

**INVESTIGATION OF THE EFFECT OF FEE FREE EDUCATION ON
EDUCATION QUALITY IN TANZANIA**

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

The undersigned certify that he has read and hereby recommends for acceptance by the Open University of Tanzania a report on a research project entitled: **“Investigation the Effect of Fee Free Education on Education Quality in Tanzania”** in partial fulfillment of the requirements for the Degree of Masters of Arts in Monitoring and Evaluation of the Open University of Tanzania.

.....

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.....

Date

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I, **Nuru Sadock Bankimeza**, declare that the work presented in this dissertation is original. It has never been presented to any other University or Institution. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfilment of the requirement for the Degree of Master of Arts in Monitoring and Evaluation [MA (M&E)].

.....

Signature

.....

Date

DEDICATION

I dedicate this work to my wife Rukia Bonifasi Kayinga and my Arqam and Sekamponge.

ACKNOWLEDGEMENT

I would like to foremost thank the almighty God for how far he has brought me in life. A special acknowledgment goes to my supervisor Dr. Hamidu shungu for his immerse support, guidance, and effort in assisting me to complete my dissertation on time. I also like to thank management of the schools I visited for the support and cooperation they showed to me.

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Also, I thank my friend Mr. Mwelele for his thoughtful inputs in nourishing my research, particularly in using statistical software. Finally, I would like to thank my colleagues especially Mr. Peter for cheering me on during difficult moments of my life.

ABSTRACT

The study concerning with the effect of fee free education on education quality in Tanzania. Specifically the study looked on the students to book ratio, student to teachers ratio and student to class ratio. 45 secondary schools were used as sample size these were selected in five districts of Dar es Salaam. Quantitative research approach was employed as the method of data collection, Descriptive analysis and independent samples t-test were employed. The study found that before free fee education program was introduced, one student was able to access two books at any time in the visited schools. But after introduction of this program, one student was able to access three books at school at any time. This indicated that there was slightly improvement of students to book ratio following introduction of free fee education program. Moreover, ratio of students to teacher was observed to be within the recommended ratio of 20 to 30 students per one teacher at any time. In which it was noted that student to teachers ratio was 22:1 before this program was introduced and 24:1 after it was introduced. The slightly increase of this ratio was attributed by limited employment of new teachers in the public schools. Further, the ratio of students to class was noted to be 47:1 before the program was introduced and 52:1 after it was introduced. Since the recommended number of students per class was 40-50; the program came with increase demand of more classrooms in the visited schools. The study concluded that there was no significant changes have been brought by free fee education policy in Dar es Salaam. Therefore, the study recommended for further similar studies to be conducted in other regions. However, more classrooms should be constructed in the lower secondary schools in Dar es Salaam and other parts of the country.

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LIST OF ABBREVIATIONS

DF	Difference
EFA	Education For All
ESDP	Education Sector Development Program
FFEP	Free Fee Education Program
FPE	Free Primary Education
MANOVA	Multivariate Analysis of Variance
OECD	Organisation for Economic Co-operation and Development
P	Probability Value
SCR	Student-Classroom Ratio
SBR	Student-Book Ratio
SEDP	Secondary Education Development Programs
SPSS	Scientific Package for Social Science
STR	Student-Teacher Ratio
URT	United Republic of Tanzania

CHAPTER ONE

INTRODUCTION OF THE STUDY

1.1 Introduction

Tanzania attempted to offer fee free education for the first time in 1963 that reduced enrolment disparity between children from rich and poor households. In 2016 the government abolished all fees and additional financial requirements for lower secondary education and allocated an additional Tanzania shilling. The study was to investigate the effect of fee free education on education quality in Tanzania by looking on the student to teacher ratio, student to books ratio and student to classroom ratio. By abolishing fees and other contributions, the government expected that many children from the poor families will have access to secondary education (Haki elimu 2017). A number of students indicated that the provision free education has led accompanied by numerous challenges that impede quality education. For instance, in Kenya and Uganda, the provision of free secondary education has led to unwillingness by many parents to make any payments to schools and increased student enrolment that consequently caused other problems like heavy teaching loads, movement of students in and out of school, teacher shortages and inadequate instruction materials (Aluko & Adan, 2015).

General the provision of quality education must move parallel with the ratio of student to book ration student to teacher ration and student to classroom ratio.

Section 1.1 describes the background to the problem, section 1.2 is about the statement of the problem and section 1.3 presents the research objective, which for the purpose of this study, the objectives are, further grouped into general and specific

research objectives. On the other hand, section 1.4 identifies the research questions that are to be addressed and 1.5 is on the rationale (relevance) of the study. Scope and limitations of this study are covered in sections 1.6 and 1.7 respectively.

1.2 Background to the Problem

Education is an essential tool for social and economic growth of a country. The basic educational skills; like reading and writing increases a person's income up to 10% acting as the perfect weapon that lifts individuals to freedom, which helps to eradicate international poverty and hunger, (Madani, 2019).

The universalization of basic education is neither achievable nor sustainable without the continuous delivery of quality education by school systems. Demand for educational quality is also increasing, as governments view the satisfactory performance of their basic education systems not only instrumentally but also strategically in relation to economic development and international competitiveness, (Yu, 2007).

The issue of improving education quality has for a while been a global agenda. Owing its vital role, education stakeholders have been struggling to ensure that education benefits are realized be it at individual level, family or society. For so long, there has been deliberate global agenda for expanding education access in terms of enrollment and compulsory attendance. In response to this, education for All policy (EFA) was launched at World Conference in 1990 as a universal commitment to provide quality basic education for all children, youth, and adults.

Nevertheless, apart from increasing student's enrollment by ensuring all school aged children attend schooling, the question of whether skills and knowledge provided is relevant, appropriate and useful to learners has been a debatable agenda. Alongside efforts made to ensure "*inclusive and equitable education*", other concerns have been on the quality of graduates produced in terms academic achievement (performance) and competence.

As documented in vast literature, efforts to improve education access and quality in the united republic of Tanzania traces back as far as 1960s after Tanzania (Tanganyika by then) being declared as an independent state. Since then, a number of programs and policies have been put in place to ensure that individuals acquire appropriate knowledge, relevant and practical skills necessary for personal and social development. Among others, include "Education for Self-reliance" program enacted in response to the 1967 Arusha Declaration. More recently, the government through Education Sector Development Program (ESDP) with a support from the World Bank introduced Secondary Education Development Programs (SEDP) in an attempt to improve education quality at secondary schools, the program had different phases of implementation,(ESDP, 2008;URT, 2015).

Phase one of the Secondary Education Development Programme, formally recognized as SEDP I (2004 – 2009) was launched by the Government of the united republic of Tanzania in July 2004. According to the (URT, 2015), the program was established to in the framework of the ESDP (18997), ESDP (2001) and the Secondary Education Master Plan of 2000. Among others, the main program areas of concern were improvement of access, equity, quality and management of education systems.

The second phase of Secondary Education Development Program, SEDP II (2010 – 2014) succeeded SEDP I in 2010. The program was built reflecting the objectives of the 2008 to 2017 Education Sector Development Program and the 1995 Education Training Policy. Reports show that SEDP II was though a relevant program to address SEDP I problems and challenges, amidst, student's poor performance in secondary education examinations and shortage of science and mathematics teachers. The program therefore, aimed at improving quality and relevance, enhancing access and equity and improving teaching process in schools, (URT, 2010; URT, 2015). The commitments and efforts of providing free education by countries have been strengthened by various global and national initiatives (haki elimu, 2017).

Obstacle to access education especially for the children from poor backgrounds and the most vulnerable (kattan, 2006). Thus, the abolition of school fees provides an opportunity for the majority of children to enroll in school that's why the research were looking on the student to book ratio, student to teacher ratio and student to classroom ratio for better provision of quality education in Tanzania.

1.3 Statement of the Problem

The has been some progress in provision of fee free education in Tanzania like an increase of enrollment, acceleration of equity and equality, decrease of student dropout and truancy, challenges on provision of fee free education such as overcrowded classrooms, in adequate funds and shortage of teaching and learning materials have been questionable (Haki Elimu, 2017). The government of Tanzania has made effort to address the problem of poor implementation of fee free education policy in public secondary schools by providing funds to the public schools through

capitation grants which are provided per number of students in schools, provision of teaching and learning materials, construction of classroom but still implementation of fee free education is policy is debatable matter (haki elimu, 2017). Lack of effective implementation of fee free education policy does not only affect the future of learners in terms of low quality of education but also leads to poor performance of the learners in public secondary schools (Haki Elimu 2017). Despite the effort made by the government, implementation of fee free education policy at school level is faced with various challenges like overcrowded classrooms, inadequate funds and shortage of teaching and learning materials (Haki Elimu, 2017). There is hypothesis that when implementation of fee free education policy is not done well it has an effect on the teaching and learning process in various ways. This causes some problems in teacher student ratio, infrastructure, rate of enrolments, completion as well as literacy (mahunda, 2013 & kattan, 2006). Therefore the aim of this study was to investigate the effect of fee free education on education quality in Tanzania. By observing the student to book ratio, student to teacher ratio and student to classroom ratio.

1.4 Research Objective

1.4.1 General Research Objective

The general objective of this research was to investigating the effect of fee free education on education quality in Tanzania.

1.4.2 Specific Research Objectives

- (i) To examine the effect of fee free education program on student-book ratio.
- (ii) To examine the effect of fee free education program on student-teacher ratio.

- (iii) To examine the effect of fee free education program on student-class ratio.

1.5 Reseach Questions

- (i) What is the effect of fee free education program on student-book ratio?
- (ii) What is the effect of fee free education program on student-teacher ratio?
- (iii) What is the effect of fee free education program on students-class ratio?

1.6 Rationale of the Study

The government of the united republic invested money in funding the program and to ensure the BRN program is successful. The author therefore, sees the rationale of undertaking from different areas of concern, among others: To unfold the successfulness of free education program and hence act as a benchmark for educational program interventions; To inform the government and general public and build awareness on whether the program goals and objectives where met or not and personally, to be eligible for being awarded Master's degree in Monitoring and Evaluation of the Open University of Tanzania.

1.7 Scope of the Study

The thematic coverage for this study specifically covered ordinary levels secondary schools located in Dar es salaam, Tanzania. The study included only public owned schools. This is because the free fee education program was introduced in the public schools. Such schools help the researcher in disclosing the impact of fee free education program in the public secondary schools in the republic of Tanzania that marked its inception in the years of 2016.

1.8 Limitations of the Study

There are some setbacks of which the researcher believes they had hindered proper administration of this research study. They include but not limited to; lack of enough funds for undertaking research study and busy schedules as the researcher might have compelled to undertake the research while attending some administrative roles at his work place.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents critical review of both supporting theoretical and empirical literatures. Section 2.1 is on conceptual definition, 2.2 rests on critical review of supporting theories while 2.3 is on empirical analysis of relevant studies. Also, section 2.4 conceptual framework presents, 2.5 research gap and 2.6 is about statement of hypothesis.

2.2 Conceptual Definition

2.2.1 Quality of Education

Telli, (2013) acknowledges that quality of education is a complex concept. Numerous studies attribute quality of education as an inclusive term that contains access and input on the one hand and process, output or outcome on the other. Others regard access and input of education as separate but equally important concepts of quality of education. For the latter, quality of education includes process and outcome of education but excludes access and inputs of education.

2.2.2 Fee Free Education

This is a schooling program in which students at both primary and secondary school levels attend schools free of charge that is, without paying and direct school costs. Parents and/or guardians are responsible for meeting indirect costs only such as student's uniforms and exercise books. In the united republic of Tanzania, in complying with the 2014 Education and Training Policy, the government released circular 5 on 27th November, 2015.

Amidst, the circular documents that:

“Provision of free education means pupils or students will not pay any fee or other contributions that were being provided by parents or guardians before the release of a new circular”, (Kapinga, 2017 & Mashala, 2019).

The concept has been adopted in response to the Education for all Program, (Opini & Onditi, 2016), Millennium Development Goals (United Nations, 2016) and the 2030 agenda for Sustainable development, (United Nations, 2015a).

2.3 Critical Review of Supporting Theories

Jerome Bruner (1960, 1966, 1996) became convinced that students could usually learn more than had been traditionally expected as long as they were given appropriate guidance and resources and he called such support instructional scaffolding. The reason for such a bold assertion was Bruner’s belief in scaffoldinghis belief in the importance of providing guidance in the right way and at the right time. When scaffolding is provided, students seem more competent and “intelligent,” and they learn more.

Lev Vygotsky (1978), whose writing focused on how a child’s thinking is influenced by relationships with others who are more capable, knowledgeable, or expert than the learner. Vygotsky made the reasonable proposal that when a child is learning a new skill or solving a new problem, he or she can perform better if accompanied and helped by an expert than if performing alone-though still not as well as the expert. During learning, knowledge or skill is found initially in the expert helper. If the expert is skilled and motivated to help, then the expert arranges experiences that let the novice to practice crucial skills or to construct new knowledge.

John Dewey (1938–1998) a psychological constructivist has the idea that a person learns by mentally organizing and reorganizing new information or experiences. The organization happens partly by relating new experiences to prior knowledge that is already meaningful and well understood. They further argue that, if students indeed learn primarily by building their own knowledge, then teachers should adjust the curriculum to fit students' prior knowledge and interests as fully as possible.

Madani, (2019) documents “Analysis of Educational Quality, a Goal of Education for All Policy”. The work acknowledges the ultimate goal of countries in guaranteeing the optimum educational access rates for improving the quality. In his view, quality is reflected by a range of indicators, including government spending on education, student/teacher ratios, teacher qualifications, test scores, and the length of time students spends in school. The paper recommends that, every investment must be measured against how it can serve such aspects to ensure the ultimate quality of Education for All programs. Investing in education reinforces a society's wealth and growth, where individuals can easily improve their own personal efficacy, productivity, and incomes.

Subramaniyan *et al.*, (2017) alluded that school environment and teaching-learning facilities and resources in school are fundamental aspects in education. Textbooks, teaching and learning materials and a conducive school environment contribute to better learning, both in psychological and physical terms. Psychologically, if students feel comfortable in school, with adequate security and a friendly environment, they enjoy learning; this leads to better academic performance and achievement. Thus, the school system needs both human and material resources to function effectively.

Textbooks, teaching and learning materials, equipment as well as facilities, good and adequate physical structures, are necessary for realization of quality education.

2.4 Theoretical Review

The study was supported by the theory of total quality management. This theory has been explained as narrated in the following sub-section.

2.4.1 Total Quality Management (TQM)

Total quality management, with its historical route from quality inspection to quality assurance to quality control, represents a total organisational approach for meeting beneficiaries' or clients' needs and expectations that involves all managers and employees in using quantitative methods to continuously improve the organization's or institution's processes and services (Psychogios and Pripora, 2007 cited in Benjamin, 2012). In this study, the quantitative approaches that were used to assess the quality of education were students-to-books ratio, students-to-teachers ratio, and students-to-classrooms ratio.

The essence of TQM has been to ensure mutual cooperation of everyone in an organisation and associated organisational processes to produce products and/or services that meet or exceed the needs and expectations of beneficiaries or clients (Cronin and Taylor, 1992). In relation to this study it can be said that, the theory wants management of education system in Tanzania to strategically manage education sector operations in order to meet expectations of citizens (the beneficiaries) on the quality of education provided.

Exceeding the needs and expectations of beneficiaries or clients is one of the central anchors of TQM and has been in recognition since the first publication on quality assurance by Deming dating back in the 1940's. TQM's view on beneficiaries' or clients' satisfaction is that it is the driving force for an organization or institution to improve its performance (Benjamin, 2012). Theorists in this area (see, e.g., Tsang and Antony, 2001) argue that the needs and expectations of beneficiaries/clients should always be on the minds of all managers and employees, noting that it is necessary to identify these needs and expectations and their level of satisfaction.

2.5 Empirical Analysis of Relevant Studies

Thornton & Arbogast, (2014) examines the factors that are theorized to be determinants of school quality in the 67 counties of Florida from 2000 to 2011. The model constructed for this purpose is comprised of a mix of independent variables that include county educational attainment and economic factors (median household income, unemployment rate, number of housing starts, and property tax revenue per student). Furthermore, the model also considers 4 demographic/social variables and linear regression was used to investigate the factors that cause variation in school quality.

The study findings, among others, show that the higher the educational attainment in a county, the better the school quality, holding all other variables constant. Based on the results of this multiple regression, for every one extra high school graduate per 1,000 residents, it is expected that a county's school quality measure (GPA) will increase by 0.05. On the other hand, evidence also indicates that stronger economic conditions

result in higher school quality, since income had a significant positive relationship with school quality.

Masino & Niño-Zarazúa, (2016) found what works to improve the quality of student learning in developing countries. They conducted a systematic review to identify policy interventions that improve education quality and student learning in developing countries. Relying on a theory of change typology, they highlight three main drivers of change of education quality: supply-side capability interventions that operate through the provision of physical and human resources, and learning materials; Policies that through incentives seek to influence behavior and inter temporal preferences of teachers, households, and students; and bottom-up and top down participatory and community management interventions, which operate through decentralization reforms, knowledge diffusion, and increased community participation in the management of education systems. Study findings suggest that interventions are more effective at improving student performance and learning when social norms and inter temporal choices are factored in the design of education policies, and when two or more drivers of change are combined. Thus, supply-side interventions alone are less effective than when complemented by community participation or incentives that shift preferences and behaviors.

Suleman & Gul, (2015) investigate the factors that affect the quality of primary education in Kohat Division, Pakistan. Simple random technique was employed in selecting relevant and representative sample and bivariate Chi square and simple percentage was employed for the statistical analysis of the data. Among others, the findings indicate that lack of educational facilities; insufficient qualified staff; poor

supervision and management; political interference; inadequate budget for education; poor implementation of educational policies; lack of coordination between schools and community; and lack of in-service training programs for teaching staff. Based on findings, the study recommends and political interference should be discouraged. Pre-service and in-service teachers' training programme should be made effective. Adequate funding should be allotted for the advancement of education.

Ketkajorn, Vajarintaragoon, & Sri-ngan, (2017) studies factors affecting the effectiveness of educational quality assurance using a sample of 1,128 administrators and teachers from 33 schools under the Secondary Educational Service, selected by Stratified Random Sampling and with Multivariate Analysis of Variance (MANOVA) and Stepwise Discriminant Analysis were employed. The results showed that the factors affecting the overall effectiveness of quality assurance were in a high level.

The first three factors ranging from high to low average scores were human resources factor, leadership factor, and teamwork factor. It was also found that different school sizes had different factors affecting the effectiveness of quality assurance and the statistical significance was at a .01 level. There were two factors: attitude factor and teamwork factor that could classify standardized and non-standardized schools.

Anekeya, (2015) studied school-based factors influence quality of education in Kenya in addressing Free Primary Education (FPE). A descriptive survey research design was applied. The respondents were selected using probability sampling techniques. Questionnaires, observation checklists and document analysis were used to collect data. The study findings show that quality and retention challenges brought by the

implementation of free primary education in Kakamega County are still prevalent. Understaffing, overcrowded classrooms, inadequate syllabus coverage, inadequate classrooms, inadequate instructional materials and inadequate lesson preparations as some of the factors that impacted on quality of education in schools. The study recommends that head teachers, teachers, parents and government need to put measures that will address quality challenges in schools to ensure the realization and sustainability of basic education.

Cho & Baek, (2019) studied the factors affecting the quality of teaching in basic science education. The study applies the ordinary least squares model to the refined data of basic science courses using variables reflecting instructor–student interaction such as class size, type of subject, and instructor characteristics to analyze the factors affecting student satisfaction with theory and laboratory classes. The analysis results indicated that, in comparison to satisfaction in theory classes, satisfaction in laboratory classes was estimated to decrease by approximately 0.16. Also, it was estimated that average satisfaction decreased by 0.083/100 when the number of students in the laboratory class increased by 1%.

On the other hand, laboratory classes via hybrid platforms were associated with satisfaction scores approximately 0.06 higher than those of offline-only courses. These results suggest that, unlike theory classes, where instructors generally convey the course material to students in a one-sided manner, laboratory-based classes consist primarily of student participation, thus underlining the importance of an educational environment that encourages instructor–student communication.

King, (2013) studied factors that hinder quality education in Tanzania. It has adopted a qualitative research design, with interview as the main data collection strategy. The study used purposive sampling method, where only teachers employed with the respective schools formed the scholarly group for interview. The study has revealed that there are several factors, which have contributed to the failure of form four students. Those related to inconformity between numbers of teachers versus students, poor quality of textbooks, poor products of pupils joining secondary schools, absence of reliable teachers guide, absence of action-based exams, absence of labs, among others.

2.6 Research Gap Identified

Fee free education program (for both primary and lower secondary schools) in the United Republic of Tanzania took over effective in the year 2016. Since its inception we find little evidence form literatures explaining its relevance in improving education quality. For instance, while noting contradicting suggestion from Tshabangu & Msafiri, (2013), Suleman & Gul, (2015a), Anekeya, (2015) and Masino & Niño-Zarazúa, (2016), evidence from Kapinga, (2017) and Mashala, (2019) commend on inadequacy of empirical studies in Tanzania documenting the role of fee free education program in addressing education quality.

Thus, in the absence of empirical evidence regarding the relevance of the program, policy makers will not be in position of capturing program impact and hence unreliable evaluation of successfulness of the program can either be overestimated or underestimated. Therefore, it is from these grounds the author finds the relevance of this study.

2.7 Conceptual Framework

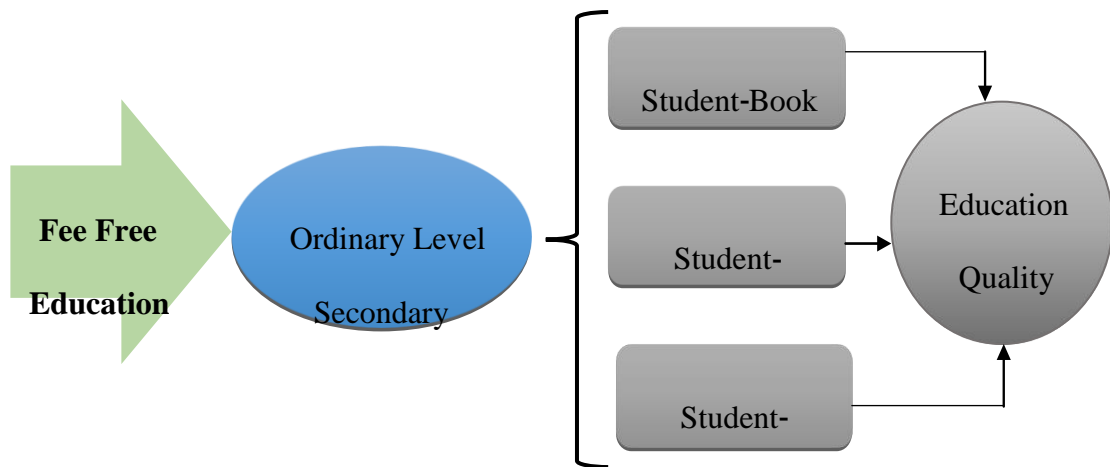


Figure 2.1: Conceptual Framework

Source: Author's construction

2.8 Statement of Hypothesis

- Ho:** Fee free education program has brought no significant effect on student book ratio.
- Ho:** Fee free education program has brought no significant effect on student teacher ratio.
- Ho:** Fee free education Program has brought no significant effect on students' class ratio.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presented methodological framework that was adopted in this study. Section 3.2 was on research strategies, 3.3 was 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 is on expected results of the study.

3.2 Research Strategies

This research basically employed quantitative research design. Quantitative research approach is adopted seems suitable for this study over qualitative due to the fact that the study sought to reveal the causal impact of the program, between the treated and untreated units using response and explanatory variables as described in the conceptual framework (Figure 2.1) of this study. Thus, the researcher needed to capture quantifiable attributes, and hence explaining the impact in terms of its magnitude.

3.3 Survey Population

In undertaking this research, the population of interest was ordinary level secondary schools located in the Dar es Salaam region of Tanzania.

3.4 Area of Research

The researcher expects to restrict the study in Dar es Salaam region. Specifically, for convenience and reliability, the study covered all five districts, Kigamboni, Temeke, Ilala, Kinondoni and Ubungu.

3.5 Sampling Design and Procedure

The study employed two stage sampling design. Schools were clustered in to districtwise. From each of the cluster, district in this context, simple random sampling was employed to select 9 schools. Thus, the study involved 45 secondary schools of which nine schools were selected from each of the five districts of Dar es Salaam.

3.6 Variables and Measurement Procedures

Table 3.1: Variables Measurement

Variable	Description	Measurement
Student-Teacher Ratio (STR)	Is the average number of students per teacher in a school	Ratio, Scale
Student-Classroom Ratio (SCR)	This is the average number of students enrolled in a school by the number of classes available.	Ratio, Scale
Student-book ratio (SBR)	This is the average number of pupils for every textbook in schools	Ratio, Scale
Time, t	It is a timeframe for the time period before and the time after intervention. t = 0 for time before intervention t = 1 for time after intervention.	Nominal

Source: Field Data

3.7 Methods of Data Collection

Secondary data was collected from each of the sampled schools. Well-structured questionnaires was prepared and administered to the management of selected schools. Head of the school or his/her deputy as well as academic supervisor of the schools were recommended to take part in filling in the relevant information.

3.8 Data Processing and Analysis

The researcher used Scientific Package for Social Science (SPSS) to make required scientific procedures in this study. Descriptive statistics and independent samples t test were used. In descriptive statistics, the researcher used frequency tables and graphs to explain the results of the study. Frequencies and percentage formed the basis of interpreting the results.

Independent samples t test was used to find out whether there was significant different between the period before and period after introduction of free fee education program. In this study, regarding that fee free education program was introduced in the year 2015, and came into operation in 2016, information reading the outcome variables before the year 2016 serve data before intervention and any information received after the year 2016 serve as data after intervention has taken place.

3.9 Expected Results of the Study

This study expected to find the intervention having a negative impact. The researcher expected to find free education program having increased student-book ratio, student-teacher ratio and student-classroom ratio.

CHAPTER FOUR

FINDINGS AND DISCUSSION OF THE RESULTS

4.1 Introduction

In this chapter, the researcher presented findings of the study as well as discussion pertain to the study findings. The study sampled 45 schools from the five known districts of Dar es Salaam; nine schools from each of the following districts Kigamboni, Temeke, Ilala, Kinondoni and Ubungo. Descriptive statistics was extensively used to summaries the findings while independent samples t-test was used to identify whether there was significant difference between period before FFEP and period after FFEP. The section was guided by the specific research objectives, which have been mentioned in the chapter one of this study. In the analysis, the period before FFEP was the year 2013, 2014 and 2015 while period after FFEP was the year 2017, 2018 and 2019. Data for the year 2016 was not considered because this was the transitional year from the paid education program to free education policy.

4.2 Students to Book Ratio

The first specific objective of this study was to examine the effect of fee free education program on student-book ratio. The study collected information regarding total number of students in each of the visited schools from 2013 to 2015 (period after FFEP) and from 2017 to 2019 (period after FFEP) together with total number of books. The analysis started by summarizing the results obtained for the numbers of students and number of books for the period before and period after introduction of FFEP. This was hand in hand with establishment of ratios of students to books in all years under review. Descriptive results have been given in the Table 4.1.

Table 4.1: Students to Book Ratio-Descriptive Statistics

	Period	Years	Students	Books	Students to Book Ratio
KIGAMBONI	Before FFEP	2013	12,884	18,690	0.69 (α 1.45)
		2014	10,328	20,027	0.52 (α 1.94)
		2015	10,400	18,894	0.55 (α 1.82)
		TOTAL	33,612	57,611	0.58 (α1.71)
	After FFEP	2017	10,449	20,420	0.51(α 1.95)
		2018	11,102	17,732	0.63 (α 1.60)
		2019	9,750	24,132	0.40 (α 2.48)
		TOTAL	31,301	62,284	0.50 (α1.99)
TEMEKE	Before FFEP	2013	6,268	18,807	0.33 (α 3.00)
		2014	6,592	22,640	0.29 (α 3.43)
		2015	6,856	23,800	0.29 (α 3.47)
		TOTAL	19,716	65,247	0.30 (α3.31)
	After FFEP	2017	7,422	46,502	0.16 (α 6.27)
		2018	7,546	40,443	0.19 (α 5.36)
		2019	7,543	41,873	0.18 (α 5.55)
		TOTAL	22,511	128,818	0.17 (α5.72)
ILALA	Before FFEP	2013	4,417	2,460	1.80 (α 0.56)
		2014	6,046	5,265	1.15 (α 0.87)
		2015	5,618	5,409	1.04 (α 0.96)
		TOTAL	16,081	13,134	1.22 (α0.82)
	After FFEP	2017	6,682	5,460	1.22 (α 0.82)
		2018	6,938	5,356	1.30 (α 0.77)
		2019	6,874	5,103	1.35 (α 0.74)
		TOTAL	20,494	15,919	1.29 (α0.78)
KINONDONI	Before FFEP	2013	5,214	17,529	0.30 (α 3.36)
		2014	5,691	17,118	0.33 (α 3.01)
		2015	5,940	17,001	0.35 (α 2.86)
		TOTAL	16,845	51,648	0.33 (α3.07)
	After FFEP	2017	7,017	19,128	0.37 (α 2.73)
		2018	7,065	20,841	0.34 (α 2.95)
		2019	7,686	20,874	0.37 (α 2.72)
		TOTAL	21,768	60,843	0.36 (α2.80)
UBUNGO	Before FFEP	2013	6,741	20,961	0.32 (α 3.11)
		2014	6,981	21,087	0.33 (α 3.02)
		2015	7,359	21,099	0.35 (α 2.87)
		TOTAL	21,081	63,147	0.33 (α3.00)
	After FFEP	2017	8,553	24,084	0.36 (α 2.82)
		2018	8,748	25,770	0.34 (α 2.95)
		2019	10,431	27,183	0.38 (α 2.61)
		TOTAL	27,732	77,037	0.36 (α2.78)
OVERALL RESULT	Before FFEP	2013	35524	80821	0.44 (α 2.28)
		2014	35638	86137	0.41(α 2.42)
		2015	36173	86203	0.42(α 2.38)
		TOTAL	107,335	253,161	0.42(α2.36)
	After FFEP	2017	40123	115594	0.35 (α 2.88)
		2018	41399	115942	0.36(α 2.80)
		2019	42284	119165	0.35(α 2.82)
		TOTAL	123,806	350,701	0.35(α2.83)

Source: Field data (2021)

From the descriptive table above it can be noted that before FFEP one student could assess atleast two books at any time in Kigamboni district, however, the situation did

not change significantly because after introduction of FFEP still one student could access two books at any time. In Temeke, Ilala, Kinondoni and Ubungo districts the situation before and after FFEP were the same in terms of student to book ratio; whereby one student had access to only one book at any time.

The general results of descriptive statistics noted that total number of students in all selected schools in the period before FFEP was 107,335 and total number in the period after FFEP was 123,806. Total number of the books was 253,161 in the period before FFEP and it was 350,701 after FFEP. The statistics continued that student-to-book ratio was 0.42 (which was reversed to 2.36) in the period before FFEP and 0.35 (which was reversed to 2.83) in the period after FFEP. With this statistics it was assumed before FFEP one student could have access to 2 books but in the period after FFEP one student could have access to 3 three books.

The researcher performed independent samples t-test to find out whether there was significant difference in the period before and after implementation of this program. The results have been given in the Table 4.2.

Table 4.2: Students to Book Ratio-T test

Variables	Period	N	Mean	Std. Dev	t	df	Sig
Students	Before	135	795.07	403.983	-2.686	268	.008
	After	135	917.08	339.626			
Books	Before	135	1875.27	1523.904	-3.049	268	.003
	After	135	2597.79	2292.887			
Student to Book ratio	Before	135	.8302	.62212	-.819	268	.414
	After	135	.8962	.69861			

Source: Field data (2020)

It was noted that there was significant difference between number of students before FFEP and after FFEP ($p = 0.008$), number of books before and number of books after

FFEP ($p= 0.003$). But the student-book ratio did not show significant different in the period before and period after introduction of FFEP ($p= 0.414$). This is because although number of books increased in the period after introduce this program but also number of students were also increased. Therefore, the study accepted the null hypothesis, which stated that pee free education program has no significant effect on student-book ratio.

After analysis of the study findings, the researcher discussed the results as follows. It was noted that before FFEP there was ration of shared books to students was 2:1 but after implementation of this program the same ratio became 3:1. This means that previous a student could have access to 2 books at any time but later after pass this program the situation was improved whereby one student became able to access 3 books at any time. Therefore, the study accepted that FFEP has some ability to improve education quality in terms of students/books ratio.

The study discussed that availability of books in schools make learning very easy. Books are among the key essential materials for both students and teachers in the process of acquiring new knowledge and in the skills delivering possess of teaching. Shortage of books results to poor learning process and thus absence of quality education to students; as a consequence, low quality future professionals are made.

A long time study conducted by Nghambi (2004) elaborated that poor supply of teaching and learning materials contributed 61.6% of the reasons for poor performance in form four final examinations in Urambo district, Tabora. Nghambi (ibid) reported that number of books available was uneven in public schools; whereby

8 to 9 students had to share one book in the class during learning durations. This was a challenge as all students couldn't have the access to look directly at the textbook and catch up with what was taught at that time in the class, this resulted to many students lack of understanding on the subject matter therefore failure in the exams.

A study conducted by Elibariki (2012) on the poor performance in the public secondary school, a case of Kinondoni district found out that although some schools had books, but they were not adequate compared to the needs of students and requirements and standards of ministry of education.

Makori and Onderi (2019) conducted study in Uganda and examined the teaching and learning resources related challenges facing rural secondary schools, which had been subjected to the free education program in order to increase delivery of education to the rural population. The study reported that the ratio of students to books before free education was 4-5:1 but after introducing free education program the ratio was 10-12:1. This means that 10 to 12 students had to share one book.

Tanzania like many other African countries has been striving for years to ensure provision of quality education to students in primary and secondary schools by providing them with essential gadgets, which are appropriate in achieving quality education such as textbooks and good learning environments. But the challenge of low budget in education sector had been disappointed distribution of learning materials (i.e. books) in the schools during the period of paid education program.

The research argued that most of the secondary schools in Tanzania had no proper libraries for the students to borrow and read books. Therefore, books are stored in the

academic masters/mistresses' officers or deputy head teachers' officers. This made condition unfavorable for the students to borrow books for self-reading. But the FFEP has associated with construction of special library rooms in the schools. By the time this study was conducted, some of the schools had completed construction of their libraries and some were still under construction.

After the declaration of FFEP, the government through ministry of education tried to make a step to sure that the ratio of students to books in not affected by increasing number of students. Hence several books had been purchased and disseminated in the schools so as to facilitate easy and comfortably learning and teaching environment. According to the survey done by Twaweza (2019) in Arusha region the ratio of shared books to students was reported to be 1:2 and 1:3. This means that 2 to 3 students share one book in the class. The Twaweza congratulated the government for achieving objective of providing enough books to the schools as required by the education standards. This has been made possible through proper utilization of the grants coming from World Bank and foreign educational institutions such as UNESCO with the aim of modernizing the education sector.

4.3 Students to Teacher Ratio

Next specific objective called for the examination of the effect of fee free education program on student-teacher ratio. The study used the same approach, which was used to attained results of the previous first objective. Descriptive statistics was used to summaries results of this objective as shown in the table 4.3.

Table 4.3: Students to Teacher Ratio-Descriptive Statistics

Period	Years	Students	Teachers	Students to Teacher Ratio
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KIGAMBONI	Before FFEP	2013	12,884	602	21.40
		2014	10,328	630	16.39
		2015	10,400	636	16.39
		TOTAL	33,612	1868	17.99
	After FFEP	2017	10,449	572	18.27
		2018	11,102	566	19.61
		2019	9,750	519	18.79
		TOTAL	31,301	1657	18.89
TEMEKE	Before FFEP	2013	6,268	223	28.11
		2014	6,592	247	26.69
		2015	6,856	296	23.16
		TOTAL	19,716	766	25.74
	After FFEP	2017	7,422	300	24.74
		2018	7,546	306	24.66
		2019	7,543	326	23.14
		TOTAL	22,511	932	24.15
ILALA	Before FFEP	2013	4,417	222	19.90
		2014	6,046	230	26.29
		2015	5,618	240	23.41
		TOTAL	16,081	692	23.24
	After FFEP	2017	6,682	285	23.45
		2018	6,938	295	23.52
		2019	6,874	204	11.38
		TOTAL	20,494	784	26.14
KINONDONI	Before FFEP	2013	5,214	234	22.28
		2014	5,691	255	22.32
		2015	5,940	270	22.00
		TOTAL	16,845	1184	22.19
	After FFEP	2017	7,017	282	24.88
		2018	7,065	288	24.53
		2019	7,686	294	26.14
		TOTAL	21,768	759	25.19
UBUNGO	Before FFEP	2013	6,741	288	23.41
		2014	6,981	282	24.76
		2015	7,359	282	26.10
		TOTAL	21,081	852	24.74
	After FFEP	2017	8,553	291	29.39
		2018	8,748	309	28.31
		2019	10,431	318	32.80
		TOTAL	27,732	918	30.21
OVERALL RESULT	Before FFEP	2013	35524	1569	22.64
		2014	35638	1644	21.68
		2015	36173	1724	20.98
		TOTAL	107,335	4937	21.74
	After FFEP	2017	40123	1730	23.19
		2018	41399	1764	23.47
		2019	42284	1766	23.94
		TOTAL	123,806	5260	23.54

Source: Field data (2020)

Ratio of student-to-teacher seemed to have slightly increased in all districts after introduction of FFEP except in Temeke. In Kigamboni it increased from 17.99 (before

FFEP) to 18.89 (after FFEP), in Temeke it slightly decreased from 25.74 to 24.15, Kinondoni increased from 22.19 to 25.19, Ilala increased from 23.24 to 26.14 and in Ubungu the ration increased from 24.74 to 30.21.

Generally, it can be seen that number of students had increased following introduction of FFEP, as already mentioned before. Total number of teachers had increased from 4937 (period before) to 5260 (period after). In average ratio of student-to- teacher was 21.74 in the period before FFEP and it was 23.54 in the period after this program. This means that before FFEP, in average, one teacher could look for 22 students but after introduce this program one teacher took charged of 24 students at any time. The increase ratio of student-to-teachers indicates worsening of the education quality. The independent sampled t-test was used to determine the observed increase student-teacher ratio was significant of not. Table 4.4 has the result of such t-test.

Table 4.4: Students to Teacher Ratio - T test

	Period	N	Mean	Std. Dev	t	df	Sig
Students	Before	135	795.07	403.983	-2.686	268	.008
	After	135	917.08	339.626			
Teachers	Before	135	36.57	28.653	-.798	268	.426
	After	135	38.96	19.827			
Students to Teacher ratio	Before	135	23.8822	5.98847	-.970	268	.333
	After	135	24.6661	7.22677			

Source: Field data (2020)

It was note that the observed increase number of teachers was not statistically significant ($p= 0.426$) neither increase of student-to-teachers ratio was significant ($p= 0.333$). Therefore the study failed to reject null hypothesis, which stated that fee free education program has no significant effect on student-teacher ratio.

The researcher narrated that education in developing countries, have been faced with the challenge of few teachers in public primary and secondary schools. There are many reported cases of two teachers attending the whole school especially on rural areas in countries like Central African Republic, Sudan, Botswana, Congo, Mozambique and many other African countries. Ghana experienced the same challenge when it implemented the policy of free senior high school education in 2017, where there was a huge increase of students in schools and it led to hindrances in provision of enough school infrastructures, teachers and learning materials, where the student to teacher ratio was said to be 70:1. The recommended ratio of students per teachers by 20 to 30 students per one teacher. The high number of students to teacher ratio is an indicator of scarcity of teachers that undermining plans to deliver quality education to learners.

Tanzania in particular, has faced the same challenge for ages, as there have be few teachers in public primary and secondary schools, compared to the number of students. Statistics show that, in average one teacher in public secondary school take care of more than 50 students at any moment. Salum (2013) conducted an investigative study about teacher-learners ratio in primary and secondary schools in Mvomero district of Morogoro region. The study noted that the ratio was 1:58 in primary schools and 1:48 in secondary schools. The study recommended that, the government should provide hardship allowances so as to attract more teachers to work in rural areas.

Mwinuka (2016) found that ratio of students-to-teachers in Moduli district (rural area) was 50:1 while in Arusha district (urban area) was 30:1. This shown that the students-

to-teacher ratio in schools found in rural areas is high compared to the teacher student ratio in schools found in urban areas. The study recommended the continuous training of teachers as well as the provision of incentives to motivate teachers so as to attract them in teaching and provision of quality education.

Educational activists and private institutions argued that, quality education for all can only be achieved if teachers are motivated by the government since they have a huge responsibility. Lack of motivation to teachers is said to reduce their efficiency and hardworking spirit, since they work under bad environment especially those teaching in rural areas where there are poor social services such as lack of electricity, poor housing, inadequate water supply and the alike.

In realizing the fact that education is the key to sustainable development, harmony and steadiness of a country; the government of Tanzania made step in ensure secondary education is acquired by many adolescents by proclaiming provision of free fee education in public lower secondary education. The program has faced a challenge of increase number of students in the schools with little employment of new teachers. It was said that student-teacher ratio was increase since the government had not employ significant number of teacher since 2015.

The researcher argued that investing resources to finance education sector does not only end on buying equipment and construction of classes; also involves recruitment of enough teacher so as to reach the goal of quality education, therefore the government should consider it.

4.4 Students to Class Ratio

The researcher analysed the effect of fee free education program on student-class ratio. Descriptive statistics and independent sampled t-test were applied in this section too. The results of descriptive analysis (table 4.5) shown that the ration of students to classroom decreased (from 71.82 to 63.11) in Kigambone in the post FFEP. This was due to the construction of more classrooms in this district. In Temeke district the ratio increased from 32.32 to 35.73, in Ilala it increased from 40.61 to 51.75, in Kinondoni it increased from 44.56 to 54.97, in Ubungo it increased from 47.8 to 58.51.

In general, total number of classes had increase from 2293 in period before FFEP to 2392 in period after FFEP. Coupled with the increase of number of students; the student-to-class ration increased from an average of 46.81 in the period before FFEP to an average of 51.76 in the period after FFEP. Hence, in average wise, there were 47 students per class before this program came in to action. After introducing the program number of students per class increased to 52. It is good to not that increase number of students per class is the sign of deterioration of quality of education.

The results of t-test have been presented in the table 4.6; where it shown that the observed increased students-to-class ration was insignificant ($p= 0.067$). This is because although there was significant increase number of students ($p= 0.008$) but there was insignificant increase number of classrooms ($p = 0.360$). Bearing in mind that significant decrease student-to-class ratio indicates improvement of quality of education; the study was unable to omit hypothesis, which stated that fee free education Program has no effect on students-class ratio.

Table 4.5: Students to Class Ratio-Descriptive Statistics

	Period	Years	Students	Classes	Students to Class Ratio
KIGAMBONI	Before FFEP	2013	12,884	156	82.59
		2014	10,328	156	66.21
		2015	10,400	156	66.67
		TOTAL	33,612	468	71.82
	After FFEP	2017	10,449	156	66.98
		2018	11,102	156	71.17
		2019	9,750	184	52.99
TOTAL		31,301	496	63.11	
TEMEKE	Before FFEP	2013	6,268	202	31.03
		2014	6,592	202	32.63
		2015	6,856	206	33.28
		TOTAL	19,716	610	32.32
	After FFEP	2017	7,422	206	36.03
		2018	7,546	212	35.59
		2019	7,543	212	35.58
TOTAL		22,511	630	35.73	
ILALA	Before FFEP	2013	4,417	132	33.46
		2014	6,046	132	45.80
		2015	5,618	132	42.56
		TOTAL	16,081	396	40.61
	After FFEP	2017	6,682	132	50.62
		2018	6,938	132	52.56
		2019	6,874	132	52.08
TOTAL		20,494	396	51.75	
KINONDONI	Before FFEP	2013	5,214	126	41.38
		2014	5,691	126	45.17
		2015	5,940	126	47.14
		TOTAL	16,845	378	44.56
	After FFEP	2017	7,017	123	57.05
		2018	7,065	135	52.33
		2019	7,686	138	55.70
TOTAL		21,768	396	54.97	
UBUNGO	Before FFEP	2013	6,741	150	44.94
		2014	6,981	150	46.54
		2015	7,359	141	52.19
		TOTAL	21,081	441	47.80
	After FFEP	2017	8,553	147	58.18
		2018	8,748	156	56.08
		2019	10,431	171	61.00
TOTAL		27,732	474	58.51	
OVERALL RESULT	Before FFEP	2013	35524	766	46.38
		2014	35638	766	46.52
		2015	36173	761	47.53
		TOTAL	107,335	2293	46.81
	After FFEP	2017	40123	764	52.52
		2018	41399	791	52.34
		2019	42284	837	50.52
TOTAL		123,806	2392	51.76	

Source: Field data (2020)

Table 4.6: Students to Class Ratio-T test

	Period	N	Mean	Std. Dev	t	df	Sig
Students	Before	135	795.07	403.983	-2.686	268	.008
	After	135	917.08	339.626			
Classes	Before	135	16.99	6.582	-.917	268	.360
	After	135	17.72	6.557			
Student to Class ratio	Before	135	51.6606	26.133	-1.840	268	.067
	After	135	57.4696	25.730			

Source: Field data (2020)

In ideal ratio of students to classes is 40:1 to 45:1. But the study noted that in all two periods (period before FFEP and period after FFEP) under review ratio of students to class was above recommended ratio. But the situation was worse in the period after introduction of this program. It was mentioned that condition of students to classes ratio is somehow better in Dar es Salaam and other big cities compare to the rest of country. It was argued that condition of classrooms in the up-counties in not attractive. Although number of students had been increased tremendously, the classrooms had not been built enough to accommodate all students. Schools experience a heavy burden as could not accommodate all the students after the abolition of school fees and other contributions from parents.

The report of human rights watch (2017) explained that abolition of school fees had left substantial gaps in the budgets of public schools in Tanzania. This is because schools were not able to fund basic needs they formerly compensated for with parents' contribution; including school construction of new classrooms and renovation of the old ones. In Western regions of Tanzania, it has been reported that one teacher is responsible for the class of 66 to 90 students. In some schools the classrooms are

crowded with over 100 students. The ratio which is uneven that challenge in the provision of quality education to the students (Borgen, 2018).

The report of Twaweza (2014) revealed that, although the student-class ratio was inappropriate in most of public schools in Tanzania, the rural areas faces the worse of this challenge rather than urban areas, where in rural areas there was excessive crowding in classrooms such that the teacher did not get a chance to pass through the class during class hours, something that caused unsuitable condition for teachers to provide quality education to students. But the condition is different in Dar es Salaam where ratio of students to classrooms has not been significantly affected by FFEF. It was mentioned by one of the responded teachers that in Kigamboni district community have been participating in classroom construction as one of the strategy for solving the issue of shortage of classrooms in the schools.

Mbalawa (2017) noted that in Ruangwa district of Lindi region there had been increase in the lack of school infrastructures as compared to the previous years where free education policy in secondary schools was not established, in some of the schools classes had 60 to 70 students, but after free education classes have been overcrowded by a large number of students of about 90 to 120, the situation that made other students to sit outside while the classes are continuing. The study recommends that, it is rarely impossible for the new program to flourish without facing challenges, thus the challenge of unavailability of classrooms to students should be taken as catalyst for the construction of more classrooms through government-community partnership.

This is the same case which has been a headache to Kenyan government since the government abolished school fee in day secondary school in 2018; whereby more

students joined secondary schools but unfortunately the growth is happening in already overloaded schools that don't have enough resources or facilities to meet the rising demand (Mashala, 2019). Renatus (2019) found out that, in all the day secondary schools that they visited in Kisumu and Kericho Counties, classes contained 70 to 100 students; the teachers maintained that they would prefer smaller classes if they were to choose but unfortunately it is impossible. They recommended construction of more classrooms in those day schools.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

In this chapter the researcher presented summary of the study that provide answers to the study questions. The chapter also carried conclusion of the study recommendation and area for the further studies.

5.2 Summary of the Study

The study investigated the effect of fee free education on education quality in Tanzania. The study had three specific questions, which were what is the effect of fee free education program on students-to-book ratio? What is the effect of fee free education program on students-to-teacher ratio? And what is the effect of fee free education program on students-to-class ratio? The study sampled 45 secondary school; nine schools from each of the five districts of Dar es Salaam. The study applied descriptive analysis and independent sampled t-test to reach to the conclusion on the study.

5.2.1 Students to Book Ratio

The study assessed students to book ration and found that before implementation of FFEP one student was able to access 2 books at any time at schools. However, situation slightly improved to the extent that one student was in the position to access 3 books at any time. But this increment was noted to be very small and nearly negligible; hence no significant changes in terms of increase ratio of students-to-book

ratio. Therefore, the study was unable to reject hypothesis, which stated that fee free education program has no brought significant effect on the student-to-book ratio.

5.2.2 Student to Teacher Ratio

The study examined students to teacher ratio and noted that in average the ratio was 22:1 before FFEP in the visited school. But the ratio increased to 24:1 after introduction of this program. This implied that before FFEP, one teacher could supervise 22 students at any time while after introducing this program one teacher had to supervise 24 students at any time in the visited schools. The ideal/recommended ration of students per teachers is 20 to 30 students per one teacher. The study held that this ratio was suitable both in the period before and after implementation of FFEP in the selected schools; hence there was no significant changes was brought by FFEP in the student-to-teacher ratio. The study did not reject hypothesis, which stated that fee free education program has brought no significant effect on student-teacher ratio.

5.2.3 Student to Class Ratio

Concerning students to class ratio, it was noted that in the visited schools there was an average of 47 students per classroom before FFEP and this ratio increased to 52 students per class after introduction of this program. Since an ideal number of students per class is 40 to 50, the study held that number of students per class was satisfactory in the visited schools before this program but it became somehow unfavorable after implementation of this program. However, it was revealed that the observed increase number of students per class was insignificant and the study did not reject hypothesis, which stated that fee free education program has brought no significant effect on students-class ratio.

5.3 Conclusion of the Study

The study concluded that the FFEP had not brought any significant impact in the quality of the education in the visited schools in Dar es Salaam. The ratios of students to book, students to classroom and students to teacher had insignificantly changed. Hence the program needed to be enhanced for the better education quality outcomes in the future.

5.4 Recommendations of the Study

The study recommended the following to be done in order to for the FFEP to be effective in improvement of education quality in the whole country.

- (i) The study recommended for the government to employ more teachers in order to ensure ratio of students to teacher is always satisfactory in the entire country. This means that the government should make sure number of teachers is always adequate to support the increase number of students in the schools following FFEP
- (ii) The government should continue to invest in the procurement of the adequate teaching and learning equipments; specifically books. This should be hand in hand with improvement of teachers' working and living conditions.
- (iii) In order to enhance better performance in this program, there is the need of the parents to join hands with the government in construction of classrooms whenever there is the need to do so. This will help to reduce the burden of financing education service to the government. More so, it will help to reduce chances of spreading air born diseases among the students.

5.5 Area of the Further Studies

The study recommended that related studies should be conducted in other places/regions apart from Dar es Salaam. However, there is the need of conduct study to assess challenges faced by teachers in this period of free fee education program.

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APPENDICES

Appendix I: Questionnaire to the selected schools

Dear Respondent; I am doing an academic research on the **Effect of Fee Free Education (which was Introduced in 2016) on Education Quality in Tanzania**. Kindly receive a copy of questionnaire with questions relating to this topic. Your assistance in completing this questionnaire would be greatly appreciated and the answers will be used only for academic purpose and not otherwise. The questionnaire is strictly confidential and respondent's names and identity will not be divulged.

This information is needed for the completion of my postgraduate course of Degree of Master of Arts in Monitoring and Evaluation of the Open University of Tanzania. When completed please handle to the undersigned. Completion of the questionnaire can take not more than 30 minutes. Your co-operation in completing this questionnaire is greatly appreciated. It is good if you will answer all questions but you have the right to choose which question to answer and which question not to answer. For more information you can communicate with my research supervisor Dr. Hamidu Shungu through 0653617196. Yours sincerely

Nuru Sadock Bankimeza (Researcher)

0717079287

Questionnaire No: _____; Date _____

SECTION A: Profile of respondents

1. Select type of your school

Government school (1)	Private school (2)

2. Select your position

Head of the school (1)	Depute head (2)	Academic master/mistress (3)

3. Select your gender

Male (1)	Female (2)

4. Select your age group.

Below 20 years (1)	20-29 years (2)	30-39 years (3)	40-49 years (4)	50 and above (5)

5. Select your highest academic qualification. Select only one

Sec/certificate (1)	Diploma (2)	Bachelor degree (3)	Masters degree (4)	PhD (5)

- Others (specify) _____

6. For how long have you been working in the field of education?

< 2 years (1)	2-5 years (2)	6-9 years (3)	10-13 years (4)	14-17 year (5)	>17 year (6)

SECTION B: Study questions

7. In your opinion have can you judge implementation of fee free education

Bad and punishable (1)	Bad but understandable (2)	Good but punishable (3)	Good and understandable (4)

8. What are the reasons for your above choice?

9. How would you rate the increase of number of students in your school after implementation of fee free education in government sector, (from 2016-present)?

Very low (1)	Low (2)	High (3)	Very high (4)

10. How would you rate the increase of number of teachers in your school after implementation of fee free education in government sector?

Very low (1)	Low (2)	High (3)	Very high (4)

11. How would you rate the increase of classrooms in your school after implementation of fee free education in government sector?

Very low (1)	Low (2)	High (3)	Very high (4)

12. How would you rate the increase of books in your school after implementation of fee free education in government sector?

Very low (1)	Low (2)	High (3)	Very high (4)

13. In order to model effect of fee free education in the quality of education in Tanzania; the study wants to know exactly total number of students in your school, total number of teachers, total number of classrooms and books. This should be from 2013 to 2019.

YEAR	Students (1)	Teachers (2)	Classrooms (3)	Books (4)
2013				
2014				
2015				
2016				
2017				
2018				
2019				
TOTAL				

14. However, the study want to know what can be a possible factors challenging efficiency of fee free education policy in Tanzania. You have been given some of the possible factors that can have negative impacts in education. Now, from your opinion show how you would agree whether the given factors have been weaken efficiency of fee free education policy.

S/N	Factors	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
1.	Shortage of educational facilities/learning materials				
2.	Insufficient qualified staff				
3.	Poor supervision of education system				
4.	Political interference				
5.	Unattractive salaries for teaching staff				
6.	Lack of motivational Packages for teaching Staff				
7.	Inadequate budget for education				
8.	Corruption in the education system				
9.	Lack of coordination between schools and community				
10.	Illiteracy of parents				
11.	Lack of career development programs for teaching staff				
12.	Absence of reliable teachers guide				
13.	Absence of action-based exams				

Thanks for your time and responses