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EXAMINING THE CHALLENGES AND SUCCESSES OF DOUBLE TRACK SYSTEM WITHIN THE FREE SENIOR HIGH SCHOOL: POLICY AND ITS IMPACT ON THE QUALITY OF EDUCATION IN SOME SELECTED SCHOOLS IN THE ACCRA METROPOLITAN AREA OF GHANA

BY

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DECLARATION

I hereby declare that except for the references to other people's work, which have been duly acknowledged, this dissertation is the result of my own research work carried out in the Institute for Statistical, Social and Economic Research (ISSER) under the supervision of Dr. Elizabeth A. Asante.

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DEDICATION

I dedicate this work to my dear mum, Ms. Augustina Annan, for her love, support, and the many sacrifices she made to help me achieve this dream.

To my brother, Pastor Dr. Thomas Buxton, who has been my role model and inspiration on this journey. God richly bless you.

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LIST OF ABBREVIATION

ABFA -Annual Budget Funding Amount

AMA – Accra Metropolitan Assembly

BECE – Basic Education Certificate Examination

CSSPS - Computerised School Selection and Placement System

DTS – Double Track System

ESP - Education Strategic Plan

FSHS – Free Senior High School

FCUBE - Free Compulsory Universal Basic Education

G.C.E - General Certificate of Education

GDP – Gross Domestic Product

GETFund- Ghana education trust fund

GHF- Ghana Heritage Fund

GOG - Government of Ghana

GNPC - Ghana National Petroleum Corporation Department

GSF - Ghana Stabilization Fund

HEIs - Higher Education Institutions

ICT – Information Communication and Technology

JHS – Junior High School

JSS – Junior Secondary School

KII – Key Informant interviews

L.I - Legislative Instrument

MMDAs – Metropolitan, Municipal and District Assemblies

NAGRAT - National Association of Graduate Teachers

NLC - National Liberation Council

NPP – New Patriotic Party

NRC- National Redemption Council

NSCE - New Structure and Content of Education

OECD - The Organization for Economic Co-operation and Development

PRMA - Petroleum Revenue Management Act

RDT- Resource Dependence Theory

SDGs- Sustainable Development Goals

SHS – Senior High Schools

SRC – Student Representative council

SSS – Senior Secondary School

STEM - Science, Technology, Engineering and Math

TEWU- Teachers and Educational Workers' Union

UN – United Nations

UNESCO - United Nations Educational, Scientific and Cultural Organization

USD - United States Dollars

WAEC – West African Examination Council

WASSCE – West African Secondary School Certificate Examination.

ABSTRACT

This study examines the implementation and impact of the Double Track System (DTS) under Ghana's Free Senior High School (SHS) policy, focusing on its transition to a class-based structure within the Accra Metropolitan Area. The research aims to investigate the effectiveness of the DTS in addressing the challenges of increased student enrollment, its impact on educational quality, and the perceptions of key stakeholders, including students, teachers, and school administrators.

Using a mixed-methods approach, the study employed questionnaires and interviews to collect both quantitative and qualitative data. Findings revealed that the DTS, initially organized into Green and Gold tracks, successfully expanded access to education, particularly for students from underprivileged backgrounds. However, the system faced significant challenges, including overcrowded classrooms, insufficient infrastructure, increased teacher workload, and reduced instructional time. These challenges negatively impacted academic performance and stakeholder satisfaction.

The transition to a class-based system simplified school operations and reduced the confusion associated with the previous track model. While this transition addressed some logistical issues, critical challenges such as resource shortages, inequitable distribution of learning materials, and the strain on infrastructure and personnel persist.

The study concludes that while the DTS has been instrumental in increasing educational access, more targeted interventions are required to balance access with quality. Recommendations include increased infrastructure investment, enhanced teacher recruitment and training, equitable resource allocation, and robust stakeholder engagement to ensure the sustainability and effectiveness of the Free SHS policy

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The Double Track System (DTS) was introduced in Ghana's educational sector in 2018 as a strategic response to the surge in student enrollment resulting from the Free Senior High School (SHS) policy. This system aimed to accommodate the increasing number of students without overburdening existing infrastructure by dividing the academic year into two tracks, thereby maximizing resource utilization. In the Accra Metropolitan Assembly, the implementation of the DTS sought to address the unique challenges posed by urban educational demands, ensuring that the influx of students did not compromise the quality of education. This dissertation critically examines both the challenges and successes associated with the DTS within the Accra Metropolitan Assembly.

Chapter One provides a comprehensive foundation for this analysis, beginning with an exploration of the study's background to contextualize the objectives of the DTS. It then articulates the problem statement, highlighting the specific issues that have arisen in the course of implementing the system and that is of interest to the study. Subsequently, the chapter presents the research objectives and questions that guide this investigation and delineates the focus of these inquiries.

1.1 Research Background

The Double Track System (DTS), implemented in Ghana to manage increased student enrollment, is not an isolated approach. Globally, various educational models have been adopted to address similar challenges. Countries like Kenya and Tanzania have implemented double-shift schooling systems to maximize the use of limited educational infrastructure by having different groups of students attend school at different times of the day(Abuya et al., 2015). In Tanzania, schools operate a two or three-shift system to cope with large classes and inadequate resources (Mulabwa, 2015). For example, in a three-shift system, the first shift starts at 8:00 am and ends at 10:30 am, the second from 10:30 am to

12:30 pm, and the third from 12:30 pm to 3:30 pm These models aim to optimize educational resources and accommodate growing student populations without compromising the quality of education (Mulabwa, 2015).

Educational reforms in Ghana has come with many complications and challenges. Secondary school education in Ghana in particular has undertaken many reforms and reviews which has resulted in many challenges. Educational reforms in Ghana include the Free Compulsory Universal Basic Education (FCUBE) in 1995, and the Progressively Free Senior High School Policy in 2015, which gave rise to the Double Track system and many challenges. The double track system was an intervention strategy introduced by the government of Ghana to help solved the challenges involved in the Free Senior High School policy programme (Mensah, 2019). Both the FCUBE and Free SHS saw students go through their basic education without paying tuition, and the introduced to relieve parents from paying some fees at the senior high school level. The goal of these education reforms was to discover a suitable system that is good for the country (Deho & Agangiba, 2019). FCUBE led to an increase in enrollment which brought about the Double Track system to resolve the problem According to Osei-Owusu & Akenten-Appiah (2021), the double track system was implemented to make the most of the limited resources in the educational sector.

The Progressive Free SHS was a form of partial relief of fee payment. Parents were relieved from paying exam fees, entertainment fees, fees for using the library, Students Representative Council (SRC) dues, sports fees, and culture fees, among others (Abdul-Rahaman et al., 2018). The Free Senior High School (FSHS) policy was introduced in 2017. It was introduced to fully cater to and relieve the parent of fees when they take their ward to the SHS level. According to Dwomoh et al., (2022), this was to increase school enrolment. This also was a result of the increase in JHS graduates that has been coming out into the system because of similar policies to make Junior High School education Free. (Abdul-Rahaman et al., 2018). Due to the payment of fees many students could not go to the second cycle.

Yet, according to the Ministry of Education (2018), in their Education Strategic Plan (ESP), there is supposed to be equity in all aspects of secondary education. Everyone should have access to secondary education. The FSHS according to Abdul-Rahaman et al., (2018) was the appropriate upgrade to the Progressive free SHS policy which was implemented in 2015. " The implementation of the Free SHS educational policy in Ghana is one of the policies with long-term benefits aimed at improving the human capital base of the country" (Mensah, 2019, p. 48). Moreover, this adjustment is poised to significantly enhance the country's workforce capacity (Mensah, 2019). Before the introduction of this policy, leaders of very good and brilliant SHS in the country set very high cut-off points of scores and high admission values to entice the extremely good students at the disadvantage of students who are not exceptionally brilliant and live in rural settings students (Babah et al., 2020). The policy aimed to offer an equal chance to anyone living anywhere in the country the chance to have secondary education no matter the state of finance of the family (Kwegyiriba, 2021b). The main features according to Tamanja & Pajibo (2019) of the FSHS were: Firstly, it was entitled to all Ghanaian youth and students admitted into public secondary schools by the Computerised School Selection and Placement System (CSSPS) commencing from the 2017/18 academic year. Secondly, the period for the FSHS policy per student was three (3) years. In addition, the government of Ghana relieved students and parents of all fees in senior high schools. Furthermore, the government of Ghana took all feeding costs for every student enrolled as a boarder but lunch for all-day students. Also to make sure that there is equity, that is about 30% of places in highly endowed "A" schools are held in reserve for students from public JHS. Last but not least, the government of Ghana will provide infrastructure; buildings, furniture, materials like textbooks, etc. to aid in teaching and learning.

The objective of this policy was to provide easily accessed proper education for pupils in all the secondary schools in Ghana as stated in Article 25 1b of the 1992 constitution of Ghana which states that "Secondary education in its different forms including technical and vocational education, shall be made generally available and accessible to all by every appropriate means, and in particular, by

the progressive introduction of free education" Osei-Owusu & Akenten-Appiah (2021). This initiative seeks to help those with financial difficulties that hamper their access to second-cycle education (Deho & Agangiba, 2019). This policy was also in line with the Sustainable Development Goal 4 stated by the United Nations in 2015 (Kwegyiriba, 2021a). This goal states that "by 2030, all boys and girls should complete free equitable and quality primary and secondary education leading to relevant and effective learning outcomes." However there was a problem with the FSHS due to the lack of infrastructure (Dwomoh et al., 2022). "Students who complete basic education and meet the basic entry requirements are supposed to be given admission to their respective preferred second cycle institutions" (Deho & Agangiba, 2019, p51). Mostly, that's not the case since a lot of children who are eligible for second-cycle education are deprived of the chance for many reasons. Factors articulating this could be financial issues at home, infrastructure problems on the side of the schools, and others (Deho & Agangiba, 2019). Since there was extreme lack of infrastructure, more students could not be admitted to the senior high school level (Adjei, 2021).

According to the Ministry of Education, (2018) in the 2014/15 academic year, the completion rate in the JHS was 73.5%. in the following year 2015/16 there was an increase of 76.1%. It decreased to 75.2% in the 2016/17 year and increased progressively in the 2017/18 academic year by 78.8%. Ministry of Education (2018), stated that about 100,000 students who qualify and had admission to the SHS level were unable to enrol because of financial problems. So, there was a need for the introduction of the FSHS policy. The policy ran the 2017/18 academic year but faced problems of overcrowding and lack of space.

These were the reasons and need to introduce the Double Track System (DTS). The DTS was introduced to accommodate the growing number of students that were been enrolled in the Senior High Schools and reduce pressure on the existing amenities of the schools. (Osei-Owusu & Akenten-Appiah, 2021).

The Double track system (DTS) was therefore implemented in the 2018/19 academic year. This was because of the overflow of students being enrolled in the SHS due to the FSHS policy (Tamanja & Pajibo, 2019). There was a lot of burden on the amenities of the various SHS schools after the implementation of the Free SHS Policy (Deho & Agangiba, 2019). The DTS was introduced in about 400 selected schools across the country (Adjei, 2021). The existing infrastructure was not adequate to contain all the students. The double-track system was conceived to tackle issues of infrastructural gap in senior high schools (Osei-Owusu & Akenten-Appiah, 2021). It was also introduced to accommodate the growing student population in schools and prevent overcrowding of the students. "This decision by the Ghana government has been received by Ghanaians with mixed reactions. Many Ghanaians have expressed their sentiments concerning the reform of the educational system" (Deho & Agangiba, 2019). The policy divides the overall student population and staff into double tracks; while one track is attending school, the other is enjoying a vacation, and the other way around (Dwomoh et al., 2022). The DTS was introduced because in 2018, estimations regarding the number of potential students were disclosed and the government needed to create 181,993 extra spaces to cater to the huge projections to be admitted into senior high schools in the 2018/19 academic year. (Dwomoh et al., 2022). The double track system runs in two pleats; the gold and the green tracks. The system creates a new academic calendar of two semesters in a year instead of three terms or trimesters in a year. Before then the academic year used to begin in September and end in August (Adjei, 2021). The initial trimester spans from September to December, the second from January to April, and the third from May to July -41 weeks in total. But using the semester system, every semester has 81 days for academic work and 41 days of vacation. Because of this new structure brought about by tutors are expected to elevate their yearly teaching commitment from 1,080 hours to 1,134 hours. This change corresponds to a daily extension from six to eight hours of teaching, reflecting the adaptation in the overall instructional framework to accommodate the new system's requirements and demands. (Osei-Owusu & Akenten-Appiah, 2021). However, this was a cause of

apprehension, "Concerns have been raised by social and educational commentators, policy analysts, and parents about the fate of Ghana's double-track education system" (Osei-Owusu & Akenten-Appiah, 2021).

1.2 Problem Statement

The introduction of the Free Senior High School (FSHS) policy and the accompanying Double Track System (DTS) was a major educational reform in Ghana that sought to expand access to secondary education. The FSHS policy has largely been welcomed by the general public, as many parents benefit from the reduction in financial barriers (Abdul-Rahaman et al., 2018). However, concerns remain regarding the extent to which the policy, particularly the DTS, was effectively implemented. Previous studies indicate that the implementation of the DTS resulted in a significant increase in student enrollment compared to earlier years (Mensah, 2019). Despite this expansion, there are widespread concerns about the impact of the policy on the quality of education at the SHS level (Dwomoh et al., 2022).

Quality of education is a multidimensional concept, encompassing both managerial and academic performance issues. Emerging evidence suggests that the DTS has posed challenges related to school administration, teaching and learning contact hours, and completion of syllabi. For instance, some parents are compelled to fund extra classes for their children during vacation periods to cover lost instructional time. These developments raise critical questions regarding whether the DTS has achieved its intended objective of ensuring free and quality education.

Although literature has highlighted both the potential benefits and challenges of the DTS, there is limited empirical evidence on how these reforms are experienced directly by teachers and students within schools. In particular, little is known about how the DTS has influenced teaching effectiveness, student learning outcomes, and the broader perception of educational quality at the SHS level. This

gap makes it necessary to investigate both the successes and challenges of the DTS, as well as its overall impact on the quality of education in Ghana.

1.3 Research Objectives

The main objective of this study is to investigate the challenges and successes of the Double Track System (DTS) within schools in the Accra Metropolitan Area, with a focus on teachers and students. The specific objectives are:

a. To examine the successes of the Double Track System (DTS) policy as perceived by teachers and students.
b. To examine the challenges faced by teachers and students under the DTS policy.
c. To investigate the effect of the DTS policy on students' academic performance.
d. To explore teachers' and students' perceptions of the impact of the DTS policy on the overall quality of education.

1.4 Research Questions

The following research questions will be asked:

a. What successes have been achieved by the implementations of the DTS?
b. What challenges have been experienced since the implementation of the DTS policy?
c. Has the implementation of the DTS Policy improved student academic performance?
d. What are the school management, teachers, and stakeholders' perceptions of the DTS policy on the quality of Education in Ghana?

1.5 Significance of Study

This study aims to contribute to the existing literature by examining the impact of the Double-Track System (DTS) on the quality of education at the Senior High School (SHS) level in Ghana. The DTS was intended to address infrastructure limitations resulting from the increased enrolment due to the

Free Senior High School (FSHS) policy. It is, however, imperative to examine its effectiveness and challenges. This study explores both the successes and difficulties associated with the implementation of the DTS and its overall impact on education quality at the SHS level.

1.6 Organization of the Study

This study is arranged in five chapters. Chapter One covers the introduction to the study. Chapter Two is the review of literature related to this study, discussing theories adopted for the study and its related conceptual frameworks. Chapter Three examines the methodology employed for this study. Chapter Four will present the finding and the analysis of the findings of the study. The final chapter, which is Chapter Five, presents the summary, conclusion and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on a study of the literature on the subject examining the challenges and successes of the Double Track System within the Free Senior High School policy and its impact on the quality of education in some selected schools in the Accra Metropolitan Area of Ghana**.** This chapter reviews the literature and some empirical works that are pertinent to the investigation. The chapter covers the development of free formal education from the time of independence up to the DTS and FSHS and also includes the study's conceptual foundation.

2.1 Education

The act of imparting knowledge in the form of experiences, concepts, abilities, traditions, and values and from one individual to another or between generations, is known as education. Most people agree that education is the cornerstone of civilization and progress. The importance of education cannot be overstated as it is essential for the progress of nations and the well-being of societies, impacting both economic growth and overall development. Scholars have highlighted the role of education in increasing productivity and income levels, particularly in developing countries. Their studies showed that education is crucial for developing human capital, providing the workforce with essential skills that not only contribute to economic output but also complement investments in physical infrastructure such as agriculture, technology, and industry (Chattopadhyaya, 2020). By enhancing the capabilities of the workforce, nations can maximize the returns on their investments, leading to more robust and diverse economic development. Boakye (2019) stated a quote in Nowak's work. He said

> As Nowak (2001:245) aptly puts it: Education is a precondition for the exercise of human rights. The enjoyment of many civil and political rights, such as freedom of

> information, expression, assembly and association, the right to vote and to be elected or the right of equal access to public service depends on at least a minimal level of education, including literacy. Similarly, many economic, social and cultural rights, such as the right to choose work, to receive equal pay for equal work, the right to form trade unions, to take part in cultural life, to enjoy the benefits of scientific progress and to receive higher education based on capacity, can only be exercised in a meaningful way after a minimum level of education has been achieved (Boakye, 2019).

Education was seen as one way to development so during the United Nations Conference on Environment and development the United Nations made it an important goal in the Sustainable Development Goals (SDGs). SDG number 4 was Quality Education. There was a need for countries, mainly developing countries, to look at reforms and regulations to help gain or attain this quality of education. This goal has motivated and encouraged the government of Ghana to put in more work over the past decade to attain this mission of quality education (Boakye, 2019).

However, the significance of education goes beyond its economic benefits. In addition to developing cognitive skills, education also instils critical behavioural changes, shaping attitudes, values, and societal norms that are essential for driving innovation and modernization. These non-cognitive contributions of education are particularly important in developing regions, where the ability to adapt to changing global dynamics is crucial for sustainable progress (Chattopadhyaya, 2020). The comprehensive impact of education is further evident in its role in improving social outcomes such as health, life expectancy, and population growth. For example, higher levels of education are closely associated with lower fertility rates and improved health behaviours, contributing to longer and healthier lives (Chattopadhyaya, 2020). Recognizing these multifaceted benefits, the World Bank has emphasized education as a critical element in its human capital development strategies for emerging economies.

Higher education, in particular, has become a significant driver of regional and national development, with universities serving as hubs for innovation and community involvement. In many countries, including China, the emergence of university towns has facilitated strong partnerships between higher education institutions (HEIs), industries, and governments. These collaborations are crucial for establishing "learning regions" where universities not only generate new knowledge but also play a pivotal role in economic and social transformation (Mei & Symaco, 2021). For instance, Xiasha University Town in Hangzhou has been instrumental in advancing technological innovation, nurturing a skilled workforce, and participating in service-oriented projects that benefit the broader community (Mei & Symaco, 2021). The triple mission of these HEIs—teaching, research, and service—illustrates how higher education can drive technological and social advancements while fostering a sense of civic responsibility.

However, the success of Higher Education Institutions is not without its challenges. Universities often face difficulties in sharing resources, competing for funding, and aligning research priorities with industry needs. The emphasis on achieving high rankings, both nationally and internationally, can sometimes overshadow local development priorities, limiting the potential impact of HEIs on their surrounding communities (Mei & Symaco, 2021). Overcoming these obstacles requires a more integrated and cooperative approach among educational institutions, industries, and governments to ensure that higher education continues to effectively contribute to both economic growth and social equity (McGrath, 2010).

The discussion on education often centers on its economic advantages, but critics argue that this narrow focus may overlook the broader contributions of education to social unity, cultural advancement, and individual empowerment. For example, the World Bank's emphasis on human capital prioritizes increasing access to education, particularly at the primary and secondary levels, to stimulate economic growth (Bonal, 2004). However, this approach tends to reduce education to a tool for economic productivity, neglecting its roles in promoting human rights, democracy, cultural

integration, and social stability. By primarily concentrating on measurable outcomes such as literacy rates, enrolment figures, and standardized test scores, the World Bank's policies often fail to consider the quality and cultural relevance of the education provided (Psacharopoulos & Woodhall, 1993). These limitations have tangible consequences, especially in the context of structural adjustment programs, where educational reforms are often linked to economic restructuring policies that decrease public expenditure, increase privatization, and exacerbate inequalities, leaving marginalized populations, including women, ethnic minorities, and the rural poor, behind (Bonal, 2004).

To address these deficiencies, a more comprehensive approach to educational policy is needed. Policymakers should not only aim to increase access but also strive to enhance the quality of education, ensuring its relevance to local contexts and responsiveness to the needs of diverse communities. There is also a growing acknowledgement of the necessity for participatory processes in educational reform, where local educators, community members, and students themselves actively participate in shaping curricula and policy directions. This approach ensures that education serves not only economic goals but also cultural, social, and democratic objectives (Bonal, 2004).

New Humanism, a philosophical movement seeking to redefine the role of education, advocates for viewing education as a tool for personal development and social justice rather than just an economic instrument (Soudien, 2019). New Humanism asserts that education should promote inclusivity, empathy, and global citizenship, aligning with the Sustainable Development Goals that call for equitable, quality education for all. It emphasizes that education must cultivate a sense of collective responsibility for humanity's future, encouraging individuals to engage with global challenges like environmental sustainability, social inequality, and intercultural conflict. This perspective criticizes traditional educational models that overly focus on individual achievement and economic productivity, proposing instead that education should promote collective well-being and intercultural understanding (Soudien, 2019). The philosophy of New Humanism also underscores the significance of educational quality and the involvement of students and communities in the learning process.

Rather than being passive recipients of education, learners should actively engage with the content they are taught. This participatory approach empowers individuals, aligning with Amartya Sen's concept of "development as freedom," where education enables people to make informed, meaningful choices about their lives (Soudien, 2019). Moreover, education should encourage the development of critical thinking and ethical reasoning, equipping individuals to navigate the complexities of the modern world.

Education is undoubtedly essential for both economic and social development, but its role must be viewed in a broader, more holistic context. While investments in education are crucial for improving labour force skills and driving economic growth, they must also promote critical thinking, social inclusion, and global citizenship. Educational systems should be designed not only to prepare individuals for the job market but also to foster more equitable, sustainable, and just societies. Only through such an inclusive approach can education truly realize its potential to transform both individuals and nations.

2.2 Ghana's educational policy and reforms

Historically, education in Ghana began before the arrival of colonialism in Africa. The system where elders passed down knowledge and information to younger ones by mouth and by the form of apprenticeship was the "indigenous" system of education (Adu-Agyem & Osei-Poku, 2012). Due to the importance placed on education by the global bodies, the various reforms set by the GOG have to meet and possibly surpass the global standard. (Boakye, 2019). The government of Ghana after the colonial era has made it its mandate to pursue basic education as its main responsibility which was viewed as a core tool for national development (Boakye, 2019). "Because of this, successive governments since 1957 have introduced many reforms to improve education outcomes in Ghana." (Boakye, 2019:3).

The foundations of formal education in Ghana were laid during the colonial period, with early efforts by European merchants and missionaries to establish schools aimed at reducing illiteracy and

spreading Christianity. Significant milestones in educational development include the establishment of schools by Christian missions such as the Basel and Wesleyan missions, which greatly influenced the quality of education during the colonial era (Adu-Gyamfi et al., 2016). Since gaining independence in 1957, Ghana has prioritized education as a critical area for national development. The country has implemented numerous reforms to align the educational system with its socio-economic goals and the expectations of its citizens (Adu-Gyamfi et al., 2016). Despite its early recognition as one of the most developed educational systems in West Africa, Ghana's educational sector faced significant challenges by the 1980s, with widespread perceptions of dysfunction and ineffectiveness (Adu-Gyamfi et al., 2016).

Educational reform policies were very vigorous in the country from 1987 to 2000. (Nudzor, 2014). The educational landscape in Ghana has undergone notable transformations, particularly through reforms aimed at improving accessibility and quality. Initially, the duration of pre-tertiary education was shortened from 17 to 12 years in 1987. However, the 2007 Education Reform Act introduced two years of early childhood schooling into free compulsory basic education, extending the pre-tertiary education period to 14 years (Aheto-Tsegah, 2011).

Presently, Ghana's education system is structured into three folds. Basic Education, Secondary Education and Tertiary Education. The basic education level spans eleven years, including two years of early childhood education, six years of primary school, and three years of Junior High School. Second-cycle education lasts three years, covering senior high school technical education. Tertiary-level education offers minimum of three years diplomas and four years for undergraduate degrees. It covers diploma programs at teacher training institutions and polytechnics, as well as undergraduate programs. Ghana has a two-year kindergarten program, six-year primary school, three-year lower secondary school (Junior High School), and three-year upper secondary school (also known as "secondary education") pre-tertiary education system making it the 2-6-3-3 system with a 4 year tertiary (Africa Education Watch, 2023).

2.2.1 Major Educational Reforms after Independence

The education landscape in Ghana today is the result of major educational reform policies. The key educational reforms after independence according to Adu-Gyamfi et al. (2016), can be grouped into 6 main eras. This includes the Accelerated Development Plan of 1951, the Education Act of 1961, the reforms introduced by the National Liberation Council, the New Structure and Content of Education in 1974, the 1987 education reforms, and the New Educational Reform of 2007.

The Accelerated Development Plan of 1951 and Education Act of 1961

According to Adu-Gyamfi et al. (2016), the first major educational reform under Dr. Kwame Nkrumah's leadership was the Accelerated Development Plan of 1951, introduced shortly after Ghana gained self-governance. Nkrumah's primary goal was to expand the education system rapidly and emphasize the importance of teacher training. The plan continued to employ "pupil" teachers until enough trained teachers were available. Nkrumah's reforms also aimed to promote African cultural identity within the education system, reducing Western influence. Local languages were used as the medium of instruction in the early years of primary education, with English introduced in upper primary and higher levels. The plan facilitated the establishment of new secondary schools and technical institutions, focusing on expanding secondary and technical education to meet the needs of the growing economy. By 1962, the plan had entered a second phase, which prioritized the expansion of secondary and post-secondary education, particularly in technical fields.

Reforms of the National Liberation Council

Adu-Gyamfi et al. (2016) stated that following the overthrow of Dr Nkrumah's government in 1966, the National Liberation Council (NLC) implemented significant changes to the education system to address the country's economic challenges. One major change was the modification of the free textbook scheme, requiring parents to contribute to the cost. The NLC also slowed the expansion of primary education and restructured the system by reducing elementary education from ten years to eight years and making secondary school admission contingent on passing the Common Entrance

Examination. Secondary education was set at five years, while university education lasted four years.

The New Structure and Content of Education of 1974

In response to criticism that Ghana's education system was elitist and too similar to British grammar schools, the National Redemption Council (NRC) led by Col. Ignatius Kutu Acheampong initiated a review of the system (Adu-Gyamfi et al., 2016). The Dzobo Committee's recommendations in 1973 led to the implementation of the New Structure and Content of Education (NSCE) in 1974, which introduced the Junior Secondary School (JSS) and Senior Secondary School (SSS) systems. According to Adu-Gyamfi et al. (2016), the NSCE reduced the total duration of pre-tertiary education from 17 years to 13 years, keeping primary education at six years but shortening middle and secondary education. The reforms also aimed to make education more practical by introducing vocational subjects like Tailoring, Woodwork, and Technical Drawing. Although these reforms had some positive outcomes, they did not fully meet their objectives.

The 1987 Education Reforms

In 1987, under Flight Lieutenant Jerry John Rawlings, a new set of education reforms was introduced. The primary goals were to improve educational quality and reduce the length of pre-tertiary education from 17 years to 12 years. This was accomplished by establishing a nine-year basic education cycle (six years of primary and three years of JSS) and a three-year senior secondary education. The reforms replaced the General Certificate of Education (G.C.E.) with the Basic Education Certificate Examination (BECE) and the West African Senior Secondary Certificate Examination (WASSCE).

The focus shifted towards vocational and technical education, diversifying secondary school programs into five streams: Agriculture, General Arts and Science, Business, Technical, and Vocational. Additionally, the reforms led to the creation of new universities and upgraded polytechnics to tertiary institutions. Since the Education Reform Programme of 1987, Ghana has undergone various reforms and assessments in its education system, such as the University Rationalization Committee Report (Republic of Ghana 1998), the free compulsory universal basic

Education (FCUBE) programme initiated in 1996, and the Ghana education trust fund (GETFund) Act 581 (Kuyini, 2013).

Educational Reforms of 2007

After the New Patriotic Party (NPP) won the 2000 elections, the government led by President John Agyekum Kuffour initiated a review of the education system. The 2007 reforms, based on recommendations from Professor Josephus Anamuah-Mensah, aimed to develop human capital for industrial growth, preserve cultural identity, and advance science and technology education (Adu-Gyamfi et al., 2016). One of the major changes was extending the duration of Senior High School (SHS) from three to four years, with the first year focused on core subjects. The reforms also included the introduction of two years of kindergarten into the Universal Basic Education system, making it 11 years of basic education. However, after a change in government in 2009, the duration of SHS was reverted to three years. Despite changes in political leadership, education remained a priority for rapid social and economic development.

Free Senior High School (FSHS)

The concept of free Senior High School (SHS) education in Ghana was first introduced in 2015 as the Progressive Free SHS policy, offering a partial fee waiver (Abdul-Rahaman et al., 2018). This initiative relieved parents of payments for specific fees such as test fees, entertainment fees, library fees, Students Representative Council (SRC) dues, sports fees, and cultural expenses (Abdul-Rahaman et al., 2018). In 2017, the government introduced the Free Senior High School (FSHS) policy to provide comprehensive financial relief by covering all costs for students entering SHS. According to Dwomoh et al. (2022), this initiative aimed to increase enrollment, as many students had been unable to progress to SHS due to financial barriers, despite a rise in Junior High School (JHS) graduates following similar free education policies (Abdul-Rahaman et al., 2018).

Data from the Ministry of Education (2018) show fluctuations in JHS completion rates. In 2014/15, the completion rate was 73.5%, which increased to 76.1% in 2015/16, dropped slightly to 75.2% in

2016/17, and rose to 78.8% in 2017/18. Despite these improvements, approximately 100,000 students who qualified for SHS were unable to enrol due to financial challenges, underscoring the need for the FSHS policy.

The Free SHS policy, however, raises critical questions about accessibility, quality, and economic feasibility. These include how to improve access and educational quality, whether Ghana's economy can sustain the policy's costs, and how to address challenges such as infrastructure deficits, teacher distribution, and long-term funding requirements (Fusheini et al., 2017). Developing effective solutions to these challenges is essential for successful implementation and public support. Estimates suggest the policy requires GHS 3.6 billion annually, and utilizing petroleum revenues has been proposed as a viable funding source (Fusheini et al., 2017).

2.2.2 The Funding and Financial Burden of the Policy

After the implementation of the free senior High School and the double track system in the 2017/2018 academic year questions about how it was going to be funded have been the main issue at hand. Subsequent governments in Ghana have worked hard over the years to raise the standard and accessibility of secondary education in the country. Among the measures are the Ghana Cocoa Board scholarship/bursaries, the Model SHS Program, the establishment of Community Day Senior High Schools (SHS), the Northern Scholarship Scheme for secondary schools in the country's northern regions, and the progressively free SHS policy for day students. (Africa Education Watch, 2023).

Funding of an educational policy has continually been the most asked question. Before the implementation of this policy, the government had listed some sources of funds to fund this project. They had three options in which they could fund this (Fusheini et al., 2017). According to him, they could either fund it through the ABFA, or ABFA Consolidation and Partial Allocation to The Ghana National Petroleum Corporation Department (GNPC) and lastly through the Ghana Heritage Fund (GHF). The government of Ghana declared its desire to use petroleum earnings to expand free basic

education to the secondary level through the 2017 budget statement (Fusheini et al., 2017). This was because Ghana's petroleum earnings offer significant chances to fund development. According to Fusheini et al. (2017), total petroleum receipts since oil production started in 2010 have been about USD 3.2 billion, or almost 4% of GDP. While this gives the government an extra revenue stream, it pales in comparison to non-oil revenues, the majority of which originate from the mining and agricultural industries.

The Ghana National Petroleum Corporation (GNPC), the Ghana Stabilization Fund (GSF), and the Ghana Health Fund (GHF) were the next recipients of petroleum receipts, with the national budget receiving the largest portion through the Annual Budget Funding Amount (ABFA).

According to Africa Education Watch (2023), between the academic years of 2017/23 and 2023/24, a substantial allocation of GH¢12.88 billion was directed towards the implementation of the free Senior High School (SHS) policy, averaging at GH¢1.84 billion annually. In contrast, from 2017/21 to 2021/22, GH¢5.3 billion was expended, with an average of GH¢1.06 billion annually. Notably, the nominal annual budgetary allocation for the free SHS policy surged by 639% during this period, escalating from GH¢400 million in 2017 to GH¢2.95 billion in 2023. However, when considering inflation adjustments, this increment reduces to 443%, illustrating a significant financial commitment. From 2017/18 to 2021/22, the average government spending per student within the free SHS policy stood at GH¢1,241 annually, while parents contributed GH¢4,185 per annum. Despite the substantial investment, concerns regarding budget credibility have emerged. The trend reveals a decline from 120% in the 2017/18 academic year to 99% in 2018/19, further dropping to 76% in 2019/20 and 58% in 2020/21. The lowest point was reached in 2021/22, with only 51% of approved funds being utilized. This downward trajectory in budget credibility underscores the importance of effective financial management and oversight in sustaining educational initiatives.

According to Africa Education Watch (2023), the Annual Budget Funding Amount (ABFA) in Ghana, sourced from petroleum revenues, has totalled around GHS 3.4 billion over the last five years,

averaging approximately GHS 600 million annually. While typically constituting about 4% of total government revenue and less than 3% of GDP, these funds have primarily been directed towards roads and infrastructure from 2011 to 2015. Africa Education Watch (2023), reveals that recent criticisms highlight concerns about overspending and the dispersion of ABFA funds across various projects. In the 2017 budget, GHS 211 million from the ABFA was proposed to finance the Free Senior High School (SHS) program, representing 27.3% of the ABFA for that year, with additional budgetary support of GHS 188 million suggested to cover the remaining costs (Fusheini et al., 2017 p.3). The suggestion to allocate all future ABFA receipts to the Free SHS policy was considered and implemented, enhancing oversight and implementation while requiring the identification of alternative funding for existing priorities. Compliance with the Petroleum Revenue Management Act (PRMA)'s mandate in the Act. Section 21(4), ensuring at least 70% of ABFA is spent on public investment expenditures, presents a challenge, particularly if allocating more than 30% to recurrent educational expenses, necessitating careful legal consideration and potential amendments (Fusheini et al., 2017).

According to Fusheini et al., (2017) to ensure sustainable funding for the Free Senior High School (SHS) commitment in the future, the government may consider utilizing a combination of the Annual Budget Funding Amount (ABFA) and a portion of revenues previously allocated to the Ghana National Petroleum Corporation (GNPC). Currently, GNPC receives up to 30% of net cash flow from oil interests, with flexibility in spending over three years. However, concerns arise regarding GNPC's perceived excessive cash reserves, attributed to investments in non-oil related activities. Redirecting some GNPC revenues through the budget process to support Free SHS implementation could face challenges, including compromising GNPC's strategic goals and stimulating exploration efforts to counter anticipated production declines by 2020-2021.

The Ghana Heritage Fund (GHF), established under the Petroleum Revenue Management Act (PRMA) to support future generations as petroleum reserves diminish, has received approximately 9% of the country's total petroleum revenue receipts. Over five years, it has accrued USD 277 million

(about GHS 1.2 billion), significantly less than the projected cost of one year of the Free Senior High School (SHS) program (Fusheini et al., 2017 p.5). As the government explores funding options beyond the initial year of Free SHS, it must recognize that relying solely on the GHF would fall short of meeting anticipated needs. Tying the program's funding to volatile petroleum revenues could hinder implementation, especially during oil price shocks. With Ghana's growing recurrent expenditures, depending on insufficient GHF funds might compel the government to either borrow or reduce other essential expenditures.

2.2.3 Challenges of Educational Reforms in Ghana

In making policies, policymakers have to factor in approaches that will ensure the sustainability of the policy. (Donkoh et al., 2020). However, policy planning diverges from the prescribed process and is often enacted without adequate preparations to maintain the policies effectively (Donkoh et al., 2020). The irregularities in reforms in Ghana's education could be attributed to excessive politicization (Adu-Gyamfi et al., 2016). Political parties who come into power tend to use the power in an attempt to enact some policies which would be in favour of their political party (Poku et al., 2013). They sought to use their authority to implement policies they believed were appropriate for delivering quality education to Ghanaians.(Adu-Gyamfi et al., 2016). "The various secondary-education models implemented in Ghana since the colonial era can be attributed to educational transfer and adaptation. There are radical reforms where the government might want to play "some politics" with reforms" (Adu-Gyamfi et al., 2016:169). According to Donkoh et al., (2020), most of the reforms and policies that are to be implemented encounter significant challenges because most of these policies are per a president's manifesto. Educational policy is related to the current government and is approved by the majority of parliament, which is the party in power (Gunu, 2019). Government scholarships are often granted based on the political affiliation of the applicant, suggesting a lack of transparent selection criteria and equal opportunities. Individuals not involved in politics or those supporting opposition parties are typically overlooked for these scholarships. As a result, there is a biased selection process that favours politically aligned candidates, undermining the fairness and integrity of the scholarship

awarding system (Poku et al., 2013). Thus, the policy planning strayed from the established procedure and typically gets put into action without adequate preparations to maintain its effectiveness. Educational planning and policies must be developed with the participation of political stakeholders, but this is not the case in Ghana. This causes the policy to lose reliability as a consequence, thus, leading to numerous obstacles and challenges.

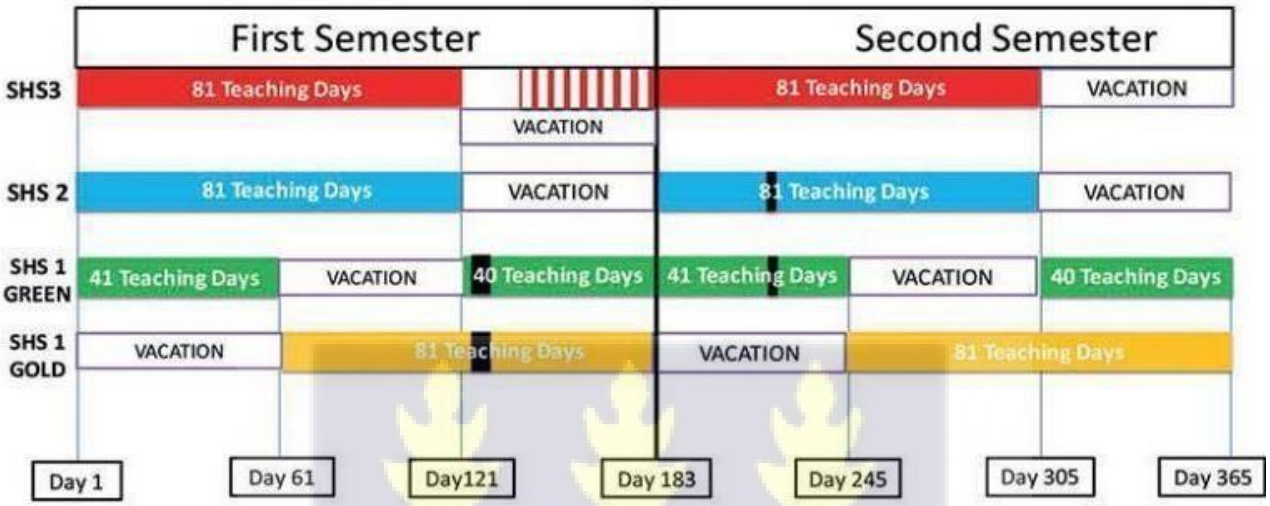
In light of the multitude of educational reforms in Ghana, there remain significant challenges regarding policy formulation, implementation, and evaluation (Donkoh et al., 2020). Donkoh et al., (2020) explain that educational planning involves forecasting future possibilities, implementing rational systematic objectives, and conducting regular assessments to efficiency and effectiveness in fostering learners' academic success. The absence of logistics and skilled personnel, including teachers, poses challenges to the successful implementation of educational policies (Asamoah et al., 2022). Poku et al., (2013) examine the multitude of reforms within Ghana's education sector, leading to the conclusion that the system is in a state of experimentation, particularly evident in pre-tertiary education. There seems to be a lack of clear direction and focus. The Ghana governments struggled to meet the financial requirements of basic schools amid rising enrollment. Consequently, this resulted in insufficient school infrastructure, a shortage of teaching and learning materials, and a lack of qualified teachers(Boakye, 2019). Ghana appears uncertain about which education system to adopt, not only for pre-tertiary levels but also for all educational tiers, suggesting a need for greater clarity and decisiveness in educational policy-making.

2.3 The Double Track System (DTS)

The Double Track System (DTS) was introduced in the 2018/2019 academic calendar to curb issues like overcrowding that had resulted from the implementation of the FSHS policy. DTS was introduced in order to accommodate the growing number of JHS graduates that were been enrolled in the Senior High Schools due to the FSHS policy and to reduce pressure on the existing amenities of the schools (Osei-Owusu & Akenten-Appiah, 2021). The policy requires all staff members and students must be split into two

tracks, with one track attending classes and the other taking a vacation (DEHO & AGANGIBA, 2019) into either a gold or green track for each form, and instead of the customary sit-in segment, when students meet with teachers face-to-face every day for at least three months, sessions were attended in shifts (Dwomoh et al., 2022).

Figure 2.1 Free SHS academic calendar.



Source: Ghana Education Service website.

Every track had 81 days of instruction each session, followed by 41 days off on vacation. (Mensah, 2019). Each of the 81 days in a semester of this intervention includes 41 days off for sandwich classes.

Table 2.1: Gross enrolment ratio into SHS from 2012- 2021

YEAR	GROSS ENROLMENT RATIO
2012	57.23
2013	68.58
2014	64.18
2015	67.10
2016	67.16
2017	66.38

2018	67.75
2019	70.61
2020	73.27
2021	75.31

Source: Ministry of Education (Ghana).

Teachers are expected to increase teaching hours from 1,080 hours per year under the old system to 1,134 hours per year under the new system (double track system) as a result of the changes the intervention brought to the SHS level (Osei-Owusu & Akenten-Appiah, 2021). This translates to an increase in teaching hours per day from six (6) to eight (8) hours.

The DTS was also introduced to reduce the pressure on social amenities in senior high schools. Of the 721 senior high schools in the country about 400 schools across country wide were chosen to run this double-track system (Dwomoh et al., 2022). This system was received with mixed feelings by Ghanaians (Deho & Agangiba, 2019). One of its advantages is to save money in the short run compared to building a new school (Osei-Owusu & Akenten-Appiah, 2021). However, the system has helped reduce most overcrowding issues. Nonetheless, several challenges remain. The additional operating expenses have proven inconvenient for some teachers. Administrative personnel face increased workload and strain. There is less time for the upkeep of school property. Students also miss out on some school-related activities when not in session. (Osei-Owusu & Akenten-Appiah, 2021). The ability for schools to consider an increased number of students for extracurricular and sports activities is one benefit of multi-track education systems (Osei-Owusu & Akenten-Appiah, 2021).

2.4 Quality of Education in Ghana

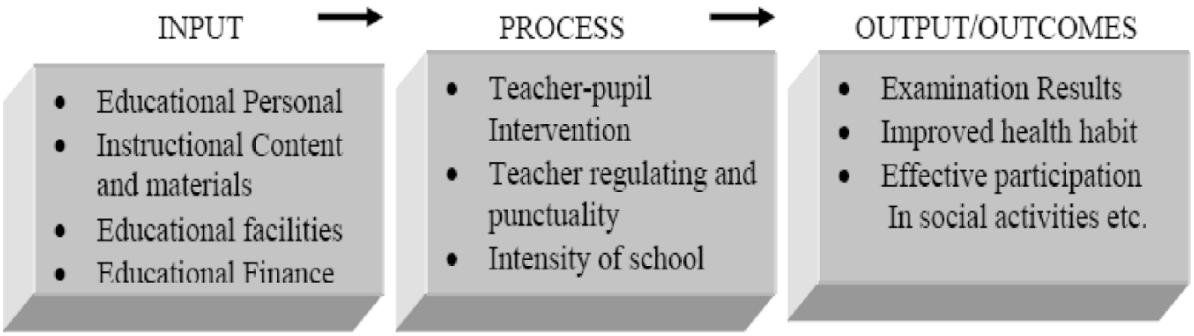
Due to rising enrolment, there are still severe resource shortages in resources in most Sub-Saharan African nations, including Ghana, which affects the quality of education. The system of high-quality

education is being significantly undermined by this (Boakye-Amponsah et al., 2015). The United Nations has determined that providing all students with a high-quality education is the greatest method to help them learn, reach their full potential, and make important contributions to society (Boakye-Amponsah et al., 2015). Education quality is now a critical component of Africa's strategic goals to catch up to the developed world. Even if the definition of quality varies from nation to nation, the word has come to be used to determine whether or not to fund international projects for development and educational growth. Quality is a highly elusive concept. It is confusing to define and frequently challenging to arrive at a formal, accepted meaning for the phrase (Takyi et al., 2019). No two experts ever reach the same conclusions when debating what constitutes a top school, college, or university (Takyi et al., 2019). Dare (2005) notes that all the components linked to educational quality are interdependent, therefore it becomes more challenging to define quality in terms of a specific feature of education. The quality of other elements may be affected by a significant flaw in one. Furthermore, any significant element of the educational system, including infrastructure, school buildings, administration, leadership, management, teacher preparation, instructional materials, teaching, and student accomplishment, can be the subject of discussions about quality. Implications of high-quality education include a decrease in global poverty and income inequality where all students are treated fairly and given access to comparable resources, this is referred to as educational equity (Takyi et al., 2019).

According to the literature now available, quality is a problem that is both qualitative and quantitative. Thus, concepts of quantity and quality should be communicated by their indicators (Dare, 2005). However, the quantitative aspect of this quality is not discussed. According to Adu-Agyem & Osei-Poku (2012), performance indicators for education quality are those that refer to a quality attribute or goal, hence referencing the broad performance evaluation framework in which students are operating. A figure that depicts a quality attribute or the accomplishment of quality goals can also be used to understand it. Thus, it is impossible to overlook ideas like efficacy, relevance, importance, and sufficiency while discussing indicators. Ankomah et al. (2005) present a continuum consisting of

three primary processes required for establishing indicators of educational quality at the Equal National Consultative Workshop.

Figure 2.2: Educational Quality Continuum



Source: Ankomah et al., 2005

2.4.1 Indicators of Quality of Education

Inputs

The quality of educational provision hinges on several critical factors. Foremost among these are the educators themselves, comprising both teaching and non-teaching staff. However, teachers stand as the primary drivers of educational quality, with factors such as their numbers, the ratio of students to teachers, and their attributes playing pivotal roles. These attributes encompass academic qualifications, pedagogical training, content knowledge, aptitude, and years of experience. The relevance, type, and volume of educational content significantly shape learning outcomes. Moreover, the quality and quantity of teaching materials wield considerable influence over the effectiveness of education delivery. The availability and condition of educational facilities cannot be overstated. From classroom infrastructure to sanitation facilities, the adequacy and standard of these amenities greatly impact the learning environment. Factors such as construction standards, facility conditions, and the presence of specialized rooms all contribute to the overall quality of educational provision. Financial resources also represent a crucial input that underpins all other factors. Education financing, divided into capital and recurrent expenditures, is essential for sustaining and improving educational quality. Capital investments, such as constructing classroom buildings, are vital for infrastructure development, while recurrent expenses, particularly teacher salaries, are indispensable for

maintaining educational standards over time. The nature and quality of inputs, including educational personnel, instructional content, facilities, and financial resources, collectively determine the effectiveness and quality of educational provision. Each of these factors plays a vital role in shaping the educational landscape and ultimately influencing learning outcomes.

Process

The process component of the equality continuum encompasses various essential aspects within the educational environment. This component pertains to the dynamics of teacher-pupil interaction, the management and control of classroom behaviour, and the amount of time teachers spend actively engaged with their students during instructional activities. Additionally, it extends to factors such as the consistency and punctuality of teachers in attending school for instructional purposes. The intensity of operation is a crucial consideration within this continuum. This aspect relates to the duration of the school day and term, as well as the effective utilization of available days for academic work within a term. Essentially, it addresses the quantity and quality of time allocated to teaching and learning activities, thereby influencing the depth and breadth of educational experiences for students.

Output

The primary output used to gauge the quality of education is often the performance of students in examinations. For many stakeholders, including parents, the results of general or standardized exams serve as a direct indicator of the effectiveness of the education provided. When concerns are raised about declining standards in education, they are typically rooted in observations of poor examination outcomes. However, it is important to recognize that the quality of education extends beyond measurable exam scores. In addition to exam results, the quality of educational services can be assessed through non-measurable outcomes such as improvements in health habits and enhanced participation in social and political activities. These intangible but significant indicators provide a broader understanding of the impact of education on students' lives and society as a whole. Dare (2005) proposed a formula for identifying critical quality indicators in education, emphasizing the

need to consider various factors beyond exam performance. This comprehensive approach acknowledges the multifaceted nature of education and highlights the importance of evaluating diverse outcomes to truly assess the quality of educational services.

Quality has evolved into a dynamic notion that is continuously adjusted to the world's societies that are going through significant social and economic change. Therefore, all people—men and women alike—should have access to high-quality education so they can become active members of both their local communities and global society (Boakye-Amponsah et al., 2015).

However, the quality of Education could be influenced by some variables too like the resources and facilities of the schools, pupil Teacher ratios, School enrolments teacher quality, knowledge of teachers of subject and teacher absenteeism (Ankomah et al., 2005). Ankomah et al. (2005) believe that student achievement is impacted by school resources, such as teaching materials, teacher salaries, expenditure per pupil, and pupil-teacher ratios. Big classes can result in misbehaving pupils and memorization, and the level of education has an impact on how society views schools. For a high-quality education, school facilities and supplies are essential. These resources are a minor expenditure in high-education nations, but they become a major fiscal worry in low-enrolment ones.

He also argues that due to specialization and absence, actual class sizes may be higher than recorded, while observed ratios in multiple-shift systems may be lower. According to research, student achievement and the quality of education are enhanced by smaller student-teacher ratios. Late enrolment in primary education in Ghana is common due to family economic activities and distance to distant schools, despite the official starting age of 5 or 6. It is essential to make sure kids attend school long enough to finish the curriculum and learn the fundamentals. Many drop out for reasons connected to their families or their studies. To ensure that access to high-quality education is not impeded by financial means, the government of Ghana has instituted free feeding programs and outlawed fees. The percentage of students who repeat classes is a good indicator of the quality of the educational system; in developing nations, this rate is higher.

A teacher's aptitude, years of service, pedagogical training, academic credentials, and content

expertise are only a few of the variables that affect their quality. Many primary school teachers in developing nations, especially those in sub-Saharan Africa, lack the necessary credentials, experience, and subject-matter expertise. Providing teachers with subject-specific knowledge, collaborative skills, technology awareness, and effective teaching methods are all part of preparing them. Research indicates that kids learn more from teachers who possess good academic credentials, even though many nations have minimal admission requirements for teacher training. Only 35% of students with better aggregates were admitted in Ghana, although 65% of admitted candidates had extremely low admission qualifications (Ankomah et al., 2005).

Student progress depends heavily on subject knowledge, yet in developing nations like Ghana, instructors are not professionally proficient in vernacular languages, which results in inadequate instruction of children's first language (L1) in schools. Due to a lack of training in Ghanaian languages, teachers are compelled to instruct students in English. In many nations, teacher absenteeism is a chronic problem that has an impact on the distribution of resources and the quality of education. For educational authorities in Ghana, it is a big worry, especially for remote schools. Lack of professional standards, lack of support from education authorities, and cultural pressures are frequently the cause of high absence rates. Teachers frequently pursue second occupations to bolster their meagre pay or travel to attend funerals. The lack of teachers poses a serious threat to achieving the Millennium Development Goal of universal access to education by 2015. This is a concern for African ministers of education. Just 8,000 newly qualified teachers are produced in Ghana each year, and teacher attrition is a staffing issue for the Ghana Education Service.

2.5 Theoretical Framework

Theories help us create expectations about the world, which are frequently based on what we believe has happened in the past. As a result, they have an impact on how we plan for our interactions with the environment in the future (Mwai et al., 2014).

The Resource Dependency Theory

The Resource Dependence Theory was developed by Jeffrey Pfeffer and Gerald Salancik in their 1978 book titled "The External Control of Organizations: A Resource Dependence Perspective." Pfeffer and Salancik proposed this theory as a way to understand how organizations depend on external resources and how they manage their relationships with external entities to ensure their survival and success (Bhatt & Bhattacharya, 2015). Resource Dependence Theory (RDT) is a theoretical framework that explains how organizations depend on resources from their environment to achieve their goals The foundation of resource dependency theory is the idea that for an organization to obtain resources, it needs to transact with other individuals and organizations in its surroundings (*Resource Dependency Theory | Definition & Facts | Britannica*, 2013.). While these transactions may have advantages, they may also result in unfavourable reliance. It's possible that the organization is run by rival parties or that it doesn't always have access to the resources it needs. The ensuing unfair transactions result in differences in access to more resources, authority, and power. In order to avoid this kind of dependency, organizations develop internal frameworks and strategies to improve their negotiating position in resource-related transactions. These strategies include getting involved in politics, diversifying, increasing the organization's product range, and building relationships with other groups. One strategy to boost a company's power and leverage and lessen its need for other businesses is to diversify its product lines. The actors who depend on resources are under the authority of whoever controls those (Pfeffer & Salancik, 2015). The objective of an organization is to reduce the extent to which it depends on other organizations to provide scarce resources by using its influence to get resources and to address the needs and demands of its surrounding community (Mwai et al., 2014). This is accomplished by either seizing control of resources that lessen their reliance on other organizations or seizing control of resources that increase their reliance on other organizations (Pfeffer & Salancik, 1977). The theory of resource dependency is externally orientated, since it maintains that authority is vested in the departments deemed most crucial in managing and resolving the pressing issues that the company faces due to external factors

(Mudambi & Pedersen, 2007). The resource dependency theory has been used in the nonprofit sector even though it has been extensively incorporated into the organizational strategy of for-profit businesses like health services and educational services (Powell & Rey, 2015). Resource Dependence Theory (RDT) can be linked to the examination of the challenges and successes of the Double Track System (DTS).

Based on Pfeffer and Salancik (2003), resource dependence theory sees the board as a source of resources for the companies. It is anticipated that a board with strong ties to the outside world will make it easier for the company to access a variety of resources. The size of the board and certain board activities, such as meeting frequency and attendance, are among the particular activities that the researchers have connected to the availability of resources and the performance of the company (Bhatt & Bhattacharya, 2015).

Although resource dependence theory (RDT) has long been regarded as a leading framework for comprehending the relationships between organizations and their environments, its predictions have not yet been empirically synthesized (Drees & Heugens, 2013). RDT can also be used to justify organizational behaviour that is accepted by society rather than just focused on profitability (Drees & Heugens, 2013).

Obtaining outside resources is a crucial component of any company's tactical and strategic management. According to RDT, the availability of resources depends on the environment's complexity, dynamism, and richness; hence, a poor environment would have fewer resources available to it. It also implies that authority is derived from resources, and as a result, even legally separate organizations may rely on one another(Mwai et al., 2014). If a resource is closely controlled and essential to the organization's survival, then the dependence on it increases. According to Pfeffer & Salancik (1977), dependency depends on the degree to which others control the resource and how vital it is to existence.

Senior High Schools in Ghana, particularly those that use the DTS, are reliant on outside money and

policy support. They rely on financial support from the annual Budget funding Amount (ABFA). “The ABFA is the medium through which the government can select and fund projects that will help in realizing Ghana’s development objectives” (Fusheini et al., 2017, p3). According to Fusheini et al. (2017), the government suggested using GHS 211 million from the ABFA in the 2017 budget to pay for "Free SHS" starting in September 2017. This amounts to 27.3% of the ABFA for the entire year. The remaining financial support of GHS 188 million would be added to ABFA's finances to cover the remaining expenses related to the "Free SHS" commitment. But subsequently, budget credibility has been on a continuous decline since 2018/19 (Africa Education Watch, 2023). RDT highlights the importance of inter-organizational relationships in managing resource dependencies. This theory can explore how schools, government agencies, teacher unions like NAGRAT, and other stakeholders interact within the framework of the DTS policy. One critical observation was the low level of stakeholder consultation before the implementation of the DTS policy (Mensah, 2019).

RDT posits that organizations often form strategic inter-organizational relationships to maintain autonomy and legitimacy, especially when faced with resource constraints. The educational sector in Ghana demonstrates this principle under the DTS. The policy was designed to maximize the use of limited infrastructure and resources by staggering the academic calendar and scheduling student cohorts in tracks. However, this arrangement had implications for schools' decision-making autonomy. Under the DTS, schools encountered significant challenges in independently managing resources, curricula, and staffing. Government directives on student enrollment, teacher deployment, and scheduling overrode schools' previous decision-making structures. For example, staffing decisions traditionally handled by school administrators became centralized with government agencies dictating teacher postings to ensure balanced resource distribution across the tracks. Similarly, scheduling became rigid due to the predefined track system, limiting schools' flexibility to adapt academic calendars based on their unique contexts or resource availability (Nantale Hadijah, 2015). A primary characteristic of the government's funding structure that affected school autonomy was the conditional allocation of resources. The government, often relying on petroleum revenue earmarked for education under the Ghana Education Trust Fund (GETFund), imposed specific mandates on how funds could be utilized(Ussif, 2021). Schools were required to conform to strict guidelines on resource allocation, often prioritizing

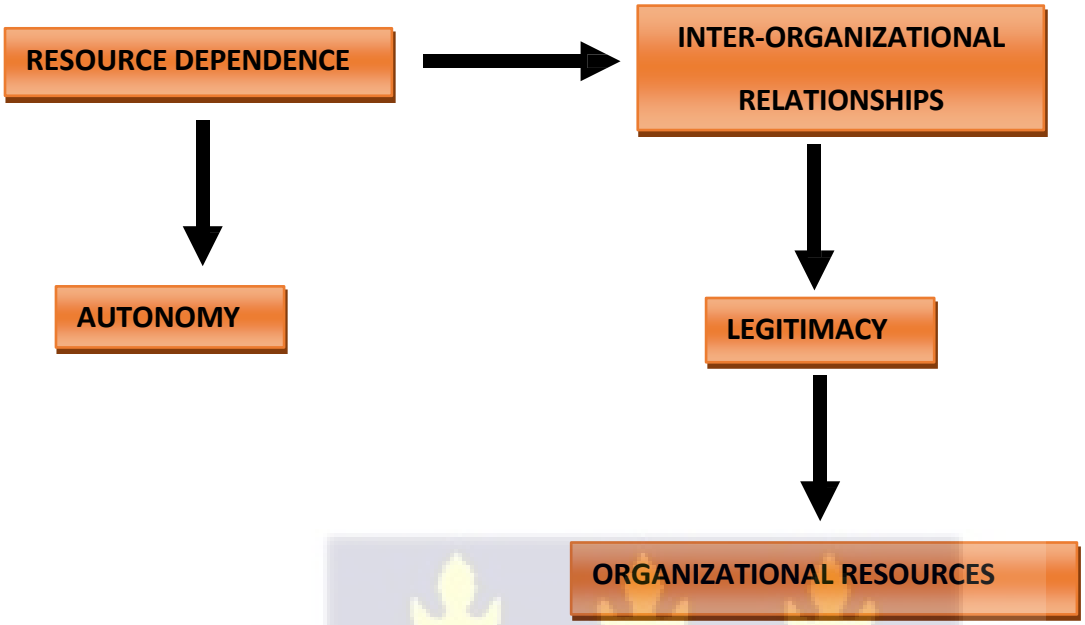
compliance with the DTS structure over innovative curriculum development or infrastructure expansion tailored to local needs.

While government funding is an essential aspect of national development and educational sustainability, the centralized control associated with the DTS policy illustrates how resource dependency can diminish the decision-making latitude of educational institutions. Schools' perceived legitimacy among stakeholders, including parents and teacher unions, was also affected, as they struggled to meet expectations within the constraints imposed by the policy. This situation aligns with RDT's assertion that when an organization is highly dependent on external resources—such as government funding—it may lose autonomy and face challenges in maintaining its legitimacy due to compliance pressures from the resource provider(Hillman et al., 2009).

2.6 Conceptual Framework

In the concept of Resource Dependency, schools' relationships with other groups and stakeholders in the education sector are influenced by their reliance on outside resources, such as government money and policies (Hillman et al., 2009). Schools' capacity to overcome obstacles and seize possibilities provided by the DTS is influenced by their reliance on governmental regulations and cooperation from stakeholders. This leads to Interorganizational Relationships. To efficiently manage their resource dependencies, schools interact with other stakeholders such as teacher unions and government organizations (Wry et al., 2013). These connections affect how schools can influence policy decisions and have access to resources. The way government agencies, stakeholders, and educational institutions engage will determine how the DTS is implemented and how it affects educational quality. Examining these connections sheds light on how different players in the educational system bargain for what they want and divide up resources (Greenwood et al., 2017).

Figure 2.3 Conceptual Framework of the Resource Dependence Theory



Source: Authors Construct

Resource dependence could also lead to autonomy. Schools' resource dependence and inter-organizational ties impact how much autonomy they have in making decisions about organizational management and resource allocation. External forces, such as government policies like the DTS, may cause changes in autonomy (Biermann & Harsch, 2017). By imposing government-mandated uniform academic schedules, curricula, and resource allocation procedures, the DTS policy may influence schools' autonomy. Analyzing how schools' autonomy changed under the DTS provides insight into how educational establishments respond to changes in external policy and handle resource limitations. Stakeholders' perceptions of schools' legitimacy are shaped by their degree of autonomy, the strength of their inter-organizational bonds, and their capacity to manage resource dependence. The level of autonomy and inter-organizational relationships could affect the legitimacy of the institution (Fanning, 2008). The legitimacy of schools can be improved by their ability to fulfill stakeholder expectations and deliver high-quality instruction, as demonstrated by their successful response to external demands like the DTS implementation (Lok & De Rond, 2013). Stakeholders' perception of

schools' legitimacy is influenced by the DTS's effective execution and effect on academic results. Schools that successfully navigate the difficulties presented by the DTS bolster their credibility by exhibiting their capacity to deliver high-quality instruction within the parameters of governmental directives and stakeholder expectations.

Lastly, there is the idea of organizational responses where legitimacy and autonomy can lead to it. Schools use a variety of tactics, including cooperation, adaptability, and lobbying, in response to resource constraints, changes in autonomy, and changes in legitimacy (Lok & De Rond, 2013). These answers influence how schools engage with other organizations and how they handle the opportunities and difficulties brought up by the DTS policy. Schools' approaches to managing resource dependencies and navigating the educational landscape are reflected in their answers to the opportunities and difficulties posed by the DTS. Gaining insight into how schools modify their policies, procedures, and interpersonal interactions in reaction to the DTS can help one better understand the mechanics of organizational change in the education industry.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The methodological chapter outlines the research approach that is employed address the objectives of the study. The chapter is in two parts. Part I provides a comprehensive overview of the research design- the method and analytical tools. Part II focuses on the demographic, physical, social infrastructure and economic characteristics of the study areas.

PART I

3.1 Method

The study employed the mixed method approach that is the qualitative method and the quantitative method approach. The qualitative aspect of the research deals with understanding the underlying attitudes, beliefs, and reasons behind certain events (Babbie, 2020). With the use of non-numerical data gathered from text, interviews, and observations, this approach aims to provide a more comprehensive understanding of people's experiences, actions, and social settings. Research of a qualitative nature can be employed to investigate and comprehend the significance that individuals or groups assign to a social or human occurrence (Creswell & Creswell, 2017). On the other hand, quantitative research focuses on measuring the relationship between variables and is used to confirm theories, identify patterns, and create predictions. This strategy involves using structured data collection techniques, such as experiments, questionnaires, and surveys, to provide numerical data that can be statistically assessed. Quantitative research is objective as it tries to minimize researcher bias and ensure that the results apply to larger groups. Quantitative research emphasizes objective measurements as well as statistical, mathematical, or numerical analysis of data collected via surveys, polls, and questionnaires as well as the computer modification of pre-existing statistical data (Babbie, 2020).

3.2 Methodology

3.2.1 Target Population

Secondary Schools in the Accra Metropolitan Assembly were targeted for the study.

3.2.2 Sampling Technique

A multi-stage sampling technique was employed in this study. In the first stage, purposive sampling was used to select public senior high schools in the Accra Metropolitan Assembly that operated under the Double Track System (DTS). These schools were best suited to provide the needed insights for the study objectives.

Purposive sampling, also known as judgmental or selective sampling, is a non-probability sampling technique where the researcher deliberately selects participants or entities based on specific criteria relevant to the study (Etikan et al., 2016). In this case, purposive sampling was used to select public senior high schools operating under the DTS policy, as they were best suited to provide insights into the study's objectives.

Following this, a multi-stage sampling technique was employed to further refine the sample. Multi-stage sampling is a complex form of cluster sampling where sampling is conducted in stages, typically moving from larger groups to smaller, more specific units (Parveen & Showkat, 2017). In this study, schools were first grouped into clusters based on their geographical locations and DTS classification. From these clusters, specific schools were randomly selected for inclusion in the study.

After selecting the schools, probability sampling was applied to select participants within the chosen schools. For students, stratified random sampling was used to ensure representation across courses (General Science, General Arts, Business, and Visual Arts) and grade levels (first, second, and third years). From each stratum, students were selected using simple random sampling to avoid bias.

For teachers, systematic random sampling was used. A list of teachers was obtained from each school, and every *nth* teacher was selected until the required quota per school was achieved. This ensured fair representation across departments and teaching experience.

For stakeholder groups such as school management, NAGRAT, and TEWU representatives, **purposive sampling** was employed, as these respondents were deliberately chosen for their direct involvement and unique perspectives on the policy.

3.2.3 Sampling Size

This study collected data from DTS Senior High Schools from the various categories across the Accra Metropolitan Assembly. The sample size was calculated using Cochran's formula (1963) for sample determination:

$$n = \frac{z^2 p(1-p)}{e^2}$$

Where **n** is the minimum sample size

Z is the standard deviation (the number of standard deviations from the mean corresponding to the desired confidence level; typically 1.96 for 95% confidence).

p is the estimated proportion of the population (if unknown, use 0.5 for maximum variability).

e is the margin of error

so, **z**= 1.96(95% confidence level)

p= 0.5

e= 0.05

The minimum sample size derived from this formula is 385

This sample was divided among students and teachers across the three schools. A sample of 300 students was used and 85 teachers were used. The schools that were used for this study were the Accra Academy, Wesley Grammar Senior High School and Kaneshie Senior High Technical School all located in the Accra Metropolitan Assembly of Ghana. For the Category A school, Accra Academy was picked, for category B, Wesley Grammar Senior High was picked and for category C, Kaneshie Senior High Technical School was picked.

Table 3. 1: Distribution of student sample by schools

Category	**A**	**B**	**C**	**Total**
General Science	25	25	25	**75**
General Arts	25	25	25	**75**
Business	25	25	25	**75**
Visual Arts	25	25	25s	**75**
Total	**100**	**100**	**100**	**300**

Secondary Schools have been divided into different categories and clusters. They are grouped according to their academic performances and facilities that the school has by the Ghana Education Service. From each cluster of schools, one school were selected to represent the whole cluster. The schools from each cluster were randomly selected. From every school student were picked across their courses and from each class. Students were picked from four courses that are General Science, General Arts, Visual Arts and Business. From each course, 25 students were randomly picked. These 25 students consisted of 1st year, 2nd year and 3rd year students for all. So, for every course, 75 students were picked across all three schools. For each school, 100 students will be picked across all four courses.

For the teacher, 28 teachers were randomly picked from both Accra Academy and Kaneshie Senior High Technical School and 29 teachers were randomly picked from Wesley Grammar Senior High School. We have 85 teachers in total for this sample in the research.

Table 3. 2: Distribution samples of teachers across various schools

Schools	**Number of teachers**
Accra Academy	28
Kaneshie SHTS	28
Wesley Grammar SHS	29
Total	**85**

3.2.4 Data Collection Tools

Data collection for this study involved both primary and secondary methods to ensure a comprehensive understanding of the topic. Primary data collection focused on gathering original and context-specific information directly from sources, utilizing both qualitative and quantitative approaches.

For qualitative data collection, key informant interviews were conducted with school management and representatives from educational stakeholder groups such as NAGRAT and TEWU. These interviews allowed for in-depth exploration of participants' experiences, insights, and perceptions, offering rich contextual data that complemented quantitative findings.

Quantitative data collection involved structured questionnaires administered to teachers and students. The questionnaires were designed to capture measurable insights regarding academic performance, perceived policy outcomes, and challenges. These tools provided a broad perspective by enabling the gathering of standardized information from a larger sample.

Secondary data collection involved reviewing academic performance records and standardized test scores, such as WASSCE results obtained from the WAEC website. Additionally, policy documents, reports, and relevant literature were analyzed to supplement primary findings. These secondary sources offered historical and contextual information, allowing for comparisons and validation of primary data insights.

This combined approach ensured that the study captured both objective performance metrics and subjective stakeholder experiences, providing a well-rounded analysis of the subject matter.

3.3 Analytical tools

To comprehensively understand the impact of the DTS policy, a mixed-method approach was employed, requiring the utilization of both qualitative and quantitative data analysis tools. The analysis of primary data involves examining firsthand data collected by the researcher for a specific

study, tailored to align with the research objectives and leading to highly relevant findings (Bryman, 2016). For the qualitative aspect, specifically thematic and content analysis, was chosen because it allowed for the identification and exploration of common themes from rich, descriptive data collected through interviews, focus groups, and documents. This type of analysis was particularly effective in capturing the complexity of human experiences and understanding the nuanced perspectives of stakeholders involved in the DTS policy. Qualitative data was systematically organized and analyzed, ensuring that key themes and patterns were accurately identified. The purpose of this analysis was to gain deep insights into the goals, implementation processes, successes, and challenges associated with the DTS policy, which were often best understood through the detailed narratives provided by those directly involved.

Secondary data analysis, on the other hand, entails the re-evaluation and interpretation of existing data collected by others, enabling researchers to explore new questions or test new hypotheses using previously gathered data, providing a cost-effective and time-efficient alternative to primary data analysis. However, it does come with limitations, such as a lack of control over data quality and the inability to customize data collection methods to specific research needs (Heaton, 2008).

For the quantitative data, statistical analysis was employed to objectively assess academic performance before and after the implementation of the DTS policy. Descriptive statistics like frequency, pie charts, bar charts and column charts were used because they provided a straightforward summary of the survey data, making it easier to identify general trends and patterns. Inferential statistics, correlation analysis and chi-square tests were chosen for their ability to determine relationships between some outcomes and academic performance under the DTS policy. This type of analysis was crucial for providing empirical evidence on the effectiveness of the DTS policy, as it quantified the extent of its impact on academic outcomes. By conducting a comparative statistical analysis, we could objectively measure the successes and challenges identified in the qualitative data. Statistical software like SPSS or Excel ensured that the analysis was precise and reliable, allowing

meaningful conclusions to be drawn from the data. Integrating qualitative and quantitative data through triangulation enhanced the validity of the findings, offering a holistic understanding of the DTS policy's impact by combining the depth of qualitative insights with the rigour of quantitative analysis. This mixed-method approach ensured a comprehensive evaluation, balancing detailed qualitative insights with measurable quantitative outcomes.

For secondary data, document analysis further complemented this approach by enabling the triangulation and cross-verification of findings from multiple data sources, such as policy documents, Ministry of Education reports, school records, and meeting minutes. Pilot testing of survey and interview questions ensured clarity and reliability, thereby enhancing the overall robustness and credibility of the qualitative analysis.

3.4 Limitation to the Study

The study faced several limitations that may affect the generalization and interpretation of its findings. First, it was conducted within the Accra Metropolitan area, which may not fully capture the experiences of schools in other regions, particularly rural areas. Additionally, the exclusion of third-year students, who had completed school at the time of data collection, limited insights into the experiences of final-year students under the Double Track System (DTS). Another challenge was the lack of representation from key stakeholders such as parents and policymakers, which narrowed the scope of perspectives gathered. The evolving structure of the DTS during the study period, from Gold/Green tracks to class-based systems, may have also led to inconsistencies in respondents' understanding and experiences. Furthermore, the reliance on self-reported data from students and teachers introduced the possibility of response bias, as participants might provide socially desirable answers. Limited quantitative data due to the qualitative nature of interviews restricted the depth of statistical analysis.

3.5 Ethical Considerations

Ethical considerations were a critical aspect of the study to ensure the protection and respect of

participants. Informed consent was obtained by fully informing participants about the study's purpose, their rights, and the voluntary nature of their involvement, with written consent collected to document their agreement. Confidentiality was strictly maintained, with participants' identities and responses kept anonymous to safeguard their privacy. Data was anonymized and securely stored to prevent unauthorized access. Furthermore, necessary ethical approvals were obtained from relevant ethics review boards or institutional review committees, ensuring that the study adhered to established ethical standards and guidelines

PART II

3.6 Study Area

The Accra Metropolitan Assembly (AMA) is part of the 261 Metropolitan, Municipal, and District Assemblies (MMDAs) in Ghana and is within the 29 MMDAs in the Greater Accra Region. Since its establishment in 1898, the AMA has undergone significant changes in terms of its name, size, and the number of Sub-Metros. It is currently governed by the Local Governance Act, 2016 (ACT 936) and Legislative Instrument (L.I) 2034 (*Accra Metropolitan Assembly*, n.d.).

According to the 2020 Population and Housing Census, the total population of the Accra Metropolis was 284,124, with a slightly higher percentage of females (52.8%) compared to males (47.2%) (Ghana Statistical Service, 2021). Moreover, the metropolis sees a daily influx of over 2 million people for various socio-economic activities, leading to a daily population of about 4 million (Ghana Statistical Service, 2021). The AMA is tasked with the general development of the district, including the creation and implementation of plans and strategies for resource mobilization. It operates through a structure consisting of sixteen departments, overseen by the Metro Chief Executive and the General Assembly. The Assembly also runs 14 Sub-Committees that handle different aspects of city management such as education, social services, and infrastructure.

Due to its substantial population and administrative framework, the Accra Metropolitan Area provides a distinctive context for analyzing the effects of the double-track system under the Free SHS program.

There are several senior High schools in the Accra metropolitan assembly according to (Ghana Education Service, 2020). These Schools are; Accra Academy, Accra Wesley Girls Senior High School, Holy Trinity Senior High School, St. Marys Senior High School and Sacred Heart Technical Institute, Wesley Grammar Senior High School, Kaneshie Senior High/Technical. The Assembly's role in promoting social development and managing human settlements will be crucial in understanding the broader implications of this educational policy on the quality of education in the metropolis.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF FINDINGS

4.0 Introduction

Chapter Four presents and analyzes the empirical findings of the study. This chapter is divided into two parts. The first part presents a report on data gathered from the field, which are arranged along the main objectives of the study. The second part seeks to answer the research questions of the study by thematically analyzing and discussing data gathered from primary and secondary sources.

PART I

Findings

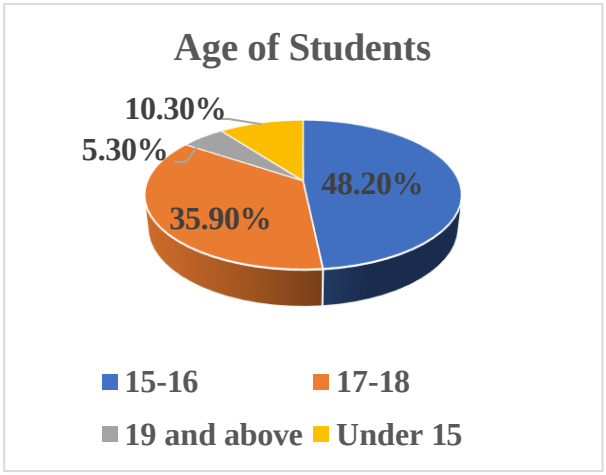
4.1 Demographics

This section provides a brief overview of the demographic characteristics of the students and teachers from the chosen schools used for this study. This includes the demographic traits of students and teachers using frequencies and percentages.

4.1.1 Age of Respondents

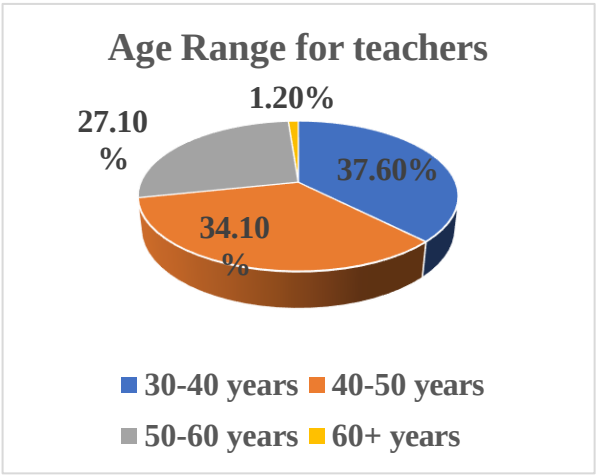
Figure 4.1 and 4.2 below indicates the age distribution of student and teacher respondents in this study. Among the students, the majority fell within the 15-16 age range, comprising 48.2% of the sample (148 out of 300), followed by those aged 17-18 at 35.9% (108 respondents). Groups including those under 15 was10.3% (31 respondents) and students over 19 that is, 5.3% or 16 respondents).

Figure 4. 1: Age range for Students



Source: Field Survey 2024

Figure 4. 2: Age range for Teachers



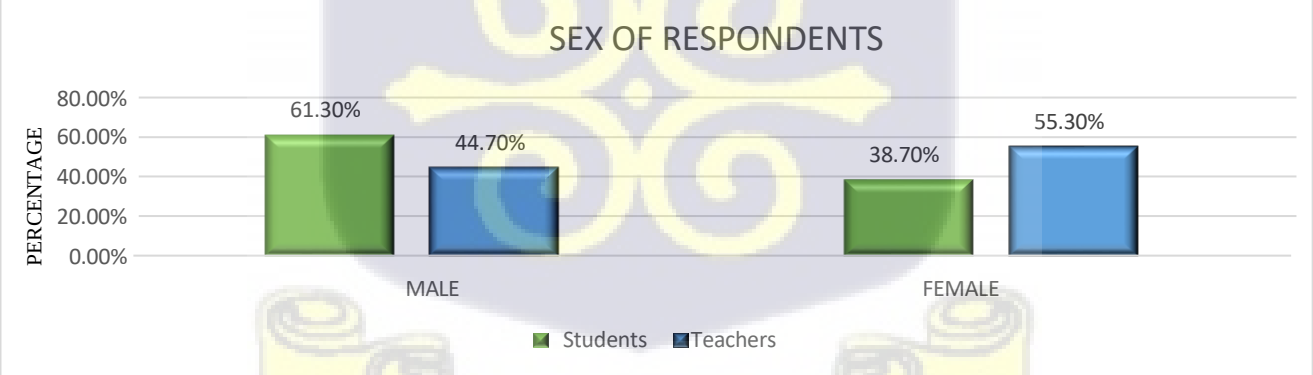
Source: Field Survey 2024

For the teachers, the age range is concentrated between 30 and 60 years, with most respondents between 30-40 years (37.6%) and 40-50 years (34.1%). Those aged 50-60 make up 27.1%, with only 1.2% of teachers being over 60.

4.1.2 Sex of Respondents

Figure 4.3 below indicates the sex distribution for both teachers and students. It shows notable

Figure 4. 3: Sex of respondents



Source: Field Survey 2024

distinctions in sex representation. Among the teacher sample, 55.3% were female (47 out of 85), and 44.7% were male (38 out of 85). For the students, the sample has a male-dominant demographic, with

61.3% male respondents and 38.7% for females. This higher percentage of male respondents is primarily due to the inclusion of Accra Academy, an all-boys school.

4.1.3 Grade Level

The grade level distribution among student respondents shows that nearly half (49.7%) are in their first year, followed by 36.7% in their second year, and only 13.7% in their third year. The lower representation of third-year students is due to the fact that many had already completed school, making it challenging to include them in the sample.

Figure 4. 4: Grade Level of Respondents

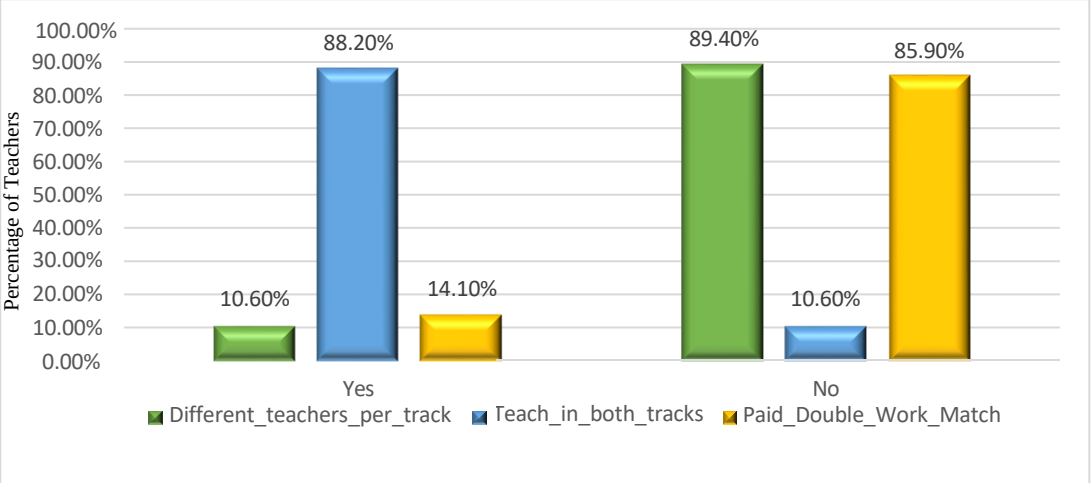
Source: Field Survey 2024

4.2 Policy Awareness and Implementation of DTS

4.2.1 Assignment of Teacher across DTS Policy

Regarding the assignment of teachers in the new system of track education, 89.4% of teachers said that there are no different teachers assigned to each track, indicating a reliance on the same set of instructors across the tracks. Additionally, a significant 88.2% of teachers report that they teach in both tracks. Furthermore, 85.9% of teachers indicate that they do not receive compensation for the extra work involved in teaching across both tracks.

Figure 4. 5: Teachers vs Track System

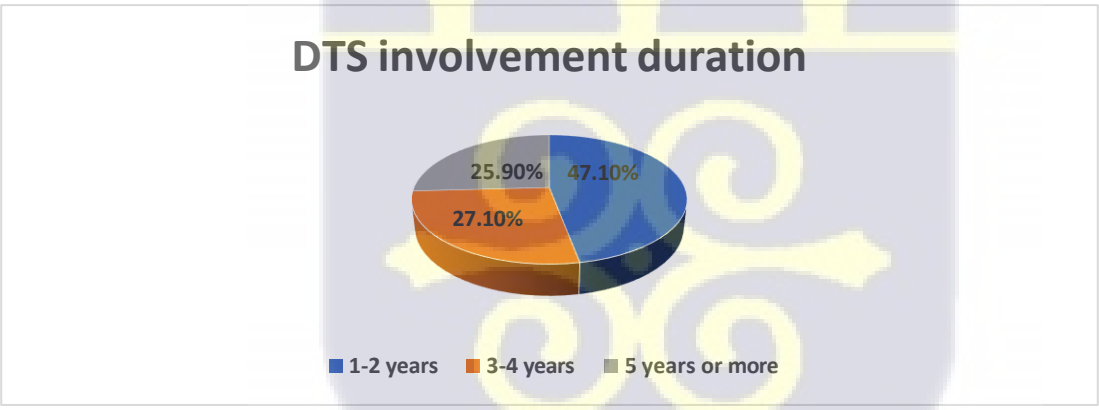


Source: Field Survey 2024

4.2.2 Duration under the DTS policy

Teachers were asked how long they have been involved under the double track system policy. As

Figure 4. 6: DTS Involvement duration for students



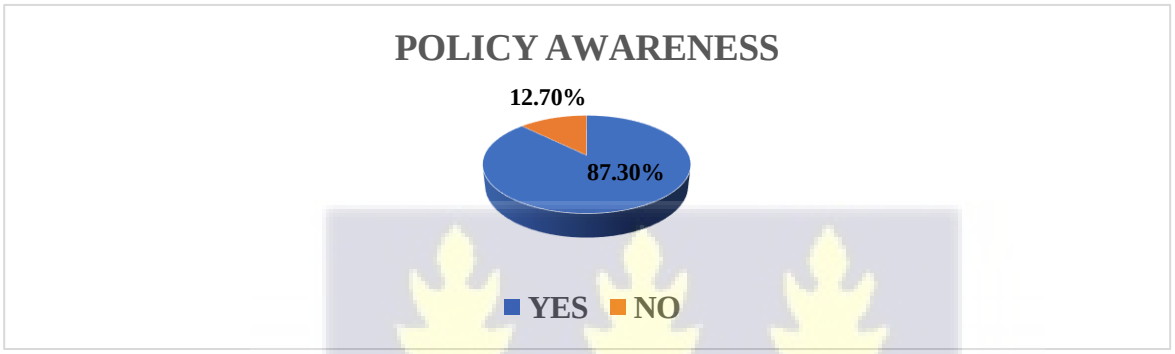
Source: Field Survey 2024

Figure 4.6 above illuminates, the majority of them (47.1%) have been involved in DTS for 1-2 years, indicating a significant portion with relatively recent experience in the system. Another 27.1% of teachers have engaged with DTS for 3-4 years, suggesting a substantial segment with more established familiarity. Finally, 25.9% of teachers have 5 years or more of experience in the DTS, representing the most experienced group in this context.

4.2.3 Policy Awareness and Initial Understanding

Student were asked about their awareness and understanding about the DTS policy. A substantial majority of students (87.3%) indicated their awareness of the DTS policy, while only 12.7% reported no awareness. This high level of awareness suggests that the DTS was well-publicized and understood among students and the educational environment.

Figure 4. 7: Double Track System Policy Awareness for Students

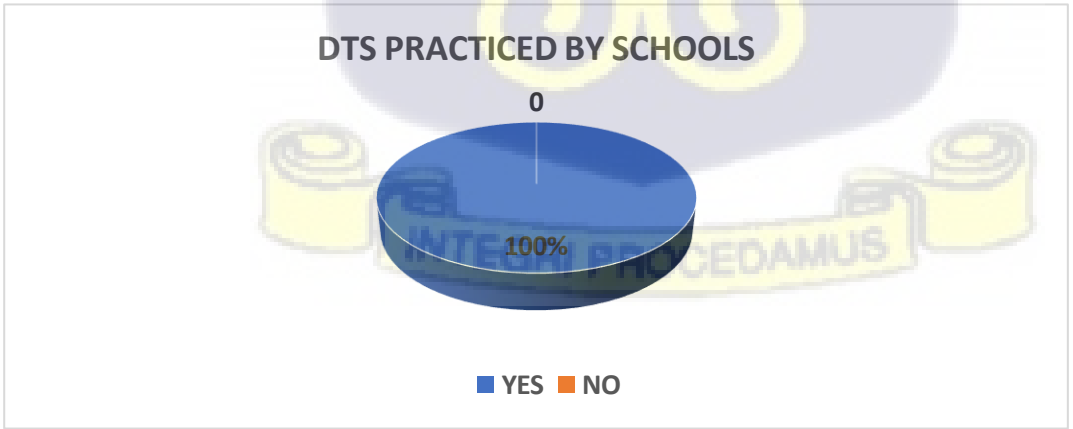


Source: Field Survey 2024

4.2.4 Practice of Double Track System In Various Schools

Students were asked whether their schools were practicing the DTS Policy. All students (100%) confirmed that the DTS is actively practiced in their schools.

Figure 4. 8: DTS practiced by schools

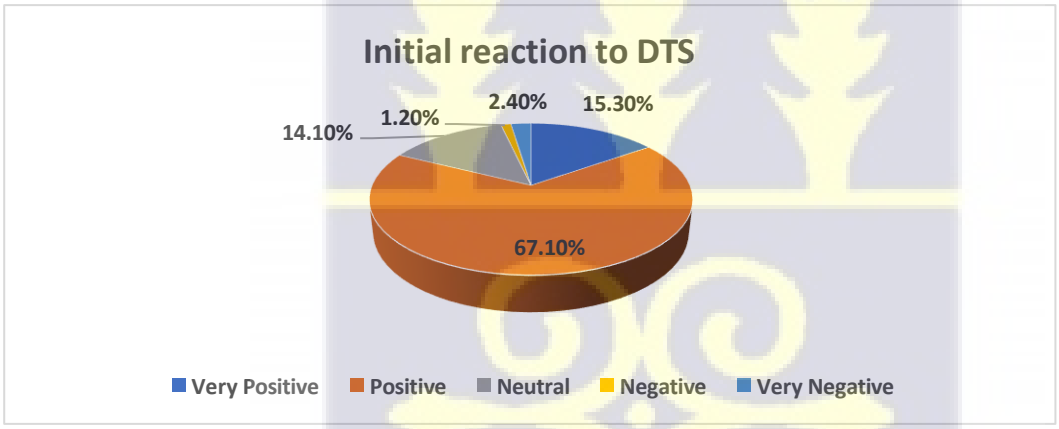


Source: Field Survey 2024

4.2.5 Initial Reaction to Double Track System

Teachers were asked what their initial reaction for the policy was and per the figure below initial reactions of teachers to the DTS were largely positive. A majority (67.1%) responded positively, with 15.3% very enthusiastic about the new system. Many teachers expressed excitement, feeling that DTS would enable more students to enroll and would offer helpful educational opportunities. Some initially thought there might be a cutoff for student numbers, which added to their anticipation. Only a small fraction of the sample viewed the system neutrally (14.1%) or negatively (3.6%). Overall, the initial reception among teachers was generally favourable, with a sense of optimism about DTS's potential benefits.

Figure 4. 9: Initial reactions to the DTS policy

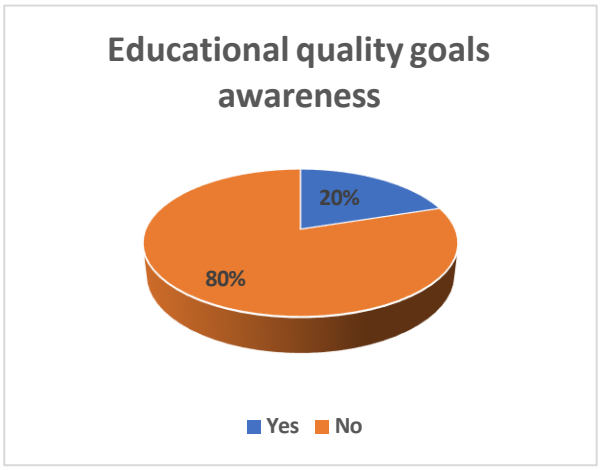


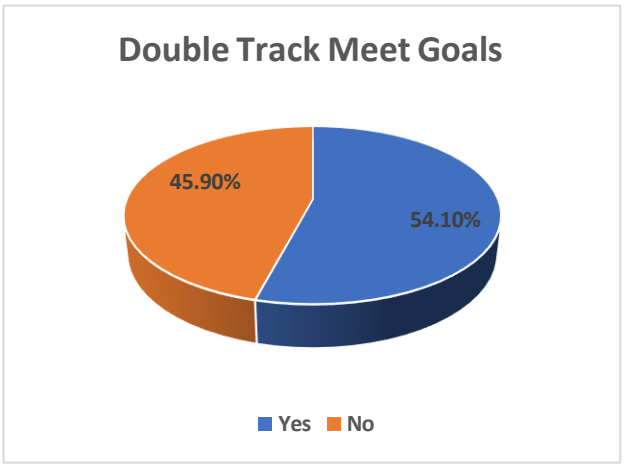
Source: Field Survey 2024

4.2.6 DTS Educational Quality Goals Awareness

Teachers where asked whether they were aware of Ghana's educational quality goals? According to teachers, there was a substantial gap in awareness regarding the educational quality goals within the Double Track System (DTS). Only a small percentage, around 20%, feel informed about the specific objectives set under the system, while a significant majority, 80%, admitted to being unaware. This lack of knowledge suggests limited communication or emphasis on quality benchmarks of the policy within the DTS.

Figure 4. 10: Educational quality goals awareness. Figure 4. 11: DTS meeting goals





Source: Field Survey 2024

Source: Field Survey 2024

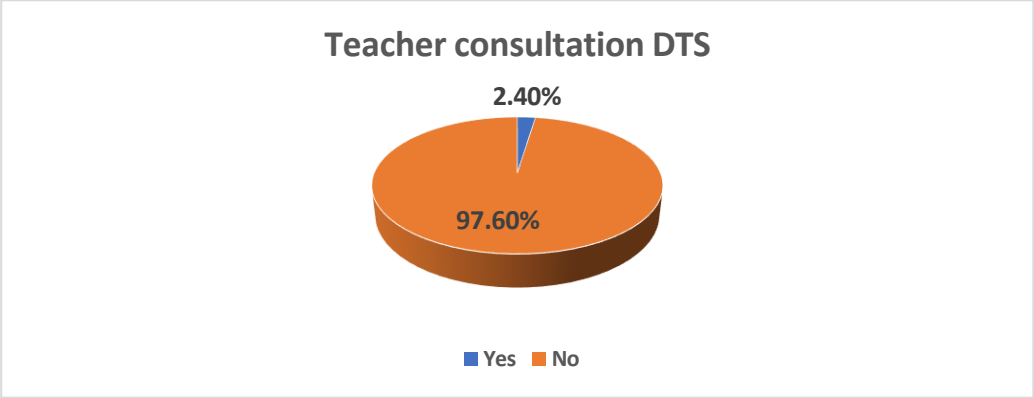
Teachers who were familiar with the DTS goals reported that these focus on several key themes: ensuring universal access and equitable education for all children, emphasizing quality learning to foster academic excellence, and increasing motivation and development for both students and educators. Additionally, there is an alignment with the UN Sustainable Development Goal 4, underscoring a commitment to inclusive, lifelong learning opportunities.

However, the data on teachers' perceptions of whether the Double Track System (DTS) is meeting its educational goals is nearly split. Virtually, 54.1% of teachers affirm that the DTS meets its goals, while 45.9% expressing doubt.

4.2.7 Teacher Consultations on Double Track System

Teachers were asked about inclusion in consultations before the DTS policy roll out. The results reveals that an overwhelming majority of teachers (97.6%) reported not being consulted in the implementation of the DTS. Only 2.4% indicated that they were involved in discussions about the policy before its rollout.

Figure 4. 12: Teacher Consultations before the DTS Policy rollout

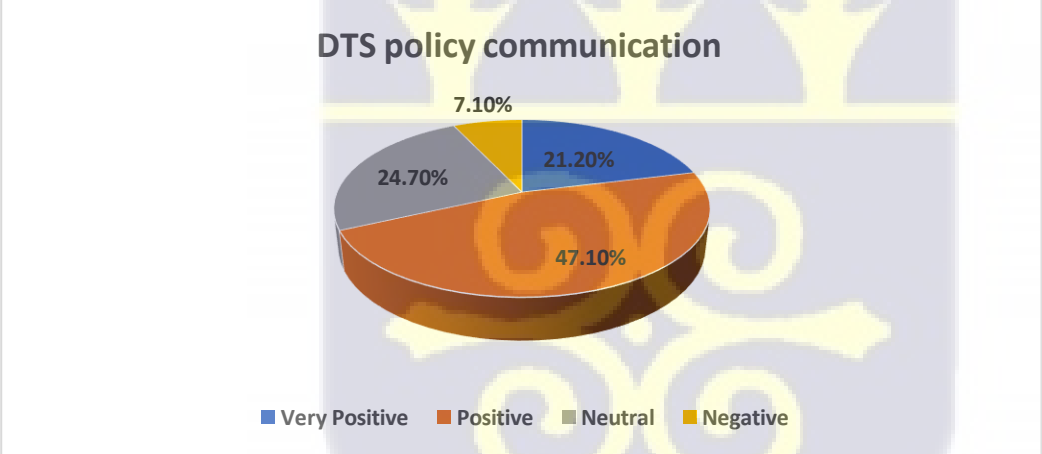


Source: Field Survey 2024

4.2.8 Teacher Perceptions of Double Track System Policy Communication

Teachers were asked how they perceived the communication of the double-track system policy by school authorities and the government. The data shows that most teachers perceive the information/

Figure 4. 13: Teacher consultations to the DTS policy



Source: Field Survey 2024

communication of the Double Track System (DTS) policy positively, with 68.3% expressing favourable views (47.1% positive and 21.2% very positive). This suggests that the majority feel informed and satisfied with the policy's communication. Meanwhile, 24.7% of teachers reported a neutral stance, indicating that while they don't view it negatively, there may be room for improvement in clarity or engagement. Only 7.1% of teachers responded negatively, highlighting a small group that

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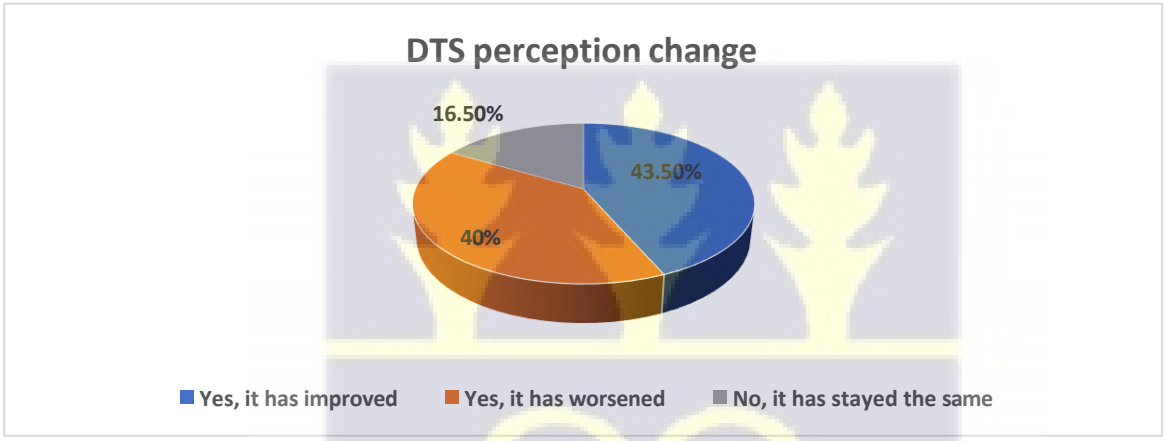
4.2.9 Perception Change

Teachers were asked whether their perception of the double track system policy changed over time.

Figure 4. 14: DTS Perception change.



Source: Field Survey 2024

The results reveal a mixed change in perceptions among teachers during the implementation of the DTS. While 43.5% (37 teachers) feel the system has improved the education system, 40.0% (34 teachers) believe it has worsened due to several key issues. These issues include overcrowded classrooms and dormitories, challenges in completing the syllabus because of changes in the academic calendar, and inadequate teaching resources. Additionally, poor planning and a lack of personal time for teachers contribute to dissatisfaction. Concerns for disadvantaged students, who struggle to meet the curriculum, further exacerbate these feelings. Lastly, 16.5% (14 teachers) believe there has been no significant change, highlighting a need for improvements within the DTS.

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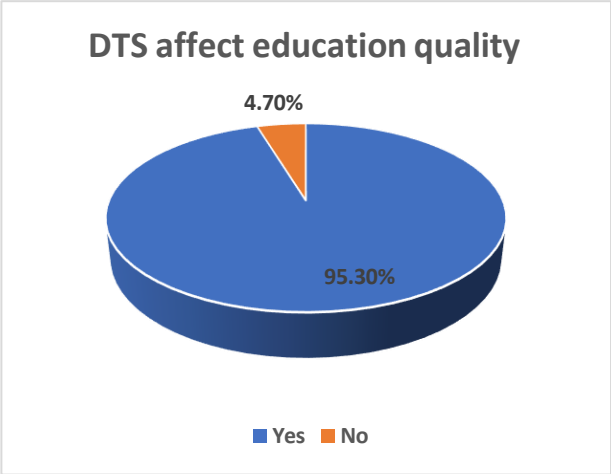
4.3 Impact on Quality of Education

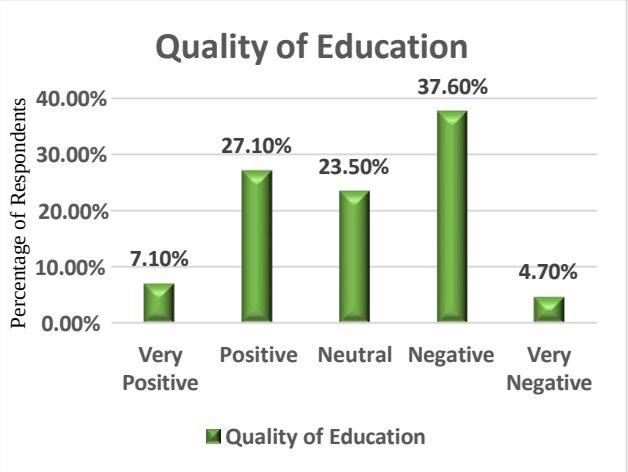
Teachers' perceptions regarding effectiveness and impact on educational quality of DTS reveals a mixed response

4.3.1 Quality of Education

A vast majority, 95.3%, believe the DTS affects quality, while only 4.7% feel it has no impact. Among those perceiving an impact, 34.2% view it positively (7.1% "Very Positive" and 27.1% "Positive"), but a larger group, 42.3%, sees it negatively (37.6% "Negative" and 4.7% "Very Negative"). Additionally, 23.5% remain neutral. Specific issues raised by teachers include the absence of practical components in lessons, a perceived decline in the educational system's overall quality, reduced engagement in teaching and learning, and challenges with student discipline and focus. The strong consensus on these issues, combined with detailed criticisms, points to widespread reservations about the DTS's ability to maintain high educational standards, highlighting areas for potential improvement.

Figure 4.15: DTS Affecting Educational Quality **Figure 4.16: Effects of DTS on Quality of Education**



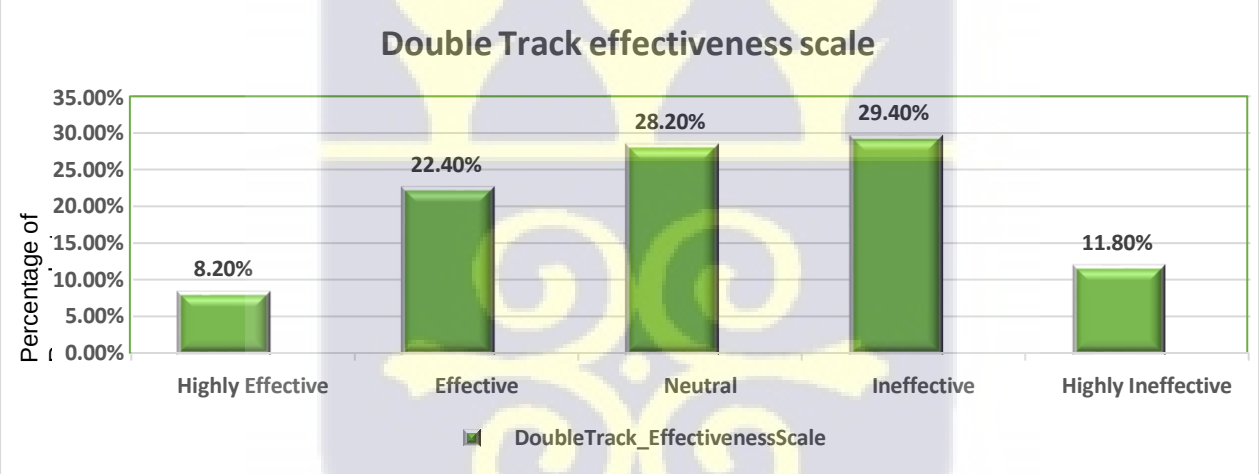


Source: Field Survey 2024 Source: Field Survey 2024

4.3.2 Perception of the Effectiveness of the DTS

Teachers were asked their perception of the effectiveness of the DTS. Overall, 30.6% of teachers

Figure 4. 17: Effectiveness scale of the DTS



Source: Field Survey 2024

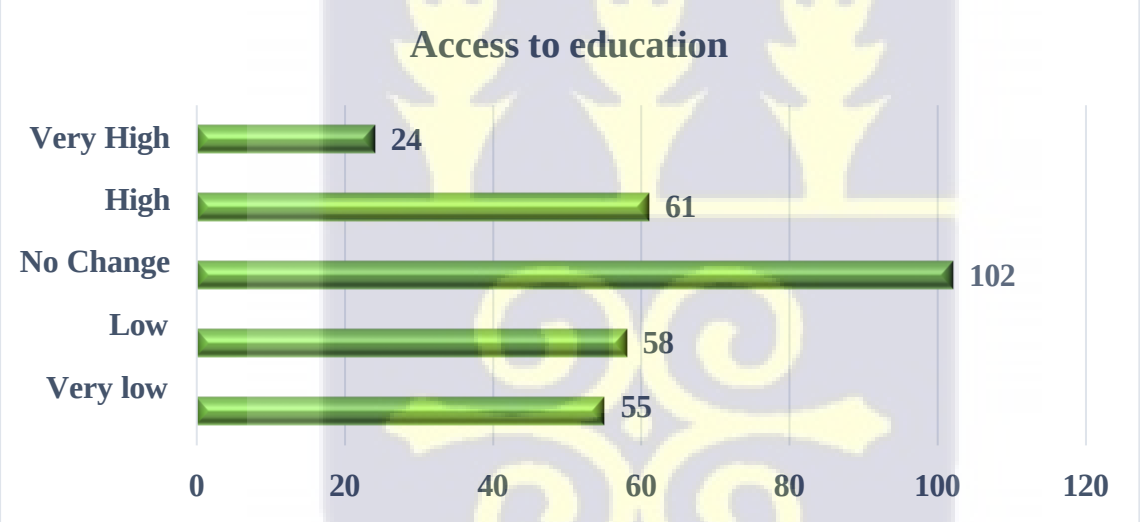
viewed the DTS positively, with 8.2% considering it "Highly Effective" and 22.4% rating it as "Effective." In contrast, the majority of teachers 41.2% have a negative perception, with 29.4% finding it "Ineffective" and 11.8% deeming it "Highly Ineffective." Additionally, 28.2% of teachers

are "Neutral," reflecting no strong support or opposition. Teachers' views on the DTS's impact on educational quality also underscore significant concerns.

4.3.3 Access to Education

When asked about the DTS policy's impact on access to education, responses varied among the students. A combined 37.6% of respondents rated the impact as “Very Low” (18.3%) or “Low” (19.3%), indicating that for a significant portion, DTS has not meaningfully improved access. Meanwhile, 34% of students reported “No Change,” suggesting that access levels remained similar to pre-DTS experiences for many students. Conversely, 28.3% saw a positive impact, with 20.3% rating it as “High” and 8% as “Very High.”

Figure 4.18: Impact of the policy on student access to education



Source: Field Survey 2024

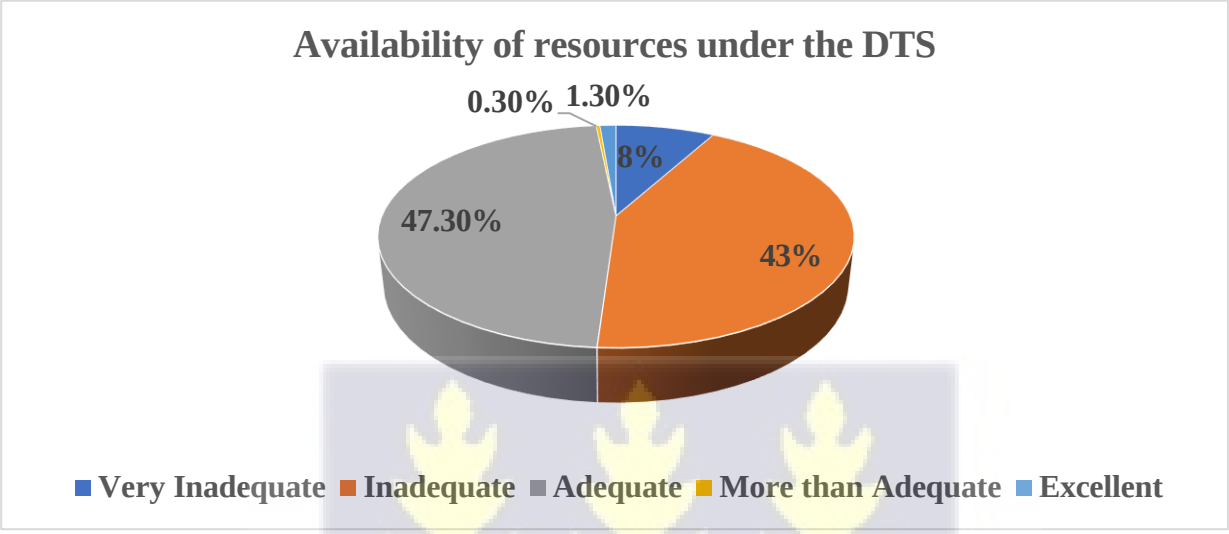
4.3.4 Availability of Learning Resources.

Teachers and students were both questioned to understand availability of learning resources

Responses from students on resource availability under the Double Track System (DTS) show that a substantial portion of students face challenges in accessing adequate learning materials.

As Figure 4.19 below indicates, a combined 51% of respondents rated resources as either "Inadequate" (43%) or "Very Inadequate" (8%), indicating that nearly half of the students are studying with limited resources. While 47.3% of students considered resources to be "Adequate," very few rated them as "More than Adequate" (0.3%) or "Excellent" (1.3%).

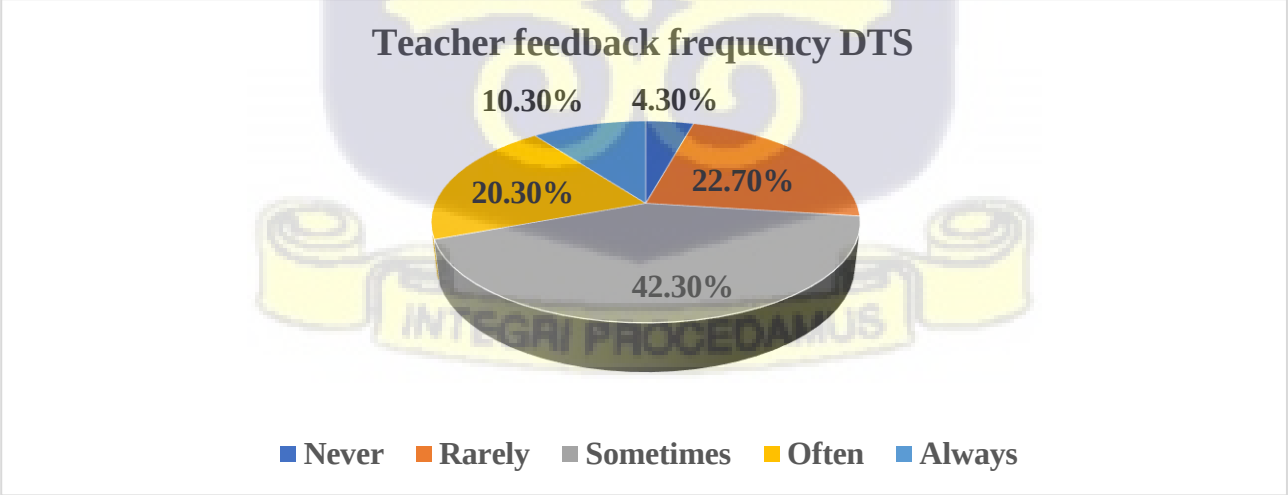
Figure 4. 19: Availability of Resources under the Double Track Policy



Source: Field Survey 2024

4.3.5 Teacher feedback on student performance under Double Track System.

Figure 4.20: Teacher feedback



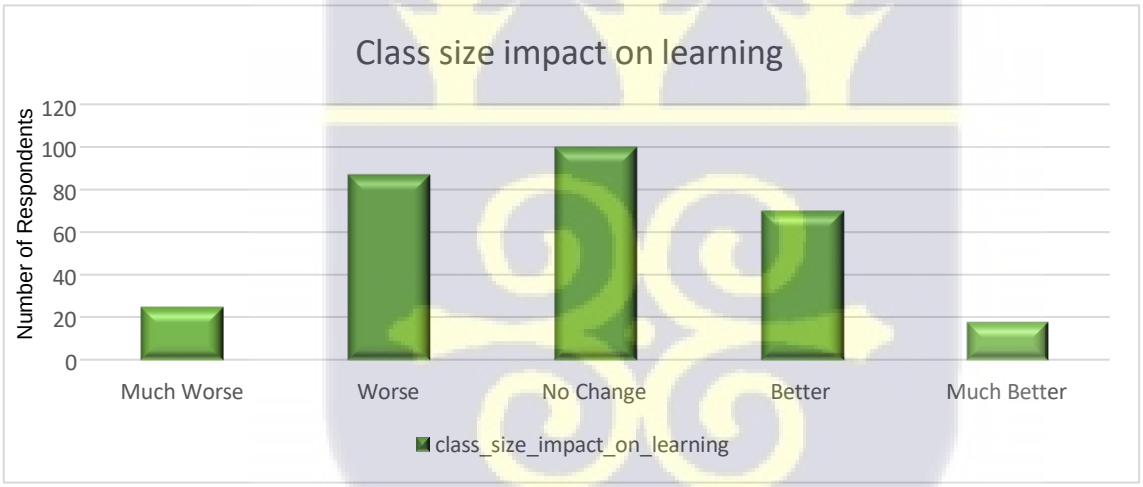
Source: Field Survey 2024

Student were asked how often they receive feedback on their assignment from teachers. Their response (indicated in Figure 4.20 above) varied widely, with only 10.3% of students reporting they "Always" received feedback while 20.3% stating they received it "Often." The largest portion, 42.3%, indicated that feedback was given "Sometimes," while 22.7% said feedback was "Rare" However, 4.3% reported "Never" receiving feedback.

4.3.6 Class Size and Ability to Learn.

The impact of class size on learning under the Double Track System (DTS) appears to be mixed among respondents. While 37.3% of students reported a negative effect, with 29% indicating it was "Worse" and 8.3% saying it was "Much Worse," a notable 33.3% observed "No Change." Conversely, 29.3% felt that class size positively impacted their learning, with 23.3% rating it as "Better" and 6% as "Much Better."

Figure 4. 21: Impact of class size on learning

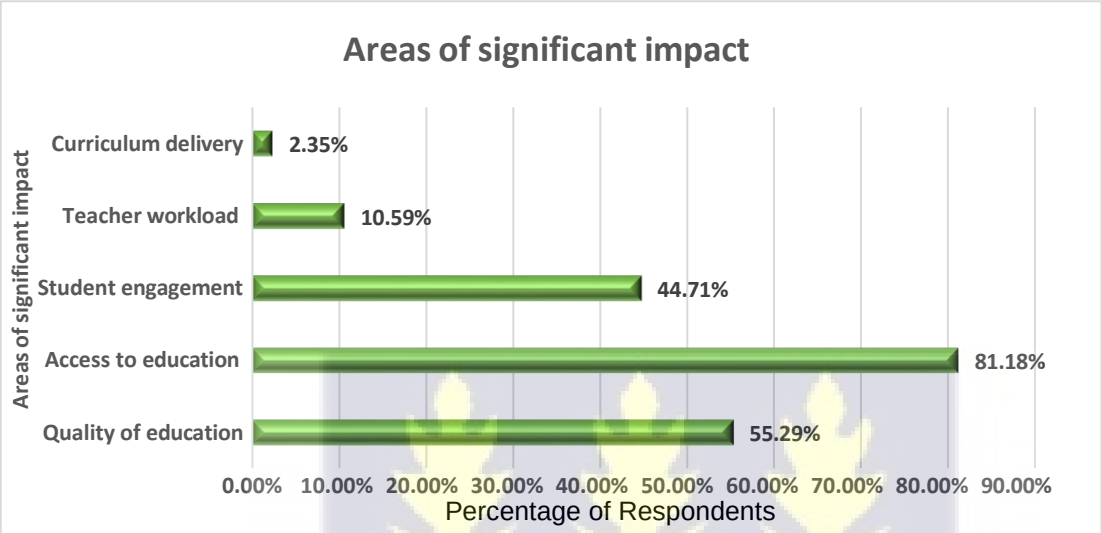


Source: Field Survey 2024

4.3.7 Areas of Significant Impact of the Double Track System

The response on teachers' perspectives regarding the effects DTS highlights several key areas of impact. A majority of teachers, 81.18%, recognize that the DTS has improved access to education, indicating that more students are now able to attend school.

Figure 4.22: Areas DTS has impacted



Source: Field Survey 2024

However, 55.29% of respondents express concerns about the quality of education under the DTS, suggesting that while access has increased, educational standards might be compromised. Additionally, 44.71% of teachers report that the system affects student engagement, implying that the scheduling structure may not be conducive to sustained student interest and participation. Concerns about teacher workload and curriculum delivery are also evident, though they are less pronounced, with 10.59% of teachers mentioning increased workload and only 2.35% noting challenges in delivering the curriculum.

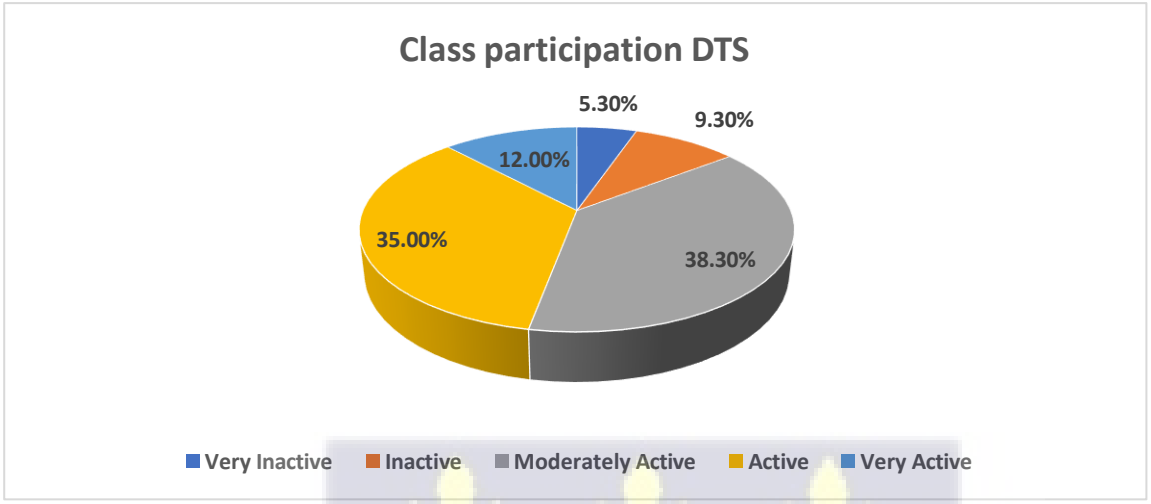
4.4 Participation and Engagement

4.4.1 Class Participation under the Double Track System

Class participation by students under the DTS shows a generally positive trend, with 85.3% of respondents indicating they are "Moderately Active," "Active," or "Very Active." The largest group,

38.3%, identified as “Moderately Active,” while 35% considered themselves “Active” and 12% as “Very Active.” On the lower end, only 14.6% of students reported being “Inactive” (9.3%) or “Very Inactive” (5.3%).

Figure 4. 23: Class Participation under the DTS Policy

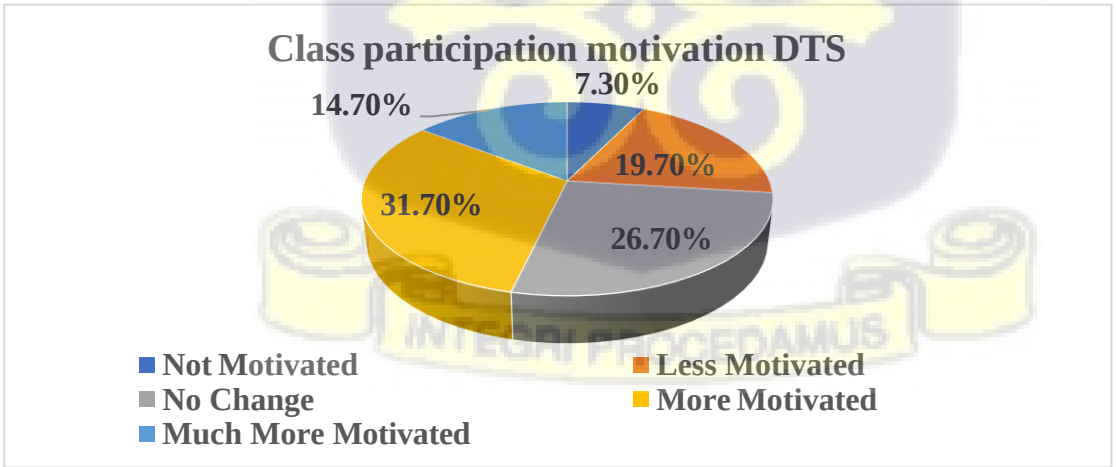


Source: Field Survey 2024

4.4.2 Class Participation Motivation under the DTS

Students were asked how motivated they were to participate in class discussions and group work. According to the results, student motivation for class participation under the Double Track System

Figure 4. 24: Motivation to participate in class



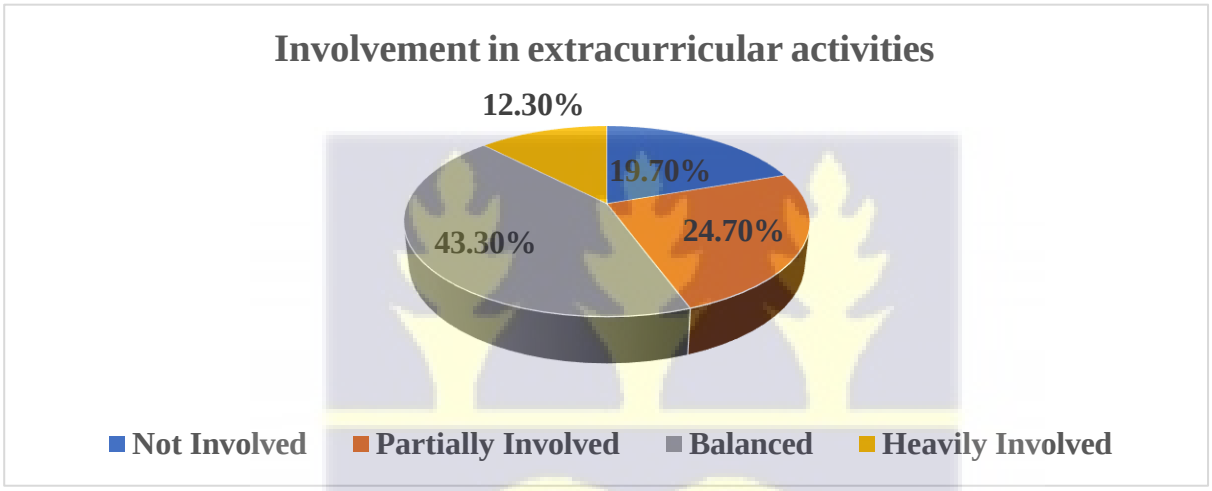
Source: Field Survey 2024

(DTS) reveals a positive trend overall, with 46.4% of respondents indicating increased motivation—31.7% feel "More Motivated" and 14.7% "Much More Motivated." Additionally, 26.7% reported "No Change" in their motivation levels. However, 27% experienced lower motivation, with 19.7% feeling "Less Motivated" and 7.3% "Not Motivated."

4.4.3 Involvement in Extracurricular Activities under the DTS

Students were asked to describe their involvement in extracurricular activities and the results showed that student involvement in extracurricular activities under the Double Track System (DTS) indicates

Figure 4. 25: Involvement in extracurricular activities



Source: Field Survey 2024

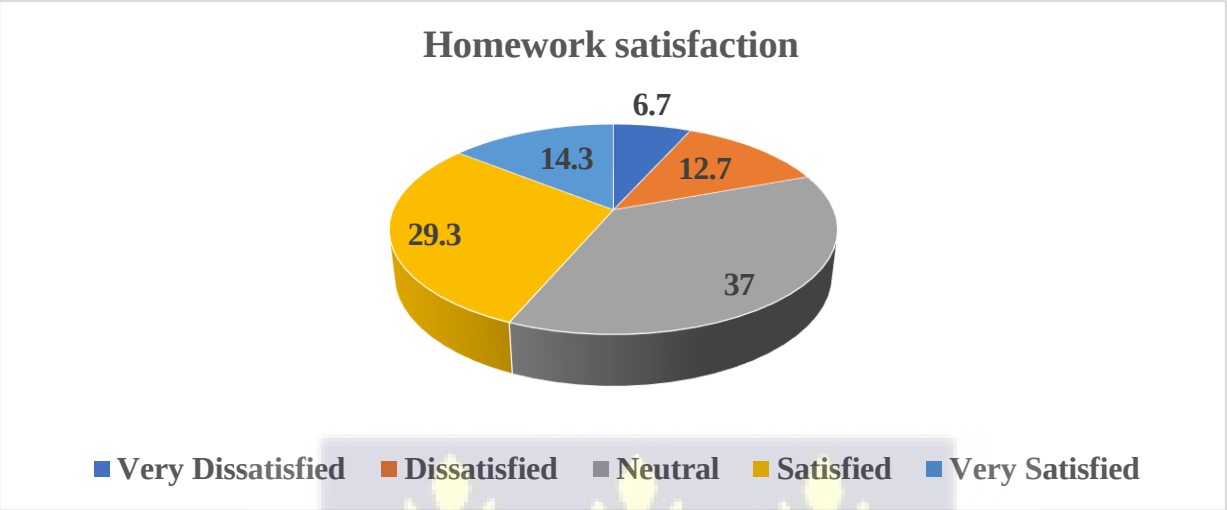
a majority maintaining a balanced level of participation. Specifically, 43.3% reported a "Balanced" involvement, while 24.7% were "Partially Involved," and 12.3% were "Heavily Involved." However, 19.7% indicated "Not Involved," suggesting that nearly one in five students lack engagement in extracurricular.

4.4.4 Satisfaction with Homework under the Double Track System

Students were asked how satisfied they were with their homework under the DTS and responses varied, though generally positive. A combined 43.6% of students reported being either "Satisfied"

(29.3%) or "Very Satisfied" (14.3%) with their homework load, while 37% expressed a "Neutral" stance. On the other hand, 19.4% of students were dissatisfied, with 12.7% "Dissatisfied" and 6.7% "Very Dissatisfied."

Figure 4. 26: Homework Satisfaction



Source: Field Survey 2024

4.4.5 Peer Interaction Rating under the DTS

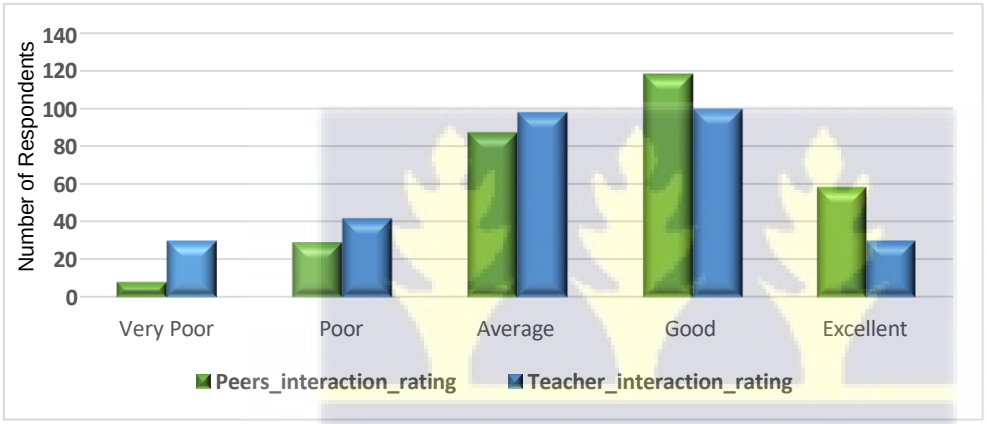
Students' ratings of peer interaction under the Double Track System (DTS) were predominantly positive. A total of 58.6% rated their interactions with peers as "Good" (39.3%) or "Excellent" (19.3%), indicating that over half of the respondents feel positively about their social and collaborative experiences. Another 29% rated peer interaction as "Average," while only a small portion found it lacking, with 9.7% rating it as "Poor" and 2.7% as "Very Poor."

4.4.6 Teacher Interaction Rating under the DTS

Student ratings of teacher interaction under the Double Track System (DTS) reveal mixed experiences. A combined 43.3% rated their interactions as "Good" (33.3%) or "Excellent" (10%), indicating that a notable portion of students feel they have positive engagement with their teachers.

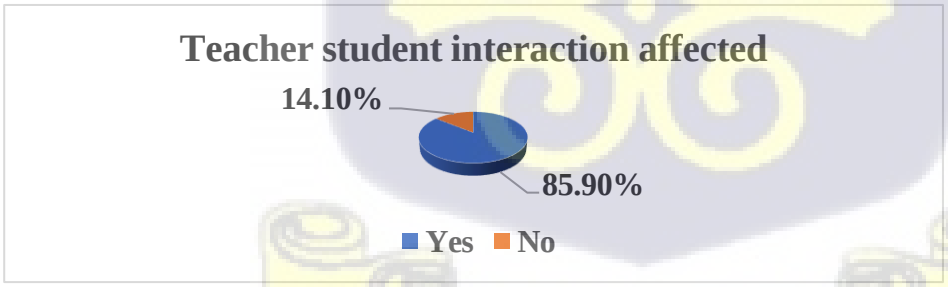
However, 32.7% rated the interaction as “Average,” while a significant 24% expressed dissatisfaction, with 14% marking it as “Poor” and 10% as “Very Poor.” The high percentage of teachers reporting that teacher-student interactions have been affected is further emphasized by additional qualitative responses. Many teachers cited "no effective communication" and "lack of effective communication" as reasons for their perception. Specific phrases like "there is no effective communication," "there is limited communication," and "ineffective communication" reflect concerns that the Double Track System has hindered consistent, clear, and meaningful exchanges between teachers and students.

Figure 4. 27: **Interaction of both teachers and Peers under the DTS Policy**



Source: Field Survey 2024

Figure 4. 28: **Interaction between teachers and students under the DTS Policy**



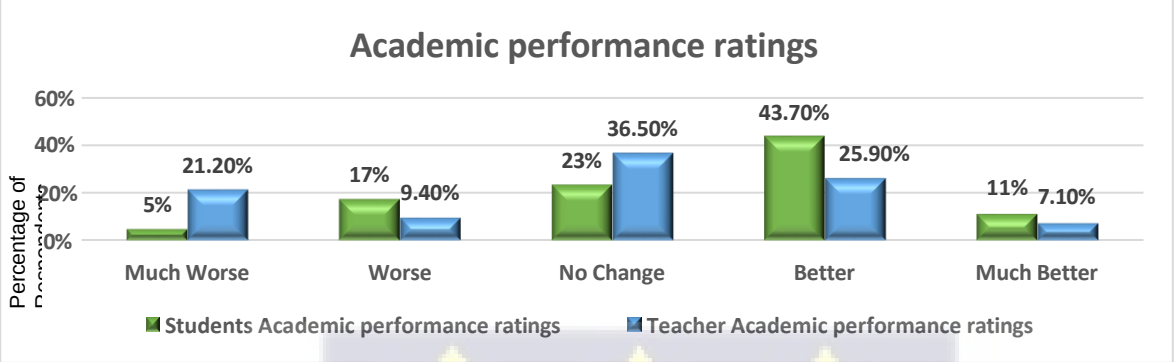
Source: Field Survey 2024

4.5 Academic Performance

4.5.1 Academic Performance Ratings under the DTS

Results from the data collected on teachers' and students' assessments of academic performance under the Double Track System (DTS) reveals mixed outcomes. As in illuminated in Figures 4.30

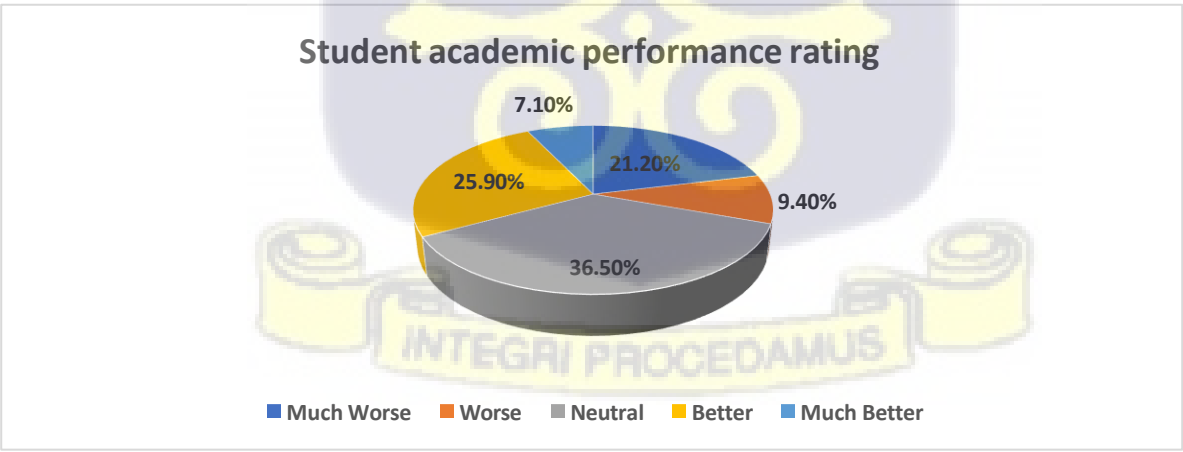
Figure 4. 29: Academic Performance ratings from both teachers and students' perspectives



Source: Field Survey 2024,

among teachers, 36.5% rated student performance as "Neutral," observing no significant change. However, 30.6% perceived a decline, with 21.2% considering performance "Much Worse" and 9.4% as "Worse." In contrast, 33% of teachers noted improvement, with 25.9% rating performance as "Better" and 7.1% as "Much Better."

Figure 4. 30: Current Academic Performance rating.



Source: Field Survey 2024

Student perceptions are generally more positive, with 54.7% reporting improvement in their performance—43.7% rated it as "Better" and 11% as "Much Better." Meanwhile, 23.3% of students observed "No Change," indicating a neutral impact for nearly a quarter of respondents. A smaller portion, 22%, reported declines, with 17.3% rating performance as "Worse" and 4.7% as "Much Worse."

4.5.2 Impact of DTS on Exam Preparation

The Double Track System's (DTS) impact on exam preparation shows a varied response from students. A significant portion of students (36%) reported negative effects, with 26.3% rating their preparation as "Worse" and 9.7% as "Much Worse." Additionally, 32.3% observed "No Change" in their exam preparation, indicating that DTS has not altered the experience for about a third of students. On a positive note, 31.7% experienced improved preparation, with 27.7% rating it as "Better" and 4% as "Much Better."

Table 4. 1: Impact of DTS policy on exam preparation

DTS impact on exam preparation

	Frequency	Per cent
Much Worse	29	9.7
Worse	79	26.3
No Change	97	32.3
Better	83	27.7
Much Better	12	4.0
Total	300	100.0

Source: Field Survey 2024

4.5.3 Availability of Extra Academic Support under the DTS

In assessing the availability of extra academic support under the Double Track System (DTS), 60.7% of students reported having access to additional resources such as tutoring or extra classes.

Meanwhile, 21% indicated a lack of access to such support, and 18.3% were “Not Sure” about its availability.

Table 4. 2: Availability of extra Academic support under the DTS policy

Availability of extra academic support		
	Frequency	Per cent
Yes	182	60.7
No	63	21.0
Not Sure	55	18.3
Total	300	100.0

Source: Field Survey 2024

4.6 Perceived Successes of the DTS Policy

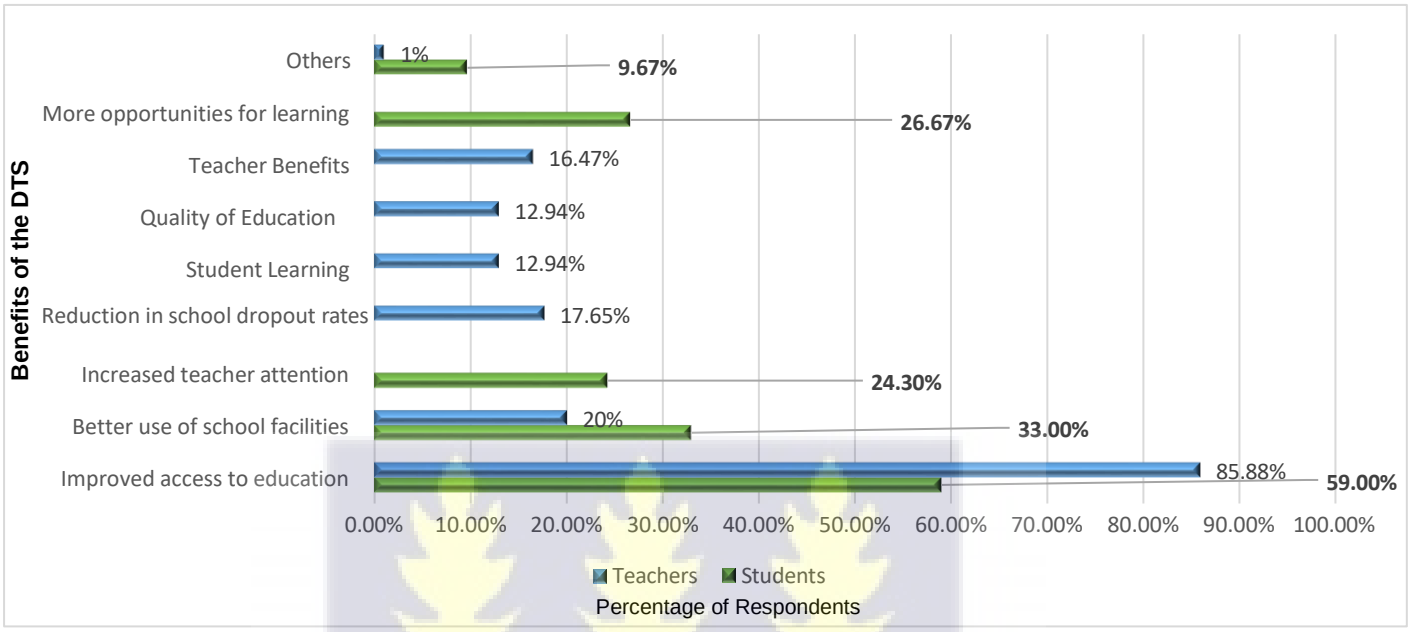
4.6.1 Main Benefits

From the teachers' perspective, 85.88% believe that one of the primary benefits of DTS is improved access to education, highlighting its role in making schooling more available to a broader population. Additionally, 20% of teachers noted improved access to resources and materials, and 17.65% observed a reduction in dropout rates. Other perceived benefits include enhancements in educational quality (cited by 12.94% of teachers), improved learning for students (12.94%), and positive impacts on teachers themselves (16.47%).

Students similarly highlighted the benefits of DTS, with 59% (177 students) identifying improved access to education as the most significant outcome. Another notable advantage reported by students is the optimized use of school facilities, with 33% (99 students) noting that the alternating track schedule reduces overcrowding and maximizes the availability of critical resources such as classrooms, laboratories, and libraries. Additionally, student respondents mentioned that the DTS has led to enhanced teacher attention (24.3%, or 73 students) and increased learning opportunities (26.67%, or 80 students).Beyond these primary benefits, 9.67% of students (29 respondents) cited

other gains, such as reduced financial pressure on parents, improved spatial comfort, additional time for self-study, increased access for underprivileged students, better rest opportunities, and enhanced access to learning materials.

Figure 4. 32: Main benefits of the DTS policy



Source: Field Survey 2024

4.6.2 Student Satisfaction with Quality of Education under the DTS

Student satisfaction with the quality of education under the Double Track System (DTS) show a mix of opinions. The largest portion, 39.7%, expressed a "Neutral" stance, suggesting that while students may not see substantial improvements, they also may not feel significant drawbacks in educational quality. Over one-third of students are unsatisfied with the education quality under DTS with 34.7% reported being either "Dissatisfied" (26%) or "Very Dissatisfied" (8.7%). Meanwhile, 25.7% of students expressed satisfaction, with 20.7% "Satisfied" and 5% "Very Satisfied."

Table 4. 3: Education Quality Satisfaction DTS education quality satisfaction

	Frequency	Per cent
Very Dissatisfied	26	8.7
Dissatisfied	78	26.0
Neutral	119	39.7
Satisfied	62	20.7
Very Satisfied	15	5.0
Total	300	100.0

Source: Field Survey 2024

4.6.3 Perceived Improvement in Student-Teacher Ratios under the DTS

Student opinions on whether the Double Track System (DTS) has improved the student-teacher ratio show a largely skeptical perspective. A significant 41% of respondents disagreed with the impression of improvement, with 17% "Strongly Disagreeing" and 24% "Disagreeing." Meanwhile, 32.7% held a "Neutral" stance, suggesting they may not have observed a noticeable change. In contrast, only 26.3% of students perceived an improvement, with 21% "Agreeing" and 5.3% "Strongly Agreeing.

Table 4.4 DTS student-teacher ratio improvement

	Frequency	Per cent
Strongly Disagree	51	17.0
Disagree	72	24.0
Neutral	98	32.7
Agree	63	21.0
Strongly Agree	16	5.3
Total	300	100.0

Source: Field Survey 2024

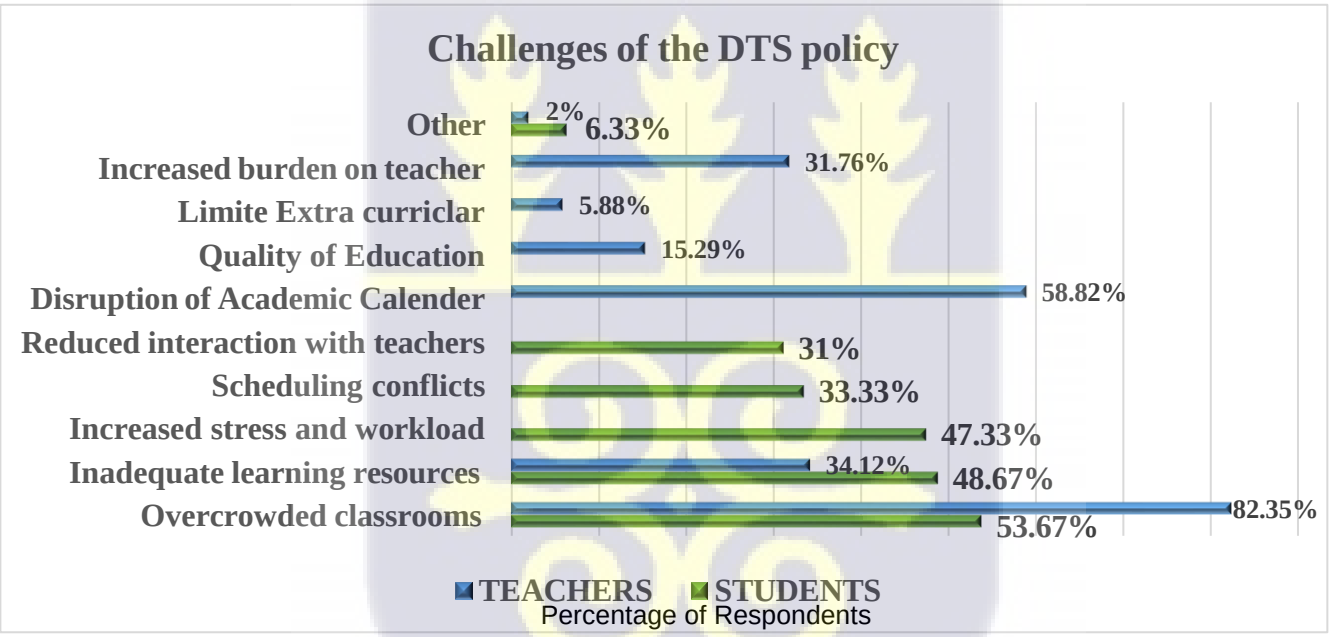
4.7 Challenges of the DTS Policy

4.7.1 Main Challenges of the DTS Policy

From the teachers' perspective, DTS has enabled broader access to education, which is widely seen

as beneficial. However, 82.35% of teachers pointed out that the system has resulted in overcrowded classrooms, which strain the available resources and hinder effective teaching. Additionally, 58.82% of teachers believe the DTS has disrupted the academic calendar, complicating lesson planning and continuity. Other concerns include an increased burden on teachers (31.76%), inadequate resources (34.12%), and limited opportunities for extracurricular activities (5.88%), all of which underscore the operational and logistical difficulties that DTS has introduced. Furthermore, 15.29% of teachers expressed concerns about the impact of DTS on educational quality, indicating that the accelerated pace and overcrowded conditions may compromise the depth and effectiveness of instruction.

Figure 4.33: Main Challenges of the DTS Policy



Source: Field Survey 2024

Student respondents indicated that the DTS has also posed considerable challenges for students. Overcrowded classrooms (53.67%) and inadequate learning resources (48.67%) were reported as

major issues, exacerbating difficulties in maintaining effective learning conditions. Many students feel that the shortened academic terms lead to increased stress, as they struggle to keep up with the accelerated curriculum. Scheduling conflicts and reduced teacher-student interactions (31%) added further strain, limiting opportunities for personalized support. Additional concerns include infrastructural issues, such as poor dining facilities, overcrowded and poorly ventilated classrooms, and insufficient seating and washroom facilities, all of which contribute to an uncomfortable and less conducive learning environment.

4.7.2 Difficulty in Managing Schedule

Student perceptions of scheduling difficulty under the Double Track System (DTS) reflect varied experiences. The largest group, 50%, reported "Sometimes" encountering scheduling issues, indicating that while difficulties are not constant, they are common for many students. A combined 31% experienced frequent challenges, with 21% reporting difficulties "Often" and 10% reporting them "Always." Conversely, 19% experienced minimal scheduling issues, with 16.3% indicating "Rarely" and 2.7% stating "Never."

Table 4. 5: DTS schedule difficulty frequency

	Frequency	Per cent
Never	8	2.7
Rarely	49	16.3
Sometimes	150	50.0
Often	63	21.0
Always	30	10.0
Total	300	100.0

Source: Field Survey 2024

4.7.3 Impact of DTS on Facility Availability

Student perceptions of facility availability under the DTS indicate a range of experiences. The largest response, 41%, observed "No Change" in the accessibility of facilities, suggesting that DTS may not have significantly affected resource availability for a substantial portion of students. Meanwhile, 29% reported a negative impact, with 20% indicating that facility access was "Worse" and 9% describing it as "Much Worse." Conversely, 30% experienced an improvement, with 23.3% rating it as "Better" and 6.7% as "Much Better."

Table 4. 6. DTS impact on the availability of School Facilities

	Frequency	Per cent
Much Worse	27	9.0
Worse	60	20.0
No Change	123	41.0
Better	70	23.3
Much Better	20	6.7
Total	300	100.0

Source: Field Survey 2024

4.8 Stakeholder Perspectives and Key Informant Interviews (KII)

4.8.1 Policy Awareness and Implementation of DTS

Stakeholders expressed concerns about the lack of consultation before the DTS was implemented. Many teachers and school administrators reported that they were not involved in the planning stages of the policy, which led to significant challenges during its rollout. One headmistress remarked, *"It was a government decision, and we were informed about the policy after it was already designed... If we had been consulted, we could have provided valuable insights."* Similarly, 97.6% of teachers reported that they were not consulted before the implementation, leading to confusion and difficulties in adjusting to the system. However, a TEWU representative stated that while some stakeholder

engagement took place, many of their suggestions were not incorporated into the policy's final structure. *"We came up with suggestions, and then some were brought on board, while others were not,"* he explained. This suggests that while some voices were heard, the policy largely followed a top-down approach.

4.8.2 Impact on Quality of Education

Stakeholders highlighted several factors affecting the quality of education under the DTS. Overcrowded classrooms and limited learning resources emerged as major concerns. One headmaster stated, *"Our classrooms and dormitories are overcrowded, and we lack basic supplies like desks and chairs... this affects their concentration and overall learning experience."* Another headmaster emphasized that infrastructure constraints meant students had to sit on the floor or stand at the back of classrooms due to insufficient seating. Additionally, reduced contact hours between teachers and students have negatively affected learning outcomes. A TEWU representative noted, *"Because there are not enough contact hours with teachers, the quality is dwindling. It is coming down."* 85.9% of respondents indicated that teacher-student interactions have been negatively affected, further exacerbating the quality of education. Teachers reported that they were forced to rush through the syllabus, leaving little time for thorough explanations and student engagement.

4.8.3 Academic Performance

Many stakeholders noted a decline in academic performance due to the compressed academic calendar and reduced instructional time. The TEWU representative pointed out that *"Students in each track spend significantly less time in school... teachers are rushing through the syllabus, which means many topics are either skipped or not taught in sufficient depth."* Students also reported difficulties in keeping up with the syllabus, often resorting to self-study or private tuition. One student mentioned, *"When we are going on vacation, we are given project work and topics to learn on our own. When*

we come back, the teacher doesn't go over it because he has to move on to the next topic." This has placed additional financial pressure on parents, as many have had to pay for private tuition to help their children keep up academically. Additionally, some stakeholders raised concerns about increased reliance on "Apo" (leaked exam questions), indicating a potential decline in academic integrity.

4.8.4 Perceived Successes of DTS

Despite the challenges, some stakeholders acknowledged the policy's success in increasing access to secondary education. A stakeholder remarked, *"DTS has helped a lot of children acquire SHS education,"* particularly those who would have missed out due to space limitations under the previous system. One headmaster stated, *"The DTS has allowed us to enroll far more students than we could have under the old system... that's a significant achievement."* Additionally, some students benefited from smaller alternating cohorts, which allowed for better teacher attention. A TEWU representative noted that digital literacy had improved due to increased reliance on ICT tools for teaching. *"Some teachers now prepare lesson notes on laptops and project them in class. This has helped students develop ICT skills."* However, these benefits were often overshadowed by the broader challenges of implementation.

4.8.5 Challenges of the DTS Policy

Stakeholders pointed out several critical challenges, including poor infrastructure, inadequate teacher recruitment, and increased workload for educators. The overcrowding of schools has led to logistical issues, making it difficult for teachers to manage large class sizes effectively. One headmaster emphasized, *"We need more classrooms, dormitories, and teaching materials if this system is to work properly."* Teacher workload was another pressing concern. With no significant breaks between tracks, teachers reported experiencing burnout and reduced morale. One headmaster explained, *"Teachers are essentially teaching all year round without real breaks. The intervention allowances*

they receive do not compensate for the workload." The TEWU representative echoed this concern, stating that *"teachers do not get vacations anymore. They move straight from one group of students to another, which is exhausting."* Scheduling disruptions were another major concern, affecting extracurricular activities and remedial classes. Many students and teachers reported that the compressed schedule limited opportunities for personalized academic support, further affecting student performance. Additionally, food shortages in boarding schools were raised as a concern, with some students reporting that they had to bring their own sugar or bread to supplement inadequate meal provisions.

PART II

ANALYSIS OF FINDINGS

4.9 Perceptions of Stakeholders and School Management on Ghana's Double-Track System

The implementation of the Double Track System (DTS) in Ghana's Free Senior High School (SHS) policy was aimed at expanding access to secondary education amidst infrastructural constraints. However, stakeholder awareness and involvement in the formulation and execution of the policy varied significantly (Dwomoh et al., 2022). Empirical findings indicate a high level of awareness of the DTS among students, with 87.3% confirming their knowledge of the policy. Similarly, all student respondents (100%) acknowledged that the DTS was actively practiced in their schools. However, despite this widespread awareness, there existed notable gaps in understanding the policy's core objectives, particularly among educators. Only 20% of teachers reported familiarity with the educational quality goals associated with DTS, suggesting limited communication regarding the system's broader objectives (Field Survey, 2024). According to CCES & Avison (2010), effective educational policy implementation requires not just awareness but also in-depth understanding among key stakeholders to ensure successful execution. The apparent knowledge gap in the DTS policy indicates a shortfall in stakeholder engagement, which aligns with concerns raised in previous studies

on policy implementation in sub-Saharan Africa (Akyeampong, 2022; Osei-Owusu & Akenten-Appiah, 2021).

Stakeholder perceptions on the DTS policy vary widely, with some acknowledging its role in expanding access to education while others highlight the challenges associated with its implementation. Several headmasters noted that DTS has "helped a lot of children to acquire SHS education," particularly those who may have missed out due to limited space under a single-track system. One headmaster stated, "The DTS has allowed us to enroll far more students than we could have under the old system... that's a significant achievement." However, the relatively low proportion of positive responses suggests that while DTS has achieved some successes, a significant number of educators remain unconvinced of its overall effectiveness. Many teachers expressed concerns over the quality of instruction, citing reduced contact hours and overcrowded classrooms as major impediments to effective teaching. Some school administrators also criticized the lack of proper stakeholder consultation, arguing that the policy was implemented hastily without thorough input from those who would be directly affected.

Studies have shown that stakeholder involvement in educational reforms is a crucial determinant of policy success. According to Ankomah et al. (2005), the absence of inclusive decision-making processes leads to implementation inefficiencies and resistance from key actors such as teachers and administrators. This is evident in the DTS rollout, where 97.6% of teachers reported that they were not consulted before the policy was implemented (Field Survey, 2024). Research by Adjei (2021) on the Double Track System in the Eastern Region of Ghana also highlights that teachers and school management were sidelined in the planning process, leading to initial resistance and skepticism regarding the system's effectiveness. Similar findings by Anderson (1991) emphasize that teachers' perceptions of education policies significantly influence how well reforms are implemented in classrooms.

The perception of declining quality of education under the DTS has been a dominant concern among stakeholders. The Africa Education Watch (2023) report on the financial burden and quality implications of the Free SHS policy found that many school administrators believe that the rush to accommodate large student numbers has led to a decline in the depth and effectiveness of instruction. This aligns with the concerns of several school management members, who cited overcrowding, limited teaching resources, and inadequate classroom space as major challenges affecting teaching and learning outcomes. Osei-Owusu and Akenten-Appiah (2021) argue that expanding access to education without corresponding investment in infrastructure and teacher support mechanisms leads to a dilution of educational quality. This situation mirrors the experience of some Latin American countries, where rapid educational expansion programs such as those in Bolivia and Ecuador saw initial improvements in access but subsequent declines in learning outcomes due to resource constraints (Bonal, 2004).

Globally, successful education reforms have demonstrated that effective stakeholder engagement leads to better policy implementation and improved outcomes (McGrath, 2010). In Finland, for instance, educational policies are designed in collaboration with teachers, school leaders, and parents, ensuring that reforms are well-integrated into the existing system (Soudien, 2019). Similarly, China's University Town Model emphasizes the involvement of local communities and educators in decision-making, which has contributed to higher educational attainment and system efficiency (Mei & Symaco, 2021). These examples highlight the gaps in Ghana's DTS policy, where top-down implementation has led to widespread resistance and concerns over declining quality.

4.10 Student Academic Performance under the Double Track System (DTS)

The impact of the Double Track System (DTS) on student academic performance has been widely debated among educators, policymakers, and researchers. The system's compressed academic calendar, increased teacher workload, and resource limitations have posed challenges that directly

impact students' ability to perform at optimal levels. Empirical findings from the field survey indicate a weak correlation between expanded access to education and improved academic performance ($r_s=0.202$, $p<0.01$). This suggests that while DTS has successfully increased student enrollment, it has not significantly enhanced academic outcomes. According to a TEWU representative, *"Students in each track spend significantly less time in school... teachers are rushing through the syllabus, which means many topics are either skipped or not taught in sufficient depth."* Similarly, WASSCE performance statistics indicate fluctuations in core subject pass rates between 2020 and 2023, with slight improvements in English and Social Studies but inconsistencies in Mathematics and Integrated Science (WAEC, 2023). These trends suggest that students may be struggling with STEM-related subjects due to insufficient instructional time.

One of the most notable concerns regarding student performance under DTS is the reduced instructional time per subject due to the shortened school year. According to Mensah (2019), students in double-track schools receive fewer contact hours per subject, which affects their ability to grasp complex concepts, particularly in mathematics and science. In comparison, countries like Japan and South Korea, which implement rigorous academic systems, allocate significantly more contact hours per subject, reinforcing student comprehension through extended study periods (OECD, 2021). The compressed schedule in Ghana's DTS has forced teachers to cover extensive syllabi in a shorter time frame, often prioritizing syllabus completion over deep understanding (Donkoh et al., 2020). Headmasters interviewed for this study expressed concerns about the pace of instruction under DTS. One headmaster noted, *"We are forced to sacrifice depth for speed. Students learn just enough to pass exams but struggle with long-term retention."* This aligns with the findings of Osei-Owusu and Akenten-Appiah (2021), who argue that when instruction is rushed, learning retention declines, and students become overly dependent on rote memorization rather than conceptual understanding.

Inadequate access to learning materials has further compounded academic challenges under DTS. Findings from the field survey indicate that 51% of students rated available resources as inadequate

or very inadequate, citing shortages of textbooks, laboratory materials, and ICT tools. The Ministry of Education (2018) had projected that adequate resources would be provided under the Free SHS policy, yet many schools continue to suffer from logistical gaps (Boakye-Amponsah et al., 2015). According to a UNESCO (2020) study on educational quality in sub-Saharan Africa, student performance is heavily dependent on access to modern learning resources, including digital tools and laboratory equipment. In well-funded schools where students have access to electronic textbooks, audiovisual aids, and science labs, performance in STEM subjects has been notably higher than in under-resourced schools (Bashir et al., 2022).

Teacher feedback has also been inconsistent due to the heavy workload under DTS. Findings indicate that only 10.3% of students always received feedback on their assignments, while 20.3% received it often, 42.3% sometimes, 22.7% rarely, and 4.3% never (Field Survey, 2024). This discrepancy in feedback has affected student progress, as timely corrections and guidance are crucial for academic improvement. According to Anderson (1991), frequent and structured teacher feedback significantly enhances student learning outcomes, a practice that remains insufficiently implemented under DTS due to time constraints and teacher burnout.

Despite its challenges, some students have exhibited adaptive learning behaviors under the DTS. Digital literacy has improved among students who have been compelled to seek alternative learning resources online (Asamoah et al., 2022). The shift towards self-directed learning has empowered some students to develop independent study habits, a crucial skill for higher education. However, this adaptability has not been universal. A significant portion of students, particularly those from low-income backgrounds without access to digital devices or private tutoring, have struggled to keep pace with the accelerated curriculum (Donkoh et al., 2020).

4.11 Successes of the Double Track System (DTS)

The most widely acknowledged success of the DTS has been its role in enhancing access to secondary education, aligning with the objectives of Ghana's Free Senior High School (Free SHS) policy. Studies by Grant (2017) and Spada et al. (2024) emphasize that expanding secondary school access

is crucial for national development, as higher literacy rates contribute to economic growth and poverty reduction. A UNESCO (2020) report similarly highlights that countries investing in secondary education expansion see improvements in labor market outcomes and overall national productivity. Ghana's DTS aligns with global education access initiatives, including the UN Sustainable Development Goal (SDG) 4, which seeks to ensure inclusive and equitable quality education for all by 2030 (United Nations, 2019).

Empirical findings from field surveys confirm that 85.88% of teachers believe DTS has improved access to education, particularly in areas where infrastructural constraints would have otherwise limited student intake. School administrators interviewed for this study also noted that the policy has reduced dropout rates, as more students are able to secure placements in senior high schools (Field Survey, 2024).

A major success of the DTS has been its ability to maximize the use of existing school facilities. By implementing a rotational academic calendar, schools have been able to operate at full capacity throughout the year, accommodating a higher student population without requiring immediate infrastructural expansion. According to Osei-Owusu and Akenten-Appiah (2021), this strategy has delayed the need for extensive capital investments in school construction while still achieving higher enrollment numbers. This approach has been successfully implemented in countries such as Costa Rica and Thailand, where double-shift schooling models have helped governments address classroom shortages while maintaining student learning opportunities (Artavia et al., 2024). In Ghana, the Ministry of Education (2020) reported that over 400,000 students were able to access secondary education under DTS, a number that would have been impossible under the traditional single-track system. However, while this success is commendable, long-term strategies for sustainable infrastructure expansion remain necessary.

The DTS, as part of the Free SHS policy, has significantly reduced financial barriers to education, making secondary schooling more accessible to students from low-income households. Abdul-Rahaman et al. (2018) highlight that one of the leading causes of school dropouts in Ghana has been

financial constraints. The introduction of Free SHS, combined with DTS, has helped thousands of students stay in school by eliminating tuition fees and reducing boarding costs. A TEWU representative stated, *"Before DTS, many students had to drop out due to financial constraints. Now, more students can stay in school without worrying about tuition fees."*

Another emerging success of DTS has been the increased adoption of digital learning tools and independent study habits among students. With a compressed academic calendar, many students have turned to online resources, educational apps, and self-study techniques to supplement classroom instruction (Asamoah et al., 2022). This shift aligns with global trends in digital education, where students are encouraged to become more self-reliant and adaptable in their learning approaches (McGrath, 2010). A comparative study in China's Blended Learning Initiative found that students exposed to self-directed learning models tend to perform better in higher education settings, as they develop time management and research skills at an earlier stage (Mei & Symaco, 2021).

4.12 Challenges of the Double Track System (DTS)

While the Double Track System (DTS) has successfully expanded access to education, its implementation has faced significant challenges, including teacher workload, infrastructural constraints, scheduling conflicts, and concerns over student performance and well-being. These challenges have raised concerns about the long-term sustainability and effectiveness of the policy**.**

One of the most pressing challenges of DTS is the increased workload on teachers. Findings from the field survey indicate that 88.2% of teachers handle both tracks without additional support, and 85.9% receive no compensation for extra work (Field Survey, 2024). The continuous cycle of teaching, with little to no breaks, has led to teacher burnout, decreased motivation, and reduced instructional quality. According to Abdul-Rahaman et al. (2018), teacher fatigue and lack of incentives negatively impact the effectiveness of instruction, ultimately affecting student learning outcomes. A TEWU representative highlighted this issue, stating, *"Teachers no longer have real vacations. As soon as one group of students vacates, another batch resumes, leaving no time for rest or professional*

development." Similar findings have been reported in Nigeria's double-shift education model**,** where teachers experienced high attrition rates and decreased morale due to excessive workloads (Umar & Tahir, 2020). A study by Anderson (1991) also supports the claim that teacher effectiveness declines when workloads exceed manageable levels**.**

The lack of adequate physical infrastructure has emerged as a major challenge in the DTS system. The policy significantly increased student enrollment, but school facilities have not expanded at the same rate. Field survey data reveal that 82.35% of teachers cite inadequate classrooms and dormitories as a major challenge. In many schools, overcrowded classrooms have made effective teaching difficult, forcing students to sit on the floor or share limited resources. Osei-Owusu and Akenten-Appiah (2021) argue that without parallel infrastructure expansion, double-track systems create an unsustainable strain on existing facilities. Compared to other countries with successful double-track implementations, such as Costa Rica and Thailand, Ghana has not adequately invested in physical infrastructure to support the (Rodríguez et al., 2024). The Africa Education Watch (2023) report further indicates that the rapid implementation of DTS outpaced the available infrastructure, leading to serious overcrowding issues**.**

Students under DTS have reported increased stress levels due to the accelerated curriculum and reduced breaks between terms. Findings indicate that 36% of students struggle with exam preparation under the DTS**,** with 26.3% rating their preparation as "Worse" and 9.7% as "Much Worse" compared to the previous system (Field Survey, 2024). The psychological pressure on students, coupled with inadequate support structures, has led to increased cases of anxiety and academic fatigue**.**

A study by Asamoah et al. (2022) highlights that without appropriate mental health and counseling services, students in high-pressure academic environments risk developing burnout and disengagement. Research on the double-shift education system in Kenya and Tanzania similarly found that compressed academic schedules led to increased dropout rates and higher levels of student fatigue (Otieno, 2016; *Tanzania's School Dropout Crisis: A Call for Systemic Reform | The Citizen*,

2014). These findings suggest that prolonged exposure to high-intensity learning environments without structured rest periods negatively affects student performance and well-being.

Another significant issue is the inequity in resource distribution across schools. While some well-funded schools have been able to manage the demands of DTS effectively, others—particularly in rural areas—lack essential materials such as textbooks, laboratory equipment, and ICT tools**.** According to a UNESCO (2020) study on educational quality in sub-Saharan Africa, student performance is heavily dependent on access to modern learning resources, including digital tools and laboratory equipment**.**

Osei-Owusu and Akenten-Appiah (2021) highlight that resource disparity exacerbates educational inequality, as students in under-resourced schools struggle to keep up with their peers in better-equipped institutions. A TEWU representative stated, *"Students in well-funded schools perform better because they have more access to textbooks and technology. Those in rural schools have to rely on outdated materials or learn through lectures alone."* This inequity has contributed to performance gaps among students**,** with those in poorly resourced schools at a significant disadvantage.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a summary of the findings of the study, conclusions and recommendations or policy advice based on the findings of the study.

5.1 Summary

The study revealed that there is a high level of awareness of the DTS policy among students and teachers. However, there was limited understanding among educators regarding the educational quality goals associated with DTS. Findings indicated that 97.6% of teachers were not consulted before the policy's implementation, leading to dissatisfaction and resistance from stakeholders. While some school administrators acknowledged the DTS's success in increasing access to education, concerns about overcrowding, reduced instructional time, and inadequate resources were prevalent. Globally, stakeholder engagement has proven to be a key determinant of successful education policies. Case studies from Finland and China highlight the importance of involving teachers and local communities in decision-making to ensure policy effectiveness. In contrast, Ghana's DTS implementation followed a top-down approach, leading to resistance from key actors in the education sector.

The study found a weak correlation between increased access to education and improved academic performance. Empirical findings suggested that while DTS enabled more students to enroll in SHS, it also resulted in compressed academic calendars, reducing students' contact hours with teachers. Teachers reported difficulties in completing syllabi, leading to surface-level learning rather than deep comprehension. Field survey data showed that 36.5% of teachers rated student performance as neutral, while 30.6% perceived a decline in academic performance. Only 33% of teachers noted an improvement. Furthermore, teacher workload increased significantly under DTS. Findings revealed

that 88.2% of teachers handled both tracks without additional support, with 85.9% receiving no compensation for extra work. This led to widespread teacher burnout and reduced instructional quality, echoing findings from Nigeria's double-shift education model, where excessive workloads resulted in high attrition rates.

Despite its challenges, the DTS policy successfully expanded access to education, allowing more students to enroll in SHS. Ghana Statistical Service reported a 20% increase in SHS enrollment following the introduction of DTS, enabling students from underprivileged backgrounds to access secondary education. Another success was the optimized use of existing school facilities. The rotational academic calendar allowed schools to accommodate more students without immediate infrastructural expansion. This strategy has been effectively used in Costa Rica and Thailand, where double-shift schooling has helped governments manage student populations while ensuring continued access to education. Additionally, the DTS contributed to the reduction of financial barriers to education, particularly for students from low-income households. By eliminating tuition fees and boarding costs, the policy ensured that more students could stay in school. This aligns with findings that financial constraints are a major barrier to secondary education in sub-Saharan Africa.

While DTS increased access, it failed to effectively manage overcrowding, which remained a major challenge in many schools. 82.35% of teachers reported inadequate classroom space as a significant issue, with many students forced to sit on the floor due to insufficient desks. Overcrowding persisted because DTS did not reduce the total student population, but rather redistributed them across different tracks without increasing infrastructure. This led to continued congestion during each academic term, undermining the policy's effectiveness in managing student numbers. Another major challenge was teacher workload and burnout. The rotational nature of DTS meant that teachers had minimal breaks between cohorts, leading to fatigue and reduced instructional quality. Studies from other double-shift education models indicate that sustained teacher motivation and structured breaks are critical for policy success. Furthermore, the compressed academic calendar led to rushed instruction and

inadequate syllabus coverage, particularly in STEM subjects. Many teachers reported having to skip complex topics, which affected students' ability to grasp fundamental concepts. WAEC statistics showed fluctuations in pass rates, with inconsistencies in Mathematics and Integrated Science, indicating that students may be struggling with STEM-related subjects due to insufficient instructional time.

5.2 Conclusions

The results of this research study provided important insights into the implementation of the Double Track System (DTS). Initially, the DTS, structured into Green and Gold tracks, effectively broadened access to secondary education under Ghana's Free SHS initiative. This increase allowed a greater number of students, especially those from underprivileged backgrounds, to take advantage of secondary education. However, the system encountered notable challenges that affected its overall success. Among these challenges were overcrowded classrooms, inadequate infrastructure, and heightened workloads for both learners and educators. The Double Track System (DTS) was introduced as a strategy to manage overcrowding by distributing students across different academic tracks. While it has expanded access to education, findings indicate that overcrowding remains a persistent issue in many schools. This contradiction arises because the DTS did not reduce the overall student population but instead redistributed them into alternating tracks without proportionate infrastructure expansion. As a result, during each track's academic term, the number of students in classrooms remains high, leading to continued overcrowding in existing facilities.

The research study underscores that although the DTS met its enrollment goals, the quality of education suffered due to diminished contact hours, hurried curriculums, inadequate learning environment and teacher fatigue. Stakeholders, including instructors and students, expressed difficulties in managing the condensed academic calendar and recognized inequalities in resource distribution across institutions.

5.3 Recommendations

Based on the findings of the study, several recommendations have been proposed to enhance the effectiveness of the DTS and address the challenges identified. First, the DTS does not resolve the increased access to secondary school from the Free Education policy of the Government of Ghana. The Ministry of Education should still prioritize the expansion of infrastructure, including classrooms and dormitories, to reduce overcrowding and create a conducive learning environment. Additionally, there is a need to recruit more qualified teachers and provide ongoing training to equip them with skills for managing larger class sizes effectively. Adequate and equitable resource allocation is critical, ensuring all schools have access to essential learning materials such as textbooks and teaching aids.

The DTS should be reviewed periodically to address emerging challenges, with stakeholders such as teachers, students, and parents actively engaged in the decision-making process. Establishing a robust monitoring and evaluation framework is also essential to assess the system's impact on academic performance and overall school operations. Furthermore, support programs should be introduced to help teachers and students manage the increased demands of the DTS. These interventions will ensure that the DTS approach achieves its objectives of improving access to quality education while addressing systemic gaps and enhancing outcomes for all stakeholders.

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APPENDIX 1: QUESTIONNAIRES FOR TEACHERS

Education and Development: Examining the challenges and successes of Double track system within the Free Senior High School policy and its impact on the quality of education in some selected schools in the Accra Metropolitan Area of Ghana.

Questionnaire on double track system Policy

Section 1: Introduction and Background

1. What is your age range? (Check one)

☐ 30-40 years ☐ 40-50 years ☐ 50-60 years ☐ 60+ years

2. Sex

☐ Male ☐ Female

3. How long have you been involved in the education system under the double track system policy?

☐ Less than 1 year ☐ 1–2 years

☐ 3–4 years ☐ 5 years or more

4. What was your initial reaction to the introduction of the double track system policy?

☐ Very positive

☐ Positive

☐ Neutral

☐ Negative

☐ Very negative

Please explain your reaction:

_____

_____

5. Were teachers' part of any consultations to the enacting of the policy?

☐ Yes ☐ No

6. How was the communication of the double track system policy by school authorities and government?

☐ Very Negative

☐ Negative

☐ Neutral

☐ Positive

☐ Very Positive

7. Has your perception of the double track system policy changed over time?

☐ Yes, it has improved

☐ Yes, it has worsened

No, it has stayed the same

8. If yes, please explain what influenced this change in your perception:

_____

_____

9. Do both tracks have different teachers

☐ Yes, they have ☐ No, they don't

10. If no, do you teach in both tracks

☐ Yes, I do ☐ No, I dont

11. Are you paid double to match up your work

☐ Yes, I am ☐ No, I am not

Please do you have further comment

_____

_____

_____

Section 2: Impact of the double track system Policy

12. Do you think the double track system has affected the quality of education?

☐Yes, it has ☐No, it has not

13. On a scale of 1-5, how has it affected the quality of education

☐ 1 Very Negative

☐ 2 Negative

☐ 3 Neutral

☐ 4 Positive

☐ 5 (Very Positive)

Please provide examples of feedback

_____

_____

14. What are the key areas in which teachers believe the double track system policy has had the most significant impact? (Check all that apply)

☐ Quality of education

☐ Access to education
☐ Student engagement
☐ Teacher workload
☐ Curriculum delivery
☐ Other (please specify):

_____
_____
_____

15. Are you aware of Ghana's educational quality goals?
☐ Yes, I am ☐ ☐No I am not

16. What are the educational quality goals of your school?

_____
_____
_____
_____

17. Do you think the double track system is meeting the quality education goals of the school
☐ Yes, it is ☐No, it is not

18. On a scale of 1 -5 with 5 being (Very ineffective) and 1 being (highly effective, how is the double track system meeting the quality education goals of your school
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Please explain your choice with specific examples

_____
_____
_____

19. What specific concerns or criticisms do teachers have about the double track system policy? (Please explain your concerns under each point)
☐ Overcrowded classrooms

_____
_____
_____

☐ Inadequate resources for teaching

_____
_____

☐ Inadequate resources for students

_____

_____

_____

☐ Difficulty in managing Public Teaching schedules

_____

_____

_____

☐ Difficulty in managing private Teaching schedules

_____

_____

_____

☐ Teacher Motivation

_____

_____

_____

☐ Other (please specify):

_____

_____

_____

20. How would you rate the academic performance of your students before and after the implementation of the double track system policy?

☐ Much Worse
☐ Worse
☐ No Change
☐ Better
☐ Much Better

21. Do you think teacher- student ration has been affected by double track system

☐ Yes ☐No

If yes explain

_____

_____

22. On a scale of 1-5 with 1 being very low and 5 being very high, how has it impacted the learning of student

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

23. Has the interaction between teachers and students been affected by the double track system Policy?

☐ Yes ☐No

If yes explain

Section 4: Successes of the double track system Policy

24. What successes have been achieved by the implementation of the double track system policy in terms of:

☐ Access to education (Admission and Enrollment)

☐ Quality Education

☐ Learning of Students

☐ Teacher benefits

☐ Teacher schedules

☐ Improved access to resources and materials

☐ Reduction in school dropout rates

☐ Other (please specify):

Section 5: Challenges of the double track system Policy

25. What challenges have emerged since the implementation of the double track system policy? (Check all that apply)

☐ Overcrowded classrooms

☐ Disruption of Academic Calendar

☐ Quality of Education

☐ Increased burden on teachers

☐ Inadequate resources (books, labs, technology)

☐ Limited extracurricular activities

☐ Other (please specify):

Section 6: Recommendations and Future Outlook

26. Based on your experience, what changes or improvements would you recommend for the double track system policy?

_____

_____

_____

_____

27. Is there anything else you would like to share about your experience with the double track system policy?

_____

_____

_____

APPENDIX 2: QUESTIONNAIRES FOR STUDENTS

Education and Development: Examining the challenges and successes of Double Track System within the Free Senior High School policy and its impact on the quality of education in some selected schools in the Accra Metropolitan Area of Ghana.

Section 1: Demographic Information

1. Age:

   ☐ Under 15 ☐ 15-16 ☐ 17-18 ☐ 19 and above

2. Sex:

   ☐ Male ☐ Female

3. Grade Level:

   ☐ First year ☐ Second year ☐ Third year

4. Track:

   ☐ Green Track ☐ Gold Track

5. What is the location of your School

   .....

6. What is the area setting of your school?

   ☐ Urban ☐ Rural ☐ Semi-urban

Section 2: General Perceptions of the DTS Policy

7. Do you know about the DTS Policy?

   ☐ Yes ☐ No

8. Does your school Practice the DTS Policy?

   ☐ Yes ☐ No

Section 3: Impact on Quality of Education

9. On a scale of 1 to 5 with 1 being very low and 5 being very high, how do you think the DTS policy has improved student access to education?

   ☐ 1

☐ 2
☐ 3
☐ 4
☐ 5

10. How would you rate the availability of learning resources (e.g., textbooks, study materials) under the DTS policy?
    ☐ Very Inadequate
    ☐ Inadequate
    ☐ Adequate
    ☐ More than Adequate
    ☐ Excellent

11. How often do you receive feedback on your performance from your teachers?
    ☐ Never
    ☐ Rarely
    ☐ Sometimes
    ☐ Often
    ☐ Always
12. How has the class size affected your ability to learn under the DTS policy?
    ☐ Much Worse
    ☐ Worse
    ☐ No Change
    ☐ Better
    ☐ Much Better
13. How has the seating arrangement affected your ability to learn under the DTS policy?
    ☐ Much Worse
    ☐ Worse
    ☐ No Change
    ☐ Better
    ☐ Much Better

Section 4: Participation and Engagement

14. **On a scale of 1 to 5 with 5 being very active and 1 being very inactive, how would you describe your class participation?**
    ☐ 1 Very Inactive
    ☐ 2 Inactive
    ☐ 3 Moderately Active
    ☐ 4 Active
    ☐ 5 Very Active

15. **How motivated are you to participate in class discussions and group work on a scale of 1-5?**
    - ☐ 1 Not motivated
    - ☐ 2 Less Motivated
    - ☐ 3 No Change
    - ☐ 4 More Motivated
    - ☐ 5 Much More Motivated
16. **How would you describe your involvement in extracurricular activities?**
    - ☐ Not Involved
    - ☐ Partially involved
    - ☐ Balanced
    - ☐ Heavily involved
17. **How satisfied are you with the amount of homework and assignments you receive under the DTS policy?**
    - ☐ Very Dissatisfied
    - ☐ Dissatisfied
    - ☐ Neutral
    - ☐ Satisfied
    - ☐ Very Satisfied
18. **On a scale of 1-5 how would you rate your interaction with your peers during lesson periods?**
    - ☐ 1 - **Very Poor**
    - ☐ 2 - **Poor**
    - ☐ 3 - **Average**
    - ☐ 4 - **Good**
    - ☐ 5 - **Excellent**
19. **On a scale of 1-5 how would you rate your interaction with your teachers during and after lesson periods?**
    - ☐ 1 - **Very Poor**
    - ☐ 2 - **Poor**
    - ☐ 3 - **Average**
    - ☐ 4 - **Good**
    - ☐ 5 - **Excellent**

Section 5: Academic Performance

20. **How would you rate your current academic performance?**
    - ☐ Much Worse
    - ☐ Worse
    - ☐ No Change
    - ☐ Better
    - ☐ Much Better
21. **How would you describe the impact of the DTS policy on your preparation for examinations?**
    - ☐ Much Worse
    - ☐ Worse

☐ No Change
☐ Better
☐ Much Better

22. **Has the availability of extra academic support (e.g., private tutoring, extra classes etc)?**
☐ Yes
☐ No
☐ Not Sure

Section 6: Perceived Successes of the DTS Policy

23. **What do you think are the main benefits of the DTS policy for students?** (Select all that apply)
☐ Improved access to education
☐ Better use of school facilities
☐ Increased teacher attention
☐ More opportunities for learning
☐ Other (Please specify) .....
24. **Overall, how satisfied are you with the quality of education you are receiving under the DTS policy?**
☐ Very Dissatisfied
☐ Dissatisfied
☐ Neutral
☐ Satisfied
☐ Very Satisfied
25. **Do you believe that the DTS policy has improved student-teacher ratios?**
☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly Agree

Section 7: Challenges of the DTS Policy

26. **What challenges have you faced under the DTS policy?** (Select all that apply)
☐ Overcrowded classrooms
☐ Inadequate learning resources
☐ Increased stress and workload
☐ Scheduling conflicts
☐ Reduced interaction with teachers
☐ Other (Please specify) .....
27. **How often do you experience difficulties in managing your study schedule under the DTS policy?**
☐ Never
☐ Rarely
☐ Sometimes

☐ Often
☐ Always

28. **How has the DTS policy affected the availability of school facilities (e.g., libraries, laboratories) for students?**
☐ Much Worse
☐ Worse
☐ No Change
☐ Better
☐ Much Better

APPENDIX 3: KEY INFORMANT INTERVIEWS: STAKEHOLDERS/SCHOOL HEADS

Hello, my name is Andrew Buxton, and I am an MA student in Development Studies at the Institute for Social, Statistical and Economic Research (ISSER), University of Ghana. I am conducting research on the topic "Examining the challenges and successes of the Double Track System within the Free Senior High School policy and its impact on the quality of education."

The purpose of this interview is to gain insights into the effects of the Double Track System on educational quality, exploring both the challenges and successes experienced. Your responses will be invaluable in helping me better understand this topic. I also want to assure you that all information shared during this interview will remain strictly confidential, and your identity will be kept anonymous. So please without telling me you name

Section 1: Background Information

1. Can you please tell me a little about this organization and your role in the school/organization?
2. How long have you been in this role?

Section 2: General Perceptions of the DTS Policy

3. What is your overall understanding of the Double Track System (DTS) policy?
4. Did your school/ organization participate in the Double Track System policy enactment?
5. What's your general opinion on the DTS. Has it been a success or failure

Section 3: Impact on Quality of Education

6. Has the DTS policy impacted the quality of education(Access(enrolment and access), Academic performance, Motivation of teachers, Financing of teachers, Teacher to student ratio, etc) in your school/organization?
7. What specific changes have you observed in in access to education after the implementation of the DTS policy?
8. What specific changes have you observed in teaching practices since the implementation of the DTS policy?
9. What specific changes have you observed in learning practices since the implementation of the DTS policy?

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10. How has the DTS policy affected the workload(schedule) of teachers and staff?
11. How has the DTS policy affected the morale of teachers and staff?
12. Do you think there has been any changes in student engagement and participation as a result of the DTS policy? Please explain.

Section 4: Successes of the DTS Policy

13. What specific successes have you observed since the implementation of the DTS policy?
14. Can you share any quantitative data or metrics that demonstrate the success of the DTS policy (e.g., improved test scores, graduation rates, enrolment rates)?
15. How has the DTS policy contributed to these successes?
16. Are there any particular programs or initiatives under the DTS policy that have been especially successful?

Section 5: Challenges of the DTS Policy

17. What are the main challenges you have encountered since the implementation of the DTS policy?
18. How have these challenges impacted the overall quality of education in your school/organization?
19. What challenges have you faced regarding the allocation of resources and facilities sunder the DTS policy?
20. What challenges have arisen in terms of curriculum delivery and assessment under the DTS policy?

Section 7: Recommendations

21. Based on your experience, what changes or improvements would you recommend for the DTS policy?
22. What additional support or resources do you think are needed to enhance the effectiveness of the DTS policy?