TO ASSESS THE EFFECT OF FEE FREE EDUCATION PROGRAM ON STUDENTS ENROLLMENT AND ACADEMIC ACHIEVEMENT IN TANZANIA: A CASE OF SELECTED SECONDARY SCHOOL IN DAR ES SALAAM

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN MONITORING AND EVALUATION

DEPARTMENT OF ECONOMICS

THE OPEN UNIVERSITY OF TANZANIA

2020

CERTIFICATION

The undersigned certifies that he has read and hereby recommends for the acceptance by the Open University of Tanzania a dissertation titled: ***"To Assess the Effect of Fee Free Education Program on Students Enrollment And Academic Achievement in Tanzania: A Case of Selected Secondary School in Dar es Salaam"*** in partial fulfillment for the requirements of the award of the Degree of Master of Arts in Monitoring and Evaluation of the Open University of Tanzania.

…….

Dr. Hamidu Shungu

(Supervisor)

……

Date

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DECLARATION

I, **Akyoo Peter Moses,** do hereby declare that this dissertation is my own original work, and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

…….

Signature

…….

Date

DEDICATION

I dedicate this dissertation to Almighty God my creator, my source of creativeness, wisdom and good health. A special dedication goes to my brother Alex Moses Akyoo and his family for supporting me during my studies.

ACKNOWLEDGEMENT

First and foremost, I thank the mighty God who through his grace and power enabled me to complete this dissertation. I am also thankful to my supervisor Dr. Hamidu Shungu for his guidance through out the beginning of this study. I sy thanks so much to you sir! I also extent my sincerely thanks to the management of all schools I visited and teachers how accepted to take part in this study.

I further extent my gratitude to the members of my family; my father Moses Akyoo, my mother Grace Peter. They highly supported me in the entire academic period. Their prayers, direct and indirect supports enabled me to accomplish this study and hence achieved the dream of having a Masters degree. There are several people l have to thank them individually for their contributions in my academic journey; but it is difficult to acknowledge everybody individually. Therefore, to all I say God bless you abundantly.

ABSTRACT

The study was about impact of the free fee education program (FFEP) to the students' enrolment and academic performance in the public lower secondary schools. Primary data was collected from ten public and ten nonpublic schools selected in the city of Dar es Salaam. Secondary data was collected from annual performance reports published by the Ministry of Education and Vocational Training (MoEVT). The study covered a period of three years before adoption of FFEP (2013-2025) and period of three years after adoption of the program (2017-2019). Descriptive statistics, chi-squire statistics, and binary logistic regression were used in the data analysis. The study founded that generally enrollment rate of students in form I to form IV had been slowly declined at the rate of 2% per year. But after adoption of this program gross enrollment of students in the lower secondary has gradually increased at the rate of 10% per year. However, public schools reported high level of increase students' enrollment compared to nonpublic schools. This indicated that FFED attracted some parents/guardians to shift their children from nonpublic to public schools. Concerning students' performance the study noted that performance of students in the public schools had highly improved in both form II and form IV after adoption of FFEP compare to the period before it. For the nonpublic schools small performance improvement was reported among form IV students while performance of form II students in the nonpublic schools appear to drop a little bit after FFEP came into action. In general, the study acknowledged that FFED brought positive impact in the students' performance. The study recommended for the continuation of this program since it was proven having benefit to the education sector.

Keywords: Fee Free education; Students enrolment; Academic achievement

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LIST OF ABBREVIATIONS

FFEP	Free Fee Education Program
H0	Hypothesis
MoEVT	Ministry of Education and Vocational Training
UN	United Nations
URT	United Republic of Tanzania

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The need for sustainable and inclusive education traces back to global agendas established for ensuring every individual regardless of his or her physical and biological make up has the right for education. Amidst, we note some agenda enacted at different times in the past in an effort to ensure equal access to education including the education for all of (1990) and the millennium development goals (2000 to 2015), in specific the fourth goal. Of recent, need for education access is reflected in the 2030 agenda for sustainable development:

> "*Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*", (United Nations, 2015a).

Education has been acknowledged as a fundamental and basic human since 1948 in the United Nations Declaration of human right. The declaration further recognizes the utility importance of education in branding a one's personality. Article 26 of the declaration reads:

> "*Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit. … Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms…",* (United Nations, 2015b)

In response to this, countries introduced fee free education programs. However, literatures show that some countries had already introduced free education system. For instance, England and Wales had their free education policy implemented via the 1944

Education Act, (Hart, Moro, Roberts, Hart, & Roberts, 2016), Germany introduced mandatory schooling just after the second world war, in 1945 and they had "No school fee" policy introduced through their 1947 Control Council Directive no. 54,(Beutner & Pechuel, 2017)and in Africa, for instance, Nigeria responded in 1955 by introducing free primary education (Evans-Obinna & Ndieze, 2017; Agile, 2018; Akindele, 2015).

However, despite being declared as human right and country specific efforts to ensure equal access to education, return in terms of enrollment and attendance and attainment were yet not promising. For instance, as shown in figure one, statistics confirms that as of 1990, only 74% of adults (individual aged 15 years and above) were illiterate, implying that the 25.6% of the adult's global population were illiterate.

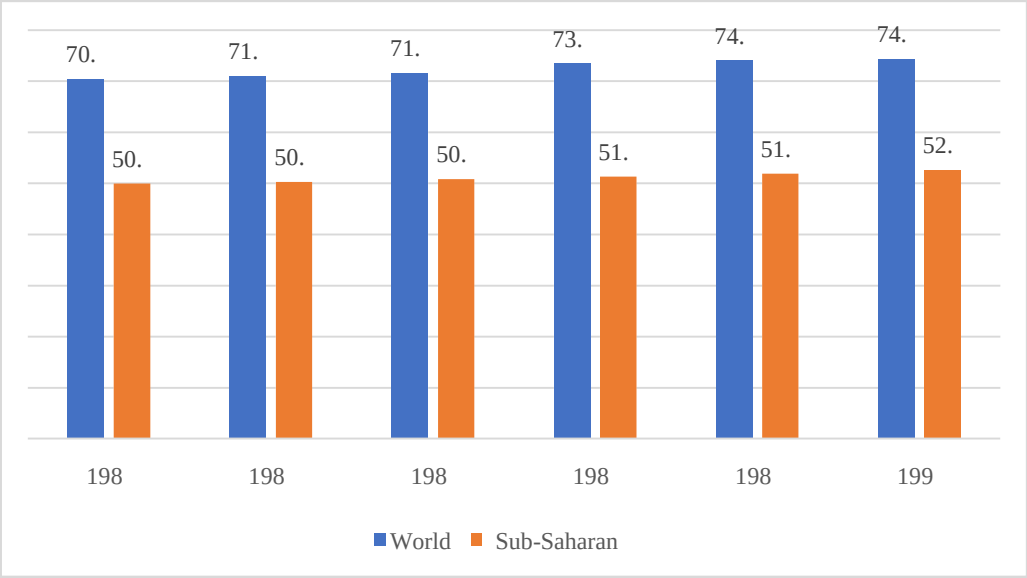

Figure 1.1: Adult Literacy Rate

Source: Author's compilation from World Bank Development Indicators (October, 2019)

On the other hand, we observe that in 1985, half of the Sub Saharan Africa (Adults)

population was illiterate. It was note from the figure that there were some slightly increase in literacy rates from 50% 1985 to 52.5 % 1990, to mean that, illiteracy dropped by just 2.5%, from 50% in 1985 to 47.5% in 1990.

On the other hand, evidence from the Word Bank Development Indicators confirms that as of 1990, 17% of school age youths were out of school. In sub Saharan Africa, over 46% of school age children were not enrolled into schools while 4.9% of school age children in Europe were also out of school system.

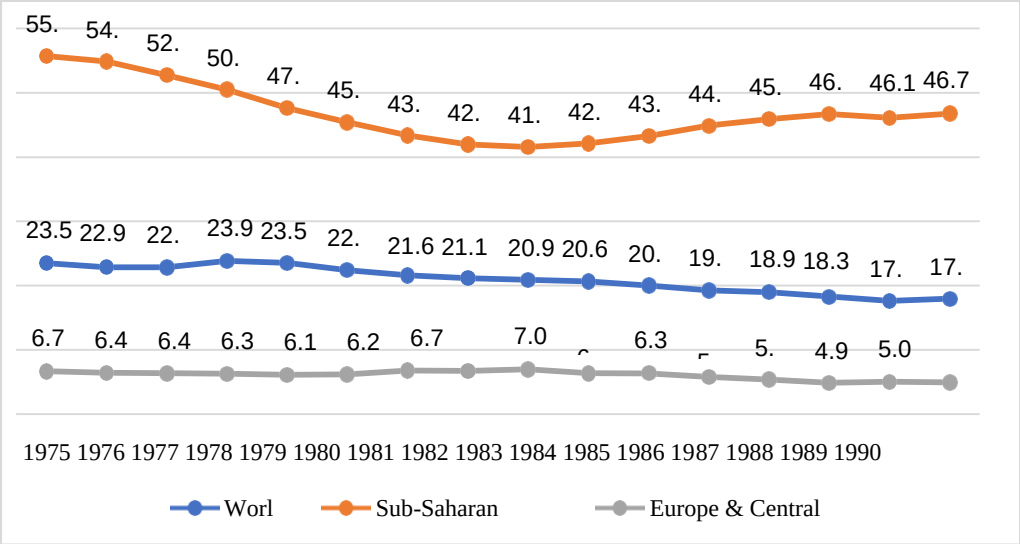

Figure 1.2: Out of School Children Trends

Source: Author's compilation from World Bank Development Indicators (October, 2019)

In response to these educational problems, the "Education for All" agenda was introduced in 1990. Among others, agenda primarily aimed at enhancing access to education to all groups of individuals, in specific, citing early enrollment and care to children living in vulnerable environments. The agenda on the other hand had a view of ensuring that primary education is free and compulsory in terms of enrollment,

attendance and completion[1] The primary objectives of the agenda, amid, was to: reduce illiteracy race, to make both children and adults able to read and write; to reduce the number of out of school population; and increasing gender parity index, (United Nations, 1990).

Since the evolution of free education agenda, countries struggled to achieve the global agenda. Literature from Akindele, (2015) show that regardless of having common agenda, the strategies needed to tackle schooling problems varied and were to be country specific. Nevertheless, evidence showed that most countries managed to introduce and implement free education system in their countries, (Beutner & Pechuel, 2017 and Agile, 2018).

To ensure progression from primary to secondary education level, efforts to finance secondary education took pace in most countries in the world. In Africa, evidence for full financing secondary education (at different time periods) was noted in some countries the likes Ghana, South Africa, Nigeria, Algeria, Uganda, Ethiopia, Malawi, Mozambique, Kenya and more recently, the United Republic of Tanzania, (Chimombo, 2005; Wawire, Corresponding, & Kiruki, 2000; Muyanga, Olwande, & Wambugu, 2010;Mosweunyane, 2013;Mulinya & Orodho, 2015; Mutegi, Muriithi, & Wanjala, 2017).

[1] https: www.worldbank.org/en/topic/education/brief/education-for-all

1.2 Statement of the Problem

In the united Republic of Tanzania, Provision of Formal Education traces back to periods prior to independence. The government of Tanzania while seeking to accelerate advancement toward quality education and lifelong learning for all children, among others, initiated Education and Training Policy in 1995 that supported and removed cost barriers that to some extent prevented parents/guardians from enrolling and maintaining their children at school.

Following the need to actually achieve inclusive and equitable education, the government thought to make basic education to run from primary to lower secondary school (Ordinary level). This was given a strong base and in the revised Education and Training Policy of 2014. Section 3 of the policy reads:

> *"3.1.3: Governments shall set aside procedure for basic education to be compulsory from standard one to form four ....[2]"...*
> *"3.1.5. Government shall ensure that primary education in government schools is provided without fees[3]"*(URT, 2014).

In response to the 2014 education and Training Policy; that among another, aimed at expanding access to education by increasing enrollment and compulsory attendance from primary school to secondary school levels, the government of Tanzania declared "free education" program from primary education to lower secondary school.

Since its inception, statistics from the President's Office – Regional Ad confirm that students' enrollment, attendance, completion rates and performance has increased, (URT, 2016;URT, 2017;URT, 2018). Though some government authorities such as

[2] A Swahili sentence literary meaning: The Government shall make way forward for basic education to be compulsory from Standard One to Form Four
[3] The Government shall ensure provision of free basic education in public institutions.

responsible ministries associate such improvements with the introduction and implementation of fee free education program to such levels of education, from social scientific research, in particular program impact evaluation methodologies, such debate remain to be unclear, unfolded and inconclusive as up to date, less has been done in evaluating the impact of such program. It is from this ground the research found it was necessary to undertake the study on the same.

1.3 Research Objectives

13.1 General Objective

The general objective of this research was to investigate the impact of fee free education program on student's enrollment and academic achievement in Tanzania.

1.3.2 Specific Objective

This study was guided by the following specific objective:

(i) To examine the impact of fee free education program on student's enrollment in Tanzania.

(ii) To assess the impact of free education on student's performance in Tanzania.

1.4 Research Questions

(i) What is the impact of fee free education on student's enrollment?

(ii) Is there any impact of fee free education on students' performance?

1.5 Relevance of the Research

The researcher found this study worthwhile to undertake in different angles, among others:

(i) The study reveals the impact of the program that the government has been investing funds, to see its return and to determine whether the intended objectives have been met or not.

(ii) The study is a baseline for government official, policy makers and planers in making informed decision, capturing program sustainability and in resources allocation.

(iii) Being a public good, the study is beneficial to the general public and researchers

1.6 Scope of the Study

This study was limited on the effects of free fee education program (FFEP) on students' enrolment and performance of the lower secondary students. The study reviewed literature conducted across the world on the same field as the basis of study justification. The study was quantitative in nature and utilized secondary information, which were obtained from the selected schools in Dar es Salaam and in the annual performance reports of MoEVT. The study covered the period of three years before introduction of this program (2013-2015) and three years period after its introduction (2017-2019).

1.7 Organization of the Study

The study was organized in to five chapters which went like this: chapter one contained background of the study and statement of the problem that informed audience what the study was intended to examine. Furthermore, it carried objectives of the study, study questions and significant/relevance of the study to the policy makers, government and scholars. Scope of the study and organization of the study were also included in this chapter.

Chapter two presented literature review that covered review of the related empirical studies across the world and theory that formed a basis for study justification. The chapter carries conceptual definitions and conceptual framework of the study.

Chapter three was methodological chapter of this study. Methodological chapter was structured by research design and strategy used, study population, sampling design, method of data collection and analysis as well as reliability of the study.

Chapter four contained analyses and interpretations of the data collected and discussion of the study findings. The chapter was arranged according to the specific objectives of this study. Chapter five contained summary of the study findings, conclusion, recommendation and room for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

This section presented review of various literatures related with this study. Section 2.1 is on empirical analysis of relevant studies, 2.2 dwelled on research gap, 2.3 presented the conceptual framework, 2.4 is on statement of hypothesis and 2.5 gives a chapter summary.

2.2 Conceptual Definition

2.2.1 Education

Education in Tanzania is regarded as the main tool for imparting people with relevant skills and knowledge, making them useful potentials in the country. Education is thus believed as the main tool for skill Development. Education converts human resources into human capital. It helps in the development of skilled manpower. It prepares manpower to work in different fields through proper training and education. It thus not only makes people mobile but provides job opportunities in different places and areas, (ESDP, 2008; URT, 2018a).

2.2.2 Fee fee Education

Fee free education is an education system in which students acquires knowledge and skills free of charge, without paying any direct costs to education institutions in which they are enrolled. In response and compliance to both national agenda such as Tanzania.

Development Vision (URT, 1999), 2016/2021 five year development plan (URT, 2016b) and international agenda such as education for all program(United Nations, 1990), the African we want (African Union Commission, 2015), the 2030 agenda for sustainable development (United Nations, 2015a), Tanzania is now implementing this learning modality for both primary and lower secondary schools as addressed in its Education Sector Development Plan and Education and Training Policy, (URT, 2014, 2018a).

2.2.3 Enrolment

In the context of this study, enrollment refers to the number of students enrolled on a particular level of study in an academic year. In the framework of the National Bureau of Statistics (NBS), enrollment is explained in terms of ratios. It can either be net enrollment ratio or gross enrollment ratio subject to reference population. While the net enrollment ratio is referred as the total number of pupils/students in the official school- age group expressed as a percentage of the total population in that age group, gross enrollment ratio on the contrary, is the number of students enrolled in a given level of education, regardless of age, expressed a percentage of the population in relevant official age group. Thus, in our context, secondary school gross enrollment ratio is the total number of students enrolled in secondary schools expressed as a percentage of the total number of persons in the age group of 14 to 17 years, (URT, 2011).

2.2.4 Academic Achievement

In the context of this study, academic achievement refers to the current level of student's learning and average marks obtained by an individual in the final

examination. It has long been recognized as one of the important goals of education. This achievement is measured using school based exams and national examinations at respective levels. Affirmatively, while Cachia, Lynam, & Stock, (2018) consider academic success to associated with the attainment of summative assessments as stipulated by learning outcomes, (Kpolovie, Joe, & Okoto, 2014) conceptualizes it as the aggregate of each student's demonstrated learning, knowledge, skills, ability in terms of cognitive, affective and psychomotor domains and Dev, (2016) argues that academic achievement not only a pointer to the effectiveness or otherwise of schools but a major determinant of the future of youths in particular and the nation in general.

2.3 Empirical Analysis of Relevant Studies

2.3.1 General Studies

Hart *et al.,* (2016) investigated the introduction of free universal secondary education in England and Wales in 1944. The study emphasized on free universal secondary education effects in relation to a prime long-term goal of pre-war Boards of Education. The study employed a difference-in-difference estimation approach in investigating such a relationship and the study findings show no evidence that boys and girls from less well-off home backgrounds displayed improved chances of attending selective secondary schools. On the other hand, increased probabilities of gaining formal school qualifications were not observed.

2.3.2 Studies in African Countries

Koski *et al.,* (2018) studied the impact of eliminating primary school tuition fees on child marriage in sub-Saharan Africa. Their study used a difference-in-differences approach that exploits variation in the timing of policy implementation between

countries to estimate the effect of eliminating tuition fees on the probability of completing primary school and of being married before 15 or 18 years of age using Demographic and Health Surveys dataset of women born between 1970 and 2000 in 16 countries. It was found that, eliminating tuition fees led to reductions in child marriage on a national scale in most countries despite challenges with implementation. On the other hand, improving the quality of the education available may strengthen these effects and bolster progress toward numerous other public health goals.

Duflo, Dupas, & Kremer, (2017) evaluated the Impact of Free Secondary Education in Ghana following scholarships awards to 682 secondary school by lottery among 2,064 Ghanaian students. For the whole sample, scholarship winners were 26 percentage points (55%) more likely to complete secondary school, obtained 1.26 more years of secondary education, scored an average of 0.15 standard deviations greater on a reading and math test, and adopted more preventative health behavior. Women who received a scholarship had 0.217 fewer children by age 25. Scholarship winners were also 3 percentage points (30%) more likely to have ever enrolled in tertiary education. Despite the fact that they were 2.5 percentage points more likely to be enrolled in school at the time of the last survey, they were 5.5 percentage points (10%) more likely to have positive earnings and had significantly higher (hyperbolic sine) earnings.

Furthermore, in the same study, Duflo *et al.,* (2017) admitted that for students admitted to vocational tracks (comprising 60% of the sample) scholarships did not in crease tertiary education, which simplifies the interpretation of labor market

outcomes. In this subsample, scholarships increased the likelihood of earning money by 8.8 percentage points (16%) and increased total earnings by 19%. The estimated financial rate of return to education in this subsample is 13%. However, the study failed to reject the hypothesis that among those admitted to academic tracks, scholarships did not affect average labor market participation and earnings by age 25.

Muyanga *et al.*, (2010) evaluated the impact of the free primary education programme in Kenya, which is based on the premise that government intervention can lead to enhanced access to education especially by children from poor parental backgrounds. The study used propensity score matching, a semi-parametric technique to estimate the average treatment effect of a binary treatment on a continuous scalar outcome. It was found that, primary school enrolment rate has improved especially for children hailing from higher income categories; an indication that factors that prevent children from poor backgrounds from attending primary school go beyond the inability to pay school fees. The results also indicate that there still exist constraints hindering children from poorer households from transiting to secondary school. The free primary education programme was found to be progressive, with the relatively poorer households drawing more benefits from the subsidy.

Mutegi *et al.*, (2017) examined if free secondary education promote equity in public secondary schools. Their study discusses the associations between gender, age, enrolment and the cost of secondary education using data from one county in Eastern Kenya. Among others, the study findings revealed that school costs differ by school types. While the unit cost of educating girls is higher than that for boys in boarding schools, the situation is reversed in day schools where the unit cost for boys is higher

than that of girls. Furthermore, it is shown that the unit cost of education negatively correlates with secondary school enrolment, suggesting that school fees may be a barrier to middle level education in countries where the burden of educating children is borne disproportionately more by households than by governments. Thus, establishment of gender-and age-based subsidies for secondary education may be an effective mechanism for promoting equity in secondary education in Africa.

Wawire *et al.*, (2000) studied the "Free Primary Education in Kenya and its challenges in fighting Illiteracy". Some of the challenges identified included Under Staffing, Poor working conditions, inadequate funding, Kenya's primary Education system and acquisition of literacy and Lack of school libraries. The study concludes that a clear policy on FPE implementation that defines the roles and responsibilities of different stakeholders must be stipulated. For the program to succeed there must be continuous dialogue with stakeholders such as parents, school committees, and local communities to inform them from the onset of their specific roles in supporting the policy.

2.3.3 Research Gap Identified

In the preceding section, the researcher has reviewed some studies relating the impacts of fee free secondary education, student's enrollment and academic achievement. For instance, in east African countries, most of the studies such as Duflo *et al.*, (2017); Mutegi *et al.*, (2017); Muyanga *et al.*, (2010); and Wawire *et al.*, (2000) has been conducted on the same. However, we failed to find relevant studies on similar subject matter reflecting Tanzanian context. Thus, empirical investigation of impact of free education on enrollment and academic performance is lacking, and this forms the basis for this study.

2.4 Conceptual Framework

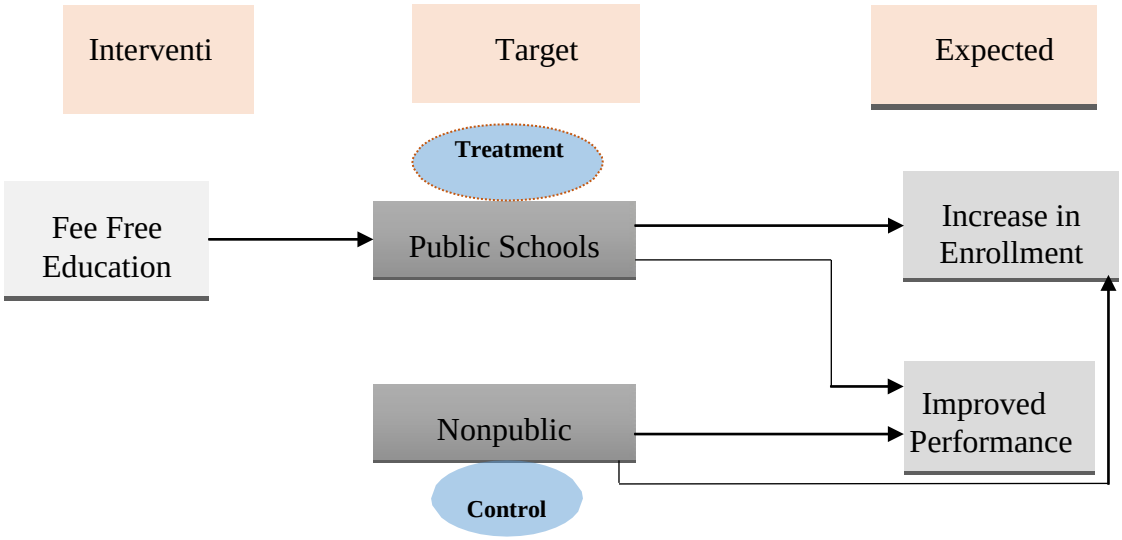

Figure 2.1: Conceptual Framework of the Study

Source: Author's Construction

As depicted (in Figure 2.1), our program intervention is Fee Free Education program introduced to cater for lower secondary school students. The program is assigned to the public schools that form the treatment arm while the private owned schools receives no program as they are used as control group. The change in outcome between individuals falling to the treatment group (students in public schools) from those in the control arm will give us the program impact, provided that other unobservable factors remains constant throughout the program. In our case, expected outcomes that forms the response variables for this stud will be increase in enrolment and improved performance of students in respective levels.

2.5 Statement of hypothesis

The study was guided by the following testable hypothesis

H_{01}: Fee Free education Program has no impact on student's enrollment in Tanzania.

Ha_1: Fee Free education Program has an impact student's enrollment in Tanzania.

H_{02}: Fee Free education Program has no impact on student's performance in Tanzania.

Ha_2: Fee Free education Program has an impact on student's performance in Tanzania.

2.6 Summary

Throughout this chapter, we have discussed in details literatures related to this study. We have however seen some causal relations and models that can be used or adopted in undertaking the current. Amidst, we have seen that the unit cost of education negatively correlates with secondary school enrolment, and thus this study wishes to prove the same in Tanzanian context. The next chapter presents methodological framework that will be adopted in this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

This chapter presents methodological framework that was adopted in this study. Section 3.2 is on Research Strategies, 3.3 is about sampling design and procedure, 3.4 on variables and measurement procedures, 3.5 methods of data collection, 3.6 data processing and analysis and 3.7 was about expected results of the study.

3.2 Research Design

This study employed quantitative research approach as it seeks to unfold the magnitude to which fee free education program has impacted students learning in terms of enrollment and academic achievement that was proxied by enrollment ratios and student's scores respectively. Both response and explanatory variables therefore, were figures that need to be quantified. Thus, learning form Kothari, this study found employing quantitative research design was more appropriate than qualitative design.

3.3 Research Strategies

3.3.1 Survey Population

In this study, the population of interest was both public and nonpublic secondary school in the united republic of Tanzania. The study covered both public and private schools.

3.3.2 Area of Research

The study confined itself in Dar es Salaam region. The region has been chosen on the basis of not only having both public and nonpublic schools but also it is within the

researchers reach. Specifically, and for convenience, the study was conducted in Temeke district.

3.4 Sampling Design and Procedure

With regard to sampling procedures, the study employed a two-stage and systematic sampling designs in drawing units of observation from the population of interest. In the first stage sampling, stratification was done in grouping schools into public and nonpublic, then simple random sampling, as a second stage sampling design was employed in selecting representative sample of schools. Owing the fact that non-public schools are not beneficiaries of the free education program, these schools formed a comparison group while public schools formed treatment group. On the other hand, selection of schools into either comparison or treatment group was subject to the ground that the school had fee free beneficiaries' graduates.

3.5 Sample Size

The study involved 20 secondary schools, ten were public schools and another 10 were nonpublic schools located in Temeke district of Dar es salaam region. This size was selected base on the researcher judgment. This size (20 schools) were noted to be convenient and enough for the study to reach to the conclusion.

3.6 Variables and Measurement Procedures

During data collection, all study variables were assigned continuous numbers therefore they were continuous variables. During analysis, enrollment and performance variables were taken as scale variables while time and treatment variables were taken as nominal variables.

Table 3.1: Variables and Measurement Procedures

Variable	Description	Measurement
Enrollment	This represents the total number of year one (form one) students enrolled in a particular school.	Continuous, Scale
Performance	This is the overall student's performance (school Grade Point Average (GPA) in national examinations, that is, form two national examination and form four national examinations.	Continuous, Scale
Time, T	It is a timeframe between two periods, before and after intervention. This is a binary variable, will be coded 0 for time prior intervention and 1 for time after intervention.	Continuous, Nominal
Treatment, T	It is a variable refereeing to whether the observation received intervention or not. This is a binary variable, will be coded 0 for observations that received no treatment and 1 for treated observations	Nominal

Source: Researcher plan (2020)

3.7 Methods of Data Collection

The study made use of secondary data. Data on students' enrollment and performance are usually recorded at school level, district, region and national level. For convenience, data for this study were sourced from the individual schools, which agreed to participate in the study.

3.8 Data Processing and Analysis

In this study, researcher employed various analysis techniques in determining the impact of fee free education on outcome variables, school enrollment and academic performance. Specifically, descriptive analysis, chi-squire analysis and Binary logistic regression analysis were usefulness in analysis of the results of this study.

In the context of this study, regarding student's enrollment, the reference time frame was three years period (2013-2015) before adoption of Free Fee Education Program (period prior to intervention that was denoted as t_0) and three years period (2017-2019) after adoption of this program (period after intervention that was denoted as t_1).

The year of 2016 was considered as the transitional year. On the other hand, the letter T_0 denoted schools that received no intervention (nonpublic schools) and T_1 for schools that received intervention (public schools). Additionally, regarding students' performance, the study considered students average scores in form two and form four in both period before intervention and period after intervention. Thus, general equation linking outcome variable, time period t and treatment T beared the form:

$$Y_i = \alpha + \delta T_i + \vartheta t_i + \varphi(T_i.t_i) + \varepsilon_t \quad (1)$$

Where,

α is a constant term, δ is a treatment group specific effect that account for average permanent differences between treatment and control, ϑ is a time trend common to control and treatment groups, φ is true effect of treatment and ε_t is a white noise.

3.9 Reliability of the Study

The researcher ensured reliability of the study through crosschecking of the information collected; whereby, students' performance data given from the schools were confirmed through review of the report published by NECTA. However, the researcher used different analytical methods during data analysis on the same data to ensure consistence of the results.

3.10 Expected Results of the Study

This study expects to find the intervention having a positive impact of the outcome variables. The researcher anticipated that free education program would have significantly improved students' enrollment.

CHAPTER FOUR

STUDY RESULTS AND DISCUSION

4.1 Introduction

The study was about the impact of fee free education program on students' enrollment and academic achievement in Tanzania. a case study of selected secondary school. The study selected 10 government and 10 non-government schools in Dar es Salaam. Therefore, a total of 20 secondary schools were selected as shown in the Table 4.1.

Table 4.1: Selected Schools

S/N	**Schools**	**Ownership**
1.	Keko secondary school	Government
2.	Lumo secondary school	Government
3.	Tandika secondary school	Government
4.	Miburani secondary school	Government
5.	Reline secondary school	Government
6.	Buza secondary school	Government
7.	Changombe secondary school	Government
8.	Wailes secondary school	Government
9.	Azania secondary school	Government
10.	Temeke secondary school	Government
11.	St. Anthony secondary school	Non-government
12.	Ilala islamic secondary school	Non-government
13.	Christ the king secondary school	Non-government
14.	St. Mathew high school school	Non-government
15.	Tusiime high school school	Non-government
16.	African secondary school	Non-government
17.	Lilian-Kibo secondary school	Non-government
18.	Dar es Salaam Islamic seconadry school	Non-government
19.	Jitegemee high school	Non-government
20.	Chamanzi Islamic seminary	Non-government

Source: Field Data (2019)

4.2 Socio-demographic Characteristics of Respondents

In each of the selected school, researcher submitted on copy of the questionnaire to the school management and left it to be filled for the period of seven days. After that researcher collected back the filled questionnaire for analysis. The following are the socio-demographic characteristics of the respondent personnels in the selected schools.

4.3 Respondents by Positions

First the study captured positions of the respondents within their respective schools. The results have been presented in the Figure 4.1.

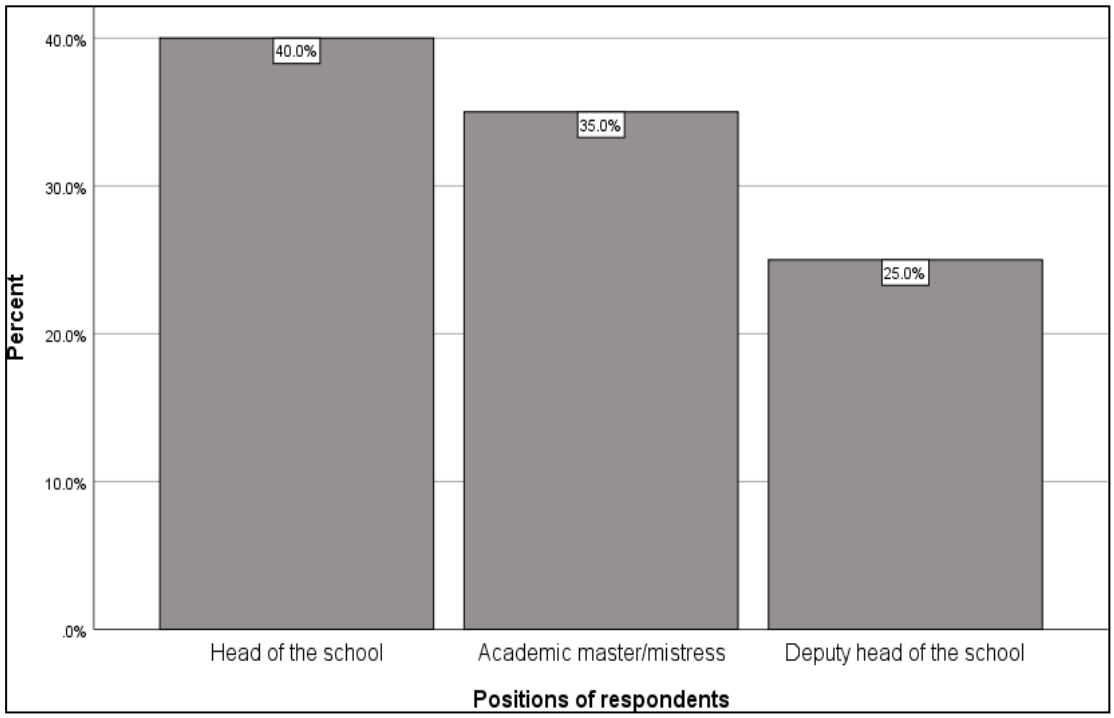

Figure 4.1: Respondents by Positions

Source: Field data (2020)

It was found that 40% of the respondents were head teachers, 35% were academic masters/mistresses and 25% were deputy head teachers. Within these statistics it can

be accepted that the findings were from people who were well informed about operations of their school and have access to the school data.

4.2.2 Respondents by Gender

The results stipulated in the Figure 4.2 shown that the study was able to obtain views of both male and female; and therefore, there was no selection bias in the study base on gender of respondent.

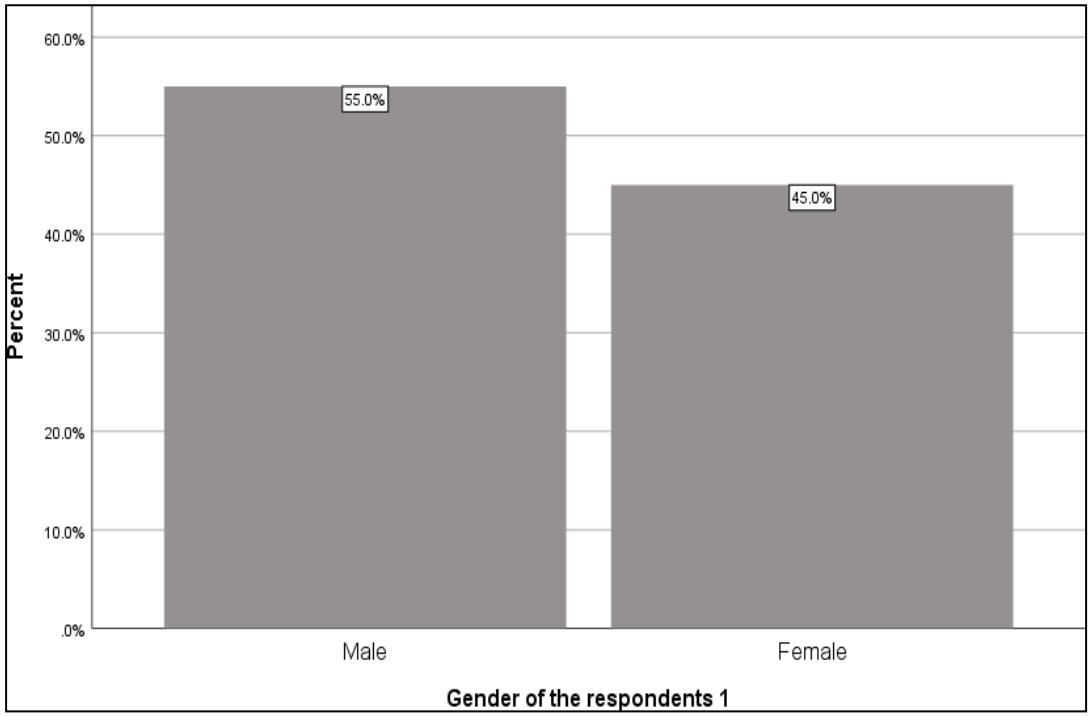

Figure 4.2: Respondents by Gender

Source: Field data (2020)

From the results (Figure 4.2), it was found that 55% of all responded individual were male while female represented 45% of the respondents. These statistics continued to illustrate that in the top management of both government and non-government school there is nearly equal number of male and female.

4.3.2 Respondents by Age

Next was review of the respondents' age. Figure 4.3 was drawn to indicate age of the respondents in the study.

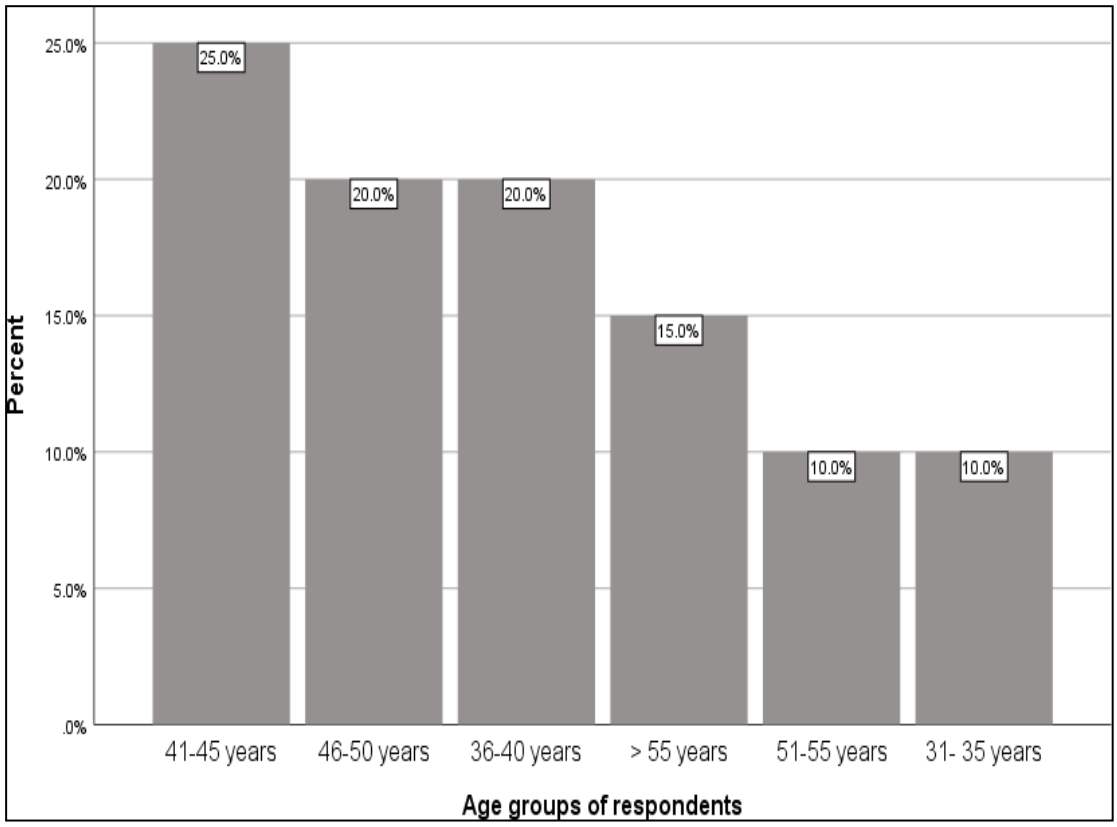

Figure 4.3: Respondents by Age

Source: Field data (2020)

It was found that one quarter (25%) of the respondents were between 41-45 years. These were followed by respondents aged between 36-40 years and 46-50 years who had similar percentage representation of 20%. The next group was respondents aged above 55 years who represented 15% of all respondents, respondents who were between 51-55 years (10%) and between 31-35 years. With these statistics it can be noted that younger adults were more in the school administrations.

4.2.4 Working Experience of the Respondents

The study captured working experience of the respondents in terms of number of years they have been in the academic work. The results have been presented in the Figure 4.4.

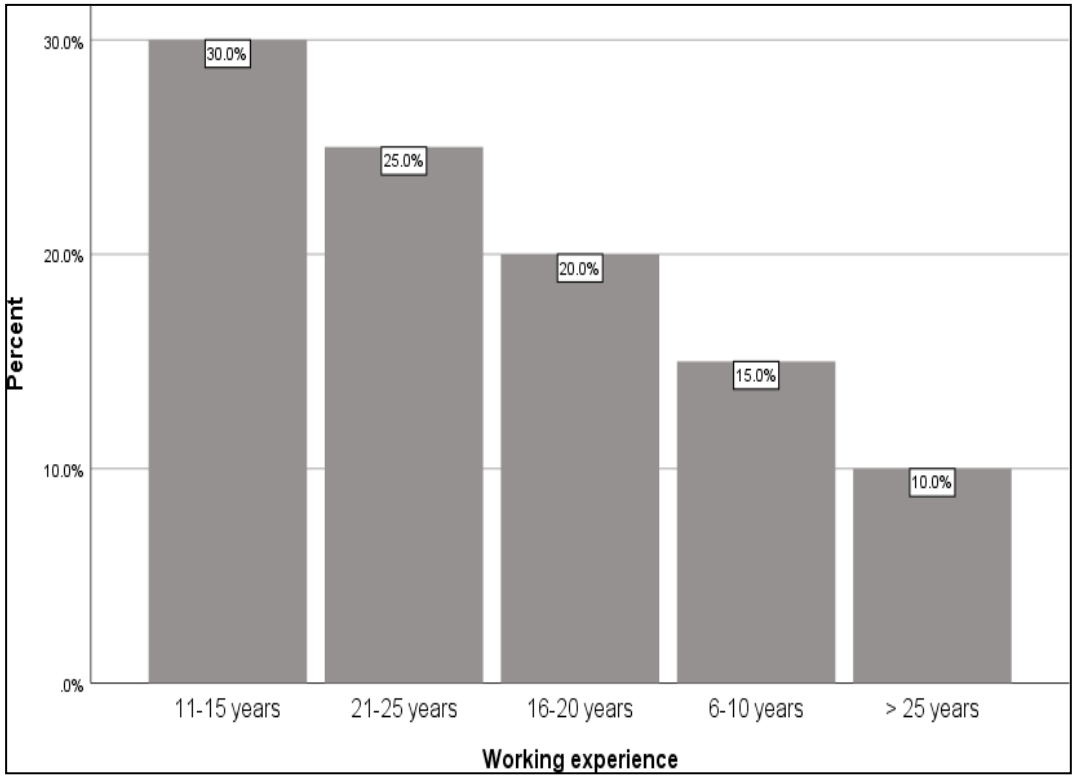

Figure 4.4: Working Experience of the Respondents

Source: Field data (2020)

Figure 4.4 presented that 30% of the respondents had been working as the teachers for the period of 11-15 years followed by 25% for the period of who had worked for 21-25 years. Respondents who had worked for 16-20 years presented 20%, 6-10 years presented 15% and for more than 25 years presented 10%. This implied that the study collected information from the experienced teachers who have been working since before free fee education program (FFEP) came in to action. If so it is right, then the study findings are reliable because they were from experienced people.

4.3 Impact of Fee free Education Program on Student's Enrollment

The first specific objective of this study was to examine the impact of fee free education program on student's enrollment in Tanzania. In the selected school, respondents were asked to indicate number of newly registered form one students from 2013 to 2019. However, the study did not analysed data from 2016 because this was transitional year from paid education to free education in the government schools. The results have been shown in the Table 4.2.

Table 4.2: Summary of Form One Students' Enrollment in the Selected Schools

		Ownership		
Period	**Years**	**Public**	**Non-Public**	**Total**
Before FEEP	2013	8,202	8,266	16,468
	2014	7,497	8,045	15,542
	2015	4,358	2,031	6,389
	Sub-Total	**20,057**	**18,342**	**38,399**
After FEEP	2017	4,983	1,571	6,554
	2018	5,812	1,326	7,138
	2019	6,515	1,196	7,711
	Sub-Total	**17,310**	**4,093**	**21,403**
Total	**2013**	**8,202**	**8,266**	**16,468**

Source: Field data (2020)

The results (Table 4.2) show that number of form one students' enrollment was declining in both government and non-government schools in the period before FFEP. But enrollments in government schools gradually increase immediate after passing the FFEP in the country.

Specifically it was noted that in 2013 total number of students joined form one class was 16,468; the number declined to 15,542 in the year of 2014 and further to 6,389 in

the year of 2015. After introducing FFEP in the year of 2016; the same number became 6,554 in 2017 and waved up to 7,711 in the year of 2019. This shows that FFEP has helped to rescue declining number of students in Dar es Salaam secondary schools, especially government schools. Graphically, the results have been presented as shown in the Figure 4.5.

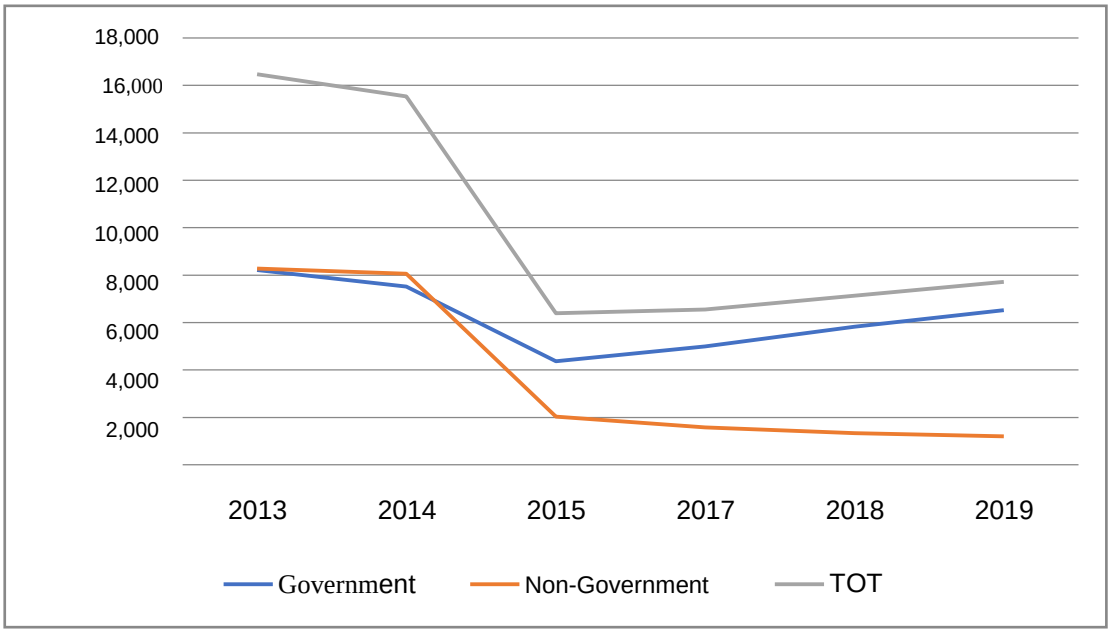

Figure 4.5: Form One Students' Enrollment in the Selected Schools
Source: Field data (2020)

The study went ahead and calculated the growth rate of form one students' enrolment in the selected schools both before and after introduction of FFEP in the public schools. The following growth formula was used.

$$A_1\ (1 + g)^n = A_n$$

Whereby

$A1 = First\ value\ in\ t\square e\ period\ under\ review$
$An = Lat\ value\ in\ t\square e\ period\ under\ review$
$n = number\ of\ terms$
$g = growt\square\ rate$

Growth rate before the FFEP

$16{,}468(1+g)3 = 6{,}389$

$g = \frac{6{,}389}{16{,}469} - 1$

$g = -0.27 = -27\%$

Growth rate after the FFEP

$6{,}554(1+g)3 = 7{,}711$

$g = \frac{7{,}711}{5{,}554} - 1$

$g = 0.06 = 6\%$

It was noted that three years period before passage of this program form one students enrollment in Dar es Salaam secondary school was decreasing at an average rate of 27% annually while three years after passage of this program enrollment has been increasing at the average rate of 6% per annual.

Furthermore, the study reviewed national enrollment of students in both public and non- public lower (from one to form four) secondary schools from 2013 to 2019; except for the year of 2016. Such statistics was obtained from the annual education reports of the ministry of education and vocational training (MoEVT). Table 4.3 presented the enrollment of ordinary secondary schools (enrollment in form I to form IV) in the entire country.

Table 4.3: Summary of the National Enrolment of Students in Public and Non-Public Lower Secondary Schools, 2013- 2019

		Ownership		
Period	**Years**	**Public**	**Non-Public**	**Total**
Before FEEP	2013	1,447,432	281,102	1,728,534
	2014	1,520,292	349,988	1,870,280
	2015	1,339,823	308,536	1,648,359
	Sub-Total	**4,307,547**	**939,626**	**5,247,173**
After FEEP	2017	1,467,958	299,932	1,767,890
	2018	1,704,712	286,309	1,991,021
	2019	2,023,205	315,252	2,338,457
	Sub-Total	**5,195,875**	**901,493**	**6,097,368**
Total	**2013**	**9,503,422**	**1,841,119**	**11,344,541**

Source: Field data (2020)

The findings shown that in 2013 total number of students enrolled in lower secondary schools were 1,728,534, which went up to 1,870,280 (2014) and then down to 1,648,359 (2015). That was the three years period before adoption of FFEP. Meanwhile, in the three years period after adoption of this program; number of students enrolled in lower secondary schools was 1,767,890 (2017), 1,991,021 (2018) and 2,338,457 (2019). This show that enrollment was increasing year after year since adoption FFEP.

The researcher used growth formula to calculate annual growth rate of students' enrollment in the entire country (gross enrolment rate) in both period before and period after adoption of FFED.

Growth rate before the FFEP	**Growth rate after the FFEP**
$A1\ (1+g)n = An$	$\boldsymbol{A1\ (1+g)n = An}$
$1{,}728{,}534(1+g)3 = 1{,}648{,}359$	$1{,}767{,}890(1+g)3 = 2{,}338{,}457$
$g = \frac{1{,}648{,}359}{1{,}728{,}534} - 1$	$g = \frac{2{,}338{,}457}{1{,}767{,}890} - 1$
$g = -0.02 = -2\%$	$g = 0.1 = 10\%$

In calculating Gross enrolment rate, it was noted that in the period before adoption of this program enrollment was declined at the average rate of 2% per year while in the period after adoption the increase rate was at the average of 10% per year. From these results, the study accepted that free education program has been useful in remedy poor enrollment of students in lower secondary schools in the entire country.

Chi-square test

The researcher wanted to know whether there were significant changes in the students' enrollment between the period before adoption of FFEP and the period after. The researcher used national enrollment data obtained from the MoEVT to applied Chi- square distribution method to do thereof. The calculation was conducted as shown below. The study used the equation Chi Square = the sum of all the $(fo - fe)^2 / fe$. Here fo denotes the frequency of the observed data and fe is the frequency of the expected values. Its formula is:

$$x^3 = \frac{(0 - e)^2}{e}$$

Meanwhile, expected value is calculated using the following formula

$$e = \frac{CT \; x \; RT}{GT}$$

Whereby:

O = Observed frequency

e = Expected value

CT= Colum Total

RT= Row Total

GT= Grand Total

However, in order to establish level of correlation between two observed variables; there is the need of knowing how many degrees of freedom are there. When a comparison is made between one sample and another, a simple rule is that the degrees of freedom equal to the (number of columns minus one) x (number of rows minus one). Therefore, the formula is:

df =(c-1) x (r-1)

Where:

c = Column

r= Row

The level of significance was 0.05

Table 4.4: Chi-squire test for the National Enrolment of Students in Public and Non- Public Lower Secondary Schools, 2013- 2019

Period	**Public**	**Non-public**	**Total**
Total number of students enrolled in the period before FFEP (%)	4,307,547	939,626	5,247,173
Total number of students enrolled in the period after FFEP (%)	5,195,875	901,493	6,097,368
Total	**9,503,422**	**1,841,119**	**11,344,541**

Source: Field data (2020)

Period	*f*o	*f*e	*f*o- *f*e	(*f*o- *f*e)^2	(*f*o- *f*e)^2 ÷ *f*e
Before FFEP	4,307,547	4,395,603	-88,056	7,753,859	1.764
	939,626	851,569	88,057	7,754,035	9.106
After FFEP	5,195,875	5,107819	88,056	7,753,859	1.518
	901,493	989,549	-88,056	7,753,859	7.836
X^2					20.224

Source: Researcher Computation (2020)

df= (2-1) x (2-1) =1

When X^2 statistic is 20.224 and degree of reference is 1, then p-value is 0.999 hence the study did not reject the first **hypothesis (H_{01})** which stated that fee free education

program has no significant impact student's enrollment in Tanzania. Hence, the observed increase growth rate of students' enrollment in the period after adoption of FFEP was not significant different from that observed in the period before adoption of this program.

4.4 Impact of Free fee Education on Student's Performance

Second specific objective of this study was to examine the impact of free education on student's performance in Tanzania. The study collected passed and failure statistics of students in the selected schools for both form II and form IV national examinations.

4.4.1 Form II Students' Performance

The results of form II performances have been presented in the table 4.5 where it shown that before adoption of FFEP; the pass rate in public schools has never been above 70%. The average performance of public school for the period of three years before adoption of FFEP was 63.6%. On the other hand, form II performance increased after approval of FFEP; increased exponentially from 69.4% (2017) to 73.5% (2019). The average performance rate in the three years period after adoption of this program has been 71.1% in the public schools.

Table 4.5: Summary of Form II Students' Performance in the Selected Schools

Period		Non-Public			Public		
		Passed(%)	Failed(%)	Total	Passed(%)	Failed(%)	Total
Before FFEP	2013	86.4	13.6	9,408	63.6	36.4	7,525
	2014	73.1	26.9	11,687	62.9	37.1	10,711
	2015	79.0	21.0	11,131	64.3	35.7	11,187
Sub-Total		**79.0**	**21.0**	**32226**	**63.6**	**36.4**	**29423**
After FFEP	2017	70.4	29.6	1,679	69.4	30.6	3,052
	2018	71.8	28.2	1,198	70.3	29.7	3,072
	2019	75.9	24.1	1,135	73.5	26.5	4,061
Sub-Total		**72.7**	**27.3**	**4,012**	**71.1**	**28.9**	**10,185**
Total		**78.0**	**22.0**	**38215**	**67.4**	**32.6**	**42607**

Source: Field Data (2020)

Concerning non-public schools, performance rate of form II students had never dropped below 70%. Such performance rate have been waving up and down from 86.4% (2013) to 75.9% (2019). The average performance rate was noted to be 79% and 72.7% before and after implementation of FFEP. Hence, at some extent the program has associated with slightly increase of perforce rate of form II students in public schools and slightly decrease in non-public schools.

Chi-square test

The researcher wanted to know whether there was significant pass different between selected public and non-public schools before and after implementation of FFEP. Therefore, chi-square distribution method was used. The calculation was conducted as shown below at 5% level of significant.

$$x^3 = \frac{(0 - e)^z}{e}$$

$$e = \frac{CT \; x \; RT}{GT}$$

df =(c-1) x (r-1)

Table 4.6: Chi-squire Test for the Form II Students' Performance in the Selected Schools

Period	Public	Non-public	Total
Average pass rate of the period before FFEP (%)	79.0	63.6	142.6
Average pass rate of the period after FFEP (%)	72.7	71.1	143.8
Total	151.7	134.7	286.4

Source: Field data (2020)

Period	*f*o	*f*e	*f*o- *f*e	(*f*o- *f*e)^2	(*f*o- *f*e)^2 ÷ *f*e
Before FFEP	79.0	75.5	3.5	12.25	0.1623
	63.6	67.1	-3.5	12.25	0.1826
After FFEP	72.7	76.2	-3.5	12.25	0.1608
	71.1	67.6	3.5	12.25	0.1812
X^2					0.6868

Source: Researcher Computation (2020)

df= (2-1) x (2-1) =1

Now, Chi square statistic (X2) was 0.6868) and degrees of freedom (df) was 1. Using Chi-squire table the corresponding probability become (p= 0.59). This shows that there was insignificance pass different in form II between period before and period after introduction of free education for both public and non-public schools. Therefore, the study accepted that there was no significance change brought by FFEP in the performance of form II students. Therefore, in respect to the form II students' performance the study was unable to delete the second **hypothesis (H02)** which stated that fee free education program has no significant impact on student's performance in Tanzania.

Binary logistic regression

After identify that there was no significant performance difference among form II students who did their studies in the period before FFEP and those who did after adoption of FFEP. The researcher performed binary regression analysis to assess performance likelihood. In doing so non-public schools where labeled 0 and public schools were labeled 1, failures were labeled 0 and passes were labeled 1, also period before adoption of FFEP was labeled 0 and period after adoption of FFEP was labeled 1. The analysis was done at 5% level of significant. Table 4.7 below has the results.

Table 4.7: Binary Logistic Regression for the Form II Students' Performance in The Selected Schools

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
SCHOOL(1)	.422	.224	3.544	1	.060	1.525	.983	2.365
PERIOD(1)	-.025	.223	.012	1	.911	.975	.630	1.510
Constant	.743	.188	15.633	1	.000	2.103		

a. Variable(s) entered on step 1: School (public school), Period (time after FFEP).
b. Predicted Probability is of Membership for Passed

Source: Filed data (2020)

The results shown that in the selected schools, form two students in public schools had insignificant (p-value = 0.06) high likelihood (OR= 1.525) of performing better in the national exams compare to the students in the selected private schools. However, form II students who did their national exams in the period after adoption of FFEP were less likely (OR= 0.975) to fail exams compare to the students who did their exams in the period before adoption of FFEP.

4.4.2 Form IV Students' Performance

The study went on and analysed performance of the form IV students in the selected schools both before and after introduction of FFEP. Passed students were those who got division I, II, III and IV while failed students were those who scored zero in their form IV final examination. The results have been presented in the Table 4.8.

The results shown that average pass rate of the form IV students in the public school has been 66.6% in the period before FFEP. The rate increased to the average of 76.9% in the period after FFEP. For the non-public schools, the average pass rate in the period before this program was 74.3% it increased to 75.0% in the period after adoption of FFEP.

Table 4.8: Summary of the Form IV Students' Performance in the Selected Schools

Periods		NON-PUBLIC			PUBLIC		
		Passed (%)	Failed (%)	TOTAL	Passed (%)	Failed (%)	TOTAL
Before FFEP	2013	70.6	29.4	4,778	62.5	37.5	7,465
	2014	77.3	22.7	4,196	67.0	33.0	7,874
	2015	74.9	25.1	5,459	70.2	29.8	8,865
	SUB-TOTAL	**74.3**	**25.7**	**14,433**	**66.6**	**33.4**	**24,204**
After FFEP	2017	72.8	27.2	3,796	76.6	23.4	5,575
	2018	75.9	24.1	1,568	76.0	24.0	5,419
	2019	76.3	23.7	975	78.1	21.9	4,876
	SUB-TOTAL	**75.0**	**25.0**	**6,339**	**76.9**	**23.1**	**15,870**
TOTAL		**74.7**	**25.4**	**20,772**	**71.7**	**28.3**	**40,074**

Source: Field data (2020)

Chi-square test

Also, the chi-square distribution method was used to test the correlation between form IV students pass rate before and after adoption of FFEP for the public and non-public schools. The calculation was conducted as shown below; using the mentioned Chi-squire and degree of freedom formulas.

$$x^3 = \frac{(0 - e)^z}{e}$$

$$e = \frac{CT \; x \; RT}{GT}$$

df =(c-1) x (r-1)

Now, Chi square statistic (X^2) is 0.348 and degrees of freedom (df) is 1. By using Chi-squire table the corresponding probability is (p-value) is 0.55. The p-value of greater than 0.05 indicates insignificant difference. Therefore the study accepted that there

was insignificant different between period before and period after adoption of FFEP in terms of form IV students performance.

Table 4.9: Chi-squire Test for the Form IV Students' Performance in the Selected Schools

Period	*f*o	*f*e	*f*o- *f*e	(*f*o- *f*e)^2	(*f*o- *f*e)^2 ÷ *f*e
Before FFEP	74.3	71.7	2.6	6.76	0.094
	66.6	69.1	-2.5	6.25	0.094
After FFEP	75.0	77.5	-2.5	6.25	0.083
	76.9	74.5	2.4	5.76	0.077
X^2					0.348

Source: Researcher Computation (2020)

df= (2-1) x (2-1) =1

Binary logistic regression

In performing Binary Logistic Regression (BLR) analysis, the time period before to intervention/ adoption of the FFEP was coded 0 and the time period after intervention was coded 1. Also, public schools (treated group) were coded 1and non-public schools (control group) were coded 0. The analysis was performed at the 0.5% level of significant. The results of the BLR were given in the Table 4.10.

Table 4.10: Binary Logistic Regression for the Form IV Students' Performance in the Selected Schools

							95% C.I. for EXP(B)	
	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
School(1)	.128	.227	.320	1	.572	1.137	.729	1.772
Period(1)	-.282	.227	1.541	1	.214	.755	.484	1.177
Constant	1.090	.199	30.120	1	.000	2.973		

a. Variable(s) entered on step 1: School (public school), Period (time after FFEP).
b. Predicted Probability is of Membership for Passed

Source: Researcher Computation (2020)

After that the study reviewed and analysed performance of the form IV students in the entire country from 2013 to 2019; using data obtained from the annual reports of ministry of education and vocational training. This was data for the Certificate of Secondary Education Examination (CSEE). Such results included both public and non public schools; shown in the Table 4.11. Annual performance results for the year 2016 were not analysed since this was transitional year from paid education to free education.

Table 4.11: Summary of the National Pass Rates in the Form Four Examinations

YEARS	**PASSED (%)**					**FAILED (%)**	Total Number of Candidates
	Div. I (%)	Div. II (%)	Div. III (%)	Div. IV (%)	**TOTAL (%)**		
2013	2.2	6.2	12.8	36.0	**57.2**	**42.8**	352,614
2014	3.1	10.5	17.2	39.0	**69.8**	**30.2**	240,310
2015	2.8	9.0	13.6	42.6	**68.0**	**32.0**	384,300
2017	2.5	10.5	17.2	47.4	**77.6**	**22.4**	317,777
2018	3.8	11.1	16.9	47.5	**78.4**	**20.7**	358,426
2019	3.9	13.0	28.1	38.8	**83.8**	**16.2**	372,893

Source: Field data (2020)

The study noted that the national pass rate has been increased steadily in both two periods under review. In 2013 the overall national pass rate was 57.2% which increased to 69.8% and slightly moved down to 68.0% in 2015. In 2017, after FFEP was introduced, the passed rate shot to 77.6% then to 78.4% in 2018 and to 83.8% in 2018. With these results, it can be accepted that FFEP assisted to maintaining growth of form IV performance rate in the country. However, it can be said that FFEP has not disturbed the observed increase of performance rate, which started in the period before its adoption.

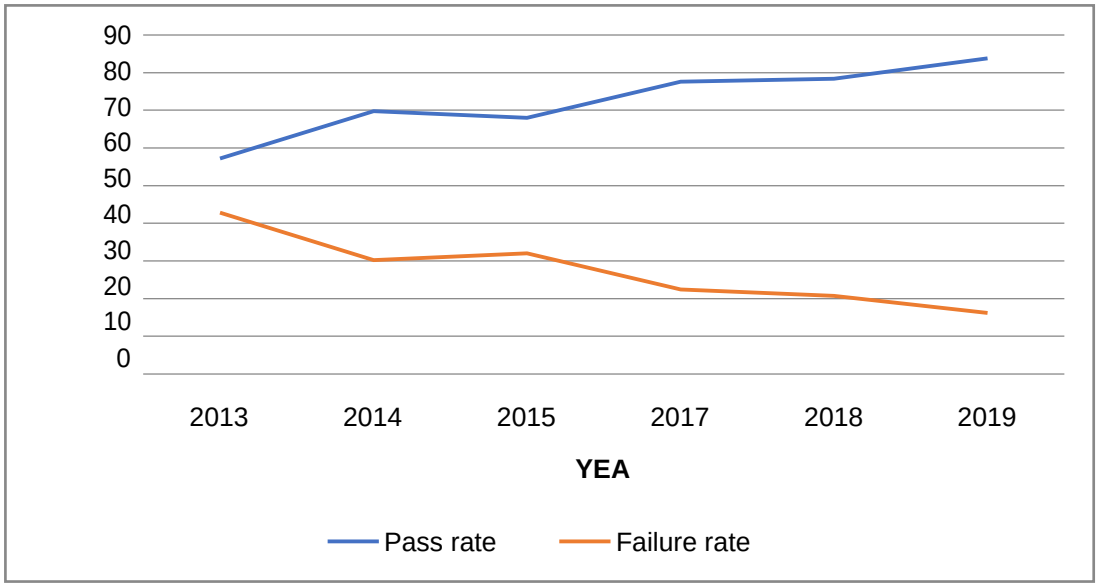

Figure 4.6: National Pass Rates In the Form Four Examinations

Source: Field data (2020

4.5 Discussion of the Study Findings

In this section the researcher brought discussion of the findings obtained in this study. The discussion comprised views of researcher and responded teachers concerning impact of FFEP on the students' enrollment and performance

4.5.1 Impact of Fee free Education Program on Student's Enrollment

In order to increase literary population, developing countries/governments have been investing highly in primary and secondary education. The government of Tanzania, like other developing governments, has been making efforts to ensure that Tanzanian children are getting primary and secondary education. Different reforms have been made in the education policy in order to increase enrollment of the children in primary and secondary education (Daven, 2008).

More so, quality education is the fourth major concern of the United Nations sustainable development goals (SDGs), where the targets have been made by 2030 to

ensure that all boys and girls complete equitable and quality primary and secondary education. In 2016, Tanzania made the first step of reaching this goal by starting the implementation of the FFEP in lower secondary education with public schools; where there was removal of all fees and contributions. The policy/program is moving hand in hand with substantial capacity expansion of quality improvement of secondary education. The recent FFEP in lower secondary (from I to form IV) has its root in the year of 2002 when the government abolished school fee in the public primary schools.

Before the provision of FFEP in the lower secondary education, the study noted that students' enrollment in the selected schools, for the period of 2013 to 2015, had been declined by an average of 0.27%. Such downward trend was also observed in the overall country students' enrollment; whereby in the same period the declined rate was 2% per annual. This shows that the situation was becoming bad in terms of students enrollment in the lower schools until when the government decided to reverse it by introducing FFE in the public lower secondary schools.

The discussion argued that poor family incomes could make many families failed to afford school expenses in lower secondary schools before FFEP came in to action. These include but not limited to school fees, library contributions, construction contributions and other school contributions. But after passing the policy of free fee education parents/guardians have remained with responsibility of buying uniform and transport their children to and from the school. Majority of the teachers in the visited public. schools accepted that a good number of students could drop from school every year before this policy/program of free fee education came in to action. There was a teacher who said that:

> *"…….there was many families which could not enroll their children in secondary school after pass primary school exams because they could not afford school fees and related expenses; that could cost more than Tanzanian Shillings 200,000 per year. The situation was more badly in the rural areas where I was teaching before deployed in Dar es Salaam"*

Another responded teacher mentioned that:

> *"…….free fee education program started in the beginning of 2000 when the government removed study fee in primary school and declared free primary education. But parents could not value it as the true free education as the parents were still paying significant amount of money to the primary schools for their children. Such as school construction fee, security fee, compulsory school uniforms charges and so on. As a result, dropout, absenteeism and lower grade progression was still eminent in primary schools. When this program was extended to secondary schools in 2016; the government abolished all kind of payment that parents could make whether directly or indirectly in both public primary and lower secondary schools. And those in public boarding schools are eating free food and sleep freely"*

A report of Human rights Watch Report (2017) noted that because of economic hardships, the Tanzania country desired to provide free secondary education so as to remove economic barriers, which made some families fail to enroll their children in secondary schools. Even those who were enrolled some of them could not finish secondary education. Things are going well so far to Tanzania education sector, dropping out has become a thing of the past. This means that students in public children are enjoying free schooling and parents are stress free concerning provision of school fees and other contributions to the schools.

The study noted increase of students' enrollment in the selected schools where it was reported that form I enrollment from 2017 to 2019 has been increased at an average rate of 6% per year. Meanwhile, overall students' enrollment in the whole country in both public and non-public lower secondary has been increased at the average rate of 10% per year since adoption of FFEP. More specific, such increase occurred in public

schools rather than in non-public schools. Statistics obtained from the Education Sector Performance Report of MoEVT shown that there have been upward trend of students' enrollment in public schools and slightly decrease enrollment in the non-private schools. The drop of number of students in non-public schools can be attributed by FFEP, which attract parents to send their children to the public schools.

Lastly, the researcher argued that FFEP is an important strategy for bring most of primary education leavers to the secondary education. Nevertheless, the government should give close eye on the management of this program because unprecedented trickle-down effects. These include increased enrollment and attendance of students in secondary school that match with increased quality of education and teachers' motivation. These can be done through distributions of enough books and desks to the schools, construction of enough classrooms, laboratory and teachers houses

4.5.2 Impact of Free fee Education on Student's Performance

Before the declaration of free fee secondary education in late 2015 which started to work in 2016, the performance of students from non-public schools was very good compared to public schools. The study findings revealed that in the three years' time from 2013 to 2015, non public secondary schools performed better in both form II and form IV national examinations. It was argued in this study that although parents and guardians were contributing in secondary schools services but public schools had poor learning environment that was, unavailability of enough laboratory and library materials, highly demotivated teachers and poor conditions of school buildings. These and others were the things disappointed performance of students in the public schools before FFEP.

Different studies have been done to find out the reasons in a factual way as to why private schools were performing better than public schools before free secondary education was implemented. Kivenule, (2015) did a research about school performance between public and non-public secondary schools in Kinondoni district of Dar es Salaam region. The study noted that performance in non-public schools was comparatively very high and the performance gap between non-public and public secondary schools was 35% to 28%; in form IV examination. The main reason reported was highly motivated teachers in nonpublic schools coupled with active inspectorate personnel. In contrary, public schools were facing problem of low level of school management involvement in decision making regarding teaching strategies.

Since the government declared to take full responsibility of funding lower secondary education; great changes have been occurred in the school learning environment. The program has associated with construction of new and renovation of the old school buildings. There has been placement of laboratory and class equipments and motivations to the teachers. In short the government has denoted to allocate more funds in the education sector compare to the previous period. This study did not assess teachers' motivation in the period after adoption of FFEP, but the researcher believed that at some extent the program have been associated with strategies for motivating teachers. This is why teachers' strikes/demonstrations have not been heard as in previous time. However, the researcher wanted another study to be conducted to assess the extent to previous teachers' demands have been catered in this era of FFED.

Kakuba (2014) observed that FFED which was introduced in by the government of

Uganda in the rural secondary schools resulted to the high rate of failure in the national examinations. The study reported that the program brought heavy teaching load to the teachers and inadequate instructional materials. Therefore, rural teachers became demotivated and they were even regularly absents in the schools while some left teaching job to their personal businesses.

Although this study revealed the observed performance improvement in the public schools as well as in nonpublic schools were insignificant; but there is growing evidence that this program does not bring bad performance in the academic sector if well supervised. However, well supervised FFEP has ability to balance quality of education delivered in public schools with that of nonpublic schools and hence students' performance in the two parts. There was a teacher who said:

> *:…..the step made by the government to introduce FFEP is the big achievement, but more funds need to be allocated in education sector so as the program will keep donating quality education to the students."*

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter the researcher presented summary of the entire study, specifically, summary of the study findings that provide answer to the study hypotheses. The chapter also carried conclusion of the study as well as recommendations derived from the study findings.

5.2 Summary of the Study

The study was about impact of the FFEP to the students' enrolment and academic performance. The study collected primary data from the twenty selected lower secondary schools in Dar es Salaam and secondary data from the annual performance reports published by the Tanzania MoEVT. Descriptive statistics, chi-squire statistics, and binary logistic regression were used in the process of data analysis. The study was guided by two null hypotheses. The first one stated that "fee free education program has no significant impact student's enrollment in Tanzania. The other one stated that "fee free education program has no significant impact on student's performance in Tanzania."

5.2.1 Impact of Fee free Education Program on Student's Enrollment

The study noted that in the enrollment of the new form I students in the selected school were very high in the period before adoption of FFEP compare to the period after adoption of this program. Total number of students joined form one class in the selected schools in the period before FFEP were 38,399 while in the period following

adoption of FFEP were 21,402. The possible reason could be shifting of administrative city from Dar es Salaam to Dodoma; an act which associated with shifting of large number of government employees from Dar es Salaam to Dodoma.

The results of the data obtained for the national enrolment of students in public and non- public lower secondary schools (from I-1V) revealed that in the period before FFEP adoption a total of 5,247,173 enrolled countrywide. And in the reviewed period after adoption of this program, a total of 6,097,368 students enrolled in the lower secondary schools all over the country. However, the enrollment growth rates of in the period before and after adoption of FFEP were −2% and 10% respectively. The improvement observed in the period after adoption of FFEP was very small and the study failed to reject the null hypothesis which stated that fee free education program has no significant impact student's enrollment in Tanzania.

5.2.2 Impact of Free Education on Student's Performance

The study analysed performance of the form II and IV students in the selected schools and noted that before adoption of FFEP performance rate in non public schools were 79.0% and 74.3% respectively. Meanwhile performance in form II and form IV public schools were 63.6 % and 66.6% respectively. In the period after adoption of FFEP performance rate in non public schools, from II and IV, were 72.7% (decreased) and 76.3% (increased) respectively. In the public school, performance of form II students increased to 71.1% after adoption of FFED and that of form IV students increased to 76.9%.

The study did not get enough reason to reject null hypothesis, which stated that fee free education program has no significant impact on student's performance in Tanzania. But it was noted that students in the selected public schools had high likelihood of perform highly compare to the students in the non public schools. Nevertheless, students who did their national exams (form II and form IV) in the period after adoption of FFEP in both public and non public selected schools were less likely to fail exams compare to those who did exams in the period before adoption of this program.

5.3 Conclusion of the Study

The study concluded that FFEP has done little in increase enrolment of the student in both public and non-public schools. The enrollment situation/rate after adoption of this policy was not significantly different to the situation before its adoption. However, FFEP had not brought significant performance different to both form II and IV students. But at certain extent performance was slightly better for both form four and form two students in both public and non-public schools in the period after adoption of FFEP. Hence, the study concluded that FFEP had brought little achievement in secondary schools in terms of students' enrollment and academic performance.

5.4 Recommendations of the Study

With regard to the students' enrollment and performance, the study recommended the following:

Although, the study analysis revealed such increase of students' enrollment after

adoption of this FFEP is insignificant; but there is hope that in the future the program will yield significant results. Hence, the government should continue finance FFEP since it has shown to have ability of ensure most of primary school leavers get a chance to attend secondary education.

More classes should be constructed and general learning environment should always be improved in order to stimulate hardworking of both teachers and students. The government should always ensure public school managements have adequate funds to cater for some of the school needs.

5.5 Area of the Further Study

The study wanted further study to be conducted that will examine the extent to which FFEP has impacted on the teachers' motivations.

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APPENDICES

Appendix I: Questionnaire to the Leaders of Secondary Schools

Hello HEAD/LEADER OF THE SCHOOL! This is the questionnaire for the research titled as ***"The Impact of Fee Free Education Program on Students Enrollment and Academic Achievement in Tanzania".*** The questions have been reviewed by the ethical committee of Open University of Tanzania (OUT) and given ethical approved. Your responses will be treated with great care and high level of confidentiality. The findings obtained will only be used for the academic purpose and not otherwise; the study/research is part of my Masters Degree in Monitoring and Evaluation offered at OUT.

In order to meet the main objective of this research you have been humbly requested to complete all the bellow questions to the best of your understanding. Whenever, you need more clarification/explanation don't hesitate to communicate with me. But, you are free to choose any question you want to answer or to discard. Respondent name or name of the school will not be written in the final report of the research.

My names are: AKYOO PETER MOSES

Telephone number: 0656 933 666

However, if you need more explanation about me and the study which I am currently undertaking you can communicate with Open University of Tanzania via telephone number……or email……. You can also communicate with my research supervisor Dr. Hamidu Shungu via telephone number 0653617196

- Questionnaire number_____
- Your name_____(option)
- Your phone number_____(option)

SECTION A: Bio-social data of the respondents

1. Type of the school

Public/government school (1)	Private school (2)

2. Category of respondent

Head of the school (1)	Deputy head of the school (2)	Academic supervisor of the school (3)

3. Gender of the respondent

Male (1)	Female (2)

4. Age group of respondent (in years)

20-25 (1)	26-30 (2)	31-35 (3)	36-40 (4)	41-45 (5)	46-50 (6)	51-55 (7)	>55 (88)

6. Teaching experience (in years)

<6 (1)	6-10 (2)	11-15 (3)	16-20 (4)	21-25 (5)	>25 (6)

SECTION B: Questions for the study objectives

The study wants to project trend of the students' enrollment in Tanzania government and private secondary schools before and after fee free education policy. Therefore you are requested to provide exactly number of students enroll in form one class in your school from 2013 up to 2019

Year	Number of form one students	% Increase or decrease (option)
2013		
2014		
2015		
2016		
2017		
2018		
2019		

7. If enrolment rate is low or high what can be a possible cause of such situation?

   ……

   …….

8. Apart from enrollment, how would you rate attendance of the students in your school before and after implementation of fee free education in government schools?

Attendance	Very low (1)	Low (2)	average (3)	High (4)	Very high (5)
Before implementation					
After implementation					

9. The study wants to examine performance of students (for both government and private schools) before and after fee free education policy in both form two and form four students. Therefore, you are humbly requested to provide correct information about number of students scored average of A, B, C and D in form

two national examination and number of students got division I, II, III and IV in form four national examination. This should be from 2013 to 2019.

YEARS	A/I	B/II	C/III	D/IV	Total number of students
Form II					
2013					
2014					
2015					
2016					
2017					
2018					
2019					
Form IV					
2013					
2014					
2015					
2016					
2017					
2018					
2019					

10 How can you judge performance of form two and form four students before introduction of fee free education policy compare to performance after? Additionally, give any possible reason(s) for the performance difference

between period before and period after introduction of the mentioned policy

- Form two performance

  _____

  _____

- Form four performance

  _____

  _____

Thanks for your Time and Responses (I promise confidentiality)

THE OPEN UNIVERSITY OF TANZANIA

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29th July 2020

District Executive Director,
Temeke District,
P. O. Box 46343,
DAR ES SALAAM.

RE: RESEARCH CLEARANCE

The Open University of Tanzania was established by an Act of Parliament No. 17 of 1992, which became operational on the 1st March 1993 by public notice No.55 in the official Gazette. The Act was however replaced by the Open University of Tanzania Charter of 2005, which became operational on 1st January 2007. In line with the Charter, the Open University mission is to generate and apply knowledge through research.

To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief background, the purpose of this letter is to introduce to you **Mr. Peter Moses Akyoo, Reg. No: PG201801661** pursuing **Master of Arts in Monitoring and Development.** We here by grant this clearance to conduct a research titled ***"Investigating the Impact of the Free Education on Student Enrollment and Academic Achievement in Tanzania"***. *He* will collect his data in your district between August and September 2020.

In case you need any further information, kindly do not hesitate to contact the Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O. Box 23409, Dar es Salaam. Tel: 022-2-2668820.We lastly, thank you in advance for your assumed cooperation and facilitation of this research academic activity.

Yours Sincerely,

Prof. Hossea Rwegoshora
For: VICE CHANCELLOR
THE OPEN UNIVERSITY OF TANZANIA