

**EFFECT OF FACTORS INFLUENCING THE PRIMARY SCHOOLS
CLASSROOM RATIO ON ACADEMIC PERFORMANCE IN TANZANIA: A
CASE OF CHEMBA DISTRICT COUNCIL**

MATHIAS COSTER

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN
MONITORING AND EVALUATION (MAME)
DEPARTMENT OF ECONOMICS AND COMMUNITY ECONOMIC
DEVELOPMENT
OF THE OPEN UNIVERSITY OF TANZANIA**

2023

CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation titled; **“Effect of factors influencing the primary school’s classroom ratio on academic performance in Tanzania: A case of Chemba District Council”** in fulfilment of the requirements for the degree of Master of Monitoring and Evaluation (MAME).

.....

Dr. Timothy Lyanga
(Supervisor)

.....

Date

COPYRIGHT

No part of this dissertation may be reproduced, stored, in any retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or otherwise without prior written permission of the author or The Open University of Tanzania on that behalf.

DECLARATION

I, **Mathias Coster**, 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 fulfillment of the requirement for the Degree of Master of Monitoring and Evaluation (MAME).

.....

Signature

.....

Date

DEDICATION

This work is dedicated to my parents; Mr. Coster Joseph Massawe and Mrs. Eunice Christosia Koka who were passionate to see their beloved son attains Master Degree as the key of achievement.

ACKNOWLEDGMENT

With respect and humility I would like to thank God for His countless love, protection, guidance and ability to commence and complete this course successfully, without him, it could hardly be possible to complete this work.

Various people were involved in the success of this research; therefore I would like to acknowledge them for their contribution that made this research possible. Indeed, I give special thanks to my supervisor Dr. Timothy Lyanga for his support and guidance throughout the period of this study, his seriousness, ideas and action were totally stimulating. Similar appreciation goes to administration of the Open University of Tanzania for their assistance during the entire data collection period. Moreover; special thanks to the lectures that have been with me throughout the study program.

I would also like to give sincere thanks to the management of Chemba District Council to allow me to conduct this study. Deeply appreciation also goes to staffs that were involved and provided good responses where they were needed. Last but not least, I would like to thank my family for their tolerance due to my limited attention to their conversation.

ABSTRACT

The study intends to examine the factors influencing the primary schools' classroom ratio on academic performance in Chemba District, Tanzania. The study was guided by a theory of Academic Attainment from Walberg, whereby the theory postulates that the psychological characteristics of pupils and their instant psychological environments influence educational outcomes. A sample of 113 respondents were involved in this study and considered both qualitative and quantitative analysis, the cross-sectional survey design were used in this study. The findings proved that the enrolment of pupils, teacher workload, and classroom environment are factors that influence the primary classroom ratio and affect directly academic performance in Tanzania. The study concluded that overcrowded pupils lead to poor academic performance also if the teachers are overloaded, class management becomes poor and pupils' concentration in the class ends up being poor, also if the classroom environment is not favorable it leads to a lack of learning motivation to pupils and poor school attendance of pupils. Finally, the study recommends to the government that in order to improve academic performance in primary schools, the building of more classrooms in order to tackle the challenges of increasing pupils year to year is inevitable. Furthermore, the employment of more teachers in order to fill the burden of teacher workload at primary schools is very much needed and the government is recommended to build Monitoring and Evaluation team for assessment of the classroom environment in order to track changes immediately to take the necessary measure.

Keywords: *Classroom Ratio, Academic performance, Primary Schools, Classroom.*

TABLE OF CONTENTS

CERTIFICATION	ii
COPYRIGHT	iii
DECLARATION.....	iv
DEDICATION.....	v
ACKNOWLEDGMENT	vi
TABLE OF CONTENTS	viii
LIST OF TABLES	xii
LIST OF FIGURE	xiii
LIST OF ABBREVIATIONS AND ACRONYMS	xiv
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background Information of the Study	1
1.2 Statement of the problem	3
1.3 Objectives	4
1.3.1 General Objective	4
1.3.2 Specific Objectives	4
1.4 Research Questions.....	4
1.5 Significance of the Study	5
1.6 Scope of the study	5
1.7 Organization of the Study	5
CHAPTER TWO	7
LITERATURE REVIEW	7
2.1 Overview	7

2.2	Definition of Key Terms	7
2.2.1	Pupil Classroom Ratio	7
2.2.2	Academic Performance	7
2.2.3	Primary Education	7
2.2.4	Classroom	8
2.2.5	Teacher workload.....	8
2.3	Theoretical Literature Review	8
2.3.1	Walberg's Theory of Academic Achievement	8
2.3.2	Importance of Primary Classroom Ratio	9
2.3.3	Importance of Academic Performance	10
2.4	Empirical Literature Review	10
2.4.1	Studies in the World.....	10
2.4.2	Studies in Africa	14
2.2.3	Studies in Tanzania	17
2.5	Literature Gap	20
2.6	Conceptual Framework and Research Model	20
2.6.1	Description Measurements of the variables	21
	CHAPTER THREE	23
	RESEARCH METHODOLOGY	23
3.1	Overview	23
3.2	Research Design.....	23
3.3	Research Approach	23
3.4	Study Population	24
3.5	Sampling Design and Procedure	24

3.6	Sample Size.....	24
3.7	Area of the Study	25
3.8	Data Collection Methods	25
3.9	Data Analysis	25
3.10	Validity and Reliability.....	26
3.10.1	Validity	26
3.10.2	Reliability.....	26
3.11	Ethical Consideration.....	27
	CHAPTER FOUR.....	28
	DATA PRESENTATION, ANALYSIS AND DISCUSSION	28
4.1	Introduction.....	28
4.2	Demographic Data of Respondents.....	28
4.2.1	Gender of Respondents	28
4.1.2	Age of Respondent.....	29
4.1.3	Education Level of Respondents.....	30
4.1.3	Work Experience.....	30
4.3	Effect of High Enrolment of Pupils on Academic Performance in Chemba District	31
4.3.1	Shortage of Classes	32
4.3.2	Teachers Shortage	33
4.3.3	Shortage of Materials for Teaching and Learning	33
4.4	Influence of Teachers' Workload on Academic Performance.....	34
4.4.1	Poor Class Management	35
4.4.2	Poor Pupils' Concentration	36

4.5	Effect of Classroom Environment on Performance of the Pupils.....	36
4.5.1	Motivations to Pupils	37
4.5.2	Truancy	38
CHAPTER FIVE		40
CONCLUSION AND RECOMMENDATIONS		40
5.1	Introduction.....	40
5.2	Conclusion	40
5.2.1	The Effect of Enrolment of Pupils on Academic Performance	40
5.2.2	The Influence of Teacher’s Workload on Academic Performance.....	41
5.2.3	The Effect of Classroom Environment on Academic Performance.....	41
5.3	Recommendations.....	42
5.4	Limitation and Areas for Further Research.....	42
5.4.1	Limitation of the Study	42
5.4.2	Areas for Further Research	43
REFERENCES.....		44
APPENDICES		48

LIST OF TABLES

Table 2.1: Previous Studies of the Factors Influencing the Primary Schools’ Classroom ratio on Academic Performance on Global Level	13
Table 2.2: Factors Influencing the Primary Schools’ Classroom ratio on Academic Performance in Africa.....	16
Table 2.3: Factors Influencing the Primary Schools’ Classroom ratio on Academic Performance in Tanzania	19
Table 3.1: Sample Distribution	25
Table 4.2: Distribution of Respondents by Age.....	29
Table 4.3: Distribution of Respondent by Education Level	30
Table 4.4: Distribution of Respondent by Work Experience.....	31
Table 4.5: Shortage of Classes and Academic Performance	32
Table 4.6: Shortage of Teachers and Academic Performance	33
Table 4.7: Shortage of Teaching and Learning Materials and Academic Performance	34
Table 4.8 Teachers’ Workload and Poor Class Management.....	35
Table 4.9: Overcrowd Classroom and Pupils Concentration.....	36
Table 4.10: Pupils Motivation and Classroom Environment.....	37
Table 4.11: Truancy and Classroom Environment	38

LIST OF FIGURE

Figure2.1: Conceptual framework 21

LIST OF ABBREVIATIONS AND ACRONYMS

BEST	Basic Education Statistics
COBET	Complementary Basic Education
DC	District Council
EFA	Education for All
ESDP	Education Sector Development Program
ETP	Education and Training Policy
HoS	Head of School
MoEST	Ministry of Education Science and Technology
PEDP	Primary Education Development Program
PCR	Pupil Classroom Ratio
PTR	Pupil Teacher Ratio
PO-RALG	President's Office Regional Administration and Local Government
TIE	Tanzania Institute of Education
UPE	Universal Primary Education
SPSS	Statistical Package for Social Science

CHAPTER ONE

INTRODUCTION

1.1 Background Information of the Study

The vital feature in education is a academic performance of students (Rono, 2013). The topic that is extremely concerns students, parents, teachers, and authorities not only in our country but also in many other Latin American countries and continents is school performance (Lamas, 2015). The 2015 Education for All Global Monitoring Report shared the consensus that there was unfairness in education and the quality of learning at the primary level was still underprivileged, with millions of pupils leaving primary schools without basic skills (UNESCO, 2015).

Goal four in Sustainable Development Goals (SDG-4) by 2030 strives for improvement of the value of education can be measured by realized learning outcomes, especially in necessary skills, literacy, and numeracy. The quality of education is not only dependent on teachers as replicated in duty performance but also on other associates such as the number of pupils taught by one teacher in a class and the amount of work as measured in lessons taught by one teachers per week, which promotes school effectiveness and developments of learning outcomes. UNESCO (2014b) noted that teachers are a serious factor affecting the quality of education and are the key to improving student learning and successful performance. However, the enlargement of primary enrolment in many countries had led to many enduring shortages.

Globally, the culture that encourages and rewards effective teaching activities based on learning outcomes for students is the most active assessment in a teaching and

learning (Doherty, et al., 2002; Shapiro and Levine, 1999). In order to allow students to identify their own strengths and weaknesses and to recognize the types of information they need to report their learning limitations and misunderstandings Monitoring and Evaluation of student learning is inevitable (National Academy of Sciences [US], 2017). The key consideration to understanding if the school system brings good results and reviews on attractive student outcomes is through quality data (OECD, 2016).

In East Africa in particular, the performance in primary school levels of study has become worse as time goes on. Uwezo (2012) indicates that the academic performances in Kenya, Uganda and Tanzania in which 350,000 children in over 150,000 households have the ability to perform basic numeracy and literacy tasks after completing two years of primary education. This assessment shows that although children were enrolled in schools, they were found not to have acquired the core skills expected at their age and grade level (Uwezo, 2012).

In 2014, Education and Training Policy (ETP) in Tanzania was formulated in which UPE was re-emphasized, and now compulsory education start from standard one up to form four (Basic Education). The Government in 2016 abolished schools fees from primary education up to secondary education (form I-IV). These efforts resulted in a more impact of huge increase in enrolments with net enrolment ratios increasing remarkably to 95.3 percent in 2021 from 91.8 percent in 2015. (President's Office - Regional Administration and Local Government, 2021) while the enrolment increase year to year the performance side is not going well, according to the NECTA PLSE result for 2021 the performance is slightly decreasing from

82.7 percent in 2020 to 81.9 percent. This is particularly bad in the Dodoma Region whereby out of 773 schools its only 73 schools perform with excellent results equivalent to 9 percent (PLSE 2021). This study therefore wanted to examine the factor influencing the primary schools' academic performance in Chemba District, more specifically enrollment, teachers workload and classroom environment.

1.2 Statement of the problem

The Tanzania government effort to provide free primary education faces many challenges. The massive enrolments is observed after introduction of free primary education which deserves praises but of particular issue to be concerned is the quality of education that may be revealed in terms of performance (Waita, et al., 2016).

The performances of students become a problem as school population rises, which result into huge, class sizes. In the educational literature as an inspiration on student's feelings and achievement, on school budgets, quality and administration is underlying on the class size (Ajani & Akinyele, 2014). PLSE result for 2021 show that the overall performance is slightly decreased from 82.7 percent in 2020 to 82.3 percent. This is particularly bad in the Dodoma Region where by out of 773 schools its only 73 schools perform with excellent results equivalent to 9 percent.

The academic performance was mostly bad in Chemba DC whereby out of 49 primary schools with pupils sat for PLSE 2021, no schools with high performing results, and 9 schools have wicked performance equal to 18 percent (PLSE 2021).

The issue of academic performance challenges stimulated this study to be conducted in Chemba District.

1.3 Objectives

1.3.1 General Objective

The overall objective of the study was to assess the factors influencing the primary schools' classroom ratio on academic performance in Tanzania.

1.3.2 Specific Objectives

The specific objectives of the study were;

- i. To assess the effect of high enrolment of pupils on academic performance in Chemba District
- ii. To assess the influence of teachers' workload on academic performance in Chemba District
- iii. To examine the effect of classroom environment on academic performance in Chemba District

1.4 Research Questions

- i. How does the high enrolment of pupils affect academic performance in Chemba District?
- ii. How does the teacher's workload influence academic performance in Chemba District?
- iii. How does the classroom environment affect academic performance in Chemba District?

1.5 Significance of the Study

In a determination to improve academic performance in Tanzanian primary schools and create learning attractive to pupils, the study gives the following significance; Firstly, this study is essential in education institutions because it increases the appreciative of pupils' enrolment and its environment in schools therefore, it is significant to the education sector. Secondly, the significance of this study is on how to understand teacher's workload distribution as one of the factors, which nature the performance of pupils. The findings of the study are expected to be utmost to the teaching profession of the teachers who always suffer from huge workload.

Thirdly, precisely, the study is predictable to be used by the decision makers to understand the overall education system of Tanzania and being able to come up with the deep solution to educational challenges in Tanzania. Fourthly, policymakers will acquire the knowledge of the education situation in Tanzania; this will in turn result into very detailed policies on education curriculum and teaching strategies, especially on primary classroom ratio and its effects on the academic performances of primary pupils.

1.6 Scope of the study

Geographically, the study about the influence of factors influencing the primary school's classroom ratio on academic performance in Tanzania was carried out in Chemba District. Chemba District comprises of 26 wards and 105 primary schools, primary enrolment is 63,262 while the number of teachers is 788.

1.7 Organization of the Study

The study contained five chapters; chapter one covered the background of the

research which contained several information of the research problem, objective of the study and the research questions, significance of the study and limitation of the study. Chapter two included conceptual definitions, theoretical literature review, empirical literature reviews and conceptual frameworks.

Chapter three discussed, research design, and area of the study, sampling design and procedures, data sources, methods of data collection, data processing and analysis and validity and reliability testing and Ethical consideration. Chapter four was about the results from data analyzed, presentation of obtained results and discussion of the study findings. Conclusion and recommendations made on the basis of the research findings were discussed on chapter five.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

The chapter explained some literature that has already discussed by different writers and some theoretical literature review, as well as literature review from earlier studies.

2.2 Definition of Key Terms

2.2.1 Pupil Classroom Ratio

Pupil Classroom ratio definitely is the sum of pupils being taught by individual teachers in a course, classroom, or the average number of pupils being taught by teachers in a school or educational system. The term may also be the number of pupils participating in learning involvement (Ayeni, 2016). This should be the number of pupils taught in one class and one teacher according to situation of the particular district.

2.2.2 Academic Performance

Academic performance is the knowledge added which measured by marks by a teacher and/or educational goals set by students and teachers to be attained over a specific period (Narad and Abdullah (2016)), they added that these goals measured by using continuous assessment or examination results. According to researcher; academic performance is the gain in knowledge where by an individual earn when passing a formal education.

2.2.3 Primary Education

Primary Education is a seven-year education phase after Pre-Primary Education. It is

universal obligatory and free to all children aged seven years to thirteen years old (MoEST, 1995).

2.2.4 Classroom

This can be defined as place where the teacher, content and pupil meet face-to-face for teaching/learning purpose. Terry (2002) Classroom is building which used for sharing of knowledge between pupils and teachers.

2.2.5 Teacher workload

The sum of work that has to be done by a specific teacher is known as workload (The Guardian UK, 2016). Teachers' effectiveness and good utilization influenced by the workload allocated to them, as well as number of pupils' assigned to specific teacher. The allocated lessons, learner management, preparation and marking of pupils' work, as well as giving feedback to pupils are factors of the teacher's workload. The 194 is number of teaching days in an academic year (TIE 2016). According to TIE (2016), a maximum number of hours teacher shall work for is 40 per week (MoEST, 2020). Teacher workload is a very crucial factor in teaching and learning. This variable concerned with the human rights of teachers and observed by not overloading them during daily work at schools' activity.

2.3 Theoretical Literature Review

2.3.1 Walberg's Theory of Academic Achievement

One of the theories concerned with the academic achievement is Walberg's (1981) theory of educational efficiency. This theory postulates that psychological characteristics of a pupils and their instant psychological environments stimulus

educational outcomes (cognitive, behavioral, and attitudinal) (Reynolds & Walberg, 1992). Further, the nine key variables that influence educational outcomes of pupils' ability/prior achievement, age/developmental level, quantity of instruction, motivation, quality of instruction, classroom climate, home environment, exposure to mass media outside of school and peer group was recognized by Walberg (Walberg, Fraser & Welch, 1986).

The environments nurture the development of competencies, motivate people to involve in different activities, and reward people for their display of values and attitudes (Holland, 1997). Environment therefore encourages personal and professional self-perceptions, attitudes, interests, competencies, and values. This theory is substantial to the study because it supports the reader on understanding the environmental influence on pupils' academic performance.

2.3.2 Importance of Primary Classroom Ratio

The primary-classroom ratio is a simple dimension of the number of pupils enrolled in a school compared to how many available classrooms at schools. This is a very high-level method to evaluate educational systems to regulate congestion at classroom. Additionally, this used to get a general idea of the level of individual attention available to pupils, pupils appreciate longer term benefits the more years they use with reduced class sizes and a lower ratio of pupils to teachers and also the pupils-teacher ratio replicates the teacher's workload and how accessible they are to offer services and care to their pupils. Many pupils and teachers find that the lower the number, the better the educational development and learning process will be (Ayeni, 2016).

2.3.3 Importance of Academic Performance

The fruitful development of young people in society is gain through the academic performance. In order for the students to able to make the good conversion into adulthood and to attain, occupational and economic success is through the well performance while in school environment. Furthermore, intellectually good students have possibility of getting higher income, higher self-esteem and self-confidence, better employment paybacks, low levels of worry and unhappiness, and are less likely to involve in substance abuse (Abdullah, 2016).

2.3.4 Importance of Teacher's Workload

Fatigue in teachers can occur due to extreme workloads, a classroom environment that is not conducive and role conflicts. It categorized by physical and psychological conditions of fatigue and overtiredness, which can then interfere with work performance. Teachers' workload connected with active classroom teaching and learning. The academic performance of the school resolute by the amount of teachers' workload, Primary school teachers' workload is stimulating for effective classroom teaching and learning (MoEST, 2020).

2.4 Empirical Literature Review

2.4.1 Studies in the World

The issue that is totally concerns authorities, parents, teachers, parents, and students not only in our territory, but also in many other countries and the world at large is the school performance. This is according to study conducted in Peru (Lamas, 2015). Further, the study analyzed some variables that may affect the students' academic performance in order to respond to social concerns of poor academic performance.

The study used descriptive survey with sample of 6,035 pupils from 240 schools in Peru. The study revealed that, some pupils could fail school due to; school indifference, when tasks are performed only with constant inspiration, lack of interest in all related to school, and school opposition, when the pupils clearly shows discomfort and denial to school.

Over time, these three situations can cause the entrance of affective disorders in children because school becomes a powerful stressor that influences negatively their perception of social competence, self-esteem, and future expectations. Furthermore, Fuller (2019) found that academic achievement is a product subjective by many variables, factors and circumstances that should be addressed through empirical research, despite the complications in its design and methodological strategy.

The academic performance of public school children is always poor when compared to private schools. Socio-economic, psychosocial, school environment and home environment and student's own factors, affected their academic performance (Berliner, 2009). The quality of education in schools has gain the highest concern in almost all government throughout the world. Earlier, emphasis was being placed on safeguarding access to complete and free primary education for all the children.

However, with the remarkable growth in school enrolments throughout the world, priority given earlier to educational expansion and access is now being replaced by plans and policies that are calling for the quality of schooling. This concern has become universal in the developed as well as in the developing countries, in those that have achieved total access as well as in those still determined for access. In fact,

it has now been established that access and quality are not sequential elements, and a number of international organizations have envisaged the role of quality as being instrumental in improving access (UNESCO, 2015).

A notable progress in access to primary education in countries such as, Bangladesh, India and Mongol are making a benchmark, but still learning achievements continue to be a problem (UNESCO, 2015). A review of major research studies and achievement surveys in India found the primary school academic performance of pupils to be inadequately low. The percentage of pupils who attained mastery levels was found to be very small (Greaney, 2017). A various studies in Pakistan concluded that on the average, students do not achieve competency on more than half the curriculum in the 5th grade. Moreover, pupils performed better on rote learning skills than items requiring comprehension and problem solving skills (Fuller, 2019).

The issue of economic and social costs is the major determinant, which cause the effects of teacher extreme workload. In schools, heavy workload has a financial cost to the authorities with regard to substitute teachers. A small but growing volume of research on teachers' excessive workload indicates that this delinquent is particularly severe among primary school teachers in underdeveloped nations. Hence, the impact of teacher excessive workloads is actual (Greaney, 2017).

Table 2.1: Previous Studies of the Factors Influencing the Primary Schools' Classroom ratio on Academic Performance on Global Level

Author and Year	Study Objectives	Study Location	Sampling Method	Analytical Method	Sample size	Findings
Lamas (2015)	School Performance Review	Peru	Descriptive Survey	Qualitative analysis	6,035	some pupils could fail school due to; lack of interest in all related to school
Fuller, (2019)	How to raise children literacy?	Brazil	Simple Random Sampling and Purposive sampling	Qualitative and quantitative analysis	200	school becomes a powerful stressor that influences negatively the children self-esteem, perception of social capability and future opportunities
Berliner (2011)	Out of school factors and school success due to poverty.	Colorado	Descriptive Survey	Qualitative and quantitative analysis	300	School and home environment and student's own factors, affected their academic performance
UNESCO, (2015)	Education for all 2000-2015 : Achievements and Challenges	France	Simple Random Sampling	Qualitative analysis	800	Academic performance of primary school pupils to be inadequately low
Greaney, (2017)	Assessing basic learning skills	Bangladesh	Purposive sampling	Qualitative analysis	50	the impact of teacher extreme workloads is actual

Source: Compiled by the researcher from empirical literature reviews (2022).

2.4.2 Studies in Africa

The overcrowding of the class has great relation with the teacher morale and commitment during teaching and learning. This was observed during the study of teacher student ratio on classroom practices in schools in Wakiso District in Uganda. The study use cross sectional research design with a population of 672 pupils and sample of 150 teachers (Ankwasiize, 2018).

Hoop (2010) noted that education in most Sub-Saharan countries faces long-lasting shortages in physical and human resources. According to him rather than allocating the limited resources available for primary education uniformly across schools, many governments allocate a relatively large share of available resources to a select number of secondary schools irrespective of the enrollment. Similarly, findings by World Bank (2008) in a study on delivery of textbooks and physical resources in primary schools in sub-Saharan African countries discovered that urban schools have better textbook supplies and physical facilities than those in the rural areas.

In a study conducted in Makueni County in Kenya show that the high number of pupil-teacher ratio in the schools has significant effect on academic performance. The study used descriptive survey design. The sample for the study was 24 head teachers and 119 teachers. The study therefore concludes and recommends that in order to improve the performance there is need to escalation the number of teachers. The study also recommends that the government should act fast and increase the number of teachers to match the number of pupils in Kenyan primary schools in order to increase academic performance (Kikechi, *et al.*, 2012).

The study conducted in Ghana established that there is overcrowd in classes which leads to student-teacher ratio to stand much advanced than the recommended. The study concluded that lack of time to closely interact with their students in class leads to teachers missing crucial instructional practices like proper planning, giving individualized attention to weak pupils as well as adequate assessment and assessment evaluation (Hashim, 2015). The study recommends that more teachers should be employed to especially in sub-county schools where student teacher ratio is very high. School managers must regularly supervise teachers' work to ensure the curriculum is being implemented.

The emphasis placed on education by governments around the world, many countries, Kenya included have invested deeply on Free Primary Education While the investments in education have been relatively successful at expanding enrollments in education, for any given level of efficiency, increased enrollments require increased resources, in order to maintain quality. Increased pupil enrolment without improvement of available resource or adding more resources along with enrollment pretentious quality of education, as classes were overcrowded contributing to noisemaking, teachers overwhelmed, poor class control by work and sharing of textbooks amongst the pupils (Lezotte, 2010).

Table 2.2: Factors Influencing the Primary Schools' Classroom ratio on Academic Performance in Africa

Author and Year	Study Objectives	Study Location	Sampling Method	Analytical Method	Sample size	Findings
Ankwasiize, (2018)	Teacher student ratio on classroom practices	Uganda	Cross sectional research design	Qualitative and quantitative analysis	822	The overcrowding of the class has great relation with the teacher morale and commitment during teaching and learning
Hoop, (2010)	Selective Secondary Education and School Participation in Sub-Saharan Africa.	Malawi	Simple Random Sampling and Purposive sampling	Qualitative and quantitative analysis	150	Rural schools have poor access of teaching and learning materials than those in the urban areas
Kikechi et al., (2011)	The Influence of Free Primary Education on Kenya	Kenya	Descriptive survey design	Qualitative analysis	143	The government should rise the number of teachers to tie the number of pupils in in order to improve academic performance
Hashim, (2015)	Exploring the Linkages between Children's Independent Migration and Education: Evidence from Ghana	Ghana	Purposive and Simple Random Sampling	Qualitative analysis	170	Overcrowd in classes leads to student-teacher ratio to be much greater than the recommended
Lezotte, (2010)	What Effective Schools Do: Re-envisioning the Correlates	Kenya	Purposive sampling	Qualitative and Quantitative analysis	50	Increased pupil enrolment without improvement of available resource affected quality of learning

Source: Compiled by the researcher from empirical literature reviews (2022).

2.2.3 Studies in Tanzania

A study on factors distressing academic performance of ward secondary schools was found that, teacher-student ratio, Class size, Teaching - learning environments, Teaching and Learning materials, libraries and laboratories, community communication, and attendance in classes affect academic performance of ward secondary schools in Moshi district and Moshi municipality, Tanzania. Mixed methods research of interviews deployed by the study and questionnaire design to collect pertinent information from 60 schools of the Moshi District and Moshi Municipality. (Anangisye & Katabaro, 2013).

The learning environment and academic achievement of pupils in primary schools have strong positive correlation, this shown by Nswebe (2017) in the study of learning environment and academic performance by using participants selected from 40 primary schools in Dodoma Municipality. Data were collected through focus group discussions, observation checklist, interviews guidelines and documentary review (Aron, 2017). Factors that have been frequently associated with pupils learning and achievement include environmental and building characteristics of educational facilities. The missing of a substantial amount of school days for any reason hindered academic success of students. Therefore the issue of skipping may require added attention. Improving school environment and pupils' satisfaction with school may contribute to better attendance and grades (Berman, *et al.*, 2018).

Chuma (2012) asserts that, the academic achievement of the pupils affected by the quality of the physical classroom setting. Successful teaching learning process ensured effective by the physical facilities in classrooms. Absence of these facilities,

effective teaching learning process can't guarantee. Pupils tend to get more details from their teachers in well facilitated classrooms and therefore they perform in a good way. On the other hand, if classroom setting is not conducive, pupils feel uncomfortable in classroom then they tend to be giving divided or distracted attention to the lesson. Lyons (2011) opined that poor facilities in school have negative impact on the teachers' effectiveness as well as pupils' performance.

The class size effect during teaching and learning described in the research on the effect of class size on teaching and learning conducted at Kinondoni Municipal where concluded that the high-class size make teacher to use pupil centered approach during teaching, learning, and hindering the use of other key approach during learning (Michael, 2015). He uses largely qualitative approach with a sample of 66 respondents to arrive to its conclusion that pupil classroom ratio has an effect on teaching and learning.

Table 2.3: Factors Influencing the Primary Schools' Classroom ratio on Academic Performance in Tanzania

Author and Year	Study Objectives	Study Location	Sampling Method	Analytical Method	Sample size	Findings
Anangisyee, (2013)	The Development of Teacher Professional Identity	Dar es salaam	Simple Random Sampling	Qualitative and quantitative analysis	100	Teacher-student ratio, teaching - learning environments and materials, all affect academic performance
Aron, (2017)	Learning environment and academic achievement of pupils in Tanzania primary schools	Dodoma	Simple Random Sampling and Purposive sampling	Qualitative and quantitative analysis	400	There is strong positive correlation existed between the learning environment and academic achievement of pupils in primary schools.
Berman et al., (2011)	School environmental conditions and links to academic performance and absenteeism in urban, Tanzania schools	Tanzania	Descriptive survey design	Qualitative and quantitative analysis	350	Building characteristics of educational facilities and environmental are important factors that associated with pupils learning achievement
Chuma, (2012)	Challenges Affecting Teaching-Learning in Primary Schools	Dar es salaam	Purposive and Simple Random Sampling	Qualitative analysis	600	Academic achievement of the pupils is significantly affected by the quality of the physical classroom setting
Michael, (2015)	Effects of Increased Class Size on Teaching and Learning Methods in Public Primary Schools in Kinondoni Municipality	Kinondoni Municipal	Purposive sampling	Qualitative analysis	66	High-class size make teacher to use pupil centered approach during teaching, learning, and hindering the use of other approaches

Source: Compiled by the researcher from empirical literature reviews (2022).

2.5 Literature Gap

Previously, many studies published and unpublished, had been done on this topic focusing on factors affecting students' performance at Global, Africa and Tanzania; but they were not in detail and not specific to District level. Furthermore, Aron (2017) mentioned, "Further research should be done on primary schools in Tanzania and in other East African countries to give more insights on the nature of the relationship between the variables in the study".

This study varies from previous studies under aspects of school environment, research methods, population, sample, area of study, research type and study time. It is the aim of this study, therefore, to analyse the factors influencing the primary schools' classroom ratio on academic performance in Tanzania: a case of Chemba district council.

2.6 Conceptual Framework and Research Model

A conceptual framework acts as a map that guides a researcher organized in a means that makes them easy to communicate to others (Kothari, 2004). It represents the researcher's synthesis of the literature on how to explain a phenomenon and understanding of how the particular variables connected in the study. Based on the literature and the above discussion, the following conceptual framework had independent variables and dependent variables. Independent variable are factors influencing the primary schools' classroom ratio, dependent variable is academic performance.

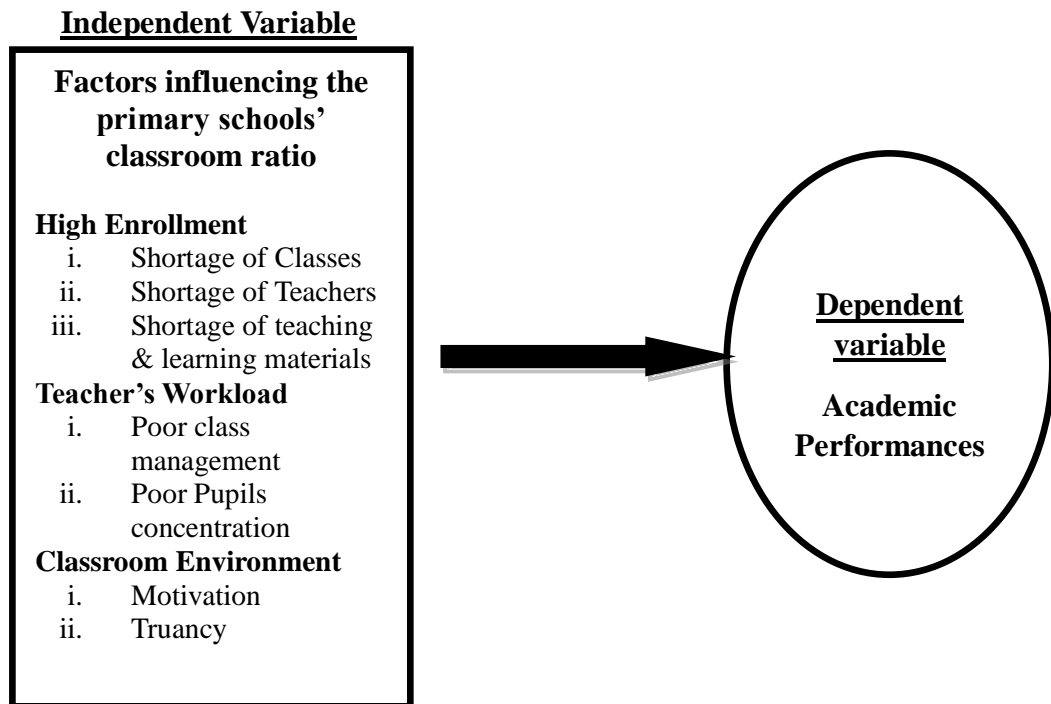


Figure2.1: Conceptual framework

2.6.1 Description Measurements of the variables

The theoretical framework was generally based on the key fundamental issues from the conceptual design, which stands as important approaches for the factors influence primary classroom ratio on academic performance. The independent variable pupil classroom ratio is greatly affect Academic performance. The associate factors of pupil classroom ratio firstly are teacher workload is the amount of work an individual teacher has to do. Teacher workload meant the amount of work that has to be done by a particular teacher (Mbunda, 2006).

In this study, the factors that add teachers' workload were examined. They include number of periods taught by one teacher per week, internal tests, making load and administrative roles. Secondly, the classroom environment includes class size, book and furniture ratios, instruction time, attendance in lessons, affects academic

performance. Thirdly, high enrolment of pupils which lead to a shortage of classroom, shortage of teachers and shortage of teaching and learning material which direct effect on academic performance. The other variable is dependent variable, which is academic performance. Academic performance is the increase in knowledge which assessed by marks by a teacher and/or educational goals set by students and teachers to be achieved over a precise period. These goals measured by using continuous assessment or examination results.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

This chapter presents a detailed description of the research methodology. It covers research design, research techniques, survey population, sample size, area of study, sampling design, and methods of data collection, data processing and analysis as well validity and reliability of the research tools. Research methodology is a science of studying how research was done scientifically (Kothari, 2019).

3.2 Research Design

Research design is the organization of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 2019). Also research design as a glue that holds all major parts of the research project work together to try to discourse the central research questions (Kombo and Tromp, 2006). This study employed cross sectional survey design as it involves thorough descriptive and complete analysis of primary schools found at Chemba District Council.

3.3 Research Approach

This study used mixed approach because the research questions required both quantitative and qualitative information to answer. For this reason, some of data was collected in qualitative and other in quantitative form. Qualitative methods help in gathering detailed explanation on the study. While quantitative methods help the researcher to collect data basing on statistical data or numbers. The aim of using mixed approach is to make qualitative and quantitative complement each other.

3.4 Study Population

The study was conducted at Chemba DC, which is in the Dodoma region with 26 wards. The populations which are included in the study are heads of schools, ward education officers and teachers. The main respondents of the study were primary school teachers, because were the one who provide an essential information for the study.

3.5 Sampling Design and Procedure

The study employed probability sampling to select teachers. A random sampling procedure was used, as it gave each respondent equal chance of being included in the study. Random sampling gives each item of the universe an equal chance of presence in the sample (Kothari, 2019). At the same time, non-probability technique (purposive) was used to select primary school Head Teachers and Ward Education Officers.

3.6 Sample Size

A sample is a smaller group of subject drained from the population in which a given study was conducted for a purpose of drawing conclusions about the population targeted (Kothari, 2019). The sample size calculated by using a rule of thumb of sample calculation, which states that a 10% of the population is usually decent maximum sample size, as long as this does not exceed 1000. For the large population minimum sample size 100 and for small population minimum sample size is 20 to 50 (Burmeister & Aitken, 2012). Therefore, the study included 10 head of schools 1 from each school, 100 teachers 10 from each school, 3 ward educational officers (WEOs). Hence, the study constituted a total number of 113 respondents.

Table 3.1: Sample Distribution

Type of respondent	Number of respondent expected	Sampling techniques
Teachers	100	Simple Random Sampling
WEOs	3	Purposive Sampling
Head Teachers	10	Purposive Sampling
TOTAL	113	

Source: Researcher Data, (2022).

3.7 Area of the Study

The study was done in Chemba District Council involving Ward Education Officers, Head of Schools and teachers in primary education. The selection of the study area is because of PLSE result in two consecutive years show the decline in performance. The academic performance was particularly bad in Chemba District Council whereby out of 49 primary schools with pupils sat for PLSE 2021 no schools with high performing results and 9 schools have bad performance equal to 18 percent. The study was therefore assessing the relationship between the primary classroom ratio and academic performance for primary schools.

3.8 Data Collection Methods

This study used two kinds of data namely, Primary data and Secondary data that was Qualitative and Quantitative. Data collected by using questionnaire and interview are primary data. Primary data collected from teachers, head teachers and DEO. Secondary data collected from NECTA, which is data from PLSE examination.

3.9 Data Analysis

The researcher to analyze quantitative data used SPSS (Statistical Package for Social Science); the data was filled in the SPSS format for statistical analysis to be done

accordingly. Then data presented in frequency tables. Qualitative data analysis involved a designed process to summarize fresh data into categories or themes based on valid inference and interpretation. This process uses inductive cognitive, by which themes and categories emerge from the data through the researcher's careful examination and constant comparison.

3.10 Validity and Reliability

3.10.1 Validity

Validity is the most serious criterion, which refers to the degree to which an instrument measures what it is supposed to measure (Kothari, 2004). In this study, a questionnaire pre-testing was employed to elucidate and purify the meaning of questions to be clearly understood. The researcher formulated a questionnaire that tailored to obtain relevant and accurate response from the population. The research instrument piloted with 10 respondents randomly selected from the target population. Based on their comments, changes made to the questionnaire to clarify wordings and increase readability. The pre-testing procedure was important to establish content validity.

3.10.2 Reliability

An assessing instrument is reliable if it provides consistent results (Kothari, 2004). In this study, the issue of reliability was ensured by use of different data collection methods such as review of secondary data and tools such as questionnaires and interview with appropriate sample size and techniques, which are in this case, are random and purposive sampling. To determine the reliability, the researcher used a test-retest method during the pilot survey. The coefficient of reliability was found to

be 0.825 which is sufficient considering the required threshold is 0.8; implying that the instrument was reliable.

3.11 Ethical Consideration

The researcher spots and followed research ethics, which required for this study; this where included looking for all research permits from responsible authorities. In addition, all respondents involved when they were willing to, there were no threats corruption or intimidations, which used to force them. On the matter of confidentiality, all data collected is anonymous, hence used for the purpose of this study only. Moreover, all respondents were given all-important information on this study before being involved in the study. The Open University of Tanzania (OUT) give research clearance and consent was also required from all parties who were involved in the study.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter present and discuss the research findings, analysis and interpretation based on the research objectives and questions as were given to selected sample size of the respondents on evaluating the factors influencing the primary schools' classroom ratio on academic performance in Tanzania. The data collected through the questionnaires, analyzed and presented in frequency tables and percentages using Statistical Package for Social Science.

4.2 Demographic Data of Respondents

The general information of respondents on gender, age, level of education and work experience; this information highlights the characteristics of the respondents.

4.2.1 Gender of Respondents

The respondents were given the questionnaires and they responded as shown in the Table 4.1 as indicates that 42 respondents, which constitutes (42 %), were male and 58 respondents which constitutes (58 %) were female teachers. The findings show that the dominant group of the respondents were females, and this is due to the nature of the study area which is Chemba district it has some difference in population whereby males are fewer than females. Therefore, though the dominant group of the respondents was females, the researcher considered both genders in data collection.

Table 4.1: Distribution of Respondents by Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	42	42.0	42.0	42.0
Valid	Female	58	58.0	58.0	100.0
	Total	100	100.0	100.0	

Source: Field Data, (2022).

4.1.2 Age of Respondent

The study sought to dig the age of the respondents as demographic information due to the needs of the study. The results are as follows 3 (3%) of the respondents had age group of 18 – 25 years, 20 (20%) of the respondents had an age group of 26 – 33 years, 43 (3%) of the respondents had an age group of 34 – 41 years and 34 (34%) of the respondents had an age group of 42 years and above. The findings show that the dominant group of the respondents had an age group from 34 – 41 years and above 42 years, findings indicate that in Chemba district the individuals who are involved in teaching activities are both youths and old generation.

Table 4.2: Distribution of Respondents by Age

		Frequency	Percent	Valid Percent	Cumulative Percent
	18-25	3	3.0	3.0	3.0
	26-33	20	20.0	20.0	23.0
Valid	34-41	43	43.0	43.0	66.0
	42+	34	34.0	34.0	100.0
	Total	100	100.0	100.0	

Source: Field Data, (2022).

4.1.3 Education Level of Respondents

The study sought to dig the education level of the respondents as demographic information due to the needs of the study, the table 4.3 underneath shows the distribution of respondents by education level;

Table 4.3: Distribution of Respondent by Education Level

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Certificate	23	23.0	23.0	23.0
Diploma	68	68.0	68.0	68.0
Degree	9	9.0	9.0	100.0
Total	100	100.0	100.0	

Source: Field Data, (2022).

Table 4.3 reveals that 23 (23.0%) of the respondent had certificate level of education, 68 (68.0%) had diploma level of education and 9 (9.0%) of respondents had a degree as education level. The results show that the dominant group of respondents had a diploma level of education, this imply that in primary schools many teachers who are found there has diploma education level.

4.1.3 Work Experience

The study sought to find out the work experience of the respondents as demographic information due to the needs of the study, the Table 4.4 indicates the circulation of respondents by work experience;

Table 4.4: Distribution of Respondent by Work Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
1-5	23	23.0	23.0	23.0
6-11	45	45.0	45.0	68.0
Valid 12-17	24	24.0	24.0	92.0
18+	8	8.0	8.0	100.0
Total	100	100.0	100.0	

Source: Field Data, (2022).

Table 4.4 reveals that 23 (23.0%) of the respondent had a work experience of 1 – 5 years, 45 (45.0%) of the teachers had an experience of 6 – 11 years, 24 (24.0%) of the respondents had an experience of 12 – 17 years, 8 (8.0%) of the respondents had experience of 18 years and above. The results show that the dominant group of respondents had an experience of 6 – 11 years; the findings imply that the respondents who participated in the study area have enough experience to provide the accurate information concerning the study.

4.3 Effect of High Enrolment of Pupils on Academic Performance in Chemba

District

As the first specific objective states, a researcher was needed to evaluate the effect of high enrollment of pupils' academic performance in Chemba district; the section has three subsections which are scarcity of classes, deficiency of teachers and scarcity of teaching.

4.3.1 Shortage of Classes

The government has been dividing schools that found of large numbers of pupils and registering new ones. The aim is to improve study environment for the children and ensure all children have access to better education, hence the researcher had to assess if the shortage of classes affects the academic performance, Table 4.5 discloses the results;

Table 4.5: Shortage of Classes and Academic Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	58	58.0	58.0	58.0
Strongly agree	23	23.0	23.0	81.0
Valid Disagree	17	17.0	17.0	98.0
Strongly disagree	2	2.0	2.0	100.0
Total	100	100.0	100.0	

Source: Field Data, (2022).

Table 4.5 reveals the results about the relationship between shortage of classes and academic performance, the findings reveals that 58 (58.0%) of the respondents agreed that shortage of classes affects the academic performance, 23 (23.0%) of the respondents strongly agreed, 17 (17.0%) of the teachers differed and 2 (2.0%) of the respondents strongly disagreed. Therefore, findings show that the dominant group of respondents agreed, this imply there is some relationship between shortage of classes and pupils' academic performance in Chemba district.

4.3.2 Teachers Shortage

A teacher shortage seems to be to some extent affects the pupils' academic performance, with the regards of the study the researcher had to assess if the shortage of teachers affects the academic performance, Table 4.6 reveals the results;

Table 4.6: Shortage of Teachers and Academic Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	23	23.0	23.0
	Strongly agree	74	74.0	97.0
	Disagree	3	3.0	100.0
	Total	100	100.0	100.0

Source: Field Data, (2022).

Table 4.6 reveals the results about the relationship between shortage of teachers and academic performance, the findings discloses that 23 (23.0%) of the respondents agreed that shortage of teachers affects the academic performance, 74 (74.0%) of the respondents strongly agreed and 3 (3.0%) of the respondents disagreed. Therefore, dominant group of respondents strongly agreed that shortage of teachers affects academic performance pupils', this imply that the high enrollment of pupils in schools should go along with enrollment of teachers in order to balance teacher to pupils' ratio.

4.3.3 Shortage of Materials for Teaching and Learning

Shortage of materials for teaching and learning in one way or another might affect the pupils' academic performance, with the regards of the study the researcher needed to assess if the shortage of teaching and learning materials affects the

academic performance, Table 4.7 reveals the results;

Table 4.7: Shortage of Teaching and Learning Materials and Academic Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	51	51.0	51.0	51.0
Strongly agree	38	38.0	38.0	89.0
Disagree	11	11.0	11.0	100.0
Total	100	100.0	100.0	

Source: Field Data, (2022).

Table 4.7 reveals that, 51 (51.0%) of respondents agreed that shortage of teaching and learning material affects the academic performance, 38 (38.0%) of the respondents agreed, 11 (11.0%) of the respondents disagreed. From the findings shows that large number of respondents agreed that there is a deep relationship between teaching and learning materials and academic performance, therefore the schools with high enrollment rate should be provided with teaching and learning materials to influence effective teaching and learning process.

4.4 Influence of Teachers' Workload on Academic Performance

As the second specific objective states, a researcher was needed to assess the influence of teacher's workload on academic performance in Chemba district; the section has two subsections which are poor class management and pupil's concentration in the class.

4.4.1 Poor Class Management

In a poor managed classroom, it is very difficult for Children to concentrate to learn with serious subjects. In short, poor classroom management prevent from developing properly children's social, emotional development, as the requirement of the study. They acquire that hard work and self-discipline is not enough to make sure learning take place. A researcher needed to determine if the teachers' workload affects the class management, Table 4.8 reveals the results;

Table 4.8 Teachers' Workload and Poor Class Management

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	57	57.0	57.0	57.0
Strongly agree	23	23.0	23.0	80.0
Disagree	20	20.0	20.0	100.0
Total	100	100.0	100.0	

Source: Field Data, (2022).

Table 4.8 discloses that, 57 (57.0%) of respondents agreed that teacher's workloads lead to poor class management, 23 (23.0%) of the respondents strongly agreed, 20 (20.0%) of the respondents disagreed. From the findings, the dominant group of respondents agreed that teachers' workload lead to poor class management which at the end contributes to poor academic performance. Similarly, the study conducted by (Adika, 2019) revealed that the influence of teacher's workload on academic performance was significant ($r = .523$, $N = 154$, $p < 0.01$) and that for every one unit increase in teacher workload, there was a decrease in pupils academic achievement

as signified by the coefficient (- .558). The study concluded that it is important to reduce workload with tighter control in monitoring the attendance of teachers in the classroom.

4.4.2 Poor Pupils' Concentration

The increased number of pupils leads to a greater likelihood of disruptive behavior and conflicts among pupils, especially with fewer resources to accommodate the extra pupils, thus the researcher needed to determine if the overcrowd classroom leads to poor pupils' concentration, Table 4.9 shows the findings;

Table 4.9: Overcrowd Classroom and Pupils Concentration

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12	12.0	12.0	12.0
Agree	65	65.0	65.0	77.0
Strongly agree	23	23.0	23.0	100.0
Disagree	100	100.0	100.0	
Total				

Source: Field Data, (2022).

Table 4.9 reveals that, 12 (12.0%) of respondents agreed that overcrowd class lead to poor pupils' concentration, 65 (65.0%) of the teachers strongly agreed and 23 (23.0%) of the respondents disagreed. Therefore, from the findings we have to admit that overcrowd classroom contribute to poor pupils' concentration in the classroom.

4.5 Effect of Classroom Environment on Performance of the Pupils

As the third specific objective states, a researcher was needed to examine the effect of classroom environment on academic performance in Chemba district; the section

has two subsections, which are motivations to pupils and truancy.

4.5.1 Motivations to Pupils

Pupils are likely to learn better, when they observe their classroom environment positively. Generating an academic environment that nurtures a sense of belonging, perception of competence, and offers pupils autonomy, consequences in increased motivation to learn, thus the researcher needed to determine if there is a relationship between class environment and motivation to pupils, table 4.10 reveals the results;

Table 4.10: Pupils Motivation and Classroom Environment

		Frequency	Percent	Valid Percent	Cumulative Percent
	Agree	55	55.0	55.0	55.0
	Strongly agree	18	18.0	18.0	73.0
Valid	Disagree	20	20.0	20.0	93.0
	Strongly disagree	7	7.0	7.0	100.0
	Total	100	100.0	100.0	

Source: Field Data, (2022).

Table 4.10 reveals that, 55 (55.0%) of respondents agreed poor classroom environment lead to poor pupils' motivation, 18 (18.0%) of the respondent strongly agreed, 20 (20.0%) of the teachers disagreed and 7 (7.0%) of the respondents strongly disagreed. The findings show that the dominant group of the respondents agreed that poor classroom environment contributes to low pupils' motivation, this imply that in order to make the pupils motivated the classroom environment must be well organized and convincing. This is supported by the study conducted by (Lyllian Esikuri, 2012) found a generally good level of classroom management good for the

primary teachers, which assumed responsibility in managing the classroom. There was a noticeable fair performance fair for the teachers submitting pupils' reports.

Furthermore, (Comfort, 2015) showed that there was a significant relationship between classroom environment and the academic performance of senior secondary school students. (Kitonyi Ngina,2013) findings concluded that the major factors hindering pupils' performance were lack of teaching and learning resources, lack of adequate physical facilities, and very high Teacher to Pupil ratio (PTR).

4.5.2 Truancy

Sometimes the classroom environment are the ones that contributes to high truancy of pupils, with regards of the study, a researcher needed to examine if there is a relationship between truancy of pupils and classroom environment, Table 4.11 reveals the results;

Table 4.11: Truancy and Classroom Environment

		Frequency	Percent	Valid Percent	Cumulative Percent
	Agree	17	17.0	17.0	17.0
	Strongly agree	6	6.0	6.0	23.0
Valid	Disagree	43	43.0	43.0	66.0
	Strongly disagree	34	34.0	34.0	100.0
	Total	100	100.0	100.0	

Source: Field Data, (2022).

Table 4.11 reveals that, 17 (17.0%) of respondents agreed that poor classroom environment stir up the pupils' truancy, 6 (6.0%) of respondents strongly agreed, 43 (43.0%) of teachers disagreed and 34 (34.0%) of teachers strongly disagreed. Findings show that dominant group of respondents disagreed, this imply that there is no direct relationship between classroom environment and pupils' truancy.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is about of what has studied to meet the researcher's objectives. It gives the conclusion and has some recommendations and finally recommendations for further research.

5.2 Conclusion

It is the researcher's conclusion based on the study conducted at Chemba District Council and the general objective was to evaluate factors influencing the primary school's classroom ratio on academic performance in Tanzania. A sample of 113 respondents involved in this study and considered both qualitative and quantitative analysis, the cross-sectional survey design used for this study. The results of the study proved that the enrolment of pupils, teacher workload, and classroom environment are factors that influence the primary classroom ratio and affect directly academic performance in Tanzania.

5.2.1 The Effect of Enrolment of Pupils on Academic Performance

The first objective of the study was to assess the effect of enrolment of pupils on academic performance. Findings of the study on enrolment of pupils indicated that most of the schools are overcrowded with pupils, because one school has more than 360 pupils, which is the average of pupil per school according to Ministry of Education guideline. This overcrowded of pupils lead to poor academic performance because the pupils overwhelm schools' infrastructure, which at the end leads to scarcity of classrooms, scarcity of teachers and scarcity of teaching and learning

material.

5.2.2 The Influence of Teacher's Workload on Academic Performance

The second specific objective of the study aimed to assess influence of teacher's workload on academic performance. It was found that teachers at Chemba District council are overloaded with pupils and periods taught per weeks. This is justified by ratio of teacher to pupil, which was higher than the recommended in every primary school, and the finding also indicated teachers teach over 30 periods per week contrary to guideline which indicate the maximum period per week is 30 per teacher. Further, the findings reflected that there was great relationship between teacher to pupil's ratio and pupil to classroom ratio. This means that, if the teachers are overloaded, the efficiency of teaching and learning will be inefficient, class management will be poor and pupils' concentration in the class will be low.

5.2.3 The Effect of Classroom Environment on Academic Performance

The third specific objective of the study aimed to assess the classroom environment on academic performance. The study revealed that there was existence of overcrowded classroom at Chemba District Council; this directs that the classroom environment was not conducive for teaching and learning process. Meanwhile the findings indicated that there was existence of classroom with no door and window. This is indicated by the response of head teacher commented that "Madarasa yanatakiwa kuwa na Milango na madirisha kwa ajili ya kujikinga na baridi wakati wa asubuhi". This statement indicated the classroom is not favorable for the good teaching and learning, which lead to lack of learning motivation to pupils and poor school attendance of pupils (truancy).

5.3 Recommendations

This segment put down the recommendations, which might act as catalysts for facilitating the improvement the academic performance in Tanzania. Firstly, Government should continue to employ more teachers in order to fill the burden of teacher workload at primary schools. This implies that academic performance depends on it. Secondly, it is recommended that the Central Government and Local Government authority continue to build more classrooms in order to tackle the challenges of increasing pupils a year to year.

Thirdly, its important is to continue to make finishing/rehabilitation of classrooms in order to improve classroom environment. Fourthly, recommendation is for Government to continue to buy textbooks in order to reach a ratio of one book per pupil. This will foster teaching and learning and improve good environment at classroom. Fifthly, Local Government to build a Monitoring and Evaluation team for assessment of classroom environment in order to track changes immediate to take necessary measure. Like classroom with no door and windows.

5.4. Limitation and Areas for Further Research

5.4.1. Limitation of the Study

One of the biggest limitations a researcher faced was that some respondents were not willing to participate in the study and others to not provide the accurate data, to solve this challenge the researcher made the respondents comfortable by introducing him/herself and then explained the purpose of the study to the respondents. Furthermore, another limitation was the financial constraints since the study needed enough finance to conduct but the researcher had limited finance.

5.4.2. Areas for Further Research

From the findings of this research which focused factors influencing primary schools classroom ratio on academic performance in Tanzania, specifically in Chemba district. Whereby, the findings revealed that there are relationship between classroom ratio and academic performance to large extent. Although the study has brought some conclusions but same kind of study should be conducted by increasing sample size in order to come up with more answers. Furthermore, should be conducted by using other methods, also further studies should be conducted based on the “Impact of students distance from home and school attendance” and “The influence of provision of food in primary schools on academic performance”. Hence, the education sector and the community as whole will understand more about how the pupils’ academic performance affected by various factors.

Due to resources constraints, to conduct a widespread study on the problem in a bigger area it was not easy for the researcher. Therefore, it is recommended that similar study should be conducted in large areas such Dar es Salaam and including as many populations as possible to see if, the same study generates similar outcomes.

REFERENCES

- Ajani, I. R. & Akinyele, O. B. (2014). Effects of Student-Teacher Ratio on Academic Achievement of Selected Secondary School Students in Port Harcourt Metropolis, Nigeria. *Journal of Education and Practice*, 5(24), 100–107.
- Anangisyse, W. A. L., & Katabaro, J. K. (2013). The Development of Teacher Professional Identity at the University of Dar es Salaam : Perceptions and Influencing Factors. *Journal of International Cooperation in Education*, 15, 15(3), 187–204.
- Ankwasiize, E. (2018). Teacher-Student Ratio on Classroom Practices in Universal Secondary Schools in Wakiso District-Uganda Teacher-Student Ratio on Classroom Practices in Universal Secondary Schools in Wakiso District-Uganda. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, 9(4), 167–177.
- Aron, D. (2017). *Learning environment and academic achievement of pupils in Tanzania primary schools : difference , dominance and deficits*.
- Berliner DC. (2009). Poverty and potential: out of school factors and school success. Colorado: National Education Policy Center, University of Colorado.
- Berman, J.D. & McCormack, Meredith & Koehler, Kirsten & Connolly, Faith & Clemons-Erby, Dorothy & Davis, Meghan & Gummerson, C. & Leaf, P.J. & Jones, T.D. & Curriero, F.C.. (2018). School environmental conditions and links to academic performance and absenteeism in urban, mid-Atlantic public schools. *International Journal of Hygiene and Environmental Health*.

- Burmeister, E., & Aitken, L. M. (2012). Sample size: How many is enough? *Australian Critical Care*, 25(4), 271–274.
- Chuma, P. C. (2012). *Challenges Affecting Teaching-Learning in Primary Schools in Kenya*. A case study of Central Division Mandera East District Executive Med Project, Moi University.
- Emmanuel, K. (2015). Effects of large class size on effective teaching and learning process in public primary schools in Tanzania: a case of Shinyanga municipality. *Khatulistiwa Informatika*, 3(2), 124–133.
- Fredrik, E. (2009). Education for all in Tanzania – A case study of the MDG footprint in Babati. Sodertom University School of Life Sciences Bachelor's Thesis 15 ECTS.
- Fuller, B. (2019). How to raise children's literacy? The influence of family, teacher, and classroom in Northeast Brazil. *Comparative Education Review*
- Greaney, V., Khandker, S., & Alam, M. (2017). *Assessing basic learning skills*. Dhaka, Bangladesh: The University Press Limited University Amsterdam.
- Gwambombo, I. (2013). *The Effect of Teachers Workload on Student Academic Performance in Community Secondary Schools*. 1, 81–109.
- Hashim, I. (2015). Exploring the Linkages between Children's Independent Migration and Education: Evidence from Ghana. Working Paper T-12, Brighton: Sussex Centre for Migration Research.
- Hoop, J. (2010). Selective Secondary Education and School Participation in Sub-Saharan Africa. Evidence from Malawi. Tinbergen Institute Discussion Paper, No. 10-041/2.
- Kikechi, R. W., Kisebe, C. S. M., Gitahi, K. & Sindabi, O. (2012). the Influence of

- Free Primary Education on Kenya Certificate of Primary Education Performance in Kenya. *Problems of Education in the 21st Century*, 39(1), 71–81.
- Kombo, K. D. & Tromp, L. A. D. (2006). *Proposal and Thesis Writing: An Introduction*. Nairobi: Paulines Publishers.
- Kothari, C. (2019). *Research Methodology*, 4th Ed., New Delhi: New Age International Publishers.
- Lamas, H. (2015). School Performance Review. *Journal of Educational Psychology*, 3(1), 35.
- Lezotte, L. W. (2010). *What Effective Schools Do: Re-envisioning the Correlates*. Indianapolis, IN: Solution Tree.
- Lyons, J. B. (2011). Do School Facilities Really Impact a Child's Education? Issue Trak: A CEFPI Brief on Educational Facility Issues.
- Michael, T. (2015). Effects of Increased Class Size on Teaching and Learning Methods in Public Primary Schools in Kinondoni Municipality. *Khatulistiwa Informatika*, 3(2), 124–133.
- MoEST, (1995). *Education and Training Policy*, URT.
- MoEST, (2020). *The United Republic of Tanzania Ministry of Education , Science and Technology Guidelines for Teachers Deployment in Pre-Primary and Primary Schools*, URT.
- OECD, (2016). *Education at a glance 2016: Korea*. December, 1–7. OECD
- URT, (2021). *Pre-Primary, Primary, Secondary, Adult and Non-Formal Education Statistics, Regional Data*. URT.
- Rono, R. (2013). Factors affecting pupils' performance in public primary schools at

Kenya certificate of primary education examination (KCPE) In Emgwen Division, Nandi District, Kenya. Unpublished master dissertation, University of Nairobi, Kenya.

Rose, A. B. & Sika, J. O. (2019). Determining Influence Of Teacher's Workload On Academic Performance In Secondary Schools, Suba Sub-County Kenya. *Advances in Social Sciences Research Journal*, 6(3), 287–295.

UNESCO, (2015). Education for all 2000-2015 : Achievements and Challenges . EFA Global Monitoring Report 2015. Paris, France. Publication by the United Nations Educational Scientific and Cultural, 328–330.

UWEZO, (2012). Uwezo report 2012, SCHULBANK.

Waita, K. J., Mulei, K. O. & Kalai, J. (2016). Pupil-Teacher Ratio and Its Impact on Academic Performance in Public Primary Schools in Central. *European Journal of Education Studies*, 1(3), 37–68.

Reynolds, A. R. & Walberg, H. J. (1992). A process model of mathematics achievement and attitude. *Journal of Research in Mathematics*, 23(4), 306-28.

Walberg, H. J., Fraser, B. J. & Welch, W. W. (1986). A test of a model of educational productivity among senior high school students. *Journal of Educational Research*, 79(3), 133–139.

APPENDICES

APPENDIX I : QUESTIONNAIRE FOR TEACHERS

Hello. My name is **Mathias Coster**, a master's student at the Open University of Tanzania. I am collecting data for my dissertation titled: “**Factors influencing the primary schools’ classroom ratio on academic performance in Tanzania: A case of Chemba district council**”. Information I collect will help in the preparation of my dissertation work. Questions usually take less than 20 minutes. All the answers you give will be confidential and not shared with anyone other than being used for writing the intended report. Hopeful you will agree to answer the questions since your views are important. In case you need more clarifications, please don’t hesitate to let me know.

PART A: PERSONAL PARTICULARS

Sex of respondent	Male	Female

Age of respondent (in year)	18 - 25	26 – 33	34 - 41	.>=42

Level of education	Primary	Secondary	University/Collage

Work Experience (Years)	1 - 5	6 - 11	12 - 17	18 and above

PART B: EFFECT OF HIGH ENROLMENT OF PUPILS ON ACADEMIC PERFORMANCE IN CHEMBA DISTRICT

Please put a tick (√) in the correct answer.

Statement	Agree	Extremel y Agree	Disagre e	Extremely Disagree
Does high pupils' enrollment influence shortage of classes?				
Does high pupils' enrollment influence shortage of teachers?				
Does high pupils' enrollment leads to shortage of teaching and learning materials?				

PART C: INFLUENCE OF TEACHERS' WORKLOAD ON ACADEMIC PERFORMANCE IN CHEMBA DISTRICT

Please put a tick (√) in the correct answer.

Statement	Agree	Extremely Agree	Disagree	Extremel y Disagree
Does teacher's workload influence poor class management?				
Does teacher's workload influence poor pupils' concentration in the class?				

PART D: CLASSROOM ENVIRONMENT ON ACADEMIC PERFORMANCE IN CHEMBA DISTRICT

Please put a tick (√) in the correct answer.

Statement	Agree	Extremely Agree	Disagree	Extremely Disagree
Does classroom environment influences motivation to pupils?				
Does classroom environment influences truancy to pupils?				

THANK YOU FOR YOUR COOPERATION

**APPENDIX II: INTERVIEW QUESTIONS FOR HEAD TEACHERS AND
WEO**

Hello. My name is **Mathias Coster**, a master's student at the Open University of Tanzania. I am collecting data for my dissertation titled: “**Factors influencing the primary schools’ classroom ratio on academic performance in Tanzania: A case of Chemba district council**”. Information I collect will help in the preparation of my dissertation work. Questions usually take less than 20 minutes. All the answers you give will be confidential and not shared with anyone other than being used for writing the intended report. Hopeful you will agree to answer the questions since your views are important. In case you need more clarifications, please don’t hesitate to let me know.

Questions

1. Does high pupils’ enrollment influence shortage of classes in Chemba

District?

If Yes. How?

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

2. Does high pupils’ enrollment influence shortage of teachers in Chemba

District?

If Yes. How?

.....
.....

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

3. Does high pupils' enrollment lead to shortage of teaching and learning materials in Chemba District

If Yes. How?

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

4. Does teacher's workload influence poor class management in Chemba District?

If Yes. How?

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

5. Does teacher's workload influence poor pupils' concentration in the class in Chemba District ?

If Yes. How?

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

6. Does classroom environment influences motivation to pupils in Chemba

District?

If Yes. How?

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

7. Does classroom environment influences truancy to pupils in Chemba

District?

If Yes. How?

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

THANK YOU FOR YOUR COOPERATION

Appendix : Clearance Letter

THE OPEN UNIVERSITY OF TANZANIA
DIRECTORATE OF POSTGRADUATE STUDIES

P.O. Box 23409
Dar es Salaam, Tanzania
<http://www.out.ac.tz>



Tel: 255-22-2668992/2668445
ext.2101
Fax: 255-22-2668759
E-mail: dpgs@out.ac.tz

Our Ref: PG202001124

15th September 2022

District Executive Director (DED),
Chemba District Council,
P.O.Box 830,
DODOMA.


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 of Tanzania 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.COSTER, Mathias, Reg No: PG202001124** pursuing **Master of Arts in Monitoring and Evaluation (MAME)**. We here by grant this clearance to conduct a research titled **"Factors Influencing the Primary Schools Classroom Ratio on Academic Performance in Tanzania: A Case of Ratio on Academic Performance in Tanzania: A Case of Chemba District Council"**. He will collect his data at your Area from 16th September 2022 to 16th October 2022.

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,
THE OPEN UNIVERSITY OF TANZANIA


Prof. Magreth S. Bushesha
DIRECTOR OF POSTGRADUATE STUDIES.

JAMHURI YA MUUNGANO WA TANZANIA
OFISI YA RAIS
TAWALA ZA MIKOA NA SERIKALI ZA MITAA

Mkoa wa Dodoma
Anuwani: REGCOM
SIMU:2324343/2324384
Barua pepe ras@dodoma.go.tz
Nukushi : 255 026 2320046



Ofisi ya Mkuu wa Mkoa,
Jengo la Mkapa,
2 Barabara ya Hospitali
S.L.P 914,
41103 Dodoma.

Unapojibu tafadhali taja:
Kumb.Na.DB.467/526/01/103

22/09/2022.

Mkurugenzi Mtendaji,
Halmashauri ya Wilaya,
Chemba.

Yah: KIBALI CHA KUFANYA UTAFITI

Husika na somo tajwa hapo juu.

2. Namtambulisha kwako Mr Mathias Coster mwanafunzi wa Chuo Kikuu Huria kwa ajili ya kufanya utafiti kuhusu *"factors influencing the primary school classroom ratio on academic performance in Tanzania, a case of Chemba District Council"*. Utafiti huu ni sehemu ya mafunzo wawapo chuoni.
3. Kwa barua hii naomba umruhusu na kumpatia ushirikiano ili aweze kukamilisha utafiti wake utakao anza tarehe 16 Septemba hadi Oktoba 2022. Ikiwa unahitaji ufafanuzi zaidi tafadhali usisite kuwasiliana na mkuu wa chuo. Kazi hii isimamiwe na Watakwimu wa Halmashauri na kutoa taarifa ya utekelezaji.

Charles A. Mduma
Kny: KATIBU TAWALA WA MKOA
DODOMA

Nakala: Mr Mathias Coster
Chuo Kikuu Huria

JAMHURI YA MUUNGANO WA TANZANIA

**OFISI YA RAIS
TAWALA ZA MIKOA NA SERIKALI ZA MITAA**

Anuani ya Simu "TAMISEMI" DODOMA
Simu Na: +255 26 2321607
Nukushi: +255 26 2322116
Barua pepe: ps@tamisemi.go.tz



Mji wa Serikali – Mtumba,
Mtaa wa TAMISEMI,
S.L.P. 1923,
41185 DODOMA.

Unapojibu tafadhali taja:-

Kumb. Na. AB.307/323/01

16 Septemba, 2022

Katibu Tawala wa Mkoa,
Ofisi ya Mkuu wa Mkoa wa Dodoma,
S. L.P 914,
DODOMA.

Yah: **KIBALI CHA KUFANYA UTAFITI KUHUSU FACTORS INFLUENCING THE
PRIMARY SCHOOL CLASSROOM RATIO ON ACADEMIC
PERFORMANCE IN TANZANIA. A CASE OF CHEMBA DISTRICT
COUNCIL**

Tafadhali rejea somo tajwa hapo juu.

2. Ofisi ya Rais –TAMISEMI imepokea barua kutoka Chuo Kikuu Huria (OUT) ikimtambulisha ndugu **Mathias Coster** kwa ajili ya kufanya utafiti tajwa katika Mkoa wa Dodoma.
3. Muda wa kufanya utafiti huu ni kati ya tarehe 16 Septemba, 2022 na tarehe 16 Octoba, 2022. Ofisi ya Rais -TAMISEMI kwa kushirikiana na Taasisi nyingine za Serikali itafanya ukaguzi wakati wowote kujiridhisha na utekelezaji sahihi wa kibali hiki. Takwimu zitakazokusanywa kutokana na utafiti huu ni kwa ajili ya matumizi ya ndani tu na iwapo zitatakiwa kuchapishwa na kusambazwa kibali kutoka Mamlaka husika kitapaswa kuombwa.
4. Kwa barua hii, tafadhali muelekeze Mkurugenzi wa Halmashauri ya Chemba kutoa ushirikiano utakaohitajika na kukamilisha utafiti huu kama ulivyokusudiwa. Kazi hii isimamiwe na Mtakwimu wa Mkoa na Halmashauri husika na kutoa taarifa ya utekelezaji.

Ninakushukuru kwa ushirikiano wako.

Dkt. Grace E. Magembe
KAIMU KATIBU MKUU