discipline (N = 12)

Observed behaviour	Frequency of occurrence			Chi-square	Significance
	Rarely (PCT)	Occasionally (PCT)	Often (PCT)		
1. The school has organized evening preparation	0.0	8.3	91.7	4.60	0.33
2. The school enforces students to wear respectable school uniforms	0.0	0.0	100.0	2.67	0.26
3. The school has an instrument to alert students of time	0.0	0.0	100.0	2.67	0.26
4. The school has boundaries well known to the community	8.3	0.0	91.7	3.0	0.56
5. The school has a special form (exit) used when permitting students to go out of the school	0.0	8.3	91.7	6.67	0.15
6. Time and days in which students are allowed to go out of the school (town visits) are indicated in school time table	41.7	0.0	58.3	7.80	0.25
7. Late comers are booked and dealt with accordingly	0.0	0.0	100.0	0.00	1.00
8. School grounds are kept clean and attractive	0.0	8.3	91.7	3.67	0.45
9. Dining hall is kept clean and respectable	8.3	8.3	83.3	12.0	0.06
10. Dormitories and classes are routinely cleaned	0.0	16.7	83.3	5.50	0.24
11. Beddings are kept clean	0.0	25.0	75.0	3.00	0.56
12. Lights are switched off and water taps closed when not in use	8.3	25.0	66.7	4.40	0.62
13. The school has interhouse/ interdormitory competitions for cleanliness	16.7	0.0	83.3	6.0	0.42

Observations on the teaching and non-teaching staff behaviours with respect to school discipline are shown in Table 33. No significant difference was observed in connection with the teaching and non-teaching staffs' behaviours across the different types of schools. Also, observations made regarding the general school discipline are shown in Table 34. All observed variables showed no significant difference among the schools.

The findings indicate that students who disregard most the school orders were aged between 14 and 19 years. These students are normally at their adolescence. The theory of adolescence and observations by Waller (1932) have shown that this age group brings with it severe problems of personal adjustments which cause many administrative problems in secondary schools. There is a conflict of inner needs of individual students and the frames of behaviour which the school demands from them. Musgrave (1969) observed that the peak rate for juvenile delinquency amongst students was in the last year at school and that the incidence was greater amongst boys than girls. This is, perhaps, why the heads of schools described the behaviour of this age group as naughty, stubborn and aggressive (rule offenders).

Furthermore, the findings revealed that although nearly all the major offenses outlined by the Ministry of Education and Culture (1980) were less a problem

to students of both sexes, the following offenses were slightly more of a problem to boys than girls: truancy, theft, drunkenness, cigarette smoking, brawls, vandalism and bullying younger pupils. Offenses which were found to be slightly more of a problem to girls include marriage, pregnancy, abortion and promiscuity. Other offenses which were found to be treated as major offenses in schools include strike, uprising, disrespect and refusal to punishment by students.

The results further show that more students were expelled in girls' than in the other categories of secondary schools. Boys' secondary schools had the least number of students expelled on delinquency. This observation is in agreement with findings by Castle (1976) that a society which imposes less rigid controls upon sexual behaviour of adolescents, adolescence is apparently not a serious personal crisis. Castle (1976) contended that the more rules there are the more rules will be broken and that ample provision of out-of-school activities make children enjoy life and their own creation. Manase and Kisanga (1978) observed that in co-education and girls' schools there were school rules purposely made to protect girls. These rules caused differential treatment between boys and girls in schools and contributed to sex inequality.

With regard to teaching and non-teaching staff's discipline, the results have shown that there was no significant difference in their behaviours among the

three types of schools. However, in some few occasions, there were some teachers whose conduct was unacceptable. For example, it was observed in some of girls' schools that teachers who observed strictly school discipline and those who kept social distance with girl students were nicknamed "antireadies". This implies that in such schools there was unusual or unhealthy relationship between teachers and students. Manase and Kisanga (1978) observed that where male teachers be-friended female students, it led to absentmindedness of girls in class, a factor which is alledged to contribute to the failure in examination by many girls.

#### **4.7 Effects of Recreational Activities on the Academic Performance of Schools**

Castle (1976) observed that the provision of out of school activities made students enjoy life and their own creation. Pursuant to this claim, teachers and students were asked to indicate which recreational activities were available in their schools. Table 35 indicates the available activities identified by teachers and students. Recreational activities which were mentioned to be not common in all types of schools include picnic, dancing, town visits and some of the out-door games.

Teachers involvement in these recreational activities were mainly to escort students, coach, show video/films, advise, organise and in a few cases play with

them. Table 36, shows how often these recreational activities were held in the sampled schools. An examination of the table reveals that most sports were either held daily or weekly. However, other cultural and social activities beside sports were held monthly or occasionally.

Table 35: Responses of teachers and students on availability and participation in recreational activities

Type of activity	Teachers N = 60				Students N = 120			
	Yes (PCT)	No (PCT)	Chi-square	Significance	Yes (PCT)	No (PCT)	Chi-square	Significance
Dance/ Disco	85.0	15.0	10.20	0.01*	62.5	37.5	19.4	0.000***
Video/ film	83.3	16.7	1.20	0.55	75.0	25.0	1.67	0.43
Picnic	31.7	68.3	7.55	0.02*	29.2	70.8	1.30	0.52
Town visits	35.6	64.4	6.54	0.04*	21.0	79.0	0.30	0.85
Drama/ Ngoma	83.3	16.7	4.97	0.08	72.5	27.5	21.1	0.000****
Choir	73.3	26.7	5.28	0.07	77.5	22.5	18.1	0.000***
Indoor games	78.3	21.7	1.37	0.50	92.5	7.5	2.2	0.34
Outdoor games	75.0	25.0	15.30	0.04**	95.0	5.0	7.4	0.02*

\*  $P < 0.05$  \*\*  $P < 0.01$  \*\*\*  $P < 0.001$

A significant difference on the opinions of heads of schools in respect of frequency in which the recreational activities were performed occurred in netball (chi-square = 4.80, DF = 1,  $P < 0.05$ ) and picnic (chi-square = 6.0, DF = 2,  $P = 0.05$ ). This is because netball was only common to girls' and co-educational secondary schools. However, picnic activities were not available in all girls' secondary schools.

Personal observation presented in Table 37 revealed that recreational activities which were common and frequently played in the sampled schools included volleyball (83.3%), football (66.7%), netball (66.6%), table-tennis (66.7%), basketball (58.3%) and athletics (58.3%). The rarely practiced games included playing cards (100.0%), draft (83.3%), boxing (66.7%) and badminton (50.0%).

Table 36: Heads of schools' responses on the frequently of recreational activities.  
N = 12

Type of recreation	Frequency				Ch-isquare value	Significance
	Daily (PCT)	Weekly (PCT)	Monthly (PCT)	Occasionally (PCT)		
Football	75.0	25.0	0.0	0.0	0.00	1.00
Netball	37.5	62.5	0.0	0.0	4.80	0.03*
Basketball	50.0	25.0	0.0	25.0	8.25	0.08
Handball	0.0	0.0	0.0	0.0	-	-
Volleyball	50.0	50.0	0.0	0.0	6.40	0.16
Table tennis	0.0	30.0	40.0	0.0	2.18	0.34
Athletics	25.0	8.3	0.0	66.7	2.25	0.69
Video/Film show	0.0	0.0	10.0	90.0	1.67	0.43
Dance/disco	0.0	0.0	20.0	80.0	1.67	0.43
Picnic	0.0	16.7	0.0	83.3	6.0	0.05*
Town visits	0.0	10.0	10.0	80.0	3.21	0.52
Ngoma	0.0	18.2	9.1	72.7	3.67	0.45
Theatre arts	0.0	16.7	16.7	66.6	3.25	0.69
Choir	0.0	20.0	20.0	60.0	3.06	0.55

\* P < 0.05

Most schools (66.7%) had no school band, but choir (91.7%), ngoma (83.3%) and theatre arts (75.0%) were the commonest social and cultural activities found in most schools although they were being held occasionally. There was however,

no significant difference in observations among the different type of schools. Video/film shows, town visits, picnic, study tours, dance/disco and trips were not observed since their frequency of occurrence was either periodic or seasonal.

Table 37: Researcher's observations on the availability of recreational activities and participation by students. N = 12

Type of recreational activity	Frequency			Chi-square value	Significance
	Rarely (PCT)	Ocasionally (PCT)	Often (PCT)		
a) Sports:football	33.3	0.0	66.7	6.0	0.20
netball	33.3	0.0	66.7	6.0	0.20
volleyball	8.3	8.3	83.3	7.0	0.32
basketball	33.3	8.3	58.3	7.8	0.45
handball	41.7	0.0	58.3	3.6	0.46
athletics	16.7	25.0	58.3	4.0	0.68
table tennis	33.3	0.0	66.7	12.0	0.06
badminton	50.0	16.7	33.3	8.6	0.38
boxing	83.3	8.3	8.3	4.2	0.38
draft	83.3	8.3	8.3	6.67	0.35
playing cards	100.0	0.0	0.0	1.2	0.55
b) Cultural and Social theatre arts	16.7	8.3	75.0	7.29	0.51
'ngoma'	8.3	8.3	83.3	4.29	0.64
choir	8.3	0.0	91.7	2.79	0.59
school band	66.7	0.0	33.3	9.0	0.06

These results indicate that all the sampled schools participated in at least one recreational activity because participation in sports and games is compulsory in schools. In 1990 the Ministry of Education and Culture directed all secondary school to participate in UMISSETA games. Observations revealed that common recreational activities found in schools include football (boys'), netball (girls'), volleyball, table tennis, athletics and basketball. Uncommon games include

handball, hockey, boxing, badminton, hurdles, polevault, playing cards and draft.

Football (for boys) and netball (for girls') were played almost daily but volleyball, basketball and table tennis were either held daily or weekly. Other games were being held occasionally especially prior to district/ regional /zonal and national UMISSETA competitions. Most schools lacked sports gears, such as jersey, tracksuits, balls, training shoes, rackets and goal nets. In fact some schools were found using materials such as stones instead of discus or short put in training.

Other social and cultural activities which were held occasionally included film/video shows, dance/disco, ngoma, choir and theatre arts. Most of these activities were practiced prior or during school graduation ceremonies or when visiting another school. Town visits were in most cases forbidden in girls' and some of the co-educational secondary schools. Once again, this provide evidence that there was more freedom and out-of-school activities in boys' than in other types of secondary schools.

#### 4.8 Effects of Student Guidance and Counselling in the Academic Performance

Table 38 shows that only 46.6% of teachers received training in guidance and counselling of students. The rest (53.4%) had no such trained teachers. A significant difference (chi-square = 13.10, DF=6,  $P < 0.05$ ) was found in the training of teachers in guidance and counselling among the three categories of schools. Whereas 65.0% of the interviewed teachers in boys' secondary school had been trained in the subject, only 16.7% and 55.0% of the sampled teachers were trained in guidance and counselling in girls' and co-educational secondary schools respectively.

Table 38: Teachers' responses on training in guidance and counselling of students

Type of School	Yes No. PCT)	No No. PCT)	Total No. PCT)
Boys' schools	13 (65.0)	7 (35.0)	20 (34.5)
Girls' schools	3 (16.7)	15 (83.3)	18 (31.0)
Co-educ.	11 (55.0)	9 (45.0)	20 (34.5)
Total	27 (46.6)	31 (53.4)	58 (100.0)

Chi-square = 13.10 DF = 6 Significance 0.04

Training institutions in which teachers received their training in guidance and counselling are shown in Table 39. Although there was no significant difference in training of teachers among the different types of schools, the table indicates that 64.9% of the sampled teachers received their training in Teacher Training Colleges (TTC), 24% in universities and the rest 10.8% at the Bagamoyo Management Training of Educational Personnel Institute (MANTEP). Other sources of training mentioned include "Elimu ya Malezi ya Ujana (EMAU)" seminars and the Social Welfare Institute.

Despite the call by the Ministry of Education and Culture that secondary schools should form committees on student guidance and counselling, Table 40 reveals that only 41.7% of the sampled schools had formed such committees.

Table 39: Institutions where teachers received training in guidance and counselling

Type of School	Institute			Total Number (PCT)
	TTC Number (PCT)	University Number (PCT)	MANTEP Number (PCT)	
Boys' schools	11 (73.3)	3 (20.0)	1 (6.7)	15 (40.5)
Girls' schools	3 (33.3)	3 (33.3)	3 (33.3)	9 (24.3)
Co-educ.	10 (76.9)	3 (23.1)	0 (0.0)	13 (35.1)
Total	24 (64.9)	9 (24.3)	4 (10.8)	37 (100.0)

Chi-square = 8.13 DF = 4 Significance = 0.09

Over 58% of the sampled schools had no such committees. No significant difference was found regarding the formation of guidance and counselling committees among schools. However, further investigation to the table shows that whereas 75.0% of girls' secondary schools had formed committees on guidance and counselling of students, only 25% of both boys' and co-educational secondary schools had such committees. The roles of the guidance and counselling committees in those schools which have formed them were outlined as:

- a) to guide and counsel students on social and academic matters
- b) to counsel students who have problems and suggest possible solutions and
- c) to punish offenders.

Table 40: Heads of schools' responses on the formation of committees on guidance and counselling of students

Type of School	Yes No. PCT)	No No. (PCT)	Total No. (PCT)
Boys' schools	1 (25.0)	3 (75.0)	4 (33.3)
Girls' schools	3 (75.0)	1 (25.0)	4 (33.3)
Co-educ.	1 (25.0)	3 (75.0)	4 (33.3)
Total	5 (41.7)	7 (58.3)	12 (100.0)

Chi-square = 2.74 DF = 2 Significance = 0.25

The findings indicate that boys' secondary schools have more teachers trained in guidance and counselling of students. Girls' secondary schools had the least number of teachers trained in these aspects. In addition, less than half of the sampled schools had formed committees on guidance and counselling of students as directed by the Ministry of Education and Culture. It seems that even for those schools which had such committees, the roles of the committees were not specified. Castle (1966) observed that shortage of trained women teachers who were really capable of understanding and dealing with the problems of adolescent girls adversely affected girls education. There is, therefore, a need for the Ministry of Education and Culture to issue guidelines on the roles and functions of the committees in schools. Otherwise, the roles of guidance and counselling committees would be perceived as "giving punishment to offenders" as it was expressed in some schools.

#### **4.9 Effects of Teaching/Learning Facilities on the Academic Performance**

Adequacy of teaching and learning materials and facilities is an important component in the academic achievement of any educational institution. However, as it is shown in Table 41, 91.7% of the sampled schools did not have enough teaching and learning facilities.

Table 41: Heads of schools' responses on the adequacy of teaching facilities

Type of school	Response		
	Yes No. (PCT)	No No. (PCT)	Total No. (PCT)
Boys' schools	1 (25.0)	3 (75.0)	4 (33.3)
Girls' schools	0 (0.0)	4 (100.0)	4 (33.3)
Co-educ.	0 (0.0)	4 (100.0)	4 (33.3)
Total	1 (8.3)	11 (91.7)	12 (100.0)

Chi-square = 2.18, DF = 2, Significance = 0.34

The responses of heads of schools on the materials and facilities which were most lacking, are shown in Table 42. Laboratory materials, equipment and textbooks were mentioned by heads of schools as the most lacking facilities in their schools. A few (9.1%) felt that desks and beds were the most lacking facilities. Another 9.1% indicated lack of chalks and textbooks as the pressing needs of their schools. The problem was common in all types of schools.

Table 42: Type of facilities most lacking in schools

Type of school	Laboratory materials and text books No. (PCT)	Textbooks and chalks No. (PCT)	Desks and Beds No. (PCT)	Total No. (PCT)
Boys' schools	3 (100.0)	0 (0.0)	0 (0.0)	3 (27.2)
Girls' schools	3 (75.0)	0 (0.0)	1 (25.0)	4 (36.4)
Co-educ.	3 (75.0)	1 (25.0)	0 (0.0)	4 (36.4)
Total	9 (81.8)	1 (9.1)	1 (9.1)	11 (100.0)

Chi-square = 10.54    DF = 10    Significance = 0.39

Since the findings in this section reveal that nearly all schools did not have enough teaching and learning facilities and since the type of facilities lacking were almost uniform to all schools, this factor could not be considered to have contributed to academic performance differences amongst the schools because their effects did not show any statistical significant difference in the academic performance among schools. However, lack of teaching and learning facilities in schools is a serious problem and should be attended to.

#### 4.10 Effects of School Management and Administration on the Academic Performance

It is believed that the quality of a school depends less on its organisation or curriculum than the quality of the people who run it, that is the leadership

system. Students perceptions on the leadership system of their schools are shown in Table 43. The table shows that students who enunciated their current leadership system as participative comprised 43.2%.

Table 43: Students' opinions on the leadership system in their schools

Type of school	Type of leadership system				Total No. (PCT)
	Authoritative No. (PCT)	Benevolent No. (PCT)	Consultative No. (PCT)	Participative No. (PCT)	
Boys' schools	7 (17.5)	11 (27.5)	6 (15.0)	16 (40.0)	40 (33.9)
Girls' schools	16 (40.0)	10 (25.0)	9 (22.5)	5 (12.5)	40 (33.9)
Co-educ.	1 (2.6)	4 (10.5)	3 (7.9)	30 (78.9)	38 (32.2)
Total	24 (20.3)	25 (21.2)	18 (15.3)	51 (43.2)	118 (100)

Chi-square=37.88, DF=6, Significance=0.00000

Those who perceived the leadership style in their schools as benevolent authoritative amounted to 21.2%. Another 20.3% expressed their school leadership system to be authoritative or exploitative. The remaining 15.3% of students described their school leadership style as consultative. A highly significant difference (chi-square = 37.88, DF=6,  $P < 0.001$ ) was established in respect of the leadership systems among schools according to students' responses. Most students (65.0%) in girls' only secondary schools indicated that

their leadership system was exploitative while those in boys' only and co-educational secondary schools pointed that their leadership style was democratic.

Similarly Table 44 reveals that 45.8% of teachers expressed the current leadership of their school as democratic. Another 25.4% of teachers perceived their school leadership style to be liberal. Also 15.3% of teachers were of the opinion that their present leadership style was authoritarian and 13.6% of them enunciated the leadership style as laissez faire. However, their responses did not incidate a significant difference among schools.

Table 44: Teachers' opinions on the type of leadership style in their schools

Type of school	Kind of leadership style				Total No. (PCT)
	Authori- tarian No. (PCT)	Demo- cratic No. (PCT)	Liberal No. (PCT)	Laissez faire No. (PCT)	
Boys' schools	1 (5.3)	9 (47.4)	4 (21.1)	5 (26.3)	19 (32.2)
Girls' schools	4 (20.0)	7 (35.0)	7 (35.0)	2 (10.0)	20 (33.9)
Co-educ.	4 (20.0)	11 (55.0)	4 (20.0)	1 (5.0)	20 (33.9)
Total	9 (15.3)	27 (45.8)	15 (25.4)	8 (13.6)	59 (100.0)

Chi-square = 10.01, DF = 6, Significance = 0.32

Teachers' and students' opinions on who should head the different categories of schools are summarised in Tables 45 and 46. In Table 45, we observe that 69.0% of teachers wished the head of a boys' secondary school to be a male. Also 79.7% felt that the head of a girls' secondary school should be a female. For a co-educational secondary school, the majority of teachers recommended that any of the two sexes could head such a school.

Table 45: Teachers' opinions on who should head each type of secondary school

Type of school	Recommended head of school			Chi-square value	Significance
	Male No. (PCT)	Female No. (PCT)	Any No. (PCT)		
Boys' schools	40 (69.0)	10 (17.2)	8 (13.8)	7.15	0.13
Girls' schools	4 (6.8)	47 (79.7)	8 (13.5)	10.07	0.12
Co-educ.	21 (37.5)	6 (10.7)	29 (51.8)	4.65	0.59

The views of the teachers on whom they considered suitable to head each type of school are supported by students as shown in Table 46. The majority of students (92.5%) recommended that the head of a boys' secondary school should be a male, 84.6% of students wished the head of girls' secondary school to be a female and 61.0% held that any of the sex could head a co-educational school. Students' opinions on whom should head each type of school did not differ

significantly among schools.

Some of the reasons given to support the ideas that a head of school in certain type of school should be of similar sex to that of students were that;

Table 46: Students' responses on the suitable person to head the different types of secondary school

Type of school	Suitable head of school			Chi-square value	Significance
	Male No. (PCT)	Female No. (PCT)	Any No. (PCT)		
Boys' schools	111 (92.5)	2 (1.7)	7 (5.8)	4.90	0.30
Girls' schools	2 (1.7)	99 (84.6)	16 (13.7)	7.30	0.12
Co-educ.	45 (38.2)	1 (0.8)	72 (61.0)	2.20	0.70

- a) it is easier to know and handle problems of a student of similar sex and
- b) there is reduced inferiority complex especially on the part of female teachers when they are appointed to head girls' secondary schools.

For those teachers who recommended that any body could head any type of school regardless of sex were convinced that what matters most was the qualifications and leadership qualities of the teacher rather than his/her sex.

On the issue of the type of suitable candidates (sexwise) to head other administrative supporting posts for the different types of schools, about half of teachers (49.2%) preferred male teachers as deputy heads of schools (second master/mistress) in boys' secondary schools and about 40% would like deputy heads in girls' secondary schools to be males. For co-educational secondary schools, the majority of the sampled teachers felt that any body could handle the post regardless of his/her sex. Reasons advanced to support the suggestions on the teachers considered suitable to be the second masters/mistresses in the different categories of schools are;

- a) it is easier to know and suspect problems of students of similar sex,
- b) it is easier to exchange and balance ideas when the deputy head of school is of a different sex from that of head of school,
- c) it depends on ones experience and competence and,
- d) female students hate female leaders.

Regarding who should serve the post of a senior academic master, Table 47 again reveals that 48.3% of teachers would like a male teacher for boys' secondary schools. On the part of girls' secondary schools 48.4% of respondents recommended that any teacher is suitable regardless of his/her gender. Similarly, for co-educational secondary schools, 67.8% of teachers pointed out that any teacher could be senior academic master provided that he/she is academically

competent. Reasons given by those teachers who recommended that male teachers should be senior academic masters in all categories of school were that:

a) male teachers are more capable psychologically and

b) female teachers have many excuses because of home and family commitments.

No significant difference was noted in recommending senior academic master among the three categories of schools.

Table 47: Teachers' recommendations on who should hold different supportive posts in school administration

Type of school	Male No. (PCT)	Female No. (PCT)	Any No. (PCT)	Chi-square value	Signifi- cance
<b>Boys' school</b>					
a) Second master	29 (49.2)	6 (10.2)	24 (40.6)	12.02	0.02*
b) Senior academic master	29 (48.3)	2 (3.3)	29 (48.3)	3.00	0.56
c) Discipline master	38 (65.5)	5 (8.6)	15 (25.8)	11.89	0.06
<b>Girls' school</b>					
a) Second mistress	22 (37.9)	20 (34.5)	16 (27.6)	4.82	0.31
b) Senior academic master	11 (18.3)	20 (33.3)	29 (48.4)	5.92	0.43
c) Discipline master	8 (13.3)	31 (51.7)	21 (35.1)	9.46	0.31
<b>Co-educational</b>					
a) Second master	17 (28.3)	8 (13.3)	35 (58.3)	5.55	0.24
b) Senior academic master	16 (27.1)	3 (5.1)	40 (67.8)	7.08	0.13
c) Discipline Master	16 (26.7)	5 (8.3)	39 (65.0)	11.32	0.02*

\*  $P < 0.05$

Teachers' recommendations on who should be senior master/mistress incharge of cultural and domestic affairs (discipline master) show that 65.5% would prefer a male teacher in a boys' secondary school, 51.7% recommended that the discipline mistress should be a female for a girls' secondary school and 65.0% recommended a discipline master of any sex provided that the teacher is serious, fair and experienced. However, those teachers who recommended that a male discipline master is more appropriate for a boys' secondary school and a female discipline mistress for a girls' secondary school put forward the following reasons to support their arguments;

- (a) it is easier for any teacher to know and handle problems of students of a similar sex,
- (b) male teachers are more suitable to be discipline masters in all categories of schools because they are more committed to discipline matters and have less family problems and
- (c) female teachers usually hate female students.

Although there was no significant difference in opinions on the type of teachers to be discipline masters in boys' and girls' schools there was a significant difference on the part of teachers recommendation to command students' discipline in co-educational secondary schools. A substantial amount of respondents in boys' only and co-educational proposed a male teacher to be

incharge of discipline affairs in co-educational secondary schools but the majority of respondents in girls' secondary schools contended that a teacher of any sex was ideal.

On the other hand, Table 48 shows views of students on whom they considered to be suitable student counsellor for the different types of schools. An examination of the table shows that the majority of students wished male teachers to be counsellors for boys' secondary schools (93.3%), female teacher for girls' secondary schools (89.9%) and any sex for co-educational secondary schools (85.7%).

Table 48: Students' responses on the person they considered suitable to be students' counsellor in the different types of schools

Type of school	Suitable student counsellor			Chi-square value	Significance
	Male No. (PCT)	Female No. (PCT)	Any No. (PCT)		
Boys' schools	111 (93.3)	2 (1.7)	6 (5.0)	2.05	0.73
Girls' schools	3 (2.5)	107 (89.9)	9 (7.6)	11.50	0.02*
Co-educ.	14 (11.8)	3 (2.5)	102 (85.7)	0.13	0.99

\*  $P < 0.05$

A significant difference (chi-square = 11.50, DF = 4,  $P < 0.05$ ) among school categories was found in the person they considered suitable to be a counsellor in a girls' school. Few respondents in boys' only and co-educational secondary schools recommended a male teacher for the post of student counsellor in girls' secondary schools.

The study went further to look into the effects of teacher traits on the control of students, and the school in general. Table 49 presents opinions of heads of schools on the teacher traits which were perceived to be important and their degree of importance in connection with the ability of the teacher to control students.

Table 49: Heads of schools opinions on the degree of importance of teacher traits on the control of students

Teacher trait	Degree of importance			Chi-square value	Significance
	Less important No. (PCT)	Important No. (PCT)	Very important No. (PCT)		
Social background of the teacher	1 (8.3)	5 (41.7)	6 (50.0)	8.80	0.07
Size of the teacher	4 (33.3)	7 (58.3)	1 (8.3)	9.21	0.06
Strength of the teacher	3 (25.0)	7 (58.3)	2 (16.7)	4.14	0.39
Health of the teacher	2 (18.2)	5 (45.4)	4 (36.4)	6.08	0.41
Age of the teacher	0 (0.0)	3 (25.0)	9 (75.0)	0.90	0.92
Experience of the teacher	0 (0.0)	2 (16.7)	10 (83.3)	6.75	0.15
Personality of the teacher	0 (0.0)	2 (16.7)	10 (83.3)	8.50	0.07
How the teacher dresses	0 (0.0)	2 (20.0)	8 (80.0)	1.50	0.56
Attitude of the teacher toward students	0 (0.0)	1 (8.3)	11 (91.7)	9.75	0.04*
Attitude of the teacher toward subject matter	1 (8.3)	0 (0.0)	11 (91.7)	9.75	0.04*
Voice of the teacher	1 (8.3)	2 (16.7)	9 (75.0)	3.90	0.69

\*  $P < 0.05$

Teacher traits which were conceited to be very important are: attitude of the teacher towards students (91.7%), attitude of the teacher towards subject matter (91.7%), experience of the teacher (83.3%), personality of the teacher (83.3%), how the teacher dresses (80.0%), age of the teacher (75.0%), voice of the teacher (75.0%) and social background of the teacher (50.0%). Those traits which were ranked as important are; size of the teacher 58.3%), strength of the teacher (58.3%) and health of the teacher (45.4%). The only traits which were conceived significantly different among the heads of schools were attitudes of the teacher towards students (chi-square = 9.75, DF = 4,  $P < 0.05$ ) and attitude of the teacher towards subject matter (chi-square = 9.75, DF = 4,  $P < 0.05$ ). While the majority of respondents felt that the two traits were very important, a few (8.3%) perceived the attitude of the teacher towards students as moderately important and another minority (8.3%) expressed the attitude of the teacher towards subject matter as a not important trait for a teacher.

Experience is considered to be one of the very important teacher traits with regard to the control of students and the school in general. This study, looked further into the experience of the heads of different type of secondary schools to establish whether there was any significant difference in administrative experience among the schools. Table 50 shows the years in which the sampled heads of schools had headed secondary schools.

Table 50: Heads of schools experiences as school heads in years

Type of school	< 5 years No. (PCT)	5 - 10 years No. (PCT)	> 10 years No. (PCT)	Total No. (PCT)
Boys' schools	3 (75.0)	1 (25.0)	0 (0.0)	4 (33.3)
Girls' schools	2 (50.0)	2 (50.0)	0 (0.0)	4 (33.3)
Co-educ.	4 (100.0)	0 (0.0)	0 (0.0)	4 (33.3)
Total	9 (75.0)	3 (25.0)	0 (0.0)	12 (100.0)

Chi-square = 2.67    DF = 2    Significance = 0.26

Observations on the table reveal that only 25.0% of the sampled heads of schools had experiences of more than 5 years as headmasters/mistresses. The rest (75.0%) had experiences of less than 5 years in those positions. None of the sampled heads of schools had an experience of more than 10 years as a headmaster or headmistress of a secondary school.

Responses on whether the heads of schools had been school heads in other secondary schools before, are presented in Table 51. Whereas half of the respondents (50.0%) indicated that they had headed other schools, the remaining half (50.0%) had not done so. Again, there was no significant difference established among the different categories of schools.

**Table 51: Heads of schools responses on the headship in other secondary school**

Type of School	Yes No. (PCT)	No No. (PCT)	Total No. (PCT)
Boys' schools	3 (75.0)	1 (25.0)	4 (33.3)
Girls' schools	2 (50.0)	2 (50.0)	4 (33.3)
Co-educ.	1 (25.0)	3 (75.0)	4 (33.3)
Total	6 (50.0)	6 (50.0)	12 (100.0)

The results of the investigations on the question of whether the heads of schools had served other senior positions in school administration before, are presented in Table 52. They reveal that:

- a) One third (33.3%) of the heads of schools had never been deputy heads of schools before. For those who had been deputy heads, 75.0% of them served the post for less than 5 years;
- b) Fifty percent (50.0%) of heads of schools had never served the post of senior academic master. For those who had been senior academic masters, 66.7% held the post for less than 5 years;
- c) More than half of the respondents (58.3%) had never been incharge of discipline affairs. Again 80.0% of those who had had experience as discipline masters had held the post for less than 5 years.

Although the results show that there was consensus that in boys' secondary schools the administrative posts should be headed by males and in girls' secondary schools the posts should be headed by females, the researcher noticed with great concern that male teachers were considered to be more serious in heading various school posts especially that of deputy head of school in a girls' school and that of senior master incharge of home and cultural affairs (discipline master). This is because most respondents had strong convictions that males were more capable in decision making and had less family commitments. Such beliefs may be conceived by other educationists to have an element of male chauvinism but again it should be proved otherwise.

During the 1990 Annual Conference of heads of secondary schools, there arose a school of thought propounded by headmistresses that co-educational secondary schools should be headed by females (MEC, 1990).

Table 52: Heads of schools' previous administrative experience by post and type of school. N = 12

Type of school	As deputy head of school				As academic master				As discipline master			
	< 5 years (PCT)	5-10 years (PCT)	> 10 years (PCT)	None years (PCT)	< 5 years (PCT)	5-10 years (PCT)	> 10 years (PCT)	None years (PCT)	< 5 years (PCT)	5-10 years (PCT)	> 10 years (PCT)	None years (PCT)
Boys' schools	75.0	0.0	25.0	0.0	25.0	25.0	0.0	50.0	0.0	0.0	0.0	75.0
Girls' schools	50.0	0.0	0.0	50.0	50.0	0.0	0.0	50.0	25.0	0.0	0.0	75.0
Co-education	25.0	25.0	0.0	50.0	25.0	25.0	0.0	50.0	75.0	0.0	0.0	25.0
Total	50.0	8.3	8.3	33.3	33.3	16.7	0.0	50.0	33.3	0.0	8.3	58.3

Chi-square = 7.00	Chi-square = 1.50	Chi-square = 6.64
DF = 6	DF = 4	DF = 4
Significance = 0.32	Significance = 0.83	Significance = 0.16

The headmistresses were convinced that women heads in co-educational secondary schools were more appropriate than men because even at home it is the mother who takes care of both male and female children. This contention has failed to get a reasonable support from respondents of all categories in this study. Moreover, it has been claimed by many respondents that apart from having many excuses for absenting themselves due to family commitments, female heads of schools hated male students.

Although the overall assessment of respondents' opinions indicated a consensus that whenever the head of school is a woman her deputy should be a male and vice versa, any competent, qualified and experienced teacher could hold the post of senior master regardless of his/her sex.

Another outcome of the study which needs mentioning is the question of administrative experience. The results have revealed that most of the school heads had experiences of less than 5 years as heads of schools and some had never held supportive posts in school administration before. The implication from the findings is that some of these heads of schools would tend to be authoritarian in an attempt to compensate for their personal administrative weaknesses especially in front of the more experienced teachers. It was also observed in this study that most of the headmistresses were either single, divorced, separated or

widowed. Probably this explains the easiness with which the ministry could appoint or transfer someone who is unmarried because it will not involve the transfer of the spouse. However, to my opinion, this tendency is fallacious. After all what would be the implication of this tendency to the community? What models do we provide to girl students?

Generally, the results in this section provide additional evidence that in girls' secondary schools there are more disciplinary controls than in the other categories of schools. A lot of school rules and inadequate recreational activities may have prompted students in girls' schools to feel that they were being exploited.

#### **4.11 The Importance of Co-Education in Tanzania**

In section 2.2 of the chapter of literature review the advantages and disadvantages of the co-education as conceived by different educationists were outlined. To get evidence on their applicability in the Tanzanian school system, opinions were sought from heads of schools on what they considered to be the most advantages and disadvantages of the co-education system. Tables 53 and 54 summarize the heads of schools' responses. Table 53 reveals that the advantages of co-education are that in co-education system:

- a) there is strong competition among students (40.0%)

- b) students of opposite sex get a chance of sharing experiences (40.0%)
- c) there is less social deprivation (10.0%)
- d) it is easier to have social activities such as dancing, choir, ngoma, and drama because social partners are readily available (10.0%).

Although there was no significant difference in the opinions among the heads of different schools, one could notice that whereas the majority (66.7%) of heads of schools in single-sex schools believed that in the co-education system there was an advantage of academic competition between boys and girls, none of the heads of schools in co-educational secondary schools was convinced so.

Table 53: Heads of schools' consideration on the advantages of co-education

Type of school	Advantages				Total No. (PCT)
	Competition among students No. (PCT)	Sharing experience No. (PCT)	Less social deprivation No. (PCT)	Easy for social activities No. (PCT)	
Boys' schools	2 (66.7)	0 (0.0)	0 (0.0)	1 (33.3)	3 (30.0)
Girls' schools	2 (66.7)	1 (33.3)	0 (0.0)	0 (0.0)	3 (30.0)
Co-educ.	0 (0.0)	3 (75.0)	1 (25.0)	0 (0.0)	4 (40.0)
Total	4 (40.0)	4 (40.0)	1 (10.0)	1 (10.0)	10 (100.0)

Chi-square = 8.96, DF = 6, Significance = 0.18

The disadvantages of co-education system as outlined in Table 54 are that:

- a) Control of discipline in co-educational secondary schools is difficult (36.4%)
- b) In co-educational secondary schools there is no academic competition pressure (18.2%)
- c) In co-educational secondary schools more time is devoted to social relations (18.2%)
- d) Co-education system encourage sexual harassment between boys and girls (18.2%)
- e) In co-educational secondary schools girls perform poorly because they feel that they are inferior to boys (9.1%).

Table 54: Heads of schools' considerations on the disadvantages of co-education

Type of school	Disadvantages					
	Control of discipline is difficult No. (PCT)	No competition pressure No. (PCT)	Girls feel inferior to boys No. (PCT)	Time devoted to social relation No. (PTC)	Encourage sex harassment No. (PCT)	Total No. (PCT)
Boys' schools	1 (33.3)	1 (33.3)	0 (0.0)	0 (0.0)	1 (33.3)	3 (27.3)
Girls' schools	0 (0.0)	1 (25.0)	1 (25.0)	1 (25.0)	1 (25.0)	4 (36.4)
Co-educ.	3 (75.0)	0 (0.0)	0 (0.0)	1 (25.0)	0 (0.0)	4 (36.4)
Total	4 (36.4)	2 (18.2)	1 (9.1)	2 (18.2)	2 (18.2)	11 (100.)

Chi-square = 8.02, DF = 8, Significance = 0.43

Again, although there was no significant difference established in opinions among the heads of the different types of schools, it can clearly be seen that the majority (75.0%) of heads of schools in co-educational secondary schools feel that the major disadvantage of the co-education system is that the control of school discipline is difficult.

Furthermore, the study elicited opinions from both teachers and heads of schools on various ideologies advanced by different educationist in respect to the academic performance of co-educational secondary schools. Their responses are presented in Table 55. An examination of the table, reveals that there was a consensus of opinions on the following statements:

- a) that boys are more committed to academic work in schools than girls;
- b) that girls are naturally less intelligent than boys;
- c) that there is a difference in commitment in academic work between boys and girls in schools;
- d) that superiority tendencies of boys in co-educational secondary schools and bullying over girls make girls perform poorly in examinations;
- e) that there is no favouritism by teachers between the sexes in tests and examinations;
- f) that boys and girls should live together in schools as they do at home so that they can respect each other by discovering common interests in

academic work and social activities;

- g) that in co-educational secondary schools, emotional strains due to sex differences are minimized as a result of boys and girls working and playing together;
- h) that in co-educational secondary schools, boys and girls realize that academic excellence is not attributed to one's sex and
- i) that indiscipline cases are less rampant in co-educational secondary schools than in single-sex secondary schools.

However, teachers and heads of schools differed in opinions on the following ideologies:

- a) that boys are naturally more intelligent than girls;
- b) that students in co-educational secondary schools perform worse academically when compared to students in single-sex secondary schools because in co-educational secondary schools students devote more time struggling for social associations than for academic;
- c) that students in co-educational secondary schools perform better academically than in single-sex secondary schools because they share their experiences as brothers and sisters;
- d) that the cultural heritage in Tanzania has elements of male chauvinism that affect equal up-bringing of girls and boys;

- e) that adolescence problems are more pronounced in co-educational schools than in single-sex secondary schools;
- f) that some female teachers fail to take disciplinary measures against older boys and
- g) that some male teachers fail to take disciplinary measures against older girls.

In an attempt to cross-check these responses, the heads of schools were asked to choose the type of school they would like to head and give reasons for their choices. Their responses are shown in Table 56. The table shows that 75% of the interviewed heads of schools would like to head single-sex secondary schools on the following reasons:-

- a) It is easy to handle/run single-sex secondary schools than co-educational secondary schools;
- b) Girls are less emotional and have less disciplinary problems than boys;
- c) Boys have less administrative problems and
- d) Because of experience in heading single-sex secondary schools.

Table 55: Opinions of teachers and heads of schools on statements associated with academic performance

Statement	Responses			Chi-square	Significance
	Disagree No. (PCT)	Uncertain No. (PCT)	Agree No. (PCT)		
<b>1. Boys are more committed to academic work than girls</b>					
a) Teachers	14 (33.3)	11 (18.3)	35 (58.4)	11.50	0.17
b) Heads of schools	1 (8.3)	1 (8.3)	10 (83.3)	12.0	0.06
<b>2. Girls are more committed to academic work than boys</b>					
a) Teachers	35 (59.3)	16 (27.1)	8 (13.6)	11.89	0.16
b) Heads of schools	5 (41.7)	4 (33.3)	3 (25.0)	4.40	0.35
<b>3. Boys are naturally more intelligent than girls</b>					
a) Teachers	34 (56.7)	4 (6.7)	22 (36.6)	19.42	0.01*
b) Heads of school	3 (25.0)	2 (16.7)	7 (58.3)	3.50	0.74
<b>4. Girls are naturally more intelligent than boys</b>					
a) Teachers	37 (62.7)	8 (13.6)	14 (23.7)	11.44	0.18
b) Heads of schools	9 (75.0)	3 (25.0)	0 (0.0)	2.90	0.57
<b>5. There is no difference between sexes in commitment in academic work</b>					
a) Teachers	36 (61.0)	7 (11.9)	16 (27.1)	13.37	0.10
b) Heads of schools	6 (50.0)	2 (16.7)	4 (33.3)	4.0	0.68

Table 55 Continued

Statement	Responses			Chi-square	Significance
	Disagree No. (PCT)	Uncertain No. (PCT)	Agree No. (PCT)		
6. Superiority tendencies of boys and bullying of girls make girls perform poorly in examinations					
a) Teachers	39 (66.1)	6 (10.2)	14 (23.7)	11.72	0.16
b) Heads of schools	6 (50.0)	3 (25.0)	3 (25.0)	8.80	0.18
7. Teachers favour boys in tests and examinations					
a) Teachers	32 (53.3)	5 (8.3)	23 (38.3)	12.47	0.13
b) Heads of schools	9 (75.0)	3 (25.0)	0 (0.0)	5.30	0.26
8. Teachers favour girls in tests and examinations					
a) Teachers	46 (76.7)	6 (10.0)	8 (13.3)	7.17	0.52
b) Heads of schools	7 (58.3)	5 (41.7)	0 (0.0)	4.40	0.35
9. Students in co-educational secondary schools perform worse academically than students in single-sex schools because they devote more time struggling for social associations than academics					
a) Teachers	42 (71.2)	8 (13.6)	9 (15.2)	8.42	0.39
b) Heads of schools	4 (33.3)	5 (41.7)	3 (25.0)	0.90	0.92

Table 55 Continued

Statement	Responses			Chi-square	Significance
	Disagree No. (PCT)	Uncertain No. (PCT)	Agree No.r (PCT)		
<b>10. Students in co-educational secondary schools perform better academically than in single-sex schools because in co-educational schools students share their experiences as brothers and sisters</b>					
a) Teachers	24 (40.0)	8 (13.3)	28 (46.7)	9.37	0.31
b) Heads of schools	4 (33.3)	7 (58.3)	1 (8.3)	10.0	0.12
<b>11. Boys and girls should live together in secondary schools as they do at home so that they respect each other by discovering common interests in academic work and social activities</b>					
a) Teachers	17 (27.1)	7 (11.9)	36 (50.0)	7.64	0.47
b) Heads of schools	5 (41.7)	1 (8.3)	6 (61.0)	15.60	0.04*
<b>12. In co-educational secondary schools emotional strains due to sex differences are minimized as a result of boys and girls working and playing together</b>					
a) Teachers	17 (28.3)	6 (10.0)	37 (61.7)	15.80	0.05*
b) Heads of schools	2 (16.7)	3 (25.0)	7 (58.3)	14.39	0.07
<b>13. In co-educational secondary schools boys and girls realize that academic excellence is not attributed to one's sex</b>					
a) Teachers	12 (20.3)	11 (18.6)	36 (61.0)	3.62	0.89
b) Heads of schools	4 (33.3)	1 (8.3)	7 (58.3)	10.0	0.42

Table 55: Continued

Statement	Responses			Chi-square	Significance
	Disagree No. (PCT)	Uncertain No. (PCT)	Agree No. (PCT)		
<b>14. Cultural heritage in Tanzania has elements of male chauvinism that affect equal up-bringing of girls and boys</b>					
a) Teachers	27 (45.0)	7 (11.7)	26 (43.3)	13.27	0.10
b) Heads of schools	1 (8.3)	1 (8.3)	10 (83.3)	6.00	0.42
<b>15. Adolescence problems are more pronounced in co-educational secondary schools than in single-sex schools</b>					
a) Teachers	24 (40.0)	12 (20.0)	24 (40.0)	2.86	0.94
b) Heads of schools	4 (33.3)	5 (41.5)	3 (25.0)	6.40	0.38
<b>16. Indiscipline cases are more rampant in co-educational secondary school than in single-sex schools</b>					
a) Teachers	27 (45.0)	7 (11.7)	26 (43.3)	7.55	0.48
b) Heads of schools	7 (58.3)	3 (25.0)	2 (16.7)	8.0	0.09
<b>17. Some female teachers fail to take disciplinary measures to older boys</b>					
a) Teachers	25 (42.4)	12 (20.3)	22 (37.3)	10.94	0.21
b) Heads of schools	3 (25.0)	1 (8.3)	8 (66.7)	6.28	0.39
<b>18. Some male teachers fail to take disciplinary measures to older girls</b>					
a) Teachers	29 (48.3)	8 (13.3)	23 (38.3)	15.41	0.05*
b) Heads of schools	5 (41.7)	0 (0.0)	7 (58.3)	1.80	0.77

\*  $P < 0.05$

There was, however, a significant difference (Chi-square = 19.20, Df = 8,  $P < 0.05$ ) in opinions about the type of school preferred by the heads of schools. Whereas some of the heads of schools in boys' and co-educational secondary schools would prefer even a girls' secondary school, headmistresses would only go for a girls' secondary school.

For those who preferred co-education (17.7%), expressed that co-educational secondary schools are more challenging making the head of school richer in leadership experience.

Table 56: Type of secondary school heads of school would like to head

Type of school	Type of school preferred				Total No. (PCT)
	Boys' No. (PCT)	Girls' No. (PCT)	Co-educ. No. (PCT)	Any No. (PCT)	
Boys' schools	3 (75.0)	1 (25.0)	0 (0.0)	0 (0.0)	4 (33.3)
Girls' schools	0 (0.0)	4 (100.0)	0 (0.0)	0 (0.0)	4 (33.3)
Co-educ.	1 (25.0)	0 (0.0)	2 (50.0)	1 (25.0)	4 (33.3)
Total	4 (33.3)	5 (41.7)	2 (16.7)	1 (8.3)	12 (100.0)

Chi-square = 19.20 DF = 8 Significance = 0.01

Teachers were also cross-checked to test if what they said was what they believed in. Thus, instead of testing them as teachers, they were also tested as parents by being asked to express the type of school they would prefer for their daughters and sons. Table 57 shows their responses. An insight to the table reveals that 60.3% of the interviewed teachers would like their daughters to attend single-sex secondary schools. Similarly, 51.7% of them would prefer their sons to attend single-sex secondary schools. What is interesting in these responses is that whereas the majority of teachers in boys' and co-education secondary schools would wish their children to be in single-sex secondary schools, the majority of respondents in girls' secondary schools would prefer their children to be in co-educational secondary schools.

Table 57: Type of school recommended for daughters and sons of teachers

Type of school	Type of school for daughters			Type of school for sons		
	Girls' No. (PCT)	Co-educ. No. (PCT)	Total No. (PCT)	Boys' No. (PCT)	Co-educ. No. (PCT)	Total No. (PCT)
Boys' schools	13 (68.4)	6 (31.6)	19 (32.8)	12 (60.0)	8 (40.0)	20 (33.3)
Girls' schools	9 (45.0)	11 (55.0)	20 (34.4)	8 (40.0)	12 (60.0)	20 (33.3)
Co-educ.	13 (68.4)	6 (31.6)	19 (32.8)	11 (55.0)	9 (45.0)	20 (33.3)
Total	35 (60.3)	23 (39.7)	58 (100.0)	31 (51.7)	29 (48.3)	60 (100)

Chi-square = 3.0    Chi-square = 1.74  
 DF = 2                      DF = 2  
 Significance = 0.22    Significance = 0.42

Reasons extended by those respondents who preferred single-sex secondary schools for their children were that:

- a) students usually perform better when they are in single-sex secondary schools;
- b) in single-sex secondary schools there are no social disturbances;
- c) in single-sex secondary schools students get enough time to study and
- d) management is good in single-sex secondary schools.

For those who advocated co-educational secondary schools for their children had the following arguments:

- a) that there is high competition in co-educational secondary schools;

- b) that in co-educational secondary schools students share their experiences;  
and
- c) that in co-educational secondary schools boys get to know girls and vice versa.

In addition to the above observations, the study also looked into students' preferences on the type of schools they would like to attend. Table 58 gives a summary of students' opinions on the type of school they most preferred. Of the students interviewed, (42.5%) would prefer to be in single-sex secondary schools. However, a very highly significant difference (chi-square=22.3, DF=4,  $P < 0.001$ ) occurred in opinions among the students of the different types of schools. Whereas the majority of students in boys' (65.0%) and co-educational (47.5%) secondary schools would prefer single-sex secondary schools, most students in girls' secondary schools (62.5%) would like to be in co-educational secondary schools.

Reasons given to support the views of those students who preferred single-sex schools are that:

- a) in single-sex secondary schools, pupils devote more time to academics,  
and
- b) social disturbances are less in single-sex secondary schools than in co-educational secondary schools.

For those students who wished to be in co-educational secondary schools had the following reasons:

- a) in co-educational secondary schools, there is sharing of ideas and experiences between boys and girls;
- b) high competition among sexes in co-educational secondary schools improves academic performance; and
- c) boys are naturally brighter than girls thus they can help girls in tough subjects.

Those students (16.7%) who said they could comfortably attend any of the three types of schools were of the opinion that what matters most was education and not type of school.

Table 58: Students' preferences for the type of school preferred to attend

Type of school	Type of school preferred			Total No. (PCT)
	Single-sex No. (PCT)	Co-educ. No. (PCT)	Any No. (PCT)	
Boys' schools	26 (65.0)	8 (20.0)	6 (15.0)	40 (33.3)
Girls' schools	6 (15.0)	25 (62.5)	9 (22.5)	40 (33.3)
Co-educ.	19 (47.5)	16 (40.0)	5 (12.5)	40 (33.3)
Total	51 (42.5)	49 (40.8)	20 (16.7)	120 (100.0)

Chi-square=22.3      DF=4      Significance= 0.0002

The rate of transfer of students to and from the sampled schools was another criterion used to justify parents, teachers and students' preferences for the different types of schools. Table 59 reveals that 74.5% of students transferred between 1989 and 1993 to the sampled schools were from co-educational secondary schools. Only 25.5% of the students transferred came from single-sex secondary schools. Again, Table 60 shows that in the same period, 67.6% of students were transferred to single-sex secondary schools. Only 32.4% were transferred to co-educational secondary schools. What is implied here is that most students are transferred to single-sex schools than to co-educational secondary schools.

Table 59: Number of students transferred to the sampled schools between 1989-93

Type of school	From single-sex		From co-education		Total No. (PCT)
	Male No. (PCT)	Female No. (PCT)	Male No. (PCT)	Female No. (PCT)	
Boys' schools	80 (48.8)	0 (0.0)	84 (51.2)	0 (0.0)	164 (23.5)
Girls' schools	0 (0.0)	51 (18.3)	0 (0.0)	228 (81.7)	279 (40.0)
Co-educ.	18 (7.1)	29 (11.4)	95 (37.4)	112 (44.1)	254 (36.4)
<b>Total</b>	<b>178</b> <b>(25.5)</b>		<b>519</b> <b>(74.5)</b>		<b>697</b> <b>(100.0)</b>

On the whole, all these findings suggest that most members in the society still believe and value single-sex secondary schools than co-educational secondary schools. It is an undeniable fact that no student can initiate his/her own transfer. It is the parents, teachers, elites and politicians who have the opportunity and ability of transferring their children to schools of their own choices.

Table 60: Number of students transferred from the sampled schools, 1989-93

Type of school	To single-sex		To co-education		Total No. (PCT)
	Male No. (PCT)	Female No. (PCT)	Male No. (PCT)	Female No. (PCT)	
Boys' schools	47 (94.0)	0 (0.0)	3 (6.0)	0 (0.0)	50 (20.0)
Girls' schools	0 (0.0)	76 (67.9)	0 (0.0)	36 (32.1)	112 (44.8)
Co-educ.	16 (18.2)	30 (34.1)	18 (20.4)	24 (27.3)	88 (35.2)
Total	169 (67.6)		81 (32.4)		250 (100.0)

The above observations are in agreement with Castle (1966) who argued that in Africa, there is understandable reluctance of parents to send their children to mixed schools where they may be subjected to sexual attention of teachers and fellow students.

Apart from the above observations, one could still ask if co-education system should be disbanded in favour of single-sex schools. Isn't there a stage in education where co-education can be more favourable than separate education of sexes? Castle (1976) observed that co-education was good for primary schools, since in primary schools adolescence is not a serious problem as it is in secondary schools.

Table 61: Students' responses on the stage of education where co-education could be allowed

Type of school	Stage of education suggested						All Total No. (PCT)
	Primary level	Secondary level	Post sec level	None.	Secondary and post sec secondary	Primary and post	
	No. (PCT)	No. (PCT)	No. (PCT)	No. (PCT)	No. (PCT)	No. (PCT)	No. (PCT)
Boys' schools	14 (35.0)	6 (15.0)	0 (0.0)	3 (7.5)	1 (2.5)	2 (5.0)	14 (35.0)
Girls' schools	3 (7.5)	4 (10.0)	2 (5.0)	0 (0.0)	0 (0.0)	0 (0.0)	31 (77.5)
Co-educ.	5 (12.8)	6 (15.4)	2 (5.1)	1 (2.6)	0 (0.0)	0 (0.0)	25 (64.1)
Total	22 (18.5)	16 (13.4)	4 (3.4)	4 (3.4)	1 (0.8)	2 (1.7)	70 (58.8)

Chi-square = 27.5 DF = 12 Significance = 0.006

Castle's views are supported by Blake (1968) who contended that since most students in secondary schools ages between 14 and 20 years, separate education of the sexes was more appropriate than co-education. Another scholar Hausknecht (1968) advocated that boys and girls in the ages of 14-18 years must be treated differently both intellectually and emotionally.

To get evidence on the stage of education level where co-education is appropriate in our education system, opinions were sought from students and their heads of schools. Students' responses are shown in Table 61 while heads of schools' responses are in Table 62. The majority (58.8%) of the interviewed students would like co-education to be held in all levels of education. These were closely followed by those who preferred co-education in primary school level only (18.5%). There was, however, a significant difference ( $\chi^2=27.5$ ,  $DF=12$ ,  $P<0.001$ ) in students' responses amongst the three categories of schools. The majority of students in girls' only and co-educational secondary schools expressed that they wanted co-education in all levels of education but the majority of respondents in boys' only secondary schools preferred co-education at primary school level only.

Heads of schools' responses in Table 62 show that although there was no significant difference established among schools, it appears that there is a

consensus of opinions with those of students. The majority of heads of schools (58.3%) would also like co-education to be practiced in all levels of education.

**Table 62: Heads of schools' opinions on the stage of education level where co-education should be allowed**

Type of School	Stage of education suggested					Total No. (PCT)
	Primary level No. (PCT)	Secondary level No. (PCT)	Post sec. level No. (PCT)	All No. (PCT)	None No. (PCT)	
Boys' schools	2 (50.0)	0 (0.0)	1 (25.0)	1 (25.0)	0 (0.0)	4 (33.3)
Girls' schools	1 (25.0)	0 (0.0)	1 (25.0)	2 (50.0)	0 (0.0)	4 (33.3)
Co-educ.	0 (0.0)	0 (0.0)	0 (0.0)	4 (100.0)	0 (0.0)	4 (33.3)
<b>Total</b>	<b>3</b> (25.0)	<b>0</b> (0.0)	<b>2</b> (16.7)	<b>7</b> (58.3)	<b>0</b> (0.0)	<b>12</b> (100.0)

Chi-square = 9.0 DF = 6 Significance = 0.17

Again, these were closely followed by those who wished co-education to be encouraged at primary school level only (25.0%). The reasons raised to support the opinions that co-education should be practiced in all levels of education were that:

- a) in co-education system, students share their experiences academically and socially; and
- b) co-education helps to consolidate equality in academics as well as gender issues.

For those who felt that co-education should be practiced in primary school level only, said that at this stage the academic performance of students will not be affected. For those who suggested that co-education was more appropriate in post-secondary school level were convinced that at this level students will be mature enough to control themselves.

On the whole, these findings suggest that there is a consensus that co-education can be conducted at any stage of education provided that there is enough supervision and control of students. Even at some of the post-secondary school level institutions, there must be some regulations aimed at controlling the social life of students. For example, even in the Western countries, there some regulations to ensure that students concentrate on studies. Blake (1968), observed that at Oberlin Co-education College in USA, the regulations were such that it was the education alone which was common to both sexes, the social life being completely separate. The students were allowed to meet freely at prayer-meetings, lecturers as well as in the classrooms. However, they were strictly forbidden to walk to and from such meetings with those of opposite sex, or have any intercourse with them.

Such regulations, which were said to be well obeyed, were aimed at making students concentrate in studies. And it is in this college that Blake (1968) was

unable to see much difference between students of the two sexes in academic performance. This again requires the dedication of teachers, student counsellors and school administrators to assist students to acquire and use knowledge in the right way.

**CHAPTER 5****5.0 CONCLUSIONS AND RECOMMENDATIONS**

The chapter provides a summary of the study, conclusions and recommendations.

**5.1 Conclusions**

This study examined the factors which contributed to academic performance differences between co-educational and single-sex agricultural secondary schools in Tanzania.

Students, teachers and heads of secondary schools formed the survey population for the study. Twelve agricultural secondary schools were purposively selected and represented by 4 boys', 4 girls' and 4 co-educational secondary schools. One hundred and twenty four students, 60 teachers and 12 heads of schools participated in the study.

The main techniques for data collection were documentary analysis, questionnaires, interviews and observations. Three sets of questionnaires were developed to collect information from students, teachers and heads of schools. Key education administrators were also interviewed on the academic performance differences between sexes and among different types of schools. A checklist, and observations were also made on the schools in relation to the general school

discipline and students participation in recreational activities. Additional information was obtained from documents in the Ministry of Education and Culture, National Examination Council of Tanzania and sampled schools on the national form four examination results (CSEE) from 1989 to 1993. The field work was conducted during May and July 1994.

Data from the questionnaires and checklists were analysed by computer using the Statistical Package for the Social Sciences (SPSS-PC) programme to determine the basic distributional characteristics for each of the variables used in a the statistical analysis. The National Form Four Examination results data were analysed using the t-test to determine academic performance differences among the types of schools. Cross-tabulations sub-programme were used to determine the independence of selected variables in schools.

### **Conclusions.**

#### **1. Academic Performance Level of Schools From 1989-93**

It was found that at the national level, seminaries had consistently performed better followed by boys' and girls' secondary schools. Co-educational secondary schools had invariably lagged behind other types of schools. Statistical significant differences in the academic performance were found between seminaries and girls' only, and co-educational

secondary schools, boys' only and girls' secondary schools; and girls' only and co-educational secondary schools. We think that at national level, there are other contributing factors such as public versus private schools and/or day versus boarding schools which might have influenced the examination results.

## **2. The Relative Ability of Boys and Girls in School Subjects and Examinations**

The findings indicated that most boys preferred science subjects while girls preferred arts subjects. Boys were considered more committed to academic work than girls when mixed together in secondary schools, but girls were found to be more adversely affected both academically and socially than boys in co-educational secondary schools. This is contrary to the beliefs by many respondents in girls' secondary schools who confessed that girls performance could be improved by mixing them with boys. They believed that girls could get the advantage of being helped by boys.

It was also discovered that although boys performed better than girls in co-education schools they were disadvantaged when compared to those in single-sex secondary schools. The academic performance of boys

scoring division I-III in single-sex was better than those in co-educational secondary schools. Similarly, girls who scored divisions I-III in single-sex performed better than those scoring the same divisions in co-educational secondary schools. However, no significant differences were found between boys and girls who scored the lower divisions IV - 0 in all types of schools.

### **3. Effects of Social Relationships on the Academic Performance**

On average, it was found that most schools had good social relations. Students interactions in different school activities were good and there were inter-school relationships in form of sports, debates, drama and religious meetings. However, comparatively, girls' only and co-educational secondary schools were found to impose more strict social controls than boys' only secondary schools. This might have affected students in girls' only and co-educational secondary schools psychologically, subsequently lowering their academic performance.

### **4. Personal Characteristics of Teaching Staff and Their Effect on the Academic Performance**

Although the Ministry of Education and Culture had issued guidelines concerning the quality of teachers in schools, the study found that on

average schools had more male than female teachers even in some of girls' secondary schools. Furthermore, some of co-educational secondary schools were found to have less than 25% of female teachers. In most schools, there was, however, a good balance/ratio between married and unmarried teachers. Agewise, it was found that the majority of teachers were aged between 30 and 40 years and had a teaching experience of more than 3 years. It was observed further that most schools had less than 25% of graduate teachers in the entire teaching staff.

It is assumed that inadequate female teaching staff in co-educational and some of the girls' secondary schools, coupled with insufficient teachers with recommended education standards may have also contributed to the poor academic performance of students in those schools especially to girls who might have lacked appropriate role models.

#### **5. Effects of School Discipline on the Academic Performance**

The study found that the majority of students in secondary schools aged between 14 and 19 years in "O" level and up to 21 years in "A" level. This age group embraced most of the school rule violators because of adolescence.

The study further established that apart from the standard school regulations issued by the Ministry of Education and Culture early in 1980, each school has its own by-laws and regulations based on the environment and circumstances. Girls' secondary schools were found to have strict disciplinary controls followed by co-educational secondary schools. Furthermore, it was found that more students were expelled from girls' only and co-educational secondary schools due to misconduct in the schools. Boys' schools had the least number of expelled students. We can imply from these findings that students in girls' and co-educational secondary schools find themselves fighting against what they perceive as school oppression before indulging in examination competitions with students from other types of schools.

Generally, the behaviour of teachers was found to be good. Most teachers abide to the code of professional conduct although in some cases a few teachers became distractions to students. In such circumstances, student became absent minded and failed to concentrate in studies.

#### **6. Effects of Recreational Activities on the Academic Performance**

All schools were found to participate in sports and games. However, football for boys and netball for girls were the only recreational activities

played on daily basis. Other games were either being held in preparation for UMISSETA competitions or school graduation ceremonies. Boys' secondary schools were found to have more recreational activities than other types of schools. For example, town visits, picnic and week-end offs were only indicated in boys' schools. This shows that boys' schools had more out-of-school activities which help in refreshing students' minds hence better academic performance.

#### **7. Effects of Students Guidance and Counselling on the Academic Performance**

Boys' only secondary schools were found to have had more teachers trained in guidance and counselling of students than other categories of schools. Although girls' schools had the least number of trained counsellors, they were found to have formed more committees in guidance and counselling than other types of schools. However, the roles of these committees were not well stipulated and they seemed to vary from one school to another.

Generally speaking, the importance of guidance and counselling of students in schools has not received the emphasis it deserves. Several years ago, the Ministry of Education and Culture established a Guidance

and Counselling Unit under the Commission of Education to enhance guidance and counselling services in schools. Since its inception, nothing appreciable has so far been done regarding establishment of guidance and counselling committees in schools and training of student counsellors. The few counselling services which were found to be in some schools were run by regular teachers who had very little or no training in guidance and counselling. Therefore, the effect of this factor to the academic performance lacked comparative data although we can assume that boys' secondary schools had better services.

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**8. Availability of Teaching/Learning Facilities and their Effects on the Academic Performance**

Most schools were found to have inadequate teaching and learning materials. Materials which were most lacking were laboratory chemicals, equipment and textbooks. Others include chairs, desks, beds and sports gears. The effect of teaching and learning materials in academic performance cannot be overemphasized. However, from this study it can be concluded that this factor did not contribute much to academic performance differences among the different types of secondary schools because the problem was common in all types of schools.

**9. Effects of School Management and Administration and their Effects on the Academic Performance**

The study found that the degree and intensity of democracy in schools was decreasing from boys' to other type of schools. Girls' secondary schools were found to impose more controls on their students. As a result, the management styles in most of the girls' schools were described as authoritarian and exploitative. It was suggested that boys' only secondary schools should be headed by male teachers and girls' secondary schools by female teachers. Co-educational secondary schools could be headed by either sex. Other administration supportive posts could be headed by teacher(s) of any sex provided that the teacher(s) is/are qualified, experienced and committed to school work. However, male teachers were considered to be more committed to school work than female teachers. Yona (1992) found that household demands on the time of female teachers was the main cause of the female teachers absenteeism at work.

The majority of teachers were found to have had leadership experiences of less than 5 years, and had never held other school administrative posts before. This may have prompted some of the heads of schools to be authoritative in order to compensate for their leadership weaknesses.

Authoritarian leadership styles coupled with inadequate leadership experiences and differential treatment between boys and girls in co-educational secondary schools might have contributed to poor academic performance in those schools.

#### **10. The Importance of the Co-education System**

The responses by students, teachers and heads of schools underscores the importance of single-sex secondary schools. This was echoed by the high rate of transfers of students to single-sex secondary schools. It was argued that in single-sex secondary schools, students devote more time to academics and that in these schools there are less social disturbances. Nevertheless, the majority of respondents expressed that co-education should be introduced in all levels of education because it will enable students share their experiences academically and socially. Furthermore, co-education will help to consolidate equality in academics as well as gender issues.

### **5.2 Recommendations**

The findings of the study lead to the following recommendations:

1. Co-education system should be encouraged at all levels of education. This would foster equality in education, subsequently eliminate stereotyped

attitudes existing in the society that boys/men are superior to girls/women. However, at the secondary school level, co-educational schools should be provided with well qualified, experienced and mature teachers. These teachers would handle adolescent problems with great care. The schools should have a well balanced ratio of male to female teachers and male to female students.

2. Single-sex secondary schools should continue to exist. These schools would provide a good base for academic performance comparisons. Consequently, these schools would compensate for failures in co-educational secondary schools hence safeguard higher learning institutions from getting substandard candidates. Furthermore, single-sex secondary schools could be used as recruitment centres for qualified teachers for co-education schools.
3. All secondary schools should be provided with well trained student counsellors. Guidance and Counselling programmes should also be introduced in schools. These programmes could be effective in changing the devastating and unrealistic attitudes on the part of parents and students that boys are more intelligent than girls. The guidance and Counselling Unit in the Ministry of Education and Culture also need to

be strengthened so that it could effectively execute its duties. The unit should provide guidelines for school committees on guidance and counselling. Furthermore, it should advise schools on how best to run guidance programmes for the benefit of students. The unit should coordinate training and retaining of students counsellors and carry research on need assessment for guidance and counselling. It is also recommended that guidance and counselling as a subject should be taught in all institutions responsible for teacher training.

4. More recreational facilities should be provided to schools. These should include sports gears and sufficient funds for carrying out of school activities such as field trips, study tours, school visits and picnics. Inter and intra-school competitions in sports, cultural activities and academic subjects should be restored.
5. Differential treatment between sexes of students and schools should be discouraged. Discrimination of girls through school rules and other school activities should also be discouraged because it makes them inferior in front of boys which causes them to despair morally, socially and subsequently academically. Gender-positive attitudes of teacher will make the life of students enjoyable socially and morally.

6. Parents should be encouraged to cooperate with teachers in the maintenance of proper discipline in and out of schools. Adults should serve as role models in schools and at all times.

### **5.3 Suggestions for Future Studies**

This study has looked into the academic performance differences between public boarding co-educational and single-sex secondary schools. It is recommended that studies on the academic performance differences between public and private secondary schools and between boarding and day secondary schools be conducted. Such studies would provide ground for rejuvenating and strengthening educational standards which have been said to decline sharply.

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## Appendix 1

**Letter grade distribution by type of school  
in numbers and percentages, 1989-93**

Year	Grade A					Grade B					Grade C				
	Sem*	Boys'	Girls'	Co**	Total	Sem	Boys'	Girls'	Co	Total	Sem	Boys'	Girls'	Co	Total
1993	22	4	2	9	37	2	14	6	17	39	8	10	25	204	247
	68.8	14.3	5.3	2.9		6.2	50.0	15.8	5.4	25.0	35.7	65.7	65.4		
1992	19	7	0	2	28	3	13	5	27	48	10	10	26	151	197
	59.4	23.3	0.0	0.8		9.4	43.3	15.2	10.7	31.2	33.3	78.8	59.9		
1991	19	5	0	1	25	6	20	5	17	48	4	8	23	158	194
	63.3	15.2	0.0	0.4		20.0	60.6	15.6	7.1	13.3	24.2	71.8	65.8		
1990	19	15	1	4	39	4	13	10	24	51	6	5	15	116	142
	61.3	45.5	3.3	1.9		12.9	39.4	33.3	11.7	19.4	15.1	50.0	56.3		
1989	19	12	4	5	40	6	19	9	15	49	3	4	14	99	120
	63.3	34.3	13.8	2.9		20.6	54.3	31.0	8.7	10.0	11.4	48.4	57.2		

Year	Grade C					Grade F				
	Sem*	Boys'	Girls'	Co**	Total	Sem	Boys'	Girls'	Co	Total
1993	0	0	5	81	86	0	0	0	1	1
	0.0	0.0	13.2	26.0		0.0	0.0	0.0	0.3	
1992	0	0	2	71	73	0	0	0	1	1
	0.0	0.0	6.0	28.2		0.0	0.0	0.0	0.4	
1991	1	0	2	55	58	0	0	2	9	11
	3.3	0.0	6.3	22.9		0.0	0.0	6.3	3.8	
1990	1	0	2	60	63	1	0	2	2	5
	3.2	0.0	6.7	29.1		3.2	0.0	6.7	1.0	
1989	1	0	2	52	55	1	0	0	2	3
	3.3	0.0	6.9	30.0		3.3	0.0	0.0	1.2	

\* Seminaries      \*\* Co-educational

Source: Computed from the Ministry of Education and Culture  
CSEE summary statistics, 1989-94

## Appendix 2

**Certificate of secondary education examination (CSEE)  
summary statistics by type of school, 1989-93**

Year	Seminaries				Boys' only			
	No. of schools	Sum of Scores	Mean	Standard deviation	No. of schools	Sum of scores	Mean	Standard deviation
1993	33	764.12	22.88	3.71	28	743.70	26.56	2.39
1992	32	739.43	23.11	3.77	30	755.71	25.19	2.96
1991	30	654.28	21.81	3.80	33	809.91	24.54	1.78
1990	31	672.45	21.69	4.88	33	735.14	22.28	2.40
1989	30	632.46	21.08	4.79	35	787.01	22.49	1.70
Overall mean			22.31				24.21	

Year	Girls' only				Co-educational			
	No. of schools	Sum of Scores	Mean	Standard deviation	No. of schools	Sum of scores	Mean	Standard deviation
1993	38	1095.11	22.82	2.34	312	9456.24	30.31	2.13
1992	33	934.47	28.32	2.40	252	7531.81	29.89	2.53
1991	32	892.50	27.89	2.66	240	7184.43	29.94	2.46
1990	30	781.15	26.04	3.44	206	5923.38	28.75	3.00
1989	29	733.73	25.30	2.88	173	4893.66	28.29	2.88
Overall mean			27.27				29.43	

Source: Compiled from the Ministry of Education and Culture CSEE summary statistics, 1989-94

## Appendix 3

**THE ACADEMIC PERFORMANCE OF CO-EDUCATIONAL AND SINGLE-SEX  
AGRICULTURAL SECONDARY SCHOOLS IN TANZANIA  
QUESTIONNAIRE FOR SECONDARY SCHOOL STUDENTS (FORM IV ONLY)**

Dear Students,

You have been selected to provide some information on the academic performance of agricultural secondary schools in Tanzania. We would very much appreciate if you could share with us your experiences on the subject by answering the following questions freely and honestly. We assure you that your responses will be treated with strict confidence.

Directions: Please put a tick (V) against the answer or statement you consider the best addressing the issue. In some of the questions, write the required response in the space provided.

1. What is the name of your school?.....
2. What is the type of your school?
  - ..... girl's school
  - ..... boys' school
  - ..... co-educational
3. Are you a boy or a girl?
  - ..... a boy
  - ..... a girl
4. What is your age group?
  - ..... below 14 years
  - ..... 14 - 16 years
  - ..... 17 - 19 years
  - ..... 20 years and above
5. What type of subjects do you like best?
  - ..... Science subjects (Physics, Chemistry, Biology, Agr. Science etc)
  - ..... Arts subjects (History, Geography, English, Kiswahili, ect)
  - ..... all
  - ..... none

- 6. What type of subjects do you think are mostly liked by girls?
  - ..... Arts
  - ..... Science
  - ..... both
  - ..... none
- 7. What type of subjects do you think are mostly liked by boys?
  - ..... Arts
  - ..... Science
  - ..... both
  - ..... none
- 8. How do you rank the performance of girls in tests and examinations?
  - ..... above boys
  - ..... equal to boys
  - ..... below boys
  - ..... don't know
- 9. How do you rank the performance of boys in tests and examinations?
  - ..... above girls
  - ..... equal to girls
  - ..... below girls
  - ..... don't know
- 10. If given a chance to choose, what type of school would you like to attend?
  - ..... single-sex school
  - ..... co-educational
  - .....any

What are the reasons for your choice?

.....

.....

.....

.....

11. Do you usually discuss academic matters with students of opposite sex?

- ..... yes
- ..... no

If yes where are these discussions carried out?

- ..... in the classroom
- ..... in the dormitory
- ..... in the dining hall
- ..... in the library
- ..... any where

12. Do you mix freely together in studies and other school activities?

- ..... yes
- ..... no

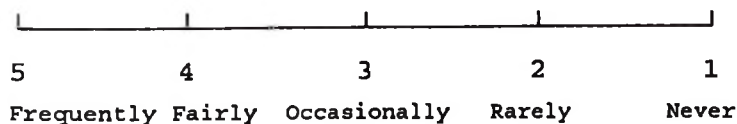
13. When you have academic problem, whom do you like best to discuss with?

- ..... Female students ;
- ..... Male students
- ..... a male teacher
- ..... a female teacher
- ..... any

14. When you have a social problem, whom do you see first for help?

- ..... the Head of school
- ..... Deputy head of school
- ..... Senior master domestic and cultural affairs
- ..... Matron
- ..... Other (specify

15. Which of the following offences do you think are more committed by boys and girls? Use the following scale to indicate frequency of occurrence.



	Boys					Girls				
	5	4	3	2	1	5	4	3	2	1
Truancy										
Theft										
Promiscuity										
Drunkness										
Cigarette smoking										
Drug abuse										
Brawl/fighting										
Vandalism										
Marriage										
Pregnancy										
Abortion										
Bullying over younger pupils										

16. At what stage of education in schools do you think co-education should be allowed?

- ..... primary school level
- ..... secondary school level
- ..... post secondary school level
- ..... none
- ..... all

17. Does your school have inter-school relations with other neighbouring secondary schools?

- ..... yes
- ..... no

If yes what kind of relations?

- ..... school visits
- ..... debates
- ..... sports
- ..... drama
- ..... music/disco
- ..... others
- (specify) .....

18. How often are there inter-school activities held?

- ..... monthly
- ..... terminally
- ..... yearly
- ..... as needed

19. What recreational activities are available in your school?

- ..... music: dance/disco
- ..... picnic
- ..... town visits

- sports: ..... football
- ..... netball
- ..... basketball
- ..... handball
- ..... volleyball
- ..... table tennis ;
- ..... athletics
- drama: ..... theatre arts
- ..... choir
- ..... ngoma

Which ones of these activities do you participate in?

.....  
.....

20. What is the present leadership system in this school?

- .... exploitative/authoritative (make decisions and order students to follow)
- .... benevolent authoritative (issues orders but students have some freedom to comment on those orders)
- .... consultative (set goals and issues general orders after discussion with students)
- .... participative (goals and decisions are made by the group i.e. teachers and students)

21. Whom do you consider suitable to be head of school in the following types of schools?
- a) Girls' secondary schools
    - ..... Male
    - ..... Female
    - ..... Any
  - b) Boys' secondary schools
    - ..... Male
    - ..... Female
    - ..... Any
  - c) Co-educational secondary schools
    - ..... Male
    - ..... Female
    - ..... Any
22. Whom do you consider suitable to be student counsellor in the following types of schools?
- a) Girls' secondary schools
    - ..... Male
    - ..... Female
    - ..... Any
  - b) Boys' secondary schools
    - ..... Male
    - ..... Female
    - ..... Any
  - c) Co-educational secondary schools
    - ..... Male
    - ..... Female
    - ..... Any

THANK YOU FOR YOUR HELP IN COMPLETING THIS QUESTIONNAIRE

## Appendix 4

**THE ACADEMIC PERFORMANCE OF CO-EDUCATIONAL AND SINGLE-SEX  
AGRICULTURAL SECONDARY SCHOOLS IN TANZANIA  
QUESTIONNAIRE FOR SECONDARY SCHOOL TEACHERS**

Dear Teachers,

We are carrying out a research on the above mentioned subject and would very much appreciate if you could share with us your experiences on the subject. We assure you that your responses will be treated with strict confidence and will be reported in group form only.

Instructions; Please answer these questions by placing a tick (V) or by writing the required response in the blank provided.

- 1(a) Name of School:.....
- (b) What is the type of the school?  
 ..... boys' secondary school  
 ..... girls' secondary school  
 ..... co-educational secondary school
- 2(a) What is your age group (years)?  
 ..... below 31  
 ..... 31 - 40  
 ..... 41 - 50  
 ..... 51 and above
- (b) What is your gender?  
 ..... male  
 ..... female
- (c) What is your marital status?  
 ..... single  
 ..... married  
 ..... divorced  
 ..... widowed

(d) What is your highest academic qualification?

- ..... PhD
- ..... MSc
- ..... MA
- ..... BSc
- ..... BA
- ..... Diploma
- Others (Specify).....

3 (a) How many years have you been teaching in secondary schools?

- ..... less than one year
- ..... 1 - 3 years
- ..... more than 3 years

(b) How many years have you taught in the following type of Secondary schools during your entire career?

- ..... boys' only
- ..... girls' only
- ..... co-educational

4 (a) On which of the following types of secondary schools would you like to teach?

- ..... boys' only
- ..... girls' only
- ..... co-educational
- ..... any

(b) What are the reasons for your choice in 4(a)?

- .....
- .....
- .....

5 (a) In which of the following type of secondary schools do you think boys are more committed to academic work than girls?

- ..... boys' secondary school
- ..... co-educational secondary school

What are the reasons for your choice?

- .....
- .....
- .....

b) In which of the following type of secondary schools do you think girls are more committed to academic work than boys?

- ..... girls' secondary school
- ..... co-educational secondary school

What are the reasons for your choice?

.....  
.....

6(a) If given a choice, which of the following type of secondary schools would you recommend for your daughter to attend?

- ..... girls' secondary school
- ..... co-educational secondary school

What are the reasons for your choice?

.....  
.....  
.....

(b) If given a choice, which of the following type of secondary school would you like your son to attend?

- ..... boys' secondary school
- ..... co-educational secondary school

What are the reasons for your choice?

.....  
.....  
.....

7(a) Whom do you think are the most adversely affected in terms of academic performance in co-educational secondary school?

- ..... boys
- ..... girls
- ..... uncertain
- ..... none

What are the reasons for your choice?

.....  
.....  
.....

- (b) Whom do you think are the most adversely affected socially?
  - ..... boys
  - ..... girls
  - ..... uncertain
  - ..... none

What do you think are the reasons for 7(b)?

.....  
.....  
.....

- 8(a) Do you think that there is any difference in academic performance between boys and girls in secondary schools?
  - ..... yes
  - ..... no
  - ..... uncertain

- (b) If yes to question 8(a), whom do you think perform better generally?
  - ..... boys
  - ..... girls

9. Please rate the following items on how you agree or disagree with the statements. If you strongly disagree with the statement write "1" on the line on the statement and if you strongly agree write "5" on the statement use the following scale to respond to each item.



1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

- ..... boys are more committed to academic work than girls
- ..... girls are more committed to academic work than boys
- ..... boys are naturally more intelligent than girls
- ..... girls are naturally more intelligent than boys
- ..... there is no difference in commitment in academic work between the sexes

- ..... superiority tendencies of boys and bullying of girls make girls perform poorly in examinations
- ..... teachers favour boys in tests and exams
- ..... teachers favour girls in tests and exams
- ..... students in co-educational schools perform worse academically when compared to students in single-sex schools because they devote more time struggling for social associations than academics.
- ..... students in co-educational schools perform better academically than in single-sex schools because in co-educational schools students share their experiences as brothers and sisters.
- ..... indiscipline cases are more rampant in co-education schools than in single-sex schools
- ..... adolescence problems are more pronounced in co-educational schools than in single-sex schools.
- ..... some female teachers fail to take disciplinary measure to older boys.
- ..... some male teachers fail to take disciplinary measures to older girls.
- ..... cultural heritage in Tanzania has elements of male chauvinism that affect equal up-bringing of girls and boys.
- ..... boys and girls should live together in secondary schools as they do at home so that they respect each other by discovering common interests in academic work and social activities.
- ..... in co-educational secondary schools emotional strains due to sex differences are minimized as a result of boys and girls working and playing together.
- ..... in co-educational secondary schools boys and girls realize that academic excellence is not attributed to one's sex

10. What is the general performance of boys and girls in the following subjects? Use the following scale in ranking academic performance between the sexes.

5	4	3	2	1
Excellent	Good	Satisfactory	Unsatisfactory	Poor

Subject	Performance	
	Boys	Girls
Civics	.....	.....
Kiswahili	.....	.....
English	.....	.....
History	.....	.....
Geography	.....	.....
Mathematics	.....	.....
Biology	.....	.....
Chemistry	.....	.....
Physics	.....	.....
Agr.Science	.....	.....
Religion	.....	.....

11. What is the present leadership style in this school?
- ..... authoritarian (demanding obedience to rules and laws)
  - ..... democratic (give the right to take part in decision-making)
  - ..... liberal (willing to respect the ideas and feelings of students and teachers)
  - ..... laissez-faire (impoverished management of administration)

12a) Who do you consider appropriate to be Head of School in the following types of schools?

	Male	Female	Any
Girls' schools	.....	.....	.....
Boys' schools	.....	.....	.....
Co-educational	.....	.....	.....

What would be the reasons for your suggestions in 12(a)?  
 .....  
 .....  
 .....

b) Who do you consider appropriate to be second Master /Mistress?

	Male	Female	Any
Girls' school	.....	.....	.....
Boys' schools	.....	.....	.....
Co-educational	.....	.....	.....

Reasons:.....  
 .....

c) Who do you consider appropriate to be senior academic Master/Mistress?

	Male	Female	Any
Girls' schools	.....	.....	.....
Boys' schools	.....	.....	.....
Co-educational	.....	.....	.....

Reasons:.....  
 .....

d) Who do you consider appropriate to be senior Master/Mistress incharge of school discipline?

	Male	Female	Any
Girls' school	.....	.....	.....
Boys' schools	.....	.....	.....
Co-educational	.....	.....	.....

Reasons:.....  
 .....

13a) Have you received any training in guidance and counselling of students?

- ..... yes
- ..... no

b) If yes where did you attend the course?

- ..... teacher Training College
- ..... university
- ..... MANTEP (Bagamoyo)
- ..... others (Specify) .....
- .....

14. Describe your relationship with students in social activities.

- ..... 5 very good
- ..... 4 good
- ..... 3 satisfactory
- ..... 2 unsatisfactory
- ..... 1 bad

15a) What recreational activities are available in this school?

- ..... picnic
- ..... dance/disco
- ..... indoor games
- ..... outdoor games
- ..... town visits
- ..... drama
- ..... choir
- ..... ngoma
- others(Specify).....
- .....

What is your involvement in these activities?

- .....
- .....



17. Which of the following ratios of male to female teachers would you recommend for each of the following schools?

	1	2	3	4	5
	More	More	Equal	Males	Females
	males	more	numbers	only	only
		females	only		
Boys' schools	....	....	....	....	....
Girls' schools	....	....	....	....	....
Co-educational	....	....	....	....	....

What are the reasons for your suggestions?

.....  
.....

THANK YOU FOR YOUR COOPERATION IN COMPLETING THIS QUESTIONNAIRE

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## Appendix 5

**THE ACADEMIC PERFORMANCE OF CO-EDUCATIONAL AND SINGLE-SEX  
AGRICULTURAL SECONDARY SCHOOLS IN TANZANIA  
QUESTIONNAIRE FOR HEADS OF SECONDARY SCHOOLS**

Instructions: Please put a tick (v) by the response which best reflect your opinion or write the answer at the space provided.

1(a) Name of your school:.....

(b) Type of school

- ..... boys' school
- ..... girls' school
- ..... co-educational

2. What is the current student enrolment in your school? Give numbers.

	Boys	Girls	Total
Form I	.....	.....	.....
II	.....	.....	.....
III	.....	.....	.....
IV	.....	.....	.....
Total	.....	.....	.....

3. Please give the number and gender of teachers in your school.

- ..... Male
- ..... Female
- ..... Total

4. What are the qualifications of these teachers (insert numbers)

	Male	Female
PhD	.....	.....
MSc	.....	.....
MA	.....	.....
BSc	.....	.....
B.A	.....	.....
Diploma	.....	.....
Certificate	.....	.....

5. What are the age groups of teachers in years (insert numbers)

	Male	Female
Below 30	.....	.....
31 - 40	.....	.....
41 - 50	.....	.....
51 and above	.....	.....

6. What is the marital status of the teachers in your school?  
Give numbers.

	Male	Female
Single	.....	.....
Married	.....	.....
Divorced	.....	.....
Widowed	.....	.....

7. How many teachers have been teaching in this school for the following number of years?

..... less than 1 year  
 ..... 1 - 3 years  
 ..... above 3 years

8(a) How many years have you been Head of this secondary school?

..... less than 5 years  
 ..... 5 - 10 years  
 ..... above 10 years

(b) Have you been the Head of another secondary school before?

..... Yes

..... No

If yes for how many years? .....

9. How many years have you been Deputy Head of school?

..... less than 5 years  
 ..... 5 - 10 years  
 ..... more than 10 years  
 ..... none

10. How many years have you been a senior master incharge of academic affairs?

- ..... less than 5 years
- ..... 5 - 10 years
- ..... more than 10 years
- ..... none

11. How many years have you been senior master incharge of discipline affairs?

- ..... less than 5 years
- ..... 5 - 10 years
- ..... more than 10 years
- ..... none

12. How many years have you taught in the following secondary schools?

- Boys' school ..... years
- Girls' school ..... years
- Co-educational ..... years

13. Which of the following type of secondary schools would you like to head?

- ..... boys' school
- ..... girls' school
- ..... Co-educational
- ..... any

What would be the reasons for your choice?

- .....
- .....
- .....
- .....

14. What do you consider to be the most important advantages of co-educational schools?

- .....
- .....
- .....
- .....

15. What do you consider to be some of the most important disadvantages of co-educational schools?

.....  
.....

16. Which of the following category of teachers would you consider appropriate for teaching boys' secondary schools?

- ..... single male
- ..... married male
- ..... single female
- ..... married female
- ..... any

What are the reasons for your choice?

.....  
.....

17. Which of the following category of teachers would you consider appropriate for teaching girls' secondary schools

- ..... single male
- ..... married male
- ..... single female
- ..... married female
- ..... any

What are the reasons for your choice?

.....  
.....

18. Which of the following category of teachers would you consider appropriate for teaching co-educational secondary schools?

- ..... single male
- ..... married male
- ..... single female
- ..... married female
- ..... any

What are the reasons for your choice?.....

.....

19. Which of the following ratios of male to female teachers would you recommend for each of the following types of secondary schools?

	1	2	3	4	5
	More	More	Equal	Males	Females
	males	females	numbers	only	only
boys' schools	.....	.....	.....	.....	.....
girls' schools	.....	.....	.....	.....	.....
co-educational	.....	.....	.....	.....	.....

20. Does your school have enough teaching materials and facilities to cover syllabuses?

..... yes

..... no

If no what facilities/materials are most lacking?

.....  
 .....  
 .....

21a) Which of the following recreational activities are performed in your school?

- Sports: ..... football
- ..... netball
- ..... basketball
- ..... handball
- ..... volleyball
- ..... table tennis
- ..... athletics

..... dance/disco

..... film/video

..... town visits

..... drama/choir/ngoma

..... picnic

others (specify):.....

.....

b) How often does your school have these recreational activities?

	Daily	Weekly	Monthly	Occasio- nally
<b>Sports:</b>				
football	.....	.....	.....	.....
netball	.....	.....	.....	.....
basketball	.....	.....	.....	.....
handball	.....	.....	.....	.....
volleyball	.....	.....	.....	.....
table				
tennis	.....	.....	.....	.....
athletics	.....	.....	.....	.....
<b>Music:</b>				
dance	.....	.....	.....	.....
film	.....	.....	.....	.....
Town visits	.....	.....	.....	.....
<b>Drama:</b>				
ngoma	.....	.....	.....	.....
theatre				
arts	.....	.....	.....	.....
choir	.....	.....	.....	.....
Picnic	.....	.....	.....	.....

22. Does your school have any social and academic relationship with other neighbouring secondary schools?

..... Yes

..... No

If yes what form of relationships?

..... study visits

..... debates

..... drama

..... sports

..... music

..... others (specify) .....

.....

23. In your opinion, how would you rank the following social relationships in your school? Put a tick (v) in the appropriate column using the following scale.

- 5 = very good  
 4 = good  
 3 = satisfactory  
 2 = unsatisfactory  
 1 = poor

5    4    3    2    1

**I    Community to school relationships**

- Relation of community with school in general
- Relation of community to student individually and in groups
- Relation of community with teachers
- Relation of special groups and individuals in the community with the school (school board, patrons ex-teachers etc)

**II    Pupil to pupil relationships**

- Relationship of pupil with pupil in general
- Relationship between individual female and male students
- Relationship of female student group with male student group
- Relationship between older students and younger students
- Relationship between students of higher forms and those of lower forms

**III    Teacher to pupil relationships**

- Relationship of female teachers with female students
- Relationship of female teachers with male students

- Relationship of male teachers with female students      5      4      3      2      1
- Relationship of male teachers with male students

IV Teacher to teacher relationships

- Relationship between female teachers and male teachers
- Relationship of female teachers with female teachers
- Relationship of male teachers with male teachers
- Relationship of male teachers with Head of school
- Relationship of female teachers with head of school

24. Please rank the importance of the following teacher traits with regard to the control of students. Put a tick (V) in the relevant column using the following scale:

- 5 = Very important
- 4 = Good
- 3 = Fairly important
- 2 = Less important
- 1 = Not important at all

5      4      3      2      1

The social background of the teacher

Physical characteristics of the

teacher - size

- strength

- health

Age of the teacher

Experience of the teacher

Personality of the teacher

How the teacher dresses

Attitude of the teacher towards students

Attitude of the teacher towards        5    4    3    2    1  
subject matter

Voice of the teacher

25. What age group of student violates or disregards most the  
social control of the school?

..... below 13 years

..... 14 - 16 years

..... 17 - 19 years

..... above 20 years

Describe the general behaviour of that group

.....  
.....

⋮

26. Rank the following offences according to their frequency of occurrence to students in your school. Use the following scale to tick (V) your choice in the columns.

- 5 = Frequently
- 4 = Fairly often
- 3 = Occasionally
- 2 = Rarely
- 1 = Never

	B O Y S					G I R L S				
	5	4	3	2	1	5	4	3	2	1
Truancy										
Theft										
Promiscuity										
Drunkenness										
Cigarette smoking										
Drug abuse										
Brawl/Fighting										
Vandalism										
Sexual harassment										
Marriage										
Pregnancy										
Abortion										
Bullying smaller pupils										

27. How many students have been expelled from your school of the above offences from 1989 to 1993?

.....  
 .....

28. Please rate the following items on how you agree or disagree with the statement. Use the following scale to respond to each item in the space provided.

5	4	3	2      1
Strongly agree	uncertain	disagree	strongly disagree

- .... Boys are more committed to academic work than girls
- .... Girls are more committed to academic work than boys
- .... Boys are naturally more intelligent than girls
- .... Girls are naturally more intelligent than boys
- .... There is no difference in commitment in academic work between boys and girls
- .... Superiority tendencies of boys and bullying of girls make girls perform poorly in tests and examinations
- .... Teachers favour boys in tests and exams
- .... Teachers favour girls in tests and exams
- .... In co-educational schools students perform worse academically when compared to students in single sex schools because in co-educational school students devote more time struggling for social associations than for academics.
- .... Students in co-educational schools perform better academically than in single-sex schools because in co-educational schools students share their experiences as brothers and sisters.
- .... Boys and girls should live together in secondary schools as they do at home so that they respect each other by discovering common interests in academic work and social activities.
- .... Indiscipline cases are more rampant in co-educational schools than in single-sex schools
- .... Adolescence problems are more pronounced in co-educational than single-sex schools



33. At what stage of educational level do you think co-education should be allowed?  
..... Primary school level  
..... Secondary school level  
..... Post-secondary school level  
..... None  
..... All  
What are the reasons for your suggestion(s)?  
.....
34. Have you formed a committee on student guidance and counselling in this school?  
..... Yes  
..... No  
If yes what are the roles of the Committee?  
.....  
.....
35. What incentives does the school give to motivate students towards greater achievements in examinations?  
..... Material prizes for the best performers in exams  
..... Cash prizes for the best performers in exams  
..... Excursions for good performers in exams  
..... Punishments for the poor performers in exams?  
Others.....  
.....

THANK YOU FOR YOUR HELP IN COMPLETING THIS QUESTIONNAIRE

Appendix 6

THE ACADEMIC PERFORMANCE OF CO-EDUCATIONAL AND SINGLE-SEX  
AGRICULTURAL SECONDARY SCHOOLS IN TANZANIA

A CHECK LIST ON SCHOOL DISCIPLINE, SOCIAL INTERACTIONS AND  
AVAILABILITY OF RECREATIONAL ACTIVITIES

Name of School:..... Type.....

- Scale: 5 = Excellent  
 4 = Good  
 3 = Satisfactory  
 2 = Unsatisfactory  
 1 = Poor

A. Respect/Honour:

	5	4	3	2	1
1. Students stand up when greeting elders (visitors).					
2. Students do not use abusive language among themselves, teachers and other people.					
3. Students respect all non-teaching staff as their guardians.					
4. Students cooperate and help each other in performing various school tasks assigned to them.					
5. Students value both academic and manual work.					
6. Students do not do the following:					
a) Smoke cigarettes					

## Appendix 6

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A CHECK LIST ON SCHOOL DISCIPLINE, SOCIAL INTERACTIONS AND  
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Name of School:..... Type.....

Scale: 5 = Excellent

4 = Good

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2 = Unsatisfactory

1 = Poor

A. Respect/Honour:

- |                                                                                                | 5 | 4 | 3 | 2 | 1 |
|------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 1. Students stand up when greeting elders (visitors).                                          |   |   |   |   |   |
| 2. Students do not use abusive language among themselves, teachers and other people.           |   |   |   |   |   |
| 3. Students respect all non-teaching staff as their guardians.                                 |   |   |   |   |   |
| 4. Students cooperate and help each other in performing various school tasks assigned to them. |   |   |   |   |   |
| 5. Students value both academic and manual work.                                               |   |   |   |   |   |
| 6. Students do not do the following:                                                           |   |   |   |   |   |
| a) Smoke cigarettes                                                                            |   |   |   |   |   |

- |           |                                                                   |   |   |   |   |   |
|-----------|-------------------------------------------------------------------|---|---|---|---|---|
|           | b) Keep long nails and dirty hairs                                | 5 | 4 | 3 | 2 | 1 |
|           | c) Keep beards                                                    |   |   |   |   |   |
|           | d) Wear undisciplined clothes                                     |   |   |   |   |   |
|           | e) Quarrel with each other                                        |   |   |   |   |   |
|           | f) Vandalism                                                      |   |   |   |   |   |
| 7.        | Students respond quickly when called/summoned by their seniors.   |   |   |   |   |   |
| 8.        | Students respect the following                                    |   |   |   |   |   |
|           | a) National flag                                                  |   |   |   |   |   |
|           | b) Portraits of government leaders                                |   |   |   |   |   |
|           | c) Coat of Arms                                                   |   |   |   |   |   |
|           | d) National Anthem                                                |   |   |   |   |   |
| 9.        | Students respect the following places:                            |   |   |   |   |   |
|           | a) Assembly hall                                                  |   |   |   |   |   |
|           | b) Dining hall                                                    |   |   |   |   |   |
|           | c) School offices                                                 |   |   |   |   |   |
|           | d) School properties                                              |   |   |   |   |   |
| 10.       | Students demonstrate good behaviour whenever they are.            |   |   |   |   |   |
| 11.       | Students queue when receiving services.                           |   |   |   |   |   |
| 12.       | Students raise hands and stand up when answering questions.       |   |   |   |   |   |
| 13.       | Students observe silence in classes.                              |   |   |   |   |   |
| 14.       | Students ask for permission when they want to get out of classes. |   |   |   |   |   |
| <b>B.</b> | <b>Attendance</b>                                                 |   |   |   |   |   |
| 15.       | Students attend school throughout the course                      |   |   |   |   |   |

- |  |              |   |   |   |   |   |
|--|--------------|---|---|---|---|---|
|  | (No truancy) | 5 | 4 | 3 | 2 | 1 |
|--|--------------|---|---|---|---|---|
16. Students attend subject periods in and out of the classes.
  17. Students attend to manual work activities.
  18. Students attend to all school-organized meetings e.g. school baraza, flag raising, cleanliness inspection, etc.
  19. Roll-calls are used to ensure students' attendance and participation.
- C. Evening preparation
20. Students know and appreciate importance of having the evening preparation.
  21. Students do assignments given to them.
- D. Punctuality
22. Students keep time and follow closely schools' timetable.
  23. Students respond quickly to alarms.
  24. Students arrive at the school punctually during school openings.
- E. School Uniforms
25. Students wear school uniform when:
    - a) they are in classes
    - b) they are going out of school on official visits
    - c) they are in school Baraza

- |     |                                                                                       |   |   |   |   |   |
|-----|---------------------------------------------------------------------------------------|---|---|---|---|---|
|     | d) attending organized processions                                                    | 5 | 4 | 3 | 2 | 1 |
|     | e) travelling to and from vacation/holiday                                            |   |   |   |   |   |
| 26. | Students have uniforms for manual work.                                               |   |   |   |   |   |
| 27. | Students have sports jersey and use them for sports activities only.                  |   |   |   |   |   |
| 28. | Students mix uniforms with other forms of dressing such as hats, decorators, etc      |   |   |   |   |   |
| 29. | School uniforms are kept clean all the time.                                          |   |   |   |   |   |
| F.  | School boundaries                                                                     |   |   |   |   |   |
| 30. | Students go out of school boundaries without official permission.                     |   |   |   |   |   |
| 31. | Students return to school in time when given permission to go out of school compound. |   |   |   |   |   |
| 32. | Students visit the following places without permission:                               |   |   |   |   |   |
|     | a) staff room                                                                         |   |   |   |   |   |
|     | b) school offices (general office)                                                    |   |   |   |   |   |
|     | c) laboratories                                                                       |   |   |   |   |   |
|     | d) kitchen                                                                            |   |   |   |   |   |
|     | e) staff quarters                                                                     |   |   |   |   |   |
|     | f) dormitories of opposite sex                                                        |   |   |   |   |   |
| 33. | Students go to the strictly forbidden places                                          |   |   |   |   |   |
|     | a) bars and "Pombe"-shops                                                             |   |   |   |   |   |
|     | b) guest-houses                                                                       |   |   |   |   |   |

- |                                       |   |   |   |   |   |
|---------------------------------------|---|---|---|---|---|
| c) un-authorized recreational centres | 5 | 4 | 3 | 2 | 1 |
|---------------------------------------|---|---|---|---|---|
- G. Cleanliness**
34. Dining hall is kept clean and respectable.
35. Foods are eaten inside the dining hall.
36. Students observe good table-manners.
37. Students' dormitories are routinely cleaned.
38. School grounds are kept clean and attractive.
39. Cleanliness of beds, bedsheets and bed-dressing.
40. Switching off of lights and closing of water taps when not in use.
- H. Interactions**
41. Students mix freely (as required) in the following activities/places:
- a) classes
  - b) manual work
  - c) sports
  - d) recreations
  - e) dormitories
42. There is bullying of smaller pupils by bigger pupils (manhandling).
43. There is harassment of girls by boys and vice versa.
- I. Teachers and Non-Teaching Staff**
44. Teachers respect each other and show good examples of behaviour

- to the school community. 5 4 3 2 2
45. Teachers and non-teaching staff respond/acknowledge to the respect given to them by their students.
  46. The Head of school respects his/her teachers, non-teaching staff and students.
  47. Teachers and non-teaching staff attend to and fulfil their responsibilities.
  48. Teachers give assignments and ensures that the assignments have been done.
  49. Teachers adhere to all teaching profession regulations and observe the code of professional conduct. ;
  50. Teacher(s) on duty thoroughly supervise the evening preparation
  51. Teachers use roll-calls to ensure students participation in various school activities.
  52. Teachers are punctual in all their activities to show good example of punctuality to their students.
  53. Non-teaching staff are punctual in all their activities to show a good example of punctuality to the students.
  54. Teachers dress smartly and carry off routine inspection of students' uniform for cleanliness.

55. Teachers inspect houses/  
dormitories and school grounds  
regularly. 5 4 3 2 1
- J. The school
56. The school has organized  
evening preparation.
57. Preparation time is shown in  
the timetable of the school.
58. Late comers are booked and  
dealt with accordingly.
59. The school has an instrument to  
alert students of time  
e.g. bell.
60. The school enforce students to  
wear respectable school  
uniforms.
61. The school has boundaries well  
known to the community.
62. Time and days in which students  
are allowed to go out of the  
school (Town visits) are  
indicated in school timetable.
63. The school has a special form  
(exit)used when permitting  
students to go out of  
the school
64. The school has interhouse/inter  
dormitory competitions for  
cleanliness, sports, etc
- K. Recreational activities
65. The school has the following  
playing grounds:  
a) football pitch  
b) netball pitch  
c) basketball court

- d) volleyball court 5 4 3 2 1
- e) handball pitch
- f) athletics:-i) running track  
 ii) shot put  
 iii) high jump  
 iv) long jump  
 v) pole vault  
 vi) hurdles  
 vii) discuss  
 viii) javelin
- g) Indoor games  
 i) table tennis  
 ii) badminton  
 iii) boxing  
 iv) draft  
 v) playing cards
66. The school has the following social/cultural groups:  
 a) Theatre arts (Maigizo)  
 b) Cultural troupe (Ngoma)  
 c) Choir  
 d) School band
67. Students participate in the following recreational activities:  
 a) Sports:- football  
 - netball  
 - basketball  
 - volleyball  
 - handball  
 - athletics  
 - table tennis  
 - badminton  
 - boxing  
 - draft

SPE

- playing card 5 4 3 2 1

b) Cultural:

- theatre arts
- ngoma
- choir
- video/film show
- music/dance/disco

THE ACADEMIC PERFORMANCE OF CO-EDUCATIONAL  
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