

**SD DOMBO UNIVERSITY OF BUSINESS AND INTEGRATED
DEVELOPMENT STUDIES (SDD-UBIDS)**

**ENROLMENT DYNAMICS AND THE CHALLENGES OF SECONDARY EDUCATION
IN THE NORTH EAST REGION: THE ROLE OF THE FREE SENIOR HIGH SCHOOL
POLICY**

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THIS THESIS IS SUBMITTED TO

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DECLARATION

Student

I hereby declare that this thesis is the result of my own work and that no part of it has been submitted in this university or elsewhere for another degree.

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Supervisor

I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines on supervision of thesis laid down by the SD Dombo University of Business and Integrated Development Studies

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ABSTRACT

The study examined the role of the free senior high school policy on school enrolment and the challenges confronting the policy implementation in the North East Region of Ghana. The study adopted a sequential explanatory research design and multi-stage sampling technique. Data was collected from 384 respondents through questionnaires and semi-structured interviews. Enrollment data from 2011/2012 to 2022/2023 was analyzed quantitatively using the mean comparison t-test. The challenges of the policy were qualitatively analyzed using thematic approach. The Kendall's coefficient of concordance was used to rank the major challenges impeding the policy implementation. The mean comparison t-test results showed that the free SHS policy has significantly increased student enrolment in the North East Region. The result indicated that the average student enrolment increased from 311 to 520 after the policy implementation, showing a highly significant difference of 209. However, the findings revealed that the implementation of the policy has increased boarding student enrolment to the detriment of day student enrolment. While average boarding student enrollment increased from 997.5 to 2113.8 while day student enrolment declined from 571.8 to 554.3, showing the policy's positive impact on boarding student enrolment and a negative effect on day student enrolment. The findings further revealed that the implementation of the free SHS policy is hindered by several obstacles including infrastructural deficits, food shortages, inadequate funding and delay in fund disbursement among others with infrastructural deficits been ranked as the most pressing challenge in the region with an average score of 5.25. Recommendations include collaborative efforts with stakeholders to address infrastructure needs, adequate funding allocation, timely fund disbursement, recruitment of more teachers, and provision of teaching and learning materials among others.

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DEDICATION

I dedicate this work to God Almighty and my lovely daughter: Abdul-Mumin Nihad Nasara

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LIST OF ACRONYMS

BECE	Basic Education Certificate Examination
EU	European Union
FCUBE	Free Compulsory Universal Primary Education
SHS	Senior High School
FSHS	Free Senior High School
FSHSP	Free Senior High School Policy
GES	Ghana Education Service
GDP	Gross Domestic Product
GSS	Ghana Statistical Service
MDG	Millennium Development Goal
NGO	None Governmental Organization
PIAC	Public Interest and Accountability Committee
PTA	Parents Teachers Association
UNESCO	United Nations Education, Science and Cultural Organization
UNICEF	United Nations International Children Emergency Fund
USAID,	United States Agency for International Development

CHAPTER ONE

INTRODUCTION

1.1 Background

Education plays a pivotal role in the growth and development of countries across the world. It derives the development of human resource, promotes social freedom and helps in eradicating poverty among developing countries especially (Asante & Agbee, 2021). This highlights education's crucial role in national development, coupled with its transformative impact on individuals, societies and economies thereby underscoring the need to invest in education. Apart from creating self-awareness, education helps in improving the economic conditions of individuals by raising their income levels (Szyber, 2020). This implies investing in education is essential for improving the standard of living of individuals as it enhances human capital and earning potential. Asumadu (2019) noted that countries cannot experience sustained economic growth without properly investing in education. Fusheini et al. (2017) highlighted the benefits of education on healthcare delivery, noting that, educated people are less likely to contract infections compared to uneducated populations. Many researchers have therefore concluded that education is as important as life itself.

International declarations such as the United Nations Declaration on Human Rights (1948), the Declaration on the Rights of the Child (1959) and the International Convention on Economic, Social and Cultural Rights of the Child (1966) have emphasized and reiterated the significance of education in national development. The sustainable development goals further seeks to promote quality education as a way of improving lives and social welfare. Goal 4 in particular seeks to

ensure equal access to education to enhance quality and sustainable livelihood of all persons (Lee, 2013; Ministry of Education, 2018a).

Despite the importance of education to both individuals and the country at large, the sector is confronted with several challenges that limits its growth and the potential to further promote social welfare. The most prominent among these challenges facing the education sector is financing which is estimated to cost about 20% of GDP per capita in Ghana (Duflo et al., 2021). The estimated expenditure allocation to the education sector highlights the substantial financial burden. Osese (2016), noted that students, particularly those from poor households are unable to pay the annual tuition fees charged by the Ghana Education Service (GES) council due to financial constraints. Opoku-Amankwa (2020), therefore concluded that abject poverty limits access to educational opportunities.

In response to the ravaging impact of poverty on educational attainment among the citizenry, the government of Ghana has embarked on several pro poor measures to countenance these effects. Successive governments over the past decades have implemented several educational policies and programmes aimed at improving educational access and participation. Among such policies includes the Free Compulsory Universal Basic Education (FCUBE), Capitation Grant and School Feeding Programme among others (Asante & Agbee, 2021). These policies have had tremendous impact on enrolments at the pre-SHS level, particularly in deprived areas. At the secondary school level, two key policy interventions in the last decade have been the progressively free senior high school policy (PFSHSP) and the free senior high school policy (FSHSP). These policies have contributed significantly in promoting access to education at the senior high school level (Abdul-Rahaman et al., 2018a). The progressive free senior high school policy (PFSHSP) was a partial

funding programme at the senior high school level which was started by absorbing the costs of secondary education for 320,488 day students in public senior high schools and by 2015/2016 academic year, it was expanded to include 120,000 boarding students (Aweke, 2022). Under this programme, parents were exempted from paying some cost elements including; examination fees, entertainment fees, SRC dues, sports fees, ICT fees and co-curricular fees among others. This intervention has led to an increase in enrolment from 393,995 in 2007/2008 academic year to 787,861 in 2015/2016 academic year (Aweke, 2022). Despite the rise in student enrolment, there were still high portion of qualified candidates who were placed but could not be enrolled into the public senior high schools. In 2017, the government implemented a fully funded programme known as the free SHS policy and the first batch was enrolled at the beginning of the 2017/2018 academic year with an initial enrolment of 362,775 students. By the end of the third year of its implementation, the programme had over 1.2 million students (Opoku-Amankwa, 2020). According to Opoku-Amankwa (2020), the rise in enrolment was associated with the free packages that came with the implementation of the free senior high school policy that help to offset the financial strain experienced by parents. Under the programme, students gained admissions to senior high school free of charge and did not have to pay tuition fees. In addition to these, students use the school facilities such as libraries, computer laboratories, science centers and boarding houses free of charge. The policy also covers examination fees and PTA dues. Apart from these, the boarding students enjoy free meals whiles the day students take one hot meal at school for free. The World Bank (2020), therefore considered the free SHS policy as a poverty alleviation option and a panacea for social and economic development in Ghana. Therefore, it can be concluded that government of Ghana has achieved significant milestone by investing in secondary education

through the progressive free SHS programme and the free SHS programme. These initiatives have both contributed significantly to access and quality of education in Ghana.

In spite of this, there are still concerns about enrolments in the country which many stakeholders have attributed to the rising cost of prospectus and other required materials for enrolling in secondary schools (Bhuta et al., 2023). This has increased the calls for a policy review to address the problems that are lingering on and impeding enrolments. The removal of these cost barriers to secondary education in Ghana are presumed to significantly benefit those who are unable to fend for their wards (Duflo et al., 2021). Hence the government in collaboration with other stakeholders in education should ensure adequate provision of funds to sustain the programme.

1.2 Problem Statement

One of the key priorities of governments across the world is the provision of funding for educational purposes. Most governments are however, constrained with resources to fund public education. In Ghana, the government spends over 20% of GDP per capita on educational expenditure annually (Duflo et al., 2021). This takes a great toll on the public purse, causing government to sometimes neglect other sensitive areas of the economy. Though there is an improvement with regards to enrollment at the basic level, much has not been achieved at the secondary school level.

Historically, the opportunity to attend senior high school in Ghana has been limited by the gateway Basic Education Certificate Examination (BECE) and the annual school fees charged by the Ghana Education Service (GES) council. These especially the annual tuition fees serve as a bottleneck for qualified students who graduated from the junior high schools to make smooth transition into the senior high schools as most parents are unable to pay for their wards.

Several policy measures have been put in place to bridge this gap but little has been achieved. The recently nationwide implementation of the free senior high school policy is one of such interventions aimed at offsetting the financial burden on parents. It is believed that the introduction of the free senior high school education will contribute massively to the vision of the government in making the second cycle education a basic form of education and to ensure access and equity across public schools at the pre-tertiary level in Ghana.

The literature on the free SHS policy is largely incoherent and quite scanty (Adu-Gyamfi et al., 2020; Manu, 2020; Matey, 2020; Opoku-Amankwa, 2020). These studies focus on different aspects of the policy, neglecting the most important ones, namely, student enrollment and the challenges impeding the policy implementation. Previous studies that have been conducted under the free SHS policy mainly relied on document analysis (Aweke, 2022; Kyei-Nuamah & Larbi, 2022). This leaves a significant knowledge gap regarding the quantitative analysis of enrolment trends. This current study seeks to address this gap by applying quantitative methods in assessing the policy's effect on student enrollment. Moreover, the emphasis of past studies have been on general enrollment (Aweke, 2022; Kyei-Nuamah & Larbi, 2022), and particularly girl child enrollment (Abdul-Rahaman et al., 2020). This present study seeks to differ from these previous studies by exploring the dynamics of boarding students' enrollment over the period as compared to day students. This is important because an increase in the enrollment of boarding students could have implications on the schools due to the already overstretched nature of the infrastructure confronted by most schools in the northern parts of the country. Also, following the implementation of the policy, several studies have highlighted challenges that most schools are grappled with which has the potential to affect the effectiveness and sustainability of the policy

(Asumadu, 2019; Duah et al., 2022). This current study also intends to identify some of the key challenges inhibiting the execution of the free SHS initiative, and also rank these challenges to highlight the most pressing ones. The North East Region is ideal because of the high level of poverty which could potentially undermine children school participation. According to the Ghana Living Standard Survey (GLSS), 2005/2006 and 2012/2013, poverty is severe among the Northern Regions where the North East Region is not an exception. The World Bank (2020) noted that although there is some level of improvement in the education sector of Ghana, educational attainment in the Northern part of the country still lags behind. This makes the study area suitable for this study. In view of the gaps identified in the literature, the study was conducted to address these gaps and contribute to the ongoing discussion about the prospects of the policy.

1.3 Research questions

The main research question of the study is “to what extent does the free SHS policy affect enrolment and what are the challenges affecting the implementation of the policy in the North East Region”.

1. What is the role of the free senior high school policy on student enrolment in the North East Region?
2. What are the enrolment dynamics in terms of boarding versus day students in the north east region?
3. What are the major challenges confronting student beneficiaries in the north east region?

1.4 Objectives of the Study

The main objective of the study is to analyze the role of the free SHS policy on student enrolment dynamics as well as challenges confronting the implementation of the policy in the North East Region.

1. To explore the role of the free senior high school policy on school enrolment in the North East Region
2. To examine the enrolment trends and dynamics between boarding and day students in the north east region?
3. To identify the major challenges affecting the implementation of the free SHS policy in the North East Region.

1.5 Justification of the study

This study will provide empirical evidence concerning the effect of the free senior school policy on school enrolment in the North East Region. The study will also provide relevant information to stakeholders at the free SHS secretariat on the challenges confronting the policy implementation. This will lead to proper examination of the hindrances bedeviling the effective implementation of the policy in the region and the nation at large. The findings will inform policy makers on the appropriate ways of addressing these challenges. This will inure to the benefit of the citizenry and help improve the quality of education in Ghana.

1.6 Limitation of the study

During the course of conducting this investigation, several limitations were encountered that impeded the speed at which the study was carried out. Among these limitations are financial constraints and the time required to conduct the study. Financial limitations were one of the major

constraints that restricted the scope of the study as the repeated visits to various locations (schools) for data collection proved to be financially burdensome due to transportation cost and the cost of acquiring other logistics for the study. The sampled schools that fall part of the survey for data collection were quite scattered and spread across different districts and municipalities making the cost of transportation very high. Another limitation encountered in this study was the substantial amount of time required to gather data from various schools, perform data analysis, and compile the report. A lot of time was needed to take accurate and comprehensive data concerning enrollment figures, demographic specifics, and detailed information on the challenges confronting the policy implementation from various respondents using varying techniques. Again the researcher came across respondents that proved difficult

1.7 Organization of the study

The study is organized into five chapters. Chapter one presents the introduction which includes the background of the study, statement of the problem, research questions, research objectives, justification of the study, limitation of the study and organization of the study. The second chapter defines concepts, describes the concept of implementation and educational policy and presents a review of literature on the structure of the pre-tertiary education system in Ghana, describing the composition of Ghana's pre-tertiary education system. In addition, it provides literature on free education policies that have been implemented in Ghana including; Accelerated Development Plan for Education (ADPE), The Free Compulsory Universal Basic Education (FCUBE), Progressive Free Senior High School Policy (PFSHSP) and the current Free Senior High School Policy (FSHSP). It also provides empirical review on the impact of the free senior high school initiative on student enrolment and the challenges impeding the policy implementation. The chapter also provides literature on the impact of public funding of education on student enrolment, imperative of the FSHS policy, the challenges associated with public funding of education. Finally the chapter highlights on the theoretical framework as well as conceptual framework of the study. Chapter three highlighted on the methodology of the study which covers the research design, sampling techniques, methods of data collection and analysis as well as description of the study area. Chapter four presents the results and discussions while chapter five highlighted on summary of the study findings, conclusions and recommendations.

CHAPTER TWO

REVIEW OF LITERATURE

2.1 Introductions

This chapter outlines the definitions of various concepts in this study, the structure of pre-tertiary education system in Ghana and free education policies that have been implemented in Ghana over the past years. The chapter also entails a review of existing literature on the role of free senior high school policy on student enrolment and the challenges confronting the implementation of the policy. The chapter further presents the theoretical underpinning as well as the conceptual framework of the study.

2.2 Concepts and definitions

2.2.1 The concept of implementation and educational policy

Education as a concept has been defined differently by scholars from different disciplines. Adu Gyamfi & Addo (2016) describe education as the transmission of knowledge, abilities traditions and beliefs from one person to another or across different generations. In this context, education is commonly recognized as an essential human right and a panacea for fostering social and economic progress. In view of this, the Universal Declaration for Human Rights in 1984 mandates that every willing and capable individual should have access to free education at the basic and subsequent levels where applicable (UNESCO, 2005).

The concept of implementation has attracted the attention of public policy scholars for over five decades now (Bullock et al., 2021). Various scholars have defined implementation in deferent ways. Metz et al (2020), define implementation as the process of carrying out a planned and intentional activities which aimed at turning evidence and ideas into policies and practices that can

work for individuals in the real world. Lyon (2018), defines implementation as deliberate use of strategies in a specified setting so as to adopt a new intervention and effectively integrate them in order to change the patterns of practice. According to Hill & Hupe (2013), implementation implies to carry out, accomplish, fulfill, produce and complete. This definition emphasized on the role of public servants in providing efficient and equitable services to the public. Policy implementation according to Meng & Wang (2020) is referred as an activity that puts a policy into practice. In the light of the definitions above, implementation can be described as the process of putting a specific plan, idea or policy into action.

Haddad & Demsky (1995) described educational policy as either explicit or implicit singular decision or series of decisions that can provide directions for future decisions initiate or hinder actions or guide the execution of previous actions. Making educational policy therefore involves thorough and extensive procedures. The policy made must be prudent, ensuring that it does not create new challenges in the education sector (Asante & Agbee, 2021).

2.2.2 The structure of pre-tertiary education system in Ghana

Until recently, the Basic Education in Ghana encompassed pupils in kindergarten primary and Junior High School (Grade 9). Following recent educational reforms, Basic Education as a concept has undergone a redefinition, now incorporating Senior High School within its framework. This restructuring divides the system into five distinct phases: foundation level, comprising kindergarten 1 & 2, lower primary level, spanning Basic 1 to Basic 3, upper primary level, covering Basic 4 to Basic 6, junior high school level, ranging from Basic 7 to Basic 9, senior high school level, consisting of SHS1 to SHS3 (Ministry of Education, 2018b).

Basic education in Ghana is free and compulsory for all children and this makes enrollment rates at this stage very high. Enrolment rates at the basic level is almost 95% in primary school and 75% in Junior High School (Duflo et al., 2021).

The senior high school education in Ghana covers a period of three (3) years and admits students who are within the age brackets of approximately 15 to 17 years. Subjects taught at the senior high school in Ghana are categorized into core and elective subjects. The core subjects include; English Language, Mathematics, Integrated Science and Social Studies. The elective subjects include; home economics, general arts, business education, science, agricultural science, technical and vocational education (Ministry of Education, 2018b). The four core subjects are mandatory for all students. Aside the core subjects, students are supposed to choose their electives from the seven groups of elective subjects. The ministry further indicated that at the senior high school level, students have the liberty to choose to attend the Senior High School or technical and vocational school where students can pursue a more technical and vocational courses.

Entry into senior high school (SHS) in Ghana has historically been limited by the annual school fees charged by the Ghana Education Service (GES) Council. The high tuition fees imposed by the GES council creates a barrier for eligible junior high school graduates to move into the senior high schools as majority of parents particularly the poor cannot afford to cover their children's educational expenses. Duflo et al (2021) noted that transition into senior high school in Ghana remain low mainly due to the annual school fees charged by the Ghana Education Service (GES) council. Ajayi et al (2020), asserted that not all students who got placement into the various senior high schools are actually enrolled, indicating that about 30% of students who had admission are not enrolled. It is important to note that though there are other factors that contribute to the low

enrollment figures at the senior high school level, financial constraints remain the major barrier for both parents and their wards. According to the Ministry of Education (2018), the government approved fees for the senior high school level in 2011/12 academic year amounted to GHC 500 per year, an amount considered very high in a country like Ghana where the GDP per capita was GHC 2400. In response to the difficulty in paying the high cost of secondary education in Ghana, governments over the years have introduced pro-poor policy interventions aimed at reducing the financial burden parents' face in paying their wards school fees and other education related costs. In 2015, the previous government introduced a partial public funded programme called the progressive free senior high school policy. This policy initially covered only 320,488 day students attending public senior high schools. However by the 2015/2016 academic year, the programme was extended to include an additional 120,000 boarding students (Aweke, 2022). Though there was enrollment growth under the progressive free senior high school programme, a significant percentage of eligible candidates who were accepted and assigned placement to senior high schools could not proceed due to financial constraints as the programme did not cover the entire cost of secondary education for all students. In 2017, government of the day introduced a fully public funded programme known as the free SHS programme. In contrast to the progressive free SHS programme, the current free SHS policy covered the entire costs of secondary education. The core themes of the programme include access, equity and equality (Opoku-Amankwa, 2020). The free SHS programme have achieved a higher student enrollments reduce gender parity and improved educational outcomes (Kyei-Nuamah & Larbi, 2022).

2.2.3 School enrolment at the senior high school level

According to the Ministry of Education (2018a), access to secondary education in Ghana still remained low over the past years. Prior to the introduction of the free senior high school programme, approximately, 27.3 percent of BECE candidates who graduated from the junior high schools and are eligible to go to senior high school were not enrolled. This was due to the fact that many students, especially those from poor households could not afford the school fees and other related educational expenses needed to transit to senior high school. However, enrollments were expected to increase with the introduction of the free SHS programme because of the removal of the financial barriers which restricts JHS graduates from transiting into senior high school. Furthermore, the redefinition of basic education to include senior high school education opted to allow all learners from the junior high school to proceed to senior high school with merely placement and not based solely on the Basic Education Certificate Examination (BECE) results (Ministry of Education, 2018b). Undoubtedly, admission of the first batch of the free SHS beneficiaries showed a substantial increase in student enrollment. Figures from the ministry of education showed that the admission ratio in 2017/18 academic year rose to 61.6% as compared to 2016/17 academic year which stood at 50.9%, indicating that the admission of the first batch of free senior high school students has increased school enrolment by 10.7 percent and this is seen to be higher than that of the previous years. The ministry further indicated that the high transition rates is as a result of the scrapping of school fees and other education related costs which was a major barrier impeding the smooth transition of junior high school graduates into the senior high school. Kyei-nuamah & Larbi (2022) asserted that the free senior high school policy has achieved a higher student enrollment across locations and gender, improved educational outcomes and reduced household burden. In the same vein, Aweke (2022) argue that the introduction of the free

SHS initiative has led to a surge in school enrolment due to government absorption of the major obstacle (fee and other educational costs) that usually restrict students from accessing senior high school. Statistics from the Ministry of Education (2020) showed a steady increase in enrolment figure since the implementation of the free senior high school programme in 2017. Starting from 2017/2018 academic year, student enrollment surge and reached 361,771. This figure further increased to 834,501 in 2018/2019 academic year and by 2019/2020 academic year, the figure increased to 1,103,303.

2.3 Free educational policies introduced in Ghana

The education system in Ghana has not been static. It has often been changed in response to national development plans and may continue to change so long as governments continue to initiate educational policies that will inure to the benefits of the citizens (Mereku, 2019). Successive governments in the post-colonial era have made conscious efforts to implement educational policies that would increase enrolment and improve the quality of education (Boakye (2019). To accomplish this goal, pre tertiary education policies in Ghana have mainly focused on successive governments' endeavour to provide free education to all Ghanaian children of school going age (Abukari et al, 2015; Boakye, 2019). Felsman et al (2015), argued that governments effort to provide free education in Ghana dates back to Dr. Kwame Nkrumah who implemented the free compulsory primary and lower secondary education policy in 1960. Since independence, a number of free education policies have been implemented in Ghana, these include: The Accelerated Development Plan for Education (ADPE) (1951), the Free Compulsory Universal Basic Education (1995), capitation grant (2004), Progressive Free Senior High School policy (2015) and the Free Senior High School policy (2017).

2.3.1 Accelerated Development Plan for Education (ADPE) 1951

The education system in Ghana has gone through several policy reforms in the post-colonial era in the bid to increase access to quality education at all levels (Adu-Gyamfi et al., 2020). Ghana has over the years developed educational policies that promotes free, universal education (Ekundayo, 2018). Adam-Yawson et al (2021) opined that successive governments over the years have made efforts to ensure that education is free, however, the first free education policy in Ghana after independence was the Accelerated Development Plan for Education (ADPE) which was introduced in 1951 when Kwame Nkrumah won the first ever election in the Gold Coast and become the leader of government business. According to Adam-Yawson et al (2021), education was one of the key priorities of the Nkrumah's government. As a result, a new constitution was drafted under the leadership of Kwame Nkrumah and this constitution provided for Accelerated Development Plan for Education (ADPE) of 1951. Kung (2016), affirmed that the ADPE was approved in August 1951 immediately Dr. Kwame Nkrumah assumed office. In furtherance of this, the Nkrumah's government introduced the Education Act of 1961 which gave legal backing to the Accelerated Development Plan for Education (ADPE) of 1951 (Boakye, 2019).

Akyeampong (2020) asserted that during the period of independence, Ghana carefully developed plans on how education would bolster the nation's economic development. Essentially education was to be used as a vibrant instrument for producing a scientifically literate population, tackles the environmental cause of low productivity and to produce skillful and knowledgeable manpower capable of harnessing the economic potentials of the county (Akyeampong, 2010).

Adam-Yawson et al (2021), asserted that the implementation of the Accelerated Development Plan for Education in 1952 led to a rapid expansion of educational facilities in all parts of the nation. Several primary and middle schools were opened and a number of secondary schools were established in various parts of the country including secondary schools for girls. A secondary school considered to be the first in the northern part of the country was opened in Tamale in the year 1951, and by the year 1958, about 3,402 primary schools were established in Ghana. The country also had 1,030 middle schools and the number of secondary schools increased from 12 to 38. By 1966 when Nkrumah was overthrown, the number of primary and middle schools increased to 8,144 and 2,777 respectively while secondary schools also increased to 59 within the same period. Elementary school was made free and compulsory for children within the age brackets of six to twelve (6-12) years (Ekundayo, 2018; Adam-Yawson et al., 2021). Ekundayo (2018), however argued that though the education Act of 1961 made primary schooling free and compulsory, it was not entirely free because the Act enjoined parents to pay for the provision of stationery, essential books or materials required by children for use in their practical work.

Ekundayo (2018), noted that the Nkrumah's government upon realizing the importance of trained teachers for the expanded education system obliged the expansion of the already existing teacher training colleges and the opening of new ones. In addition to this, Adam-Yawson et al (2021), indicated this, the government introduced certificate "A" and "B" courses in order to produce more well trained and motivated teachers. Furthermore the national teachers' council was established with the aim of tackling the needs and concerns of teacher education and ensuring high quality graduates. Though the ADPE achieved most of its intended objectives, it was confronted with many implementation challenges. Adam-Yawson et al (2021), noted that the ADPE was faced

with inadequate funds needed to meet the increasing demand for infrastructural facilities and other essential material resources. Another challenge was that the increased pupils' enrolment rates far outweigh the recruitment and training of teachers. As a result, schools in deprived areas faced non availability of qualified teachers. Poku et al (2013), added that the mass educational expansion did not only bring untold pressure on school management but also caused unemployment of school leavers which Nkrumah's government could not solve before it overthrown in 1966. The education for all introduced in the 1990s was proposed as a developmental tool for developing countries. This falls in line the Millennium Development Goals (MDGs) particularly goal which calls for a concerted effort to ensure that all children of school going age attend school.

2.3.2 The Free Compulsory Universal Basic Education (FCUBE)

The Free Compulsory Universal Basic Education (FCUBE) initiative was introduced in Ghana in 1996. The policy was aimed at achieving universal primary education by the year 2005 (Essuman, 2019). The programme was also meant to fulfill Ghana's fourth republican constitutional requirement, Article 25 (1) of the 1992 constitution of Ghana which guarantees the right to education and states that, all persons shall have equal rights to educational opportunities and with the view of achieving full realization of this right, basic education shall be made free, compulsory and available to all (Parliament of the Republic of Ghana, 2013).

Aboyadana (2023), asserted that the main objectives of the FCUBE policy was to increase student enrolment and reduce the rate of dropout. Brenyah (2018), added that the principal motive of the free compulsory universal basic education policy was to develop the human capital of the country, indicating that, the mass education of the Ghanaian population can improvement in productivity, eradication of poverty, empowerment of women and vulnerable persons in the society.

Unlike other developing countries that have implemented free basic education policies, Ghana's Free of the FCUBE policy was to ensure total enrolment Compulsory Universal Basic Education FCUBE policy totally exempted all children at the basic school level from paying school fees (Aboyadana, 2022). According to Brenyah (2018), the target of all Ghanaian children of school going age including those who have never attended school before. (Brenyah, 2018), noted that the policy seeks to ensure zero dropout rate at the basic school level, indicating that the policy aimed at ensuring hundred percent completion rate. However, ensuring zero dropout seemed impossible in a country like Ghana where many pupils and their parents are living in abject poverty.

Central to the FCUBE policy was government commitment to ensure schooling was made free and compulsory for all basic school children in Ghana (Ekundayo, 2018). Boakye (2019), noted that under the FCUBE policy, government was poised to make schooling from basic stage one through to stage nine free and compulsory for all Ghanaian children of school going age by the year 2005. To achieve this objective, Ekundayo (2018), asserted that government made it obligatory on parents to send their wards to school and ensure full attendance by their wards for the entire duration of basic education and further threatened that parents who failed to comply were to be fined. (GES, 2001), indicated that in addition the Ghana government commitment to the FCUBE, development partners such as USAID, EU, UNICEF CIDA and the World Bank among others supported the programme.

According to Boakye (2019), the introduction of the FCUBE policy led to an increase in basic school enrolment figures throughout the country. In the same vein, Brenyah (2018), asserted that the free basic education policy led to an increase in primary school net enrolment rates in Ghana. Ekundayo (2018), highlighted the benefits of the FCUBE policy that had the tendency to increase

basic school enrolment figures, indicating that the FCUBE policy came with a package free tuition, free text books, free exercise books among other learning materials.

Though the FCUBE policy was laudable, Essuman (2018), contended that there was no coordination among the major donor countries to support the programme, noting that donor countries such as the United States of America (USA), United Kingdom (UK) among others channeled their support for the programme through programmes of specific countries. Akyeampong (2020), asserted that the FCUBE policy did not contribute significantly to address the quality concerns at the basic level. Brenyah (2018), argued that the implementation of the FCUBE policy did not reduce the cost of education as expected. Apart from the continuous levying of pupils by school authorities, Ekundayo (2018), pointed out that parents were still expected to feed their children and provide them with school uniforms, school bags and stationary. For these reasons, Boakye (2019), postulated that the government was overburdened as there was inadequate financial resource to provide the needs of basic schools due to the surge in enrolment. Brenyah (2018), therefore concluded that the policy objective to remove financial barriers to basic education was not met. He further noted that the FCUBE policy did not ensure quality teaching and learning delivery due to high pupils–teacher ratio.

2.3.3 Progressive Free Senior High School Policy

With the adoption of the Ghana's 1992 constitution, the nation aimed at making senior high school education free and accessible to all Ghanaians through every appropriate means, especially through the introduction of progressively free education. Article 25(1b) of the 1992 constitution of Ghana states that secondary education in its different forms shall be made generally available and accessible to all by every appropriate means, particularly by introducing progressively free

education (Constitution of the republic of Ghana, 1992). In line with this constitutional provision, in 2014, the government initiated the gradual implementation of the progressively free SHS policy as a direct response to fulfill the mandate of the 1992 national constitution. The sponsorship includes covering the costs of examinations, entertainment, library access, sports, cultural activities, mathematics quiz, Information Communication Technology (ICT), science and the curricular for day students in public senior high schools. About 320,488 day students benefited from this programme. In 2015 the programme was extended to include an additional 120,000 boarding students (Aweke, 2022). Aweke (2022), indicated that this intervention resulted in a rise in enrollment figures which grew from 393,995 in 2007/08 academic year to 787,861 by the 2015/16 academic year. However, even with the enrollment growth, a significant percentage of eligible candidates who were accepted and assigned placement to senior high schools could not proceed due to financial constraints as the programme did not cover the entire cost of secondary education for all students. This necessitated the implementation of a fully funded education programme that will cover entire cost of senior high school education for all students.

2.3.4 The free senior high school policy

The free senior high school (SHS) policy was introduced by the government of Ghana in September 2017. The core themes of the policy include access, equity and quality (Opoku-Amankwa, 2020). This is in line with the Sustainable Development Goals (SDGs) of the United Nations, specifically the revised version, which places greater importance on these ideas and mandates member states to incorporate them into their education systems to ensure that children have suitable learning opportunities. Goal 4, in particular, aims to ensure that by 2030, all children, regardless of gender, socio-economic background receive comprehensive and high-quality

primary and secondary education that led to meaningful and efficient learning outcomes (Armah, 2021). The pressing requirement for the execution of the free SHS policy was to address the financial limitations that hindered equal access to secondary education. As a result, the concept of free Senior High School (SHS) covers all costs elements, including admission fee, tuition fee, textbooks, and examination fees, among other things. Additionally, beneficiaries have access to all school amenities like libraries, science centers, ICT laboratories, utilities, and boarding facilities without any charges. Moreover, the program offers free meals to all students, ensuring that boarding students receive three daily meals and day students receive a single hot meal at school (Opoku-Amankwa, 2020). Kyei-nuamah & Larbi (2022), argued that the free SHS programme represents an education policy that is geared towards supporting economically disadvantaged individuals and has evolved into a significant democratic initiative in Ghana. According to Opoku-Amankwa (2020), the free senior high school policy is seen as a means to alleviate the financial responsibilities placed on parents and their children. The Ministry of Education (2018), stated that the primary aim of introducing the free senior high school programme in Ghana was to reduce disparities in access by tackling the expenses associated with education. These costs were identified as a significant barrier to the seamless transition of Junior High School graduates to Senior High Schools.

The rationale behind implementing the free senior high school policy in Ghana was to eliminate the financial obstacles that hindered children access to senior high school education. According to Abdul-Rahaman et al (2018), one of the primary objectives of this policy was to boost enrollment rates and improve educational quality. (Opoku-Amankwa, 2020) pointed out that the overarching goal of the free SHS policy is to cultivate an educated population that can accelerate economic

growth and development in the country. Matey (2020), argued that the introduction of the free senior high school policy was intended to alleviate the financial burdens on parents and contribute to economic sustainability. Opoku-Amankwa (2020), added that the introduction of the free SHS programme was to provide equal educational opportunities to all Ghanaian children regardless of their socio-economic backgrounds.

2.4 Free secondary education policies in developing countries

Existing literature indicates that the rationale for the introduction of the free senior high school policy in Ghana closely aligns with the principles guiding similar programs implemented in other developing nations. Developing countries such as Gambia, Kenya, South Africa, Uganda and Sri Lanka among others have made concerted efforts to implement free education policies with the aim of increasing access, equity, and quality education at the secondary school level (Kyei-Nuamah & Larbi, 2022).

A study conducted by Alawattegam (2020) in Sri Lanka to assess the free education policy in Sri Lanka and its emerging challenges suggested that the primary motive for introducing free secondary education in Sri Lanka was to reduce the cost of education to help ease the financial burden on parents and their children. The programme further seeks to eliminate gender parity and provide equal access to secondary education. It is important to not note that the Sri Lankan free education system propelled the country to a prominent position in South Asia regarding school enrollment, gender equality in education, and human development. Despite the programme success in increasing school enrollment and developing the human resource base of the country, the programme has faced longstanding criticism for its failure to adapt and progress in line with the changing global landscape. Many scholars highlight deficiencies in the policy implementation

whilst others criticize the policy makers and the policy intentions. A significant concern revolves around the absence of a robust and consistently enforced educational framework by the state, regardless of the ruling party in power.

A study conducted by Moussa (2015) in The Gambia to examine the impact of the fee elimination programme on girls secondary education suggested that the implementation of the secondary school fee elimination programme in the Gambia has significantly improved access to secondary education without negatively impacting academic performance. The study found that the rollout of the programme has led to approximately 50% increase in student enrollment. This signifies that the programme has succeeded in achieving its main objective of increasing access to secondary education and improving learning outcomes. Similarly, Blimpo et al (2019), also conducted a study on the secondary school fees elimination programme and found that the gradual rollout of the fee elimination initiative in different geographic regions of the Gambia has significantly increased access to secondary education. The study therefore concluded that financial constraints remain the major barrier inhibiting student access to secondary school education in the Gambia. However, it should be noted that the surge in enrollment comes with a notable strain on the limited resources.

In Kenya, a study conducted by Omae (2019) to examine government funding of public secondary schools showed that government funding of secondary school education through the implementation of capitation in secondary schools was aimed to offer the economically disadvantaged individuals the opportunity to access government funded education. The programme aimed at minimizing the cost of education for parents and their wards especially the poor. The study found that the implementation of capitation in secondary schools has left out certain key

areas in the sponsorship that have the potential to affect educational outcome. These areas include the improvement in infrastructure and the provision of meals to students. It is important to note that the increase in student enrollment outmatched the existing infrastructure, prompting government to increase funding for expansion of infrastructural facilities. Another study was conducted in Kenya by Abdi & Aluko++ (2015) to examine the Challenges confronting the implementation of the Free Secondary Education in Mandera West Sub-County, Mandera County, Kenya. The results of the study revealed that the introduction of the free secondary education led to a steady increase in student enrollment and retention in secondary schools. The study also found that secondary schools were experiencing enhanced academic outcomes due to students increased attendance and improved access to learning materials as a result of the free secondary education. However, the delay in fund disbursement affected the successful execution of the Free Secondary Education (FSE) programme. The study concluded that the free secondary education policy in Kenya is falling short of its intended objectives of enhancing access and the quality education due to inadequate funding.

2.5 Progressive Free FSHS policy versus Free SHS policy

The policy options of Progressive Free SHS policy and Free SHS policy shares similarities as well as differences. The major similarities that exist between the two policies include; both the Progressive Free Senior High School policy (PFSHSP) and the Free Senior High School policy (FSHSP) are access oriented based policies designed to offer free education to students at the secondary level. In this regards the main objective of both policies is to increase access to secondary education. A study conducted by Abdul-Rahaman et al (2018a) to assess the appropriateness of the free SHS policy as a replacement of the progressive free SHS programme

revealed that both policies demonstrated its effectiveness in alleviating the financial burden parents face when paying their children's school fees. Asante & Agbee (2021) noted that the adoption of both policy options was to help address equity in educational services distribution. However, both policies have faced financial difficulties that led to delays in the release of funds to senior high schools. With regards to impact on student enrolment, the introduction of the progressive free SHS policy in 2015 led to a decrease in the percentage of JHS graduates who were placed but could not report from 28% to 27%, and in 2017, the percentage of students placed but could not enroll reduced from 17% to 15% following the introduction of the free SHS policy in the first year which further reduced to 11% in the second year of the policy implementation in 2018/2019 academic year (Asante & Agbee, 2021).

It is important to note that, while both policy options exhibit minimal radical change, there is a notable distinction between them. The Progressive Free SHS targets vulnerable and deprived institutions with a focus on day students (Citifmonline, 2015). In contrast, free SHS encompassed all expenses directly relate to schooling for all students, including additional indirect cost like provision of meals to students, thereby relieving policy beneficiaries of any direct financial burdens (Asante & Agbee, 2021). Another notable distinction between the two policies is that the free SHS policy established a definite implementation timeline for achieving full cycle coverage, which is three years, whereas progressive free SHS did not specify any timeline for achieving full coverage (Asante & Agbee, 2021).

2.6 Impact of free SHS policy on student enrolment in Ghana

The implementation of the free SHS policy has led to a significant increase in student enrollment following the government absorption of the major financial barriers such as school fees and other educational costs (Aweke, 2022). The Ministry of Education (2018a) pointed out that access to senior high school education in Ghana has significantly improved with the introduction of the free SHS policy, indicating that the policy has increased student enrollment by 17% in 2017 and by 31% increase in 2018. The rise in student enrollment resulting from the introduction of the free SHS policy has compelled the ministry of education to introduce a double track system, thus dividing students into two tracks (gold track and green track) in about 400 senior high schools as a temporary measure to accommodate the increasing number of student enrollment in public senior high schools across the country. As of 30th October 2018, a total of 405,540 students were enrolled. These figure included an estimated 181,000 students who would have otherwise been left out from attending senior high school if the policy was not implemented (Ministry of Education Ghana, 2019). Evidence gathered by Kyei-nuamah & Larbi (2022), in a study conducted to examine the implementation and outcomes of the free SHS policy showed that, admission ratio in 2017/18 academic year rise to 61.6% as compared to 2016/17 academic year which stood at 50.9%, indicating that the admission of the first batch of free senior high school students has increased school enrolment by 10.7% which is seen to be high compared to the previous year. The Ministry of Education (2018a) noticed that enrolment rates at the senior high school level keep increasing year by year following the scrapping of school fees and other education related costs with an estimated increase in transition rates from 68% in 2017/18 academic year to 91.8% in 2019/20

academic year and is still expected to increase. In a related event, the finance minister of Ghana, Ken Ofori Atta in a press release, in his 2021 mid-year review in parliament stated that student enrolment in the public senior high schools' have increased from 881,600 in 2016 to 1,261,125 in 2021. This showed a significant increase in student enrollment rates with a substantial difference of 379,525. This shows that the introduction of the free SHS programme has substantially improved enrolment rates in public senior high schools in Ghana though the enrolment rates vary significantly by region. Similarly, result of a study conducted by Bhuta et al (2023) to examine the financial burden analysis of the free SHS policy and its implication on equitable access to senior high school education revealed that during the first six years of the policy implementation, an average of 422,940 students were enrolled annually as compared to an annual enrolment of 260,490 in the last six years preceding the policy's implementation. The study further revealed that since the introduction of the free SHS policy in 2017, the number of students enrolled has risen from 813,448 in 2017 to 1.3 million in 2023, indicating that a significant number of students have benefited from the programme since its inception in 2017. In the light of this Opoku-Amankwa (2020) argued that the rise in enrolment figures is as a result of government absorption of the financial burdens associated with secondary education which could have hindered access to senior high school education in Ghana. A recent report by the International Monetary Fund (IMF) further reaffirms the policy's impact in increasing student enrollment in senior high schools in Ghana. However, the report indicated that the targeting of the programme is poor and hence worthy of exploring ways to ensure that the policy reaches those who ought to benefit the most. This could potentially lead to better outcomes (International Monetary Fund, 2023). In terms of percentage change in enrolment, Bhuta et al (2023) noted that in the first year of the policy inception, the free

SHS policy increased enrolment from 308,799 in 2016/2017 academic year to 362,775 in 2017/2018 academic year, representing a 17 percent increase in enrolment. Enrolment further increase by 19 percent in the 2018/2019 academic year and then declined by 6 percent in the 2019/2020 academic year, and thereafter enrolment increased by 5 percent in 2020/2021 academic year. In 2021/2022 academic year, enrolment further increased by 10 percent but declined by 3 percent in 2022/2023 academic year.

In terms of women empowerment, the free SHS policy has led to a significant improvement in gender equality by increasing girls' enrolment rates. The removal of the financial barriers has allowed more girls, particularly those from poor families to access secondary education, thereby narrowing the gender gap in education. A study conducted by Abdul-rahaman et al (2020) in the Wa municipality to examine the impact of government funding on senior high school enrolment suggested that the rollout of the programme led to a significant increase in the overall student enrolment in the region, most especially the girls. The result indicated that before free SHS policy, girls' enrolment rates were low but with the implementation of the programme in 2017, girls' enrolment rates in public senior high schools begin to rise across the municipality. Earlier study conducted by Abdul-rahaman et al. (2018) to examined the impact of government funding on student academic performance in senior high schools in the Wa Municipality revealed that the introduction of the free SHS policy has helped needy families to enroll their children into senior high schools since they do not have to pay fees, highlighting the policy's impact on relieving poor parents of their financial burdens and hence a panacea to poverty reduction. Opoku-Amankwa (2020) confirms that government funding of secondary education through the free SHS policy enables children from poor households to be enrolled into senior high schools, noting that prior to

the implementation of the free SHS programme, many students from poor households were chased away from school because of school fees. In some instances, these poor students will be denied their right to take part in terminal examinations for none payment of school fees. But with the implementation of the free SHS policy, the trauma in chasing students away from school for none payment of school fees has become a thing of the past.

2.7 Challenges associated with the free senior high school policy

There are various streams of scholarly works which acknowledged that the implementation of the free senior high school policy is marred by numerous challenges. Haddad & Demsky (1995) postulated that a new policy ought to be based on previous experiences. Hence one expected that the implementation of the free SHS policy would have drawn lessons from previous free education policies that have been implemented in Ghana including the Accelerated Development Plan for Education (ADPE) and the Free Compulsory Universal Basic Education (FCUBE) among others which faced challenges such as inadequate infrastructure, inadequate textbooks, inadequate qualified teachers among others (Opare et al., 2017). However, within the first year of the policy implementation, the challenges the hitherto plugged the previous free education policies in the country resurfaced again. The free SHS policy like any other free education policy implemented in Ghana has been plagued with challenges such as inadequate teaching and learning materials, infrastructural deficits, inadequate funding and teacher shortages among others (Addo, 2019).

Infrastructural strains

Infrastructural deficit is one of the major challenges confronting the successful execution of the free senior high school education in the country. Ghana still encounters obstacles in its education sector, including limited space for increased admissions and inadequate infrastructural facilities

for senior high schools. Evidence gathered by PIAC (2019) in an exercise carried out to monitor the implementation of the free SHS policy in Ghana showed that inadequate infrastructure is a major challenge confronting the implementation of the free SHS programme. The study revealed that many beneficiary schools are faced with the challenge of abandoned projects, insufficient beds in the dormitories, inadequate classrooms, inadequate staff quarters, inadequate laboratories and equipment among others. The Ministry of Education (2018a), acknowledged the infrastructural challenges, indicating that the introduction of the free senior high school policy has overburdened the existing school infrastructure due to the increase in student enrolment. The sharp increase in student enrollment has compelled the ministry of education to introduce the double track system, thus dividing students into two tracks (gold and green track) in about 400 senior high schools as a temporary measure to accommodate the increasing student population across public senior high schools in the country. This initiative (double track system) was meant to ease pressure on the existing infrastructure as an estimated 181,000 students who have gotten placement would have otherwise been denied the opportunity of attending senior high school due to inadequate space in the schools (Ministry of Education Ghana, 2019). Matey (2020), conducted a study to examine the impact of the free SHS policy on the lives of parents and their wards. Findings of the study showed that the implementation of the free SHS policy has led to an increase in school enrolment to the detriment of adequate school infrastructure, noting that the infrastructural deficit necessitated the operationalization of the double track system at the senior high school level. Similarly, Duah (2022), conducted a study to assess the effects of increasing student enrolment on teaching and learning in senior high schools and the result confirmed that after the introduction of the free SHS policy, there has been an emerging infrastructural challenges, highlighting on congestion in dining

halls and inadequate boarding and hostel facilities to accommodate the growing number of students. The study further indicated that these infrastructural challenges posed devastating effects on teaching and learning.

Inadequacy and delay in disbursement of funds

Financial constraints is another major challenge confronting the implementation of the free senior high school policy in Ghana. Within the three-year period that the first group of students under the Free SHS program stayed in Senior High School, the government, paid GH¢5,026 for each boarding student as school fees and GH¢2,272 for each day student. Moreover, an accumulated sum of GH¢1,093,277,941.94 has been disbursed to the Buffer Stock Company Ltd for the provision of food products to schools since the commencement of the free secondary education initiative in 2017 (Opoku-Amankwa, 2020). This puts pressure on the public purse as the government does not have a reliable source of funding for the program. The most recent IMF report revealed that Ghana allocates nearly 4% of its GDP for secondary education, indicating that the flagship programme, free SHS covers the entire expenses of senior high school education (International Monetary Fund, 2023). A study conducted by Essuman (2018), indicated that the absorption of the entire cost of senior high school education have overburdened the government limited resources. Evidence gathered by Essuman (2019) showed that due to financial constraints, government is unable to adequately finance the free SHS programme and this has led to undue delays and inconsistencies in the release of funds to the schools. Asante & Agbee (2021), argued that the inconsistencies and delays in the release of funds to schools is a common feature of the current free SHS policy. PIAC (2019), confirmed that, many schools experience delays in the receipt of funds for recurrent expenditure due to inconsistent and undue delays in timely

disbursement of funds by the free SHS secretariat. Matey (2020), re-affirmed the delays in disbursement of funds, noting that there have been constant delays in the release of funds to the senior high schools for the purchase of perishable and nonperishable goods for feeding.

Inadequate teaching and learning materials

Evidence Gathered by PIAC (2019) showed that inadequate teaching and learning materials is one of the major challenges confronting the implementation of the free SHS policy, indicating that practical learning materials and equipment are either inadequate or non-existence in the technical and vocational institutions. Duah (2022), noted that the inadequacy of teaching and learning materials could be translated to learning challenges as teachers cannot teach effectively without the necessary instructional resources and learning materials. This may pose devastating effects on teaching and learning in the senior high schools. PIAC (2019), argued that though the programme provides core textbooks to students, elective textbooks are not covered under the policy. However, many parents are ignorant of this because it has not been clearly communicated to them.

Inadequate teachers

The implementation of the free senior high school policy has led to a significant increase in student enrollment and this led to a massive shortfall of teachers, bringing more pressure to the already overwhelmed existing number of teachers in the senior high schools. To bridge this gap, the government recruited approximately 8,872 teachers and deployed them to the various senior high schools (Ministry of Education Ghana, 2019). Despite the government effort, there is still a huge gap requiring government to still recruit more teachers. Aweke (2022) argued that the introduction of the free senior high school policy has led to the shortage of trained teachers and overburdened

workload on existing number of teachers in the senior high schools. Slater (2018), contended that the situation may further be complicated by the government inability to recruit more qualified teachers to meet the growing number of students so as to ensure effective teaching and learning in the senior high schools. For this reason the IMF recommendation showed that Ghana should channel funding in training more teachers to meet the growing number of student population in the country (International Monetary Fund, 2023). Apart from the shortage of teachers due to increase in student enrolment, majority of teachers decline posting to rural schools in Ghana due to their unwillingness to reside in rural regions (Asare et al., 2022)

Many teachers refuse posting to rural schools in Ghana because they are not willing to live in rural areas. This denies rural schools of teachers who could teach to raise student achievement, particularly in the West Africa Senior Secondary Certificate Examination, which qualifies senior high school (SHS) graduates for higher education in Ghana. To

Food shortages and poor quality of food

Concerns have been intensified about shortages of food at the senior high school level following the implementation of the free senior high school programme. In a recent Citi News report, the Ashanti Regional Student Representative Council (SRC) has called on government and National Food Buffer Stock Company to address the issue associated with the food shortages that many schools in the Ashanti Region are facing. Speaking to Citi News, the Ashanti Regional SRC Coordinator, Raphael Sarkodie, complained that there have been delays, inconsistent and limited supply of various food commodities which has compelled the students to feed on some particular food items for several weeks without change, indicating that there are serious quality concerns

regarding the kind of food served in the dining halls (Citi News, 2022). In a similar vein, a monitoring exercise conducted by PIAC (2019) in 2018 and 2019 to evaluate the implementation of the Ghana's free SHS policy revealed that the quality of some of the food items supplied to the senior high schools is poor, highlighting a particular case where burnt maize and weevil-infested flour were supplied to some schools and in another case, milk and flour supplied to some schools neared expiry. It was observed that the selection of suppliers and supplies of food items to schools without consultations with the schools' authorities led to these problems. It is therefore not surprising when student of Savelugu senior high school embarked on a demonstration on the 21st of February 2022 against school management over the poor quality of food served in the dining hall. The students who protested to express the displeasure complained that they do not get enough food and even the food served in the dining hall is of low quality. Speaking to Citi News, the students alleged that some of the food served to them in the dining hall has expired (Nyabor & Ngon, 2022). Aweke (2022), asserted that the growing number of students has brought about the poor quality of meals served to students in the dining halls.

Poor targets and discrimination

The free SHS programme is been criticized for being poorly targeted and discriminatory. Recent investigation conducted by the IMF indicated that the flagship programme, free SHS policy has been poorly targeted (International Monetary Fund, 2023). However, the report did not recommend the rightful targets of the programme. Evidence gathered by AfricaEduwatch (2020), showed that, the very poor and poorest students especially from rural areas for whom the free SHS policy was originally meant to benefit rather pay huge sums of money to access secondary education. This is because under the free SHS policy, students who are privilege to get placement as boarding

students enjoy free accommodation and feeding with no transportation cost compared to day students who have to spend huge sums of money to rent hostels, feed themselves and bear the full transportation cost to school. Though the study is not suggesting that only rich students are boarders, it observed that some poor students for which the programme is meant to benefit are day students rather struggling to pay huge sums of money on rent and feeding while their colleagues, including rich students are in the boarding houses enjoying food and accommodation free of charge. A study conducted by Essuman (2018), pointed out that the free SHS programme discriminates against day students. Apart from government absorbing boarding fees which constitute about 60 percent of the total cost of secondary education in Ghana, the policy allows for boarding students to take three meals a day while day students take only a meal per day. Meanwhile, evidence gathered by (Essuman, 2019) showed that some students are in day schools because of limited spaces available in the boarding schools. The benefits derived from being a boarding student put pressure on more students to opt to attend boarding schools.

Costs of secondary education under the free SHS policy

Despite being labeled as free, the Ghana's free SHS policy still places financial responsibilities on parents, revealing that secondary education is not entirely devoid of costs under the policy. A study carried out by Bhuta et al (2023) to examine the financial burden analysis of the free senior high school programme and its implication on access to secondary education revealed that parents spent approximately GHS 3.074 on their wards in the boarding schools during the first year of the free SHS implementation in 2017/2018 academic year. This increased to GHS 3.649 in the 2018/2019 academic year and by the end of the 2022/2023 academic year, parents spent about GHS 6,477 on their children education at the senior high school level. It is worthy of note that the costs of

prospectus alone constituted about 45 percent of the total amount and the remaining cost was expended on non-perishable food items (provisions), transportation, books and personal effects. Day students that lived distant communities from their schools spent an average of GHS 5,380 on hostel accommodation, feeding and utilities annually. Matey, (2020), highlighted the inconsistencies in reopening dates, noting the inconveniences and burdens it cause to parents and students.

2.8 Imperative of the free senior high school policy

The introduction of the free SHS policy is of great importance to both Ghanaian students and their parents. The Ministry of Education (2018), Argued that the introduction of the free SHS programme aimed at reducing the disparity between the wealthy and the underprivileged people in the society. More impotently the World Bank (2017), indicated that the introduction of the free SHS policy in Ghana has provided opportunity for junior high school (JHS) leavers who otherwise would have cut off their educational achievements due to financial constraints to progress to the senior high school without hindrance, indicating that the programme played a significant role in reducing school dropouts rate in Ghana. Similarly, Opoku-Amankwa (2020), argued that the free SHS policy helped in addressing the inequality challenge by providing equal opportunity for all students through the removal of the financial barriers that restricts eligible students from getting access to senior high school in Ghana. In this regard, the policy allows for the absorption of the approved school fees charged by the Ghana Education Service (GES) Council. The policy also provides for other essential education materials such as textbooks, school uniform and boarding facilities free of charge. In addition to these, the boarding students enjoy three meals for free and there is one hot meal for day students. In the same vein, the Public Interest and Accountability

Committee (2019), reported that the free SHS policy has ensured adequate supply of textbook, indicating that textbooks for all the core subjects are supplied in good quantities to all senior high schools in Ghana even though in some instances they are received late. Furthermore, uniforms and jerseys have been timely and adequately supplied to schools though in some cases some schools complain of not receiving their preferred school colours.

Studies conducted by Abdul-rahman et al (2018), in the Wa municipality revealed that the free SHS programme has helped needy families to enroll their children into senior high schools without paying a dime for their wards education. The findings suggested that the implementation of the free senior high school policy has lessened the financial burden on poor parents who otherwise would have struggled to pay their children school fees. These findings reaffirmed the position of the World Bank (2017), which stated that majority of free SHS beneficiaries are children from poor households who otherwise would have dropped out of school due to financial constraints. The report further indicated that, the implantation of the free senior high school policy provide opportunity for students from poor families to enhanced their chances of acquiring skills and knowledge necessary for higher employment.

In terms of employment, the free senior high school policy has tremendously created employment opportunities for many graduates in the country. The Ministry of Education (2022), asserted that the introduction of the double track system as a result of increased enrolment figures created job opportunities for many graduates in Ghana, indicating that about 8,872 teaching staff were recruited and deployed to senior high schools across the nation to assist in the implementation of the double track system. This is further reaffirmed by Kyei-nuamah & Larbi (2022), who argued that the introduction of the free SHS policy led to the employment of graduates to teach in the

senior high schools due to the increased student enrolment figures. For instance, that the total number of teachers in public schools increased from 30,170 in 2016/2017 to 40,341 in 2017/2018 academic year. This implies that, many teachers were needed to be employed to cover the additional number of students admitted in the 2017/2018 academic year.

Studies by Kyei-nuamah & Larbi (2022), showed that the introduction of the free SHS policy improved infrastructural facilities in the senior high schools. It is evident that the implementation the free SHS policy significantly improved school infrastructural facilities such as building new and renovation of school buildings, improving access to water and electricity among others.

2.9 Impact of Public Funding of Education on Student Enrolment

Various scholars across the globe have carried out several studies to examine the significance of public funding in improving student enrolment. A study conducted by Moussa (2015), on the fee elimination programme in the Gambia revealed that the rollout of the programme led to a massive increase in school enrolment at the secondary school level in the country, indicating that the introduction of the fee elimination programme increased student enrolment by 50%. In Sri Lanka, Alawattagam (2020) conducted a study to explore the salient features and emerging challenges of the free education system. Findings of the study showed that the introduction of the free secondary education in Sri Lanka led to a substantial increase in student enrolment across public secondary schools in the country. Barriers et al (2021), conducted a study on the Ghana's free SHS policy and the results showed that the free senior high school policy has increased enrolment by 30%. Furthermore, evidence from the study suggested that the implementation of the free SHS policy allows for the removal of the admission cut offs which was a barrier to secondary education for BECE candidates who had poor grades. It is interesting to note that, before free SHS, students who

had aggregate 36 and above were not qualified for placement into senior high schools. But the introduction of the free SHS policy has made it possible for students with even aggregate 50 to get access to senior high school which obviously will lead to increase in enrolment figures. Kan & Klasen (2018), conducted a study on the school fees abolition and educational outcomes in Uganda and the results indicated that providing free education beyond the basic level encourages smooth transition to senior high school. Evidence from the study conducted by Abdul-rahman et al (2020), in the Wa municipality to examine the impact of government financing of secondary education on girls enrolment rates suggested that, the introduction of the policy has led to a significant increase in girls enrolment in the municipality. The result of the study revealed that before free SHS programme, girls' enrolment rates were low but with the implementation of the programme in 2017, girls' enrolment rates across all public senior high schools begin to rise across the region. Similarly, Jahantab (2021), investigated the implication of the free senior high school policy on access and equity in senior high schools in Ghana and the findings indicated that the free SHS policy has actually increased student enrolment and attendance in senior high schools across the country. The findings further revealed that the rise in enrolment figures is as a result of government absorption of all financial burdens associated with secondary education which could have hindered access and equity to senior high school education. The study observed that prior to the implementation of the policy, many Junior High School leavers who had the qualification to attend senior high school could not be enrolled due to financial constraints but since the implementation of the policy at the beginning of the 2017/2018 academic year, the number of students who graduated from the junior high school but could not transit to the senior high school drastically dropped. The Child Rights International in a press release dated 23rd July 2021, stated

that over 1.6 million citizens have benefited from the free SHS programme since its inception in 2017.

2.10 The challenges associated with public funding of education

Globally, the government predominantly funds education. The commonly accepted justification for government involvement in education is its ability to generate significant societal benefits. Several studies highlight the positive social outcomes associated with education, further supporting the case for government intervention in this area. However, the provision of educational services by the public sector is consistently limited by the accessibility of public funds. Several sub-Saharan African (SSA) countries struggle with limited capacity to collect public resources, thereby impacting the allocation of resources towards education (UNESCO, 2011).

Past studies have shown that public funding of education across developing countries are faced with numerous challenges, especially with regards to financing. Although most developing countries allocate huge sums of financial resources to education, the level of investment in the sector is still undesirable (Slater, 2018), prompting more investment and stakeholders involvement to improve access and quality education. In the case of Kenya, Omae (2019), studied the impact of government funding on secondary education and found out that the introduction of the free secondary education in Kenya compelled the government to go beyond the country's ordinary budget allocation for education. This undoubtedly strained the government limited resources as there are inadequate financial resources to continually provide the desired quality education. Studies conducted by Moussa (2015), indicated that the rollout of the fee elimination programme in secondary schools in the Gambia led to about 50% increase in school enrolment. This substantial rise in enrolment figures undoubtedly put more strains on the country's limited school resources.

However, the findings showed that the rise in the secondary school's enrolment did not endanger learning outcomes.

2.11 Theoretical framework

2.11.1 The Capital Theory of School Effectiveness and Improvement

The theoretical underpinning of this study is the capital theory of school effectiveness and improvement propounded by Hargreaves (2001). Capital theory of school effectiveness and improvement is focused on three key concepts namely; outcomes, intellectual capital and social capital. Outcomes comprises of both cognitive and moral while Leverage focuses on the relation between the teacher input and educational output. Intellectual capital has to do with the summation of school's knowledge and experience and social capital implies building trust and collaboration between the school and the communities at large.

The priority of the theory is to improve the intellectual and moral excellence of students as a result of the teacher's effort. Effective schools therefore emphasize on strategies that are effective enough to yield greater results using little effort rather than teacher putting in more effort with little or no impact on student's achievement. Hargreaves (2001), defines school effectiveness and improvement in this model as the ones that mobilizes its intellectual capital (particularly its ability to generate and impart knowledge) and its social capital (particularly its ability to bring trust and create sustained networks) in order to attain some desirable educational outcomes. The model suggests that the leverage in which knowledge is imparted is very important in the realization of a desired result, indicating that the overall objective is to transfer knowledge. However, the quality of knowledge imparted is determined by the qualification of the teacher and the availability of resources needed to ensure that the desired knowledge is imparted. As a result, the quality of output

is greatly influenced by structural and environmental factors. Therefore, in order to achieve the desired outcome, there is the need to establish social capital. The social capital that has been established by the government of the day to enhance the accessibility of quality education in the country is the introduction of the free SHS policy. The policy covers all citizens who are eligible to be enrolled in any public school regardless of one's socioeconomic background, gender or ethnicity. There is therefore the need for the policy to be embraced, supported and invested as it seeks to address the financial burden of poor parents in the country. The objective of the policy can be achieved if schools develop a convincing justification to raise financial resources while government and stakeholders shows dedication and support with financial resources. The major concern of the theory is the achievement of the intended results of the policy after soliciting government dedication and stakeholders support (social input).

Hargreaves (2001) argued that this will increase the number of educated elites in the country and therefore build the intellectual capital for improvement in the socioeconomic conditions of the citizenry. The availability of resources will help to achieve improved academic performance and instill discipline among students. Finally, the establishment of the right structures in place and the provision of adequate resources will end up motivating teachers to offer the best tuition they can so as to achieve the needed results.

Drawing from the Capital theory of school effectiveness, this study establishes that implementing the free senior high school policy in Ghana would be successful based on the following factors: availability of school finances from the government, students' enrolment, availability of trained teachers, availability of physical facilities and, community involvement in the implementation of the policy. The study argued that achieving quality education is hinged on these factors which are

the dependent variables. This is shown by the conceptual framework for the study in Figure 2.1 below.

2.12 Conceptual framework of the study

In recent days, discussions in the field of education have centered on the quality of education, specifically its suitability for its intended purpose which encompasses the entire characteristics of education (inputs, processes, and outputs). The implementation of the free senior high school (SHS) policy aims to provide equitable access to quality education for all students at the senior high school level. The conceptual framework in this study is based on the input, process, output approach where every aspect of the free SHS policy is adequately captured. This framework seeks to explore the elements influencing the free SHS policy, the processes involved in its implementation and the expected outcomes in terms education accessibility, quality and retention as well as the challenges confronting the policy implementation.

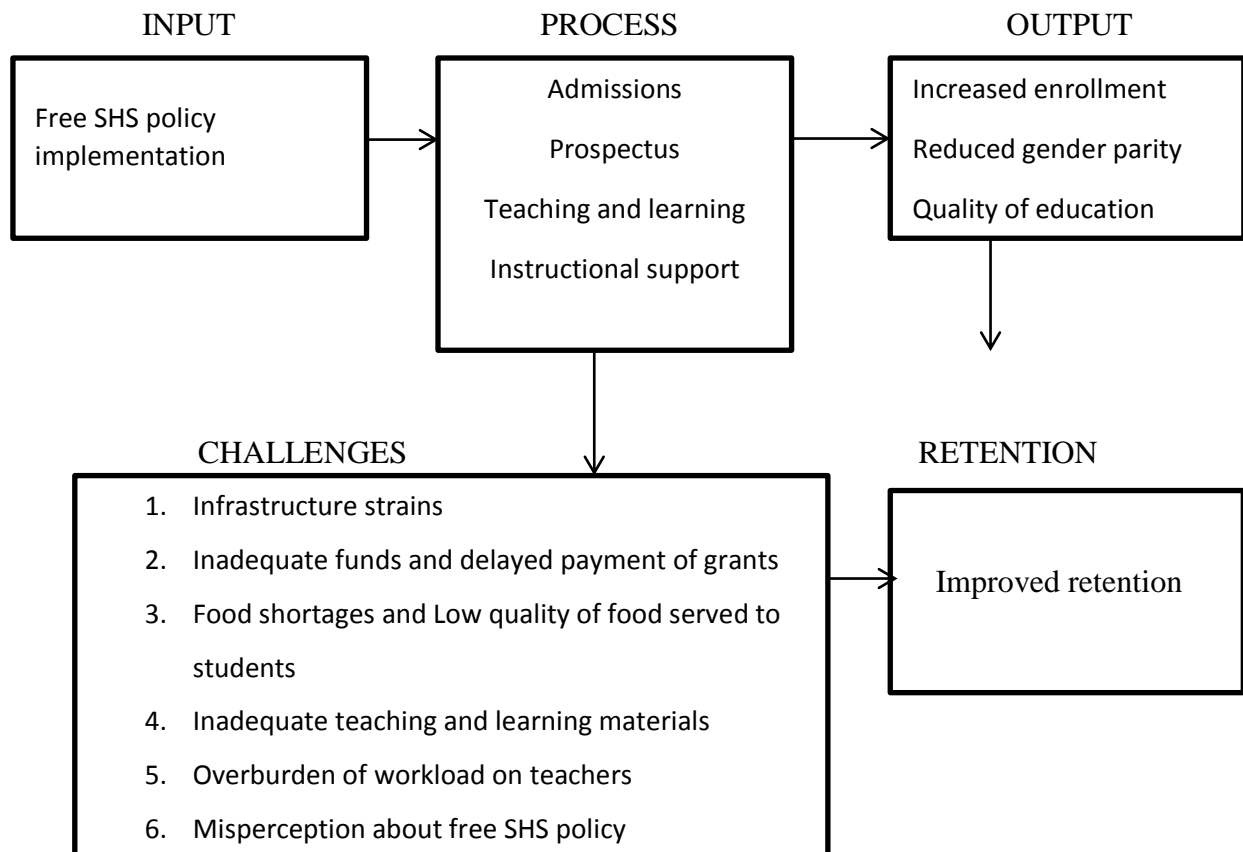


Figure 1. Conceptual framework

The conceptual framework in this study indicates that the government provides inputs to all public senior high schools in Ghana through the introduction of the free SHS programme. The free SHS programme is a pro-poor government's initiative that provides a more inclusive and equitable access to secondary education for all qualified students in Ghana (Opoku-Amankwa, 2020). The input provided by the government is in the form financial aid to remove barriers that might have otherwise prevented some students from attending senior high school. Due to the removal of the financial barriers, more students from various socio-economic backgrounds especially pupil from poor households are enrolling into senior high schools. This increased accessibility has led to higher enrolment rates, especially among disadvantaged and marginalized communities. This surge in enrolment aligns with the capital theory of school effectiveness and improvement which emphasize the importance of investing in human capital to enhance educations outcomes. The free SHS policy, as a form of human capital investment, positively impact student enrolment trends in the North East Region. The free SHS package covers tuition, with no charges for admission, library, science center, computer laboratory, examination and utility fees. Furthermore, beneficiaries of the free SHS programme receive school uniforms, textbooks for core subjects, note 3 and exercise books free of charge. Boarding students use all school facilities and receive three square meals for free while day students also enjoy a free meal at school (Opoku-Amankwa, 2020). However, the free SHS policy is not entirely cost-free as perceived by some particular parents especially those from rural communities. This is because it does not cover expenses like prospectuses, elective books, calculators and certain practical materials for specific subjects.

The process of implementing the free SHS policy in the senior high schools start with the admission processes where students placed at various schools are offered admissions. During the admission process, students are required to buy prospectus which differ from one school to the other. This cost of prospectus is completely borne by parents/guardians. Another process which occurs at this stage is teaching and learning which involves instructional support and classroom organization. The teaching and learning process involves various dimensions of classroom interactions which is important for the development of children academic achievements.

Outputs of the free senior high school policy include increase in student enrollment rates. Since the policy was introduced in 2017, there has been a notable increase in school enrolment possibly as a result of the removal of the financial barriers that hitherto prevented some students from accessing senior high school education. According to the Ministry of Education (2018a), access to secondary education in Ghana remained low over the past years prior to the introduction of the free SHS policy, indicating that an average of 27.3% of BECE candidates who graduated from the junior high schools and are eligible to go to senior high school were not enrolled. But with the introduction of the free senior high school policy this figure reduced to 14.7%, indicating that the free SHS policy has substantially increased student enrolment. Another output of the free SHS policy is the quality of education which is measured by academic performance. Various factors determine academic performance of students. These include availability of teaching and learning materials, availability of qualified teachers a conducive teaching and learning environment among others. The policy aims to contribute to improved academic performance as students have the opportunity to focus on their studies without financial constraints. The policy also provides textbooks for the core subjects to facilitate effective teaching and learning. In 2016/2017 academic

year, the West African Senior High School Certificate Examination (WASSCE) recorded pass rates for the core subjects (English Language, Mathematics, Integrated Science and Social Studies) at 33.1%, 51.7%, 48.8% and 54.6% respectively. In 2017/2018 academic year, the WASSCE results released by the GES were 53%, 42.2%, 43.2% and 52.3% for the core subjects respectively. However, by 2021, these rates increased significantly to 54.08%, 54.11%, 64.70% and 66.03%. This improvement underscores the positive influence of the free SHS policy (Kyei-Nuamah & Larbi, 2022). The Free SHS Policy (FSHSP) can also address gender disparities in education by ensuring that both boys and girls have equal opportunities to access and complete secondary education, thus promoting gender equality. A study conducted by

With financial constraints reduced, students are more likely to continue their education through the SHS years, leading to improved retention rates. This can subsequently contribute to a more skilled and educated workforce.

However, the sudden surge in enrollment has strained existing school infrastructure, resulting in overcrowded classrooms which may hinder effective teaching and learning. Also, the increased enrolment rates have led to shortage of qualified teachers which affects teacher-student ratios and teaching quality. The influx of students has overwhelmed the teaching workforce, causing overburdened workload on teachers. Though the government have been recruiting teachers for the past years, the number of teachers employed is not enough to meet the growing number of students. There is therefore the need for government to recruit more teachers otherwise teachers might need additional training to handle larger and more diverse classrooms effectively. Furthermore, the rapid enrollment growth can potentially compromise the quality of education. Teacher-to-student ratios might increase, affecting the personalized attention students receive. Additionally, there are

insufficient teaching materials and educational resources to support the larger student population. Therefore, maintaining educational standards and effective teaching practices becomes challenging. Finally, inadequate funding and delays in the disbursement of funds to senior high schools could affect the effective implementation of the free SHS policy. It is worthy of note that providing free education requires substantial funding, which might strain government budgets. The policy's implementation requires substantial funding for infrastructure, teacher salaries, teaching and learning materials, food and logistics. Ensuring the sustainability of funding to accommodate increasing student numbers becomes a challenge in the long run. Aligning with the capital theory of school effectiveness and improvement, addressing these challenges can further improve enrolment and educational outcomes since achieving universal access and quality education is hinged on these factors which are the dependent variables.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the procedures followed to carry out the research. It describes the methodological techniques used in the study. Firstly, the chapter presents the profile of the study area, Secondly the chapter highlights on the methodology adopted to carry out the study. The chapter further highlighted on the research design, sampling processes, sample size determination, methods of data collection and techniques for data analysis. The concept of reliability, validity, ethical considerations and relevance of the study are also well explained. The chapter also explained the justification for adopting the mixed method approach for data collection and analysis of the study.

3.2 The Study Area

The survey was carried out in the North East Region of Ghana. This section presents a detailed profile of the region. It captures the location and size of the study area as well as the population distribution and educational status.

3.2.1 Location and districts

The North East Region is among the sixteen administrative regions of Ghana. It is situated in the northern part of the country. It was established in December 2018 by the current government following a referendum to separate it from the northern region. Hence, the region was carved out of the pre-existing northern region. Nalerigu serves as the regional capital of the North East Region. It borders the Upper East Region to the north, Togo to the east, the Northern Region to the south and Upper West Region to the west.

It lies between longitudes 1° 25'W and 2° 50'W and between latitudes 9° 35'N and 11° . The region covers a geographical area of 18,476 sq. km, constituting 12.7% of the total land area of Ghana (Ghana Statistical Service 2021). The region has six districts. These include; Bunkpurugu-Nyakpanduri, Chereponi, Yunyoo-Nasuan, Mamprugu-Moagduri Districts and West-Mamprusi and East-Mamprusi municipals

Source: (Ghana Statistical Service, 2021)

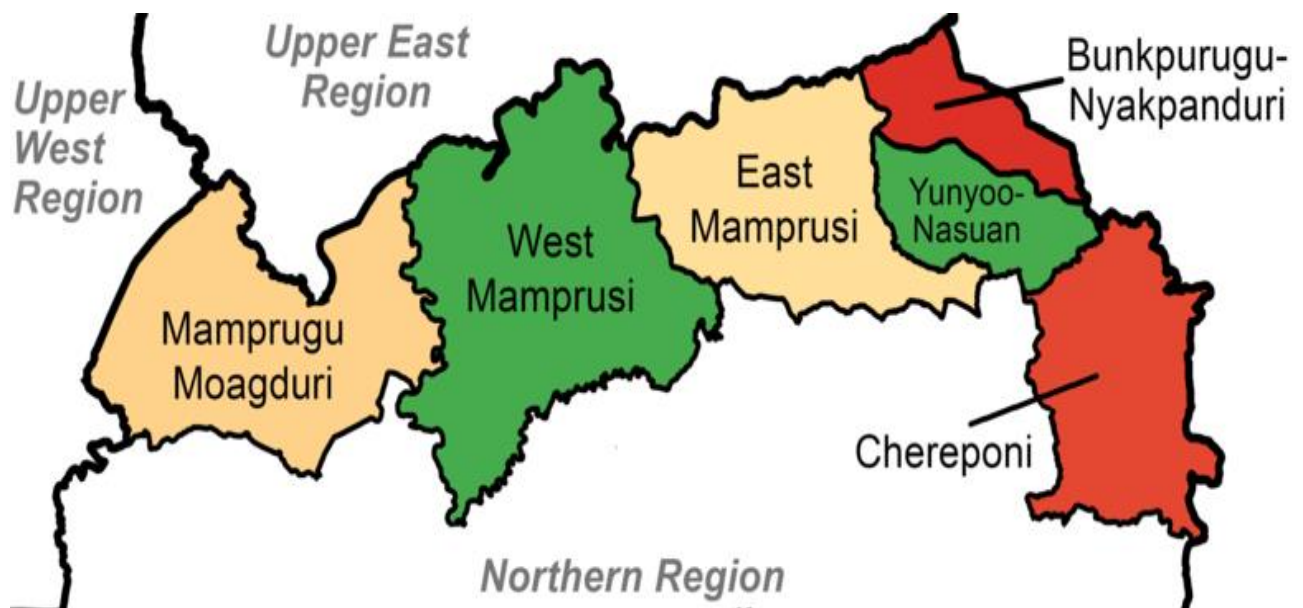


Figure 3.2: A map of North East Region, indicating all the municipals/districts

3.2.2 Population Distribution

Evidence from the Ghana Statistical Service (2021), showed that, the total population of the North East Region is 658,946, of whom 322,149 (48.9%) are male and 336,797 (51.1%) are female. This implies the region's population is dominated by female thus, 51.1% against 48.9% male. This shows that there is the need to take necessary measure to improve female education for the increasing population. The region recorded 3.3% annual population change (2010-2021). The

average population density of the region is 72.6 persons per square kilometer which is lower than the national average of 77 persons per square kilometer.

The urban and rural distribution of the region's population indicates that 32.6% of people live in the major urban centers and 67.4% live in rural areas. This implies that the region's population is predominantly rural. This calls for the need to put in measures to improve educational access in the deprived areas to reduce the disparities in educational achievements between urban and rural dwellers.

3.2.3 Education attainment and literacy

Various educational institutions exist in the North East Region. This includes; the Basic level comprising of Kindergarten, Primary and Junior High Schools. The region also has thirteen (13) second cycle institutions which comprise of ten (10) Senior High Schools and three (3) Senior High/Tech schools. Aside these, the region also has two (2) technical/vocational institutions. The tertiary institutions in the region include; one Nursing Training college and one Teacher Training college (Ghana Statistical Service, 2021).

According to the Ghana Statistical Service (2021), the current literacy rate of the North East Region are as follows; for population of six (6) years and older, the literacy status stands at 35.9% literates and 64.1% non-literates. This is far below the national literacy rate of this particular age bracket which stands at 69.8%. The proportion of male literates is 41.3% and female literates is 30.9%, meanwhile the national record stood at 74.1% male literates and 65.6% female literates. This undoubtedly signifies that the region lags behind in educational attainment.

The literacy status of the population of those who are up to eleven (11) years and above stands at 39.5% literates and 60.5% non-literates. However, the national literacy rate of this age group stands at 72.8%, indicating that the North East Region has lower literacy rate compared to other regions in the country. The proportion of male literates is 46.5% and female literates are 33.1% compared to the national figures of 78.2% male literates and 67.8% female. This also shows a higher national literacy rate in both ages compared to the North East Region, signifying that the region still lags behind in educational attainment.

The literacy status of the population of those who are up to fifteen (15) years and above stands at 38.5% literates and 61.5% non-literates. But the national literacy rate of this particular age bracket stands at 72.2%. The proportion of male literate is 46.9% and female literate is 31% compared to the national figures of 78.4% male literates and 66.3% female. This also shows lower literacy rates in the region compared to the national figures. In all the three age brackets the North East Region recorded lower literacy rates most especially the female.

The literacy status of the population living in the urban and rural area in the North East Region are as follows; for population of six (6) years and above, the literacy rates of the stands at 50.2% urban and 28.8% rural compared to the national literacy rates of 80.6% urban and 55.2% rural. The literacy status of urban and rural population among those who are eleven (11) years and above stands at 53.9% urban and 32% rural compared to the national literacy rates of 82.5% urban and 59.2% rural. The literacy status of urban and rural population among those who are up to fifteen (15) years and above stood at 52.7% urban and 30.8% rural compared to the national literacy rates of 81.8% urban and 58.3% rural. This signifies that the literacy rate in the urban centers far outweigh the literacy rate in the rural areas, indicating that there is a gap between the urban and

rural areas in educational attainment. In comparing the national literacy rates to that of the North East Region in all three age groups, it is quite clear that there is a gap in educational attainment in the North East Region of Ghana which requires intervention.

The free SHS policy is a pro-poor initiative introduced by the current government with the aim of increasing access to quality education in Ghana. The study therefore intends to examine the overall impact of the free senior high school policy on student enrolment and the challenges confronting the implementation of the programme in the North East Region of Ghana.

3.3 Research Design

This study adopted a sequential explanatory mixed-methods research design, integrating both quantitative and qualitative approaches. The mixed method research design is appropriate for this study because it provides a comprehensive understanding of the impact of the Free SHS policy on school enrolment and the challenges confronting the policy implementation in the North East Region of Ghana. By combining quantitative data on enrollment changes with qualitative insights from stakeholders, the study can offer a more robust analysis and recommendations for policy makers and educators. In this study, the combination of qualitative and quantitative approaches is anticipated to enhance the comprehensiveness of the overall findings. This approach aims to clarify how qualitative data can offer insights and explanations for statistical data, ultimately enhancing the methodological rigor of the study. Additionally, the sequential mixed method design allows for cross-verification of findings in both phases to ensure consistency (Creswell, 2009).

The quantitative phase of this study involves the analysis of enrolment figures before and after the introduction of the free senior high school policy. On the other hand, the qualitative aspect covered the in-depth analysis of the challenges impeding the successful implementation of the policy.

After identifying the challenges, a ranking system was developed to prioritize and rank the challenges in order to identify the most crucial challenge that impedes the successful implementation of the policy in the North East Region of Ghana.

By employing the sequential explanatory design, the researcher first explores the policy's impact on enrolment quantitatively, then delved into the qualitative analysis of challenges, and finally ranks these challenges to identify the most formidable ones that inhibit the success of the policy in the North East Region. This approach provides a holistic understanding of the topic.

The justification for adopting a mixed method research design is based on the recognition that neither qualitative nor quantitative approaches alone can fully capture the intricacies of the situation under study. Furthermore, both qualitative and quantitative research methodologies come with their respective limitations, hence employing a combination of these methods allows the researcher to compensate for the weaknesses of one method by leveraging the strengths of the other.

3.4 Sampling and Sample Size

The study employed the multi-stage sampling technique to first randomly select three districts in the North East Region that are appropriate for the study. The North East Region was chosen because of the severity of poverty in the region which undermines children school participation. In the second stage, public senior high schools in these districts were purposively selected based on the ongoing free SHS policy in all public schools across the entire country. The selection of schools through purposive sampling was justified based on Boating (2016) assertion that this method is suitable for targeting respondents with the knowledge, expertise and experience related to the subject of study. In line with this rationale, the researcher chose schools that had prior

experience with both the fee-paying system and the Free SHS program. Private senior high schools were not included because they are not beneficiaries of the policy. In the third stage, five out of a pool of nine schools appropriate for the study were randomly selected. In the final stage, respondents were selected within the five selected schools. The respondents include; students, teachers and school administrators. A total of 384 respondents were used to gather data for the study.

In order to ensure a representative of different student demographics and academic levels, the stratified sampling technique was used to separate students into distinct strata based on their sex (male and female) and their academic year (year 1, year 2, year 3). Within each stratum, the researcher randomly sampled proportionate number of students to ensure adequate representation. By stratifying student sample using both sex and class, the study can capture a diverse range of students, considering both gender differences and differences between academic years. This approach resulted in a more balanced and representative sample for the research. Teachers were conveniently selected to share their experiences regarding the challenges they faced since the implementation of the free SHS policy. The administrative staff of various schools was purposively selected based on their roles and experiences in the policy execution.

Determining the appropriate sample size is one of the most important factors in statistical research. The study population comprised of students, teachers and school administrators of various senior high schools within the North East Region. Hence, it was essential to choose a representative sample due to the cost and challenges associated with surveying the entire population. The sample size was determined through a statistical procedure that enables the findings from the selected schools to be generalized to all schools within the North East Region as a whole. This study

employed the Cochran (1963) technique for determining sample size based on a desired confidence level of 95%. The formula is as follows

$$n = \frac{Z^2 pq}{e^2}$$

Where n is the sample size, Z is the abscissa of the normal curve that cuts off an area α at the tails ($1 - \alpha =$ the desired confidence level, 95%)¹, e is the desired level of precision, p is the estimated proportion of an attribute that is present in the population, and q is $1 - p$. the value for Z is found in statistical tables which contain the area under the normal curve.

In this study, the researcher wants to evaluate a nationwide education policy such as the free SHS programme where qualified students from the junior high school are expected to benefit from the policy. It is emphatic that the study involves a large student population and the variability in the proportion that will be enrolled in the programme is not known. Therefore, $p = 0.5$ (maximum variability), the researcher desired a 95% confidence level and $\pm 5\%$ precision. The resulting sample size was therefore calculated as follows;

$$n = \frac{Z^2 pq}{e^2} = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} = 384 \text{ students}$$

Table 3.0-1 Distribution of sampling units by districts and public senior high schools

No	District	Schools	sample size
1.	Bunkpurugu/Nakpanduri	Bunkpurugu SHTS	71
		Nakpanduri SHS	61
2.	Mampurugu West	Wulugu SHS	76
3.	Mampurugu East	Nalerigu SHS	116
		Gambaga Girls SHS	60
Total respondents			384

3.4 Population of the study

The target population encompasses the entire set of population that researchers aim to collect data from for a study (Creswell, 2016). In this study, the target population included school administrators, teachers and students from public senior high schools in the North East Region. The concentration of the study was on only public senior high schools as the free senior high school policy does not extend its benefits to private senior high schools. Attention was focused on school administrators, teachers and students because they are the active participants in the policy implementation within the senior high schools and are therefore confronted with the emerging challenges associated with the policy implementation. The selection of this target was motivated by the researcher's desire to gather data from various individuals who are actively involved in the policy implementation as well as the direct beneficiaries of the policy. This target helped in the

effective examination of the role of the free senior high school policy on school enrolment and the challenges inhibiting the successful implementation of the policy in the North East Region. It also helped in identifying the most formidable challenge impeding the policy implementation in the region.

3.5 Data collection

3.5.1 Instruments and procedure for collecting data

Following the mixed methods approach, the questionnaire and the interview methods were jointly used. The questionnaire method was used to collect secondary data on student enrolment over the past 12 years, capturing the periods preceding the free senior high school policy and the period after. The interview method however was used to collect primary data on the views and challenges experienced by students, teachers and administrative staff of the various schools. The enrolment data was collected from the administrative records of the selected schools. The questionnaire contained both closed and open-ended questions to allow respondents to further provide detailed information and was administered in simple wording that was understandable by all respondents. The questionnaire was pretested in two selected schools outside the study area before the actual collection. This piloting was necessary because it helped in improving the instrument by providing more clarity in the wording and rephrasing of questions where necessary and providing additional instructions deemed sensitive.

Semi-structured interviews were conducted with school administrators and teachers to gather in-depth information on the challenges of the policy implementation within the senior high schools. This interview approach was chosen because it allows for one-on-one interaction between the researcher and participants, facilitating a more formal and focused research process as questions

were carefully prepared to align with the objectives of the study (Creswell, 2016). Furthermore, semi-structured interviews were deemed suitable for the study because they enable participants to provide detailed insights into various aspects of the policy implementation. The decision to use this interview method in this study was influenced by the nature of the study, which involves a deep exploration of the Free SHS program in the in the North East Region. Additionally, the choice of interviews was informed by the insights gathered from the literature review and the research's overarching goal and objectives. To conduct the semi-structured interviews, an interview guide was created in alignment with the study's objectives.

Focus group discussions were also organized among students from the five selected schools in the North East Region to explore their experiences and challenges regarding the free SHS policy. The discussion aimed to gather insights from students across different year levels and genders to ensure a comprehensive understanding of the issues they faced as beneficiaries of the programme. Each school contributed one focus group, comprising of six students. Participants were selected from form 1, form 2 and form 3 to capture experiences across different year levels. Gender sensitivity was ensured by having an equal representation of male and female students in each school with the exception of Gambaga Girls SHS in which the group was made up of only girls. A moderator guide was carefully prepared to facilitate the discussion with the students during the focus group discussion. This was a structured set of questions and prompts that the researcher used to facilitate the discussions in order to ensure that the discussions stay on track and covers the necessary points. The guide included open-ended questions that encourage participants to express their thoughts, opinions, and experiences. This guide helped the researcher to manage the dynamics of the groups by ensuring that all participants have an opportunity to speak and that the discussion remains

focused on the research objectives. By using the guide, the researcher ensures that the same set of questions was covered in each focus group discussion, promoting consistency in data collection.

After identifying the challenges, the researcher developed a ranking system using a questionnaire to rank the challenges in order to come out with the most formidable challenge affecting the effective implementation of the policy. The respondents rated the challenges on a scale of severity or importance. This helped in identifying the most formidable challenge confronting the policy implementation.

3.5.2 Sources of data

The study relied on both primary and secondary data. Primary data refers to the data that is freshly gathered for the first time, possessing an original quality whereas secondary data refers to information gathered by another party that has already undergone statistical processing or analysis. This data, whether published or unpublished, has been collected previously for a different purpose (Thakur, 2019). Primary data was collected on the socio-demographic characteristics of respondents, their perceptions about the free SHS policy as well as the challenges that confront them after the implementation of the free senior high school policy. Secondary data was collected on student enrolment across the five selected schools from 2011/2012 to 2022/2023 academic years.

3.5 Data Analysis

3.5.1 The effect of free senior high school policy on school enrollment

The study employed the mean comparison t-test to evaluate the differences in average enrollment between the period before the introduction of the free senior high school policy and the period after it. Enrollment data was gathered from the administrative records of five selected senior high

schools, covering a twelve-year period that encompassed six years prior to the introduction of the Free SHS policy and six years following its implementation (from 2011/2012 – 2022/2023 academic years). The data was divided into two distinct groups: the pre-Free SHS policy period, spanning from the academic years 2011/2012 to 2016/2017, and the post-Free SHS policy period, ranging from the academic years 2017/2018 to 2022/2023.

3.5.2 The challenges confronting the implementation of the free senior high school policy

The challenges confronting the effective implementation of the free senior high school policy was analyzed qualitatively. Data was gathered by conducting interviews and focus group discussions with stakeholders (school administrative staff, teachers and students) who are directly involved in the execution of the policy within the senior high schools in the North East Region. Open and closed ended questions were utilized to capture diverse perspectives and experiences. The data collected were organized systematically and given specific coding to identify recurring themes or patterns related to the challenges. Similar data points were therefore grouped together to form themes. The identified themes were then systematically categorized. Data within each theme was then interpreted, providing insights and explanations for the challenges identified within the context of literature and theory already in place.

3.5.3 Ranking of challenges to identify the most pressing challenge inhibiting the successful implementation of the free senior high school education

The Kendall's Coefficient of Concordance was used to determine the hierarchy of challenges, aiming to pinpoint the most pressing challenge hindering the successful execution of the policy. Respondents rank the challenges based on their severity or significance, ultimately aiding in the identification of the most formidable challenge that the policy implementation faces. Concordance

between a given set of challenges identified are ranked from the most pressing challenge to the least pressing challenge measured. The challenges identified are ranked in a hierarchical manner from the most pressing challenge to the least pressing one using numerals such as 1,2,3,4, 5, n, in that order. To compute the total rank score for each challenge, the challenge with the highest score is ranked as the most pressing challenge while the one with the lowest score is ranked as the least pressing challenge. After the ranking, the rank scores were used to compute the coefficient of concordance (W) to ascertain the degree of agreement among the rankings. It should be noted that the coefficient of concordance (w) ranges from 0 – 1. It will be 1 when there is maximum agreement among the rankers (respondents) and it will be 0 when there is maximum disagreement among the rankers. The coefficient of concordance (w) is found by the formula

$$W = \frac{12S}{m^2(n^3 - n) - mT}$$

Where T = the sum of ranks for each challenge

m = the number of rankers (respondents)

n = total number of challenges being ranked

S = total sum of squares of the deviations from the mean rank

3.6 Limitations

During the course of conducting this investigation, several limitations were encountered that impeded the speed at which the study was carried out. Among these limitations are financial constraints and the time required to conduct the study. Financial limitations were one of the major constraints that restricted the scope of the study as the repeated visits to various locations (schools)

for data collection proved to be financially burdensome due to transportation cost and the cost of acquiring other logistics for the study. Another constraint was the substantial amount of time required to gather data from various schools, perform data analysis, and compile the report. It is worthy of note that a lot of time was consumed in taking accurate and comprehensive data concerning enrollment figures, demographic specifics, and detailed information on the challenges confronting the policy implementation from various respondents using varying technics. In addition to these, the researcher had to contend with uncooperative and hostile respondents during the data collection.

3.7 Ethical Considerations

It is important the researcher make respondents to understand that participation is voluntary and that participants are free to refuse to answer any question and to withdraw from participation at any time they have chosen during the process of the research. As a result, all participants involved were well informed about the research process, which involved interviews and discussions on issues that may be delicate to some respondents. The researcher undertakes to bear this seriously in mind. Personal confidentiality and privacy are very important since the research is public. Individuals have been used to provide information; therefore, their privacy were respected. All respondents were assured that confidentiality would be maintained regarding their private information accessed.

3.9 Reliability and Validity

Validity refers to the degree to which results obtained from analysis of the data actually represents the phenomenon under study. The validity of the research instrument was determined by pretesting. Mugenda and Mugenda, (2005), assert that pre-testing ensures clarity and accuracy of

results so that data collected gives meaningful and reliable results representing variables in the study. Pre-testing helped to estimate the time needed to take and to fill the questionnaires. Pre testing was done by administering sample set of questionnaires to thirty (30) respondents two different senior high schools outside the sampled schools. In calculating validity, the researcher ensured that questions are relevant in order to ensure that data collected give meaningful and reliable results represented by variables in the study.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents results on the key findings of the study. The socio-demographic characteristics of participants are all presented in this section. These results are then discussed within the larger literature on the free senior high school program in Ghana. The findings are presented under each section based on the stated objectives.

4.2 Descriptive Statistics of Respondents socio-demographic data.

The socio-demographic data collected for this study included information on students, teachers, and administrative staff of senior high schools in the North East Region of Ghana. The study used a sample of 384 respondents, including 313 students and 71 teachers/administrative staff.

Table 4.1 displays the descriptive statistics of students, teachers/school management. The average age of the students was approximately 16 years with a standard deviation of 1.33. The ages of the students varied from a minimum of 14 to a maximum of 22 years. The average age of teachers/management was approximately 36 years with a standard deviation of 7.70 indicating some variability in the ages among the teachers/management. The ages of the teachers/management ranges from a minimum 28 and a maximum of 54 year. It is important to note that the average age of the students (16 years) falls within the normal age bracket of senior high school children which is approximately 15 to 17 years (Ministry of Education, 2018a). The average class size was found to be approximately 48 students per class. This is slightly higher than the national student-classroom ratio of 46 students per class (Ministry of Education, 2018a). The

maximum class size was found to be 108, indicating that some classes were seriously overcrowded. An overwhelming majority of respondents (95%) is of the view that the free SHS policy is good. This indicates that the policy is laudable and should be sustained. Although respondents perceived the free SHS policy to be good, nevertheless, almost all respondents, averagely 99% agreed that the implementation of the policy has challenges.

Table 4.1 Socio-demographic characteristics of participants

Variable	Mean	Std. Deviation	Min.	Max.
Age of students	16.32	1.33	14	22
Age of teachers/management	36.18	7.70	25	58
Class size	47.52	10.85	27	108
Perception on FSHS	1.50	0.60	1	3
Assessment on challenges	0.99	0.10	0	1

Source: Field data (2023)

Table 4.2 shows the distribution of teachers based on sex. The data indicates that the total number of teachers/managements who participated in the study is 71. Out of this 58 are male, representing 82% and 13 females representing 18%. This indicates a significant gender disparity in the teaching profession within the observed sample. The overwhelming majority of teachers are male while the number of female teachers is comparatively small. Addressing such disparities is crucial for fostering inclusive and equitable educational environment.

Table 4.2 Distribution of teachers/management based on sex

Variable	Frequency	Percentage
Male	58	82.00
Female	13	18.00
Total	71	100.00

Source: Field data (2023)

The data provided in table 4.3 shows that the total number of students who participated in the study is 313, with 151 male students, constituting approximately 48% of the total student population, and 162 female students, representing approximately 52% of the total student population. This suggests that there is a slightly higher proportion of female compared to male in the student population. This information provides insights into the gender balance within the student population. However, it is important to note that the presence of Gambaga Girls SHS, an all-female school with about 46 participants could potentially exaggerate the female dominance in the overall dataset. Therefore, further analysis of sex distribution of individual schools in the study would provide a clear picture of male-female ratios within each institution. This would help avoid any misinterpretation or overemphasis on female representation in the overall dataset due to the specific composition of Gambaga Girls SHS.

Table 4.3 Distribution of students based on sex

Variable	Frequency	Percentage
Male	151	48.00
Female	162	52.00
Total	313	100.00

Source: Field data (2023)

Table 4.4 shows the age distribution based on the sex of students. The data indicates that the number of male students is 151 and female students are 162, making a total of 313 students. Majority of students both male and female fall within the age of 16 years old category with 83 male students and 79 female students. The age group with the lowest number of students is 22 years old with only 1 male student. Overall, there are slightly more female

Table 4.4 Age distribution based on the sex of students

Age	Male	Female	Total
14	1	1	2
15	21	33	54
16	83	79	162
17	29	31	60
18	10	12	22
19	4	6	10
20	2	0	2
22	1	0	1
Total	151	162	313

Source: Field data (2023)

The data in table 4.5 revealed that the overall gender distribution across all schools is slightly skewed towards female students, with 162 (52%) being female students compared to 151 (48%) male students. Bunkpurugu SHTS has a relatively balanced gender distribution with 51% female students and 49% male students participating in the study. Gambaga Girls SHS has the highest percentage (100%) of female students participating in the study obviously because it is an all-female school. Nakpanduri SHS has the lowest number of female students (36%) compared to male students (64%). Nalerigu SHS has the highest number of students (101) taking part in the study with 47% female students and 53% male students.

Table 4.5 Gender distribution of students across all sampled schools

Variable	Bunkurugu		Gambaga		Nakpanduri		Nalerigu		Wulugu		Total	
Sex	freq	%	freq	%	freq	%	freq	%	freq	%	freq	%
Female	28	49	46	100	17	36	47	47	24	39	162	52
Male	29	51	0	0	30	64	54	53	38	61	151	48
Total	57	100	46	100	47	100	100	100	62	100	313	100

Source: Field data (2023)

The data in Table 4.6 details the residential status (day and boarder) of students. The data shows that majority of students (76%) reside in the boarding houses while only a few (24%) are day students. This could likely be as a result of the numerous benefits derived from being a boarding student. Under the free SHS programme, boarding students are allowed to use all the boarding facilities free of charge. Furthermore, the policy discriminates against day students such that it allows boarding students to take three meals a day while day students take only a meal per day. This practice was observed across all the schools in the sample. This finding is not an isolated case as the study by Opoku-Amankwa (2020), provides additional evidence to that fact. These benefits coupled with transportation cost associated with being a day student may put pressure on more students to opt for boarding schools.

Table 4.6 Students residential status

Status	Frequency	Percentage
Day	75	24.00
Boarding	238	76.00
Total	313	100.00

Source: Field data (2023)

4.3 The effect of the FSHS policy on student enrolment levels

The mean comparison t-test is used to assess the variations in the mean outcomes between those who benefited from the free SHS policy and those that did not. It is important to note that this method does not seek to assess the factors that contribute to enrolment, but to simply analyze the data on student enrolment between the two periods to examine if there is a statistically significant difference between the mean outcomes of the two time periods. The result is further disaggregated into male and female enrolments recorded over the past twelve years to see if the variations have any significant correlations with gender. This could reveal very important policy issues as it relates to women empowerment in the educational sector.

Table 4.7 Mean comparison t-test results for student enrolment over a period of 12 years

Variable	Outcome		
	Pre-FSHS	Post-FSHS	Difference
Enrolment	311.267 (19.59)	520.2 (39.48)	208.93 (44.07)***

Source: Field Data (2023). Note: The values in the parentheses represent the standard errors, and the *** denote significance at the level of 1%.

The result presented in table 4.7 is based on the pooled data of all schools sampled across the North East Region. The results shows that the average enrolment of students before the implementation of the free senior high school policy in 2017 was 311, with a standard error of 19.59 and that the average number of students enrolled post the free senior high school was 520.2 with a standard error of 39.48. This shows a highly significant difference in enrolment of 208.93 and at the level of 1%. This result suggests that the implementation of the Free Senior High School initiative has

resulted in a noteworthy surge in enrollment during the period in review. The significant difference in enrollment figures, coupled with the considerable statistical significance, offers robust evidence of the program's influence on enhancing enrollment rates. This view is supported by a number of studies in the literature (Kan & Klasen, 2018; Abdul-rahaman et al., 2020; Jayewardeneperura et al., 2020). Furthermore, qualitative evidence presented by the ministry of education in Ghana suggests that in the 2017/2018 academic year alone over 40,000 more students were enrolled increasing the rate of enrolment from 74% to 85% (Ministry of Education Ghana, 2019). This trend appears similar to what is experienced in most developing countries around the continent where interventions such as the FSHS policy are being implemented. It is however not surprising to see such a large difference in the levels of enrolment given the fact that poverty has been noted to be a key factor in reducing child enrolments in schools (Ministry of Education Ghana, 2019 pg 25; Opoku-Amankwa, 2020). In the context of the region under study, poverty is quite high and could therefore have contributed to the low enrolments recorded in the past.

Table 4.8 Mean comparison t-test results of boys' enrolment over the past 12 years

Variable	Outcome		
	Pre-FSHS	Post-FSHS	difference
Enrolment	161.133 (7.366)	266.467 (16.959)	105.333 (18.489)***

Source: Field Data (2023). The values in parentheses represent the standard errors, and *** denote significance level of 1%.

The result in table 4.8 shows a substantial increase in boys' enrollment after the implementation of the Free Senior High School (FSHS) program. Before FSHS, the mean boys' enrollment was 161.133, and after FSHS, it increased to 266.467, resulting in a difference of 105.333 boys. The data indicates that the Free Senior High School program has led to a significant increase in boys' enrollment over the period in review. The large difference in boys' enrollment and the high level of statistical significance provide strong evidence of the program's positive impact on increasing boys' enrollment.

Table 4.9 Mean comparison t-test results of girls' enrolment over the past 12 years

Variable	Outcome		
	Pre-FSHS	Post-FSHS	difference
Enrolment	191.833 (14.950)	323.958(28.434)	132.125 (32.125)***

Source: Field Data (2023). The values in parentheses represent the standard errors, and *** denote significance level of 1%.

The results presented in Table 4.9 demonstrate a substantial surge in girls' enrollment following the implementation of the Free Senior High School (FSHS) program. Prior to FSHS, the average enrollment of girls stood at 192. However, with the implementation of the FSHS policy, this figure increased to 323, resulting in a notable increase of 132. This shows a statistically significant increase in girls' enrollment at the level of 1%, implying that the rise in girls' enrollment is not a random occurrence but is likely a result of the implementation of the FSHS program. The data reveals that the FSHS program has significantly boosted girls' enrollment over the past six years. The substantial difference in girls' enrollment and the high degree of statistical significance provide

robust evidence of the program's favorable impact on enhancing girls' enrollment. Although boys' enrollment is still higher compared to girls, the enrolment of girls has seen a marginal increase after the implementation of the free SHS policy. This result agrees with the conclusions drawn from research conducted by Abdul-Rahaman et al. (2020), which aimed to assess the impact of government funding through the implementation of the free senior high school policy on student enrollment in the Wa municipality in the Upper West Region of Ghana. Their findings revealed that the free SHS policy has produced statistically significant outcomes in terms of increasing girls' enrollment.

Table 4.10 Mean comparison t-test between male and female enrolment

Variable	Outcome		
	Male	Female	difference
Enrolment (male vs. female)	257.896 (18.584)	213.8 (11.447)	44.096 (20.970)**

Source: Field Data (2023). The values in parentheses represent the standard errors, and ** denote significance level of 5%.

The table 4.10 shows the difference between the average enrolment of male and female students over the post free SHS period. The results show that male enrolment was marginally higher than that of female enrolment with a statistically significant difference of 44.096, and at the level of 5%.

Table 4.11 Mean comparison t-test results for day and boarding students' enrolment over a period of 12 years

Variable	Outcome		
	Pre-FSHS	Post-FSHS	Difference
Day students Enrolment	571.833 (65.281)	554.333 (20.156)	-17.5 (68.321)
Boarding students Enrolment	997.5 (112.606)	2113.833 (80.415)	1116.333 (138.372)***

Source: Field Data (2023). Note: The values in the parentheses represent the standard errors, and the *** denote significance at the level of 1%.

The contrasting dynamics in day student and boarding student enrollments, as elucidated by Table 4.11 above, offer valuable insights into the effects of the Free Senior High School initiative in the North East Region. Before the policy's implementation in 2017, the average enrollment of day students was 571.833, with a standard error of 65.281. Following the introduction of the policy, there was a decrease in average enrollment to 554.333, indicating a difference of 17.5. Although this decline is not statistically significant, it raises questions about the potential negative impact of the Free Senior High School initiative on day student enrollment rates.

On the other hand, the data reveals a substantial increase in average boarding student enrollment from 997.5 to 2113.83 after the policy implementation, with a highly significant difference of 1116.33 at a 1% significance level. This suggests a positive association between the policy and the observed surge in boarding student enrollments, providing compelling evidence of the programme's effectiveness in enhancing boarding student enrollment rates. To gain a comprehensive understanding of these trends, further exploration and analysis are necessary to uncover the underlying factors contributing to the observed changes. While the research does not

explicitly investigate factors influencing the trends in enrollment, several potential factors may have contributed to the observed rise in boarding student enrollment and the decrease in day student enrollment rates following the implementation of the free SHS initiative in the North East Region. Possible considerations include regional dynamics, socio-economic influences, and specific policy provisions that may impact day and boarding student enrollments differently. Additionally, the computer placement system could place students further away from their homes, compelling them to opt for boarding instead of day. Boarding options might be more appealing for students who live far from senior high schools especially those residing in more remote areas due to transportation challenges and cost of transportation. The policy also covers all expenses associated with boarding such as accommodation, meals and utilities making boarding education more attractive than day schooling. These advantages accrued by boarders under the free SHS policy may influence students and parental preference for boarding education over day schooling.

Table 4.12 Data on the percentage change in enrolment based on the aggregate data

Year	Boys enrolment	% change in boys' enrolment	Girls enrolment	% change in girls' enrolment
2011	538	-	549	-
2012	636	18.22	646	17.67
2013	664	4.40	699	8.20
2014	753	13.40	796	13.88
2015	993	31.87	975	22.49
2016	1147	15.51	1125	15.38

2017	1496	30.43	1277	13.51
2018	1510	0.94	1552	21.53
2019	1252	-17.09	1247	-19.65
2020	1225	-2.16	1293	3.69
2021	1297	5.88	1170	-9.51
2022	1119	-13.72	1409	20.43

Source: Field Data (2023)

Table 4.12 shows the total enrolment of boys and girls across the selected schools for the period between 2011 and 2022. It further shows the percentage change in enrolment on yearly basis with 2011 as the base year. The data shows that the highest percentage increase in enrolment across both boys and girls was in 2015. These declined marginally and increased again in the 2017/2018 academic year following the implementation of the FSHSP. The earlier increment could be attributed to the progressively free senior high school policy which was introduced in the year 2015 (Abdul-Rahaman et al., 2018a). This shows that parents and students are very responsive to policy interventions that seek to reduce the financial burden and suggest that the cost of education is a significant barrier to secondary education in Ghana. This is further confirmed by the sharp decline in enrolment figures as parents complain of the cost of prospectus and other cost that has been ignored by the government. However, in terms of nominal numbers the enrolments across the schools in the study area have been increasing although at a decreasing rate. From Table 4.8, the data shows that enrolment increased rapidly in the year 2017, obviously because of the agitation of parents and students following the implementation of the free senior high school policy. In the year 2018 however, enrolment picked and began to decline steadily. Although, enrolment was still

seen increasing, the rate of increase in enrolment appear to decline sharply across both boys and girls. This could be attributed to the cost of prospectus and other items required for students to enroll at the basic 10 level, especially due to the poor economic conditions experienced across the country. For poor regions like the north east region, this is quite expected to be much higher.

Table 4.13 Data on the percentage change in enrolment across all schools

year	Bunkpurugu SHTS		Nakpanduri SHS		Nalerigu SHS		Gambaga Girls SHS		Wulugu SHS	
	Enrolment	% change	Enrolment	% change	Enrolment	% change	Enrolment	% change	Enrolment	% change
2011	288	-	236	-	262	-	118	-	211	-
2012	309	7.29	270	14.41	308	17.56	140	18.64	288	36.49
2013	292	-5.50	219	-18.89	343	11.36	150	7.14	309	7.29
2014	356	21.92	261	19.178	409	19.24	173	15.33	292	-5.50
2015	469	31.74	208	-20.30	583	42.54	299	72.83	356	21.91
2016	468	-0.21	444	13.46	683	17.15	303	1.34	369	3.65
2017	505	7.91	513	15.54	904	32.36	350	15.51	505	36.86
2018	499	-1.19	486	-5.26	1260	39.38	315	-10	499	-1.19
2019	523	4.81	335	-31.07	780	-38.10	339	7.62	523	4.81
2020	520	-0.57	496	48.06	696	-10.77	536	58.11	520	-0.57
2021	438	-15.77	352	-29.03	879	26.29	357	-33.40	475	-8.65
2022	476	8.68	394	11.93	757	-13.88	319	-10.64	458	-3.58

Source: Field Data (2023)

Table 4.13 above shows the overall student enrollment and the yearly percentage change in enrollment within the five selected schools in the North Eastern Region. This data covers six years preceding the free SHS policy (2011-2016) and six years after the policy (2017-2022). For almost all schools, there was a noticeable increase in enrollment starting from 2015 onwards obviously because of the introduction of the progressive free SHS policy which was implemented in 2015 and maintained higher figures across the free SHS period. This suggests that government funding has a positive impact on school enrollment.

In 2017, which is the first year of the Free SHS policy, Bunkpurugu SHS experienced a sharp increase in enrollment reaching 505. The enrollment remained relatively stable in the subsequent years, with values around 499 to 523 then declined in the subsequent years. Nakpanduri SHS experienced the most significant growth, nearly doubling its enrollment in 2017. Nalerigu SHS also experience a surge in enrolment in the first few years of the policy's implementation, with enrollment reaching 1260 in 2018, but enrollment levels fluctuated in the subsequent years. Gambaga Girls SHS had a significant increase, reaching its peak of 536 in 2020, but enrollment declined in the following years to 319 in 2022. Wulugu SHS also experienced growth in the post-Free SHS period and peaked 2019 with enrollment reaching 523 but also faced fluctuations in enrollment in subsequent years. Generally, all schools showed a surge in enrollment at the start of the government funding programmes in 2015 and attain its highest nominal figures in 2017 and 2018 then begin to fluctuate at different levels. It is important to note that although there were fluctuations in enrollment figures, generally enrolment remained higher than those in the pre-Free SHS period, particularly the era before the progressive free SHS policy. Overall, the data suggests that the Free SHS policy contributed to an increase in enrollment in all schools and that this

increase was sustained to some extent in the years following the policy's implementation. It's also worthy of note that other factors and local conditions may have contributed to the fluctuations in enrollment, and a more comprehensive analysis could explore these factors in detail. Additionally, the impact of the Free SHS policy on educational outcomes and quality would be an essential aspect to consider when evaluating the overall effectiveness of the policy.

4.4 Challenges of the free SHS policy

In-depth information regarding the challenges associated with the implementation of the free SHS policy was gathered using semi-structured interviews and focus group discussions. Semi-structured interviews were conducted to gather comprehensive views on challenges faced by teachers and administrative staff, allowing them to express their concerns and experiences in a more open and in-depth manner. Additionally, focus group discussions were organized among students across the sample schools to facilitate a collective exploration of their experiences and the challenges they encounter as beneficiaries of the free SHS policy. Each group comprised of six members and to ensure gender sensitivity, there were equal representation of both boys and girls across all year levels. Through the voices of teachers, administrative staff and students, valuable insights that can inform policy adjustments and improvements were obtained. Almost all participants interviewed (95%) agreed that there are challenges associated with the implementation of the free SHS programme. The major challenges outlined by respondents included:

Inadequate infrastructure, inadequate teaching and learning materials, teacher shortages and overburden of work on teachers, food shortages and low quality of food served to students, inadequate funding and delayed government grant disbursements among others.

4.4.1 Inadequate Infrastructure

One of the core obstacles to the successful implementation of the free SHS initiative as admitted by respondents revolves around infrastructural deficits within the senior high schools in the North East Region. The respondents pointed out that the introduction of the free SHS policy occurred during a period when senior high schools in the region were grappling with issue related to their infrastructure. However, the free SHS policy did not come with immediate corresponding infrastructural improvements to accommodate the rising student enrollment. As a result, the existing limited facilities in the senior high schools in the region have been strained. Teachers and school management who participated in the research emphasized that the inadequate infrastructure resulted in overcrowding in classrooms, dining halls, dormitories, science and computer laboratories and libraries.

For instance, a teacher recounted that:

The increased student enrolment under the free SHS policy has led to overcrowding in the dormitories which affect students' comfort and well-being (Female Teacher, Gambaga Girls SHS).

Another teacher lamented that:

The surge in enrollment has caused some classrooms to become overcrowded, with some classes exceeding sixty (60) students, thereby hindering effective supervision. Moreover, handling such large class sizes makes it difficult to constantly give assignments and class tests as marking the scripts add more burden to the work of the teacher. (Male Teacher, Wulugu SHS)

Meanwhile, the national student-to-classroom ratio as at 2015/2016 academic year in public senior high schools in Ghana stood at 46 students per class (Ministry of Education, 2018a)

Students also expressed their frustration about the numerous problems they face both in the dormitories and the classrooms:

For instance, a third year student lamented that:

We are not comfortable in the dormitories due to overcrowding. There is no enough space in the dormitory for us to arrange our chop boxes, bags and other things properly.

A first-year student also lamented that:

Our classroom is in an uncompleted building with no windows and doors, no electricity and no fans. As a result, we cannot go for prep in such a building at night, hence we usually bring our chairs outside to sit under the street light in the school for prep which exposes us to the cold weather and other forms of danger. (FGD, female student, Bunkpurugu SHTS)

A student in the second-year complained that:

Due to overcrowding and inadequate furniture in the school, some of us find it difficult to get sitting places in the class and this usually affect effective teaching and learning. (FGD, Male Student, Nalerigu SHS)

A housemaster said that:

The surge in student enrollment coupled with limited facilities has led to insufficient space for boarding students in the boarding houses. Although the government has intervened by putting up new dormitories and other facilities to accommodate the rising enrolment numbers, those buildings have not yet been completed and cannot be put into use now. (Male teacher, Bunkpurugu SHTS)

An assistant head master confirmed that:

If all the buildings were to be completed in this school, students would not have had accommodation problems but the contractors that started those projects have abandoned it and move away all their equipment.

The Ministry of Education (2018) acknowledged the infrastructural deficits, indicating that the introduction of the free senior high school policy overburdened the existing school infrastructure due to increase in student population (Ministry of Education, 2018). From a theoretical standpoint, quality education relies heavily on adequate infrastructure. Therefore, achieving the goals of the free senior high school (FSHS) policy in the North East region would be challenging without a corresponding enhancement of infrastructure in the senior high schools.

4.4.2 Inadequate supply of teaching and learning materials

The study also identified insufficient provision of teaching and learning resource as another major obstacle hindering the successful implementation of the free SHS policy in the North East region. Respondents indicated that the inadequate supply of teaching and learning materials is significantly affecting teaching and learning activities in senior high schools in the region.

For instance, a teacher responded that:

Since the introduction of the free SHS programme, there has never been sufficient supply of teaching aids such as whiteboard markers, graphs and charts to facilitate effective teaching and learning. (Male Teacher, Nakpanduri SHS)

It is worthy of note that while the free SHS policy provides essential teaching and learning materials including text books, school uniforms and exercise books among others, its implementation has indeed faced challenges including overstretched resources leading to delay or

inadequate supply of these materials. This underscores the importance of effective planning and resource management in education policy implementation.

Another teacher complained that:

The school has no projectors and other visual aids such as graph boards to enable teachers demonstrate certain practical lessons effectively. The non-availability of these teaching and learning resources makes it extremely difficult for teachers to effectively handle classes with large student numbers in various subjects. (Female teacher, Bunkpurugu SHTS)

It is important to note that projectors and graph boards are excellent visual aids for teaching various subjects like mathematics, economics and physics among others because they provide a clear and dynamic ways to illustrate concepts.

Another teacher recounted that:

Due to the surge in student population under the free SHS policy, students now only visit the computer laboratory once or twice a semester. The overcrowding has diminished the quality of learning experiences we can offer in critical subjects like computer science. (Male teacher, Nalerigu SHS)

A student lamented that:

The library in our school lacks current learning resources. Most of the books are outmoded and it is also frustrating that the textbooks provided to us arrived in the second semester which I feel to be too late to catch up with the curriculum. Furthermore the government does not provide textbooks for the elective subjects (FGD, Female Student, Gambaga Girls SHS)

This findings agree with the results of the study conducted by (Duah, 2022), in the Ejisu municipality to explore the impact of rising student enrollment on teaching and learning in senior high schools in the municipality. Results of the study revealed that inadequate teaching and learning materials affected effective teaching and learning as teachers were unable to instruct effectively due to the absence of some essential materials necessary for effective teaching and learning. The capital theory of school effectiveness and improvement distinctly emphasized the requirement of sufficient teaching and learning materials in order to attain quality education.

4.4.3 Inadequate funding and delay in payment of grants by government

The study further identified inadequate funding and delay in receiving grants from the government as part of the core hindrances impeding the successful implementation of the free SHS programme in the North East Region. According to the policy, the government is required to allocate funds and grants to all public senior high schools to successfully support their operational activities. The untimely disbursement of funds and disbursing funds in tranches can have a detrimental effect on the smooth implementation of any project (PIAC, 2019) Therefore the provision of adequate funding coupled with prompt disbursement of funds is crucial for the smooth implementation of the free SHS policy in the North East Region.

However, majority of teachers and heads of schools who were interviewed expressed their dissatisfaction with the government's tardiness in disbursing grants to the schools.

A head of school lamented that:

Inadequate funding and delays in disbursement of grants by the government significantly affect school operations. The delays in grant disbursements disrupt planned activities, making it

challenging to maintain regular operations and address immediate needs. The situation puts significant strains on head teachers, making it difficult for us to efficiently manage schools and provide students with conducive learning environment.

A senior house master also expressed his frustrations over the lack of funds provided to his office and the absence of government support to remedy the situation.

He lamented that:

I occasionally use my own personal money to cover some expenses. An example, there was a situation where I had to use my own money to purchase pesticides as there were no funds allocated to my office and the government did not provide immediate financial support.

It could be seen from the above findings that the inadequate funding and delays in fund disbursement undermine the provision of effective and quality education in the North East Region of Ghana. The findings agrees with the results of the study conducted in Kenya by (Abdi & Aluko, 2015) which showed that the untimely fund disbursement affected the smooth implementation of the free secondary education policy in the country. Abdul-Rahaman et al (2018), noted that adequate allocation of funds is beneficial in enhancing academic achievements. Hence the provision of adequate funding and the timely release of grants is necessary to motivate teachers and school management in the North East Region to give off their best.

4.4.4 Inadequate teachers

Inadequate availability of teachers in senior high schools was put forth as an additional obstacle resulting from the free SHS policy. However, the reported challenge of inadequate trained teachers does not necessarily suggest the unavailability of trained teachers to effectively match the

increasing student population but lack of funding to recruit more teachers for schools. The student-to-teacher ratio further deteriorated because of the policy's increased student enrollment. This was because the increase in student population was not matched with a corresponding increase in teaching staff. Consequently, the existing teachers were overburdened with workload. All the six schools visited expressed their concern of the need for more teachers.

A head master lamented that:

The teaching staff in this school is largely inadequate due to the influx of students following the introduction of the free SHS policy. Apart from the shortage of teachers due to increase in student enrolment, majority of teachers posted to this school either refuse to come or they accept posting but later run away because of their unwillingness to reside in rural districts like ours.

An assistant headmaster in charge of academics said:

The teacher shortage in the school is a serious issue. Though there are enough teachers for some subjects, other subjects are experiencing shortages. The school is in need of more teachers to handle the following subjects; chemistry, mathematics, and English Language. The inadequacy of teaching staff compelled us to overburden some of the teachers with too much workload.

A head of department responsible for mathematics also recounted that:

More teachers are still required in the mathematics department. The teachers in the department are giving tasks more than what they are supposed to do. Within the mathematics department, teachers are excessively overburdened, surpassing their expected workload.

Teachers also bemoaned the trauma and stress they experienced in controlling the students because of the large class sizes.

Taking into consideration the evidence gathered in this study, one can logically conclude that the shortfall of teachers has emerged as a pressing concern within senior high schools in the North East Region of Ghana, stemming from the increased enrollment rates and the sudden surge in demand for teachers. This issue of insufficient teachers poses a critical challenge that can potentially affect the overall effectiveness of the free SHS policy. This result corresponds with the conclusions of earlier research conducted by Aweke (2022) to examine the free SHS policy financing. Findings of this study indicated that the introduction of the free SHS policy has led to a shortage of trained teachers and overburdened the existing number of teachers with heavy workload. According to the capital theory of school effectiveness, ensuring adequate availability of teachers significantly improves the quality of education. This implies that without any concerted effort to recruit additional teachers into the senior high schools, the delivery of quality secondary education in the North East Region would be severely hampered.

4.4.5 Food shortages and poor quality of food

Respondents also raised concerns about food shortages and declining food quality for students. This issue has sparked debates regarding the policy's impact on the nutritional well-being of students, raising questions about the adequacy of resources allocated for providing meals and the overall quality of the food served in schools. The sudden influx of students due to the policy have overwhelmed the existing food supply chains, causing shortages in ingredients or resources needed to prepare meals. This resulted in smaller portions or less diverse meal options being served.

School administrators who participated in the study acknowledged the fact that the introduction of the free SHS policy has inadvertently led to food shortages and a decline in the quality of meals served to students for various reasons.

For instance, a headmaster lamented that:

The quantity of foodstuffs received from buffer stock is inadequate, untimely and randomly supplied to the school. There have been instances where the school experience shortages of food and logistics due to delays in the supply of food items. Meanwhile the government does not allow the school authorities to go to the market and purchase what they want, hence whatever foodstuffs that is brought to the school is what is been used.

Another headmaster complained that:

Though the government supplies foodstuffs to the school, it does not often come on time. The food contractors do not ensure effective and timely delivery of the foodstuffs to the school. For example, there was an instance where foodstuffs meant for the school was left at another school in the regional capital instead of bringing it to the school directly since the school is not located at the regional capital.

It is worthy of note that the over centralization of procurement under the free SHS policy poses significant challenges to addressing the delivery of food items to senior high schools. By centralizing procurement, decision making authority is taking away from district education directors and heads of senior high schools, leading to delays and inefficiencies as procurement process may not align with the specific needs and timeliness of individual schools. The centralized procurement system also poses logistical challenges in delivering foodstuffs to senior

high schools in timely manner as it involves larger quantities and longer lead times, making it difficult to manage the varying demands across different schools. To mitigate these challenges, there is the need to consider decentralizing procurement processes, increasing flexibility and promoting local sourcing to ensure timely and adequate delivery of foodstuffs to schools.

Majority of students expressed their dissatisfaction with the quantity and quality of food served in the dining hall. Many of the students who were interviewed were of the view that the food served in the dining hall is of poor quality.

For instance, a student lamented that:

The quality of food serve to us in the dining hall is very poor. Most of us fall sick due to the poor nature of the food we eat from the dining hall. Aside the poor quality of the food, the quantity of food served in the dining hall is woefully insufficient to quench our hanger and sometimes we are served with only one brand of food as lunch and supper for several weeks. (Female Student, Gambaga Girls SHS).

It is therefore not surprising when students of Savelugu senior high school in the northern region embarked on a demonstration on the 21st of February 2022 against the school management over the poor quality of food served in the dining hall. The students who protested to express the displeasure complained that they do not get enough food and the food served in the dining hall is of low quality. Speaking to Citi News the students alleged that some of the food served to them in the dining hall has expired (Nyabor & Ngon, 2022). The finding of the study agrees with the evidence provided by PIAC (2019) in their monitoring exercise undertaken in 2018 and 2019 to evaluate the implementation of the Ghana's free SHS policy. Findings of this exercise revealed

that the quality of some of the food items supplied to schools are poor, highlighting a particular case where burnt maize and weevil-infested flour were supplied to some schools and in another case, milk and flour supplied to some schools were so close to expiry.

Table 4.14 Data on the challenges of free SHS policy

Challenges of free SHS	Mean score	Rank
Inadequate infrastructure	5.25	1 st
Inadequacy and delay in fund disbursement	2.60	4 th
Food shortages and the quality of food	4.58	2 nd
Inadequate teaching and learning materials	3.89	3 rd
Inconsistent academic calendar	2.57	5 th
Inadequate teacher for all subjects	2.10	6 th

Source: Field Data (2023)

n = 6
m = 384
Kendall's w = 0.4576
r = 0.4562
X² = 878.6428
df = 5.00
p-value = 0.115

As shown in Table 4.14 above, inadequate infrastructure was ranked highest and first with a mean score of 5.2523, indicating that infrastructure deficits is the most pressing challenge inhibiting the implementation of the free senior high school programme in the North East Region of Ghana. This is consistent with the findings of earlier studies on the free senior school policy in other parts of

the country (Asante & Agbee, 2021; Aweke, 2022; Duah, 2022). These studies have all highlighted inadequate infrastructure as a major challenge associated with the introduction of the free SHS policy. The result is also the reflection of the earlier frustrations expressed by students and teachers regarding overcrowded classrooms, dining halls and dormitories. The next most pressing challenge identified by respondents was food shortages and the quality of food served in the dining halls with a mean score of 4.5781. Undoubtedly, this reflects the dissatisfactions expressed by the students with regards to the quantity and quality of food served in the dining halls, where most of the students were of the view that the poor nature of the food they eat from the dining hall is not good for their health. It is also consistent with the findings of the motoring exercise conducted in 2018 and 2019 by PIAC (2019) to evaluate the implementation of the Ghana's free SHS policy which revealed that some of the food items supplied to schools are of poor quality to the extent that burnt maize and weevil-infested flour were supplied to some schools while milk and flour supplied to some schools were very close to expiry. The third challenge inhibiting the successful implementation of the free SHS policy is inadequate teaching and learning materials with a mean score of 3.8932. Inadequate and delay in disbursement of funds to schools and inconsistency in senior high school academic calendar was ranked fourth and fifth challenges with a mean score of 3.8932 and 2.5703 respectively. From the foregoing, government and other stakeholders in education can tackle the challenges inhibiting the successful implementation of the free SHS policy following the orderly pattern based on the severity of the challenge as suggested above. The Kendall's (W) coefficient of 0.4576 implies that there is 46% agreement among respondents in terms of ranking the challenges confronting the successful implementation of the free SHS policy in the North East Region.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of results, conclusions and recommendations. The study examines the effects of free SHS policy on school enrollment and the challenges that confront the policy implementation in the North East Region of Ghana. The study further ranks the challenges to find out the most pressing challenge inhibiting the policy implementation. The chapter presents summary of the key findings, conclusions from the findings and recommendation for achievements of effective implementation of the free SHS policy in the North East Region.

5.2 Summary of key findings

The primary objective of the study was to examine the role of the free senior high school policy on school enrollment. The mean comparison t-test was utilized to compare enrollment figures of five selected public senior high schools within the North East Region for a period of twelve (12) years to examine the impact of the free SHS policy on student enrollment. Findings of the study demonstrate that the introduction of the free SHS programme has led to a significant increase in student enrollment in public senior high schools for the boarding students but not much for day students. For all schools, there was a noticeable increase in student enrollment after the free SHS policy, especially in the first few years after the policy implementation. This suggests that the policy had a positive impact on school enrollment especially for boarders. There was a significant increase in both boys' and girls' enrollment, however, boys' enrollment still remains higher than that of girls.

The study discovered that since the introduction of the FSHSP, student enrollment at the senior high school level have appreciated in the region from an average of 311 before free SHS to 520 after the policy implementation, showing a significant difference of 209 and enrolment remained high even though there are fluctuations in the enrollment figures.

The second objective of the study was to identify the challenges inhibiting the successful implementation of the free senior high school policy in the North East Region of Ghana. The study uncovered several challenges associated with the implementation of the free SHS policy in the region. One of the key obstacles identified was insufficient infrastructure in the senior high schools in the region. The surge in senior high school enrollment has outpaced the existing infrastructural facilities leading to overcrowding and congestions. Another challenge identified was food shortages and poor quality of food served in the dining halls. Evidence gathered showed that the poor nature of the food was not good for healthy living. The study also found inadequate teaching and learning materials as an obstacle which affects effective teaching and learning in senior high schools in the region. The study further identified the inadequacy and delay in disbursement of grants by the government as a major obstacle hindering the effective management of senior high schools under the free SHS programme. Inconsistency in senior high school academic calendar was also pointed out as another challenge inhibiting the effective implementation of the free SHS policy. Since the inception of the free SHS policy, the senior high school academic calendar has been disrupted causing school administrators to work throughout the year without break while teachers and students report to school late due to inconsistent and unreliable school vacation and reopening dates. The delay in receipt of funds affected the timely execution of programmes in the senior high schools. Furthermore, inadequacy of teachers for all subjects was also pointed out as

one of the challenges of the free senior high school programme. It was evident that the surge in senior high school enrollment has placed a heavy workload on teachers.

The final objective of the study was to identify the most pressing challenge inhibiting the effective implementation of the policy in the North East Region. The Kendall's coefficient of concordance was used to rank the challenges to identify the most formidable challenge hindering the successful implementation of the free SHS policy. The study found inadequate infrastructure as the most pressing challenge inhibiting the smooth implementation of the free SHS programme with the highest average rank score of 5.25. This underscores the infrastructural deficit following the implementation of the free SHS policy. The education ministry admitted the infrastructural deficit noting that the introduction of the policy put pressure on existing school infrastructure due to the sharp increase in student population (Ministry of Education, 2018). From a theoretical standpoint, quality education relies on adequate infrastructure. Therefore, achieving the objectives of the free senior high school (FSHS) policy in the North East region depends on the enhancement of infrastructure in the senior high schools.

5.3 Conclusions

Governments all over the world have been enhancing their educational systems by implementing funding initiatives designed to reduce financial burden on parents and increasing accessibility and quality of education. In 2017, the government of Ghana introduced free senior high school initiative with the aim of alleviating the financial strains parents face in paying their wards school fees. This was an indisputable effort made by the government of the day to create equal opportunities for all qualified students from the junior high school to make smooth transition to senior high school irrespective of their socioeconomic background. The current study focuses on

assessing the role free SHS policy play on student enrollment and the challenges that confronts the policy implementation in the North East Region of Ghana.

The study concludes that the free SHS policy has significantly increased student enrollment at the senior high school level in the North East Region. The findings of the study imply that government absorption of the entire cost of secondary education through the free SHS policy plays a significant role in increasing access to senior high school education. Similarly research on the free SHS programme in other parts of the country also supported this (Abdul-Rahaman et al., 2020; Duah, 2022).

The study indicated that boarding student enrolment increased significantly to the detriment of day student enrolment

The study however revealed that the implementation of the free senior high school policy is marred with several challenges including inadequate infrastructure, delay in disbursement of fund, inadequate teaching and learning materials, in adequate teachers for all subjects and food challenges among others.

The study further revealed that inadequate infrastructure is the most critical issue hampering the implementation of the free SHS policy. This was followed by food shortage and poor quality of food served to students in the dining hall, insufficient teaching and learning resources, delayed government grants disbursement, disrupted academic calendar and inadequate teachers respectively.

5.4 Recommendations

Based on the results of the study, the following policy recommendations are made to promote successful implementation of the free senior high school policy.

- Government in collaboration with the ministry of education, Ghana Education service, Parents Teachers Associations (PTAs) and other stakeholders in education in the North East Region must speed up the development and expansion of infrastructural facilities in senior high schools in the region in order to accommodate the growing number of students in the region. Government should ensure that all infrastructural projects including dormitories, classrooms and dining halls within the senior high schools are completed and put to use.
- Government must ensure adequate and timely supply of food item that contains all the necessary nutrients to schools with boarding facilities to enable them feed the students with nutritious and healthy food in order to keep them active for effective and efficient academic work.
- Government should increase the teacher population by recruiting more teachers to meet the needs of the growing number of students in the senior high schools.
- Government though the district assemblies should provide incentives to motivate teachers to accept posting to rural districts since most teachers refuse posting to rural areas
- Government should provide adequate funding for the programme and ensure timely disbursement of grants to the various senior high schools so that the schools can meet their expenditure demands. This would enable the management of various senior high schools to run all the school activities leading to the effective implementation of the policy.
- Government should involve the Parent Teachers Association (PTA) and other stakeholders like the old students unions in supporting the free SHS programme through levies to ensure adequate funding in order to sustain the programme.

- Teaching and learning resources must be made readily available and should be delivered on time to schools to ensure effective teaching and learning activities in the various senior high schools in the region. Heads of schools should also be proactive to collaborate with old students unions, community partnerships, Non-Governmental Organizations (NGOs) and civil society organizations to source funding for teaching and learning materials such as computers and computer accessories, science laboratory equipment and library materials among others.
- Parents should attend Parents-Teachers Association meetings regularly, join school volunteer programmes and collaborate with other parents to address school challenges.
- Parents must encourage their children to set goals, develop study habits and build self-confidence and also provide children with the required learning materials that would enable them achieve their academic goals.
- Parents must also endeavor to regularly check their children performance, attendance and behavioural reports in order to address concerns, difficulties and abuses promptly.
- Teachers must develop strategies to manage large class sizes and diverse learning needs. A teacher can divide students into smaller groups and promote collaborative learning to reduce teacher-student ratio.
- Teachers should attend in-service training and workshops regularly to enhance their skills in order to adapt to the new developments associated with the free SHS policy.
- Students should set Specific, Measurable, Achievable, Relevant, Time-Bound (SMART) goals and work towards achieving them. Students should clearly define academic objectives, ensuring they align with their capabilities.

- Students must develop good time management skills to balance academic work and extracurricular activities. Students must plan dedicated study time, using calendars or apps to stay organized in order to balancing academics with extracurricular activities.

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APPENDIX

QUESTIONNAIRE AND INTERVIEW GUIDE

INTRODUCTION

This questionnaire and interview guide is prepared by the student to conduct a study to examine the impact of the free SHS policy on enrolment and to identify the challenges confronting the policy in the North East Region of Ghana.

Section A: Socio-demographic background of respondents

A1 What is your status in this school?

1 Student [] 2 Teacher [] 3 Administrative staff [] 4 others (specify) _____

A2 What is your age? _____

A3 What is your sex? 1 Female [] 2 Male []

A4 What is your marital status?

1 Single [] 2 Married [] 3 Divorce [] 4 Separated []

A5 If you're a student, which year did you enter this school? _____

A6 If you are a student, are you a day or boarding student?

1 Day [] 2 Boarding []

Section B: Assessment of the impact of the FSHS policy on student enrolments

Please I would like you to provide the enrolment figures for the past twelve years (2011/12-2022/23 academic years) across boys and girls in your school (for each responding school).

Name of school: _____

Year school was established: _____

District where school is located: _____

Category of school mixed [] boys [] girls []

Year	Boys	Girls	Total enrolment
2011/12			
2012/13			
2013/14			
2014/15			
2015/16			
2016/17			
2017/18			
2018/19			
2019/20			
2020/21			
2021/22			I would
2022/23			like to

know your perception about the impact of the FSHS policy on student's enrolment in your school

B1. In your view did the FSHS policy increase or decrease student enrolment in your school?

B5. What is your view about the policy's intention to promote equitable access to second cycle education in the country?

B6. Do you think the policy's intention has been achieved and why?

Section C: Challenges of the FSHS policy

Please I would like you to share some of the challenges associated with the implementation of the free senior high school policy in your school

C1. Please mention the challenges facing the school regarding the implementation of the FSHS policy

C2. How do these challenges affect teaching and learning in your school?

C3. How do these challenges affect your work?

C4. How do you cope with these challenges?

D1. Please I would also like to ask about the financial structure of the policy and other related issues and how it applies to your school

What is your view about the availability of adequate funds for the successful implementation of the FSHS programme?

D2. How often do you receive grants for the general administration of the school?

1 weekly [] 2 monthly [] 3 quarterly [] 3 yearly [] 4 per semester [] 5 others []

D3. When was the last time your school received grants for the general administration of the school? _____

D4. What is your experience regarding frequent or delay in the receipt of grants?

D5. What is the major source of funding for the implementation of the FSHS policy?

D7 What is your view about the reliability of the source of funding of the FSHS programme?

D8. What other sources of funding is available for the administration of the school?

Please I would also like to ask about issues concerning the provision of teaching and learning materials in your school

D9 What is your view about the availability of adequate teaching and learning materials in your school?

D10. When was the last time you receive teaching and learning materials in your school?

D11. What is your experience concerning delays in receiving teaching and learning materials in your school?

D13 How does this affect teaching and learning in your school?

D14. How do you cope with delays in receiving teaching and learning materials in your school?

D15 How does inadequate teaching and learning materials affect academic work in your school?

D16. What is your view as to whether the school library is well equipped with the needed learning materials?

D18. When the last time was the school received learning materials to equip the school library?

D17. How often does the school receive learning materials to equip the school library?

1 weekly [] 2 monthly [] 3 quarterly [] 3 yearly [] 4 per semester [] 5 others []

D19. What is your experience when it comes to delays in receiving the needed learning materials to equip the school library?

D20. How does the inadequacy of the needed materials in the school library affect teaching and learning in your school?

Please I would like you to share your experience about availability of foodstuffs to feed students benefiting from FSHS policy

D21. What is your perception about availability of foodstuffs in your school?

D22. How often do you receive foodstuffs to feed students in your school?

1. weekly
2. monthly
3. quarterly
4. yearly
5. per semester
- 1 other

D18. When was the last time the school received foodstuffs?

D23. What is your experience concerning prompt or delay in the receipt of foodstuffs?

D24. How do you cope with delays in receiving foodstuffs?

D25 What is your view about the adequate supply of foodstuff to feed the entire student population in your school?

D26. What is the main source of foodstuffs for the school?

D27. How often do you receive funds to purchase perishable foodstuffs?

6. weekly
7. monthly
8. quarterly
9. yearly
10. per semester
- 2 other ____

D28. When was the last time you receive funds for purchase perishable foodstuffs in your school?

D29. How do you cope with delays in receiving funds to purchase perishable foodstuffs? **D30.**

What is the main source of funds for the purchase of perishable foodstuffs for the school?

D31. Do you think the funds received to purchase perishable foodstuffs is sufficient for the student population in your school and why?

Section E: Now, past research has revealed the following challenges as confronting most schools in the country. Please rank the challenges in order of importance from most important to least important

Major challenges of free SHS

Rank (1-6)

Inadequate infrastructure

Food shortages and poor quality of food

Inadequate teachers for all subjects

Inadequate funding

Inadequate teaching and learning materials

Inconsistent academic calendar