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EXPLORING THE CHALLENGES OF DOUBLE-TRACK SCHOOLS AND THEIR COPING STRATEGIES BY SCHOOL MANAGEMENT IN SELECTED SENIOR HIGH SCHOOLS IN THE EASTERN REGION OF GHANA

ENOCH AMPOFO ADJEI

2021

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EXPLORING THE CHALLENGES OF DOUBLE-TRACK SCHOOLS AND THEIR COPING STRATEGIES BY SCHOOL MANAGEMENT IN SELECTED SENIOR HIGH SCHOOLS IN THE EASTERN REGION OF GHANA

BY

ENOCH AMPOFO ADJEI

Thesis submitted to the Department of Sociology and Anthropology of the Faculty of Social Sciences, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy Degree in Sociology

JANUARY 2021

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DECLARATION

Candidate's Declaration

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

Candidate's Signature……..……..……

Date……..…….

Name: Enoch Ampofo Adjei

Supervisors' Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature……..……..……

Date……..……..……

Name: Dr. Godwin Ramous K. Egbenya

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ABSTRACT

The Double-Track System of Education was introduced in the 2018/19 academic year in 400 senior high schools across the country. This was due to increase in enrolment as existing facilities in senior high schools could not accommodate the increase. The study thus, explored the challenges and coping strategies facing management of double-track schools in selected schools in the Eastern Region of Ghana. The study employed the convergent mixed method research design. The target population for the study were management and second year students of three randomly selected double-track schools in the Eastern Region. Management were purposively and conveniently sampled and interviewed using interview schedule. The data was transcribed, coded and thematically analysed. The students were also randomly sampled, and given structured questionnaire to answer. The data was also coded and entered into IBM SPSS version 21, and analysed with descriptive and inferential statistics. Drawing from the Job Demand Resources Model and Robert Merton's theory on Adaptation, the study found out that double-track schools faced challenges with infrastructure, inadequate human resource, untimely release of funds, inability to go for vacation, as well as unwholesome and undersupply of food items. However, if the challenges are not timely met, they would affect effective delivery of education at the senior high school level. As a result of the effect of the challenges, management mostly adopted innovative strategies to cope with the situation. The study therefore recommended that government and other agencies should try to provide the needed resources.

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KEY WORDS

Coping Strategies

Double-Track System of Education

Job Resources

Job Demands

School Management

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DEDICATION

To my daughter: Ama Bema Adjei Ampofo

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CHAPTER FOUR: RESULTS AND DISCUSSIONS

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LIST OF ACRONYMS

GES	Ghana Education Service
FSHSP	Free Senor High School Policy
DTSE	Double-Track System of Education
DTS	Double-Track System
SHS	Senior High Schools
MOE	Ministry of Education
STC	Single-Track Calendar
DTC	Double-Track Calendar
NPP	New Patriotic Party
FSHSP	Free Senior High School Policy
UCC	University of Cape Coast
UEW	University Of Education, Winneba
DSS	Double Shift System
NAGRAT	National Association of Graduate Teachers
TEWU	Teachers and Educational Workers Union
CSO	Civil Society Organizations
CDD	Centre for Democratic Development
SDG	Sustainable Development Goal
FCUBE	Free Compulsory Universal Basic Education
ADPE	Accelerated Development Plan of Education
NSSP	National Secondary School Project
GET	Ghana Education Trust
NSS	Northern Scholarship Scheme
NLC	National Liberation Council

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FCUBE	Free Compulsory Universal Basic Education
MDG	Millennium Development Goal
EFA	Education for All
GOG	Government of Ghana
PFSHSP	Progressively Free Senior High School Policy
ISODEC	Integrated Social Development Centre
PIAC	Public Interest and Accountability Committee
PTA	Parent Teacher Association
NDC	National Democratic Congress
DTC	Double-Track Calendar
YRS	Year-Round Schooling
YRE	Year-Round Education
STYRE	Single-Track Year Round Education
MTYRE	Multi-Track Year Round Education
JD-R	Job Demand Resource
SEND-GHANA	Social Enterprise Development Foundation-Ghana

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CHAPTER ONE

INTRODUCTION

Background to the Study

The Ghana Education Service (GES), in the 2017/2018 academic year, operationalized the Free Senior High School Policy (FSHSP). In the following academic year, that is 2018/2019, GES introduced the Double-Track System of Education (DTSE) in 400 selected second cycle schools across the country. The goals for the introduction of the DTSE were to create room for the schools to enrol more students, to decrease the sizes of classes, to increase contact hours as well as the number of holidays. All these goals were to be realised with the use of the present infrastructure in the various Senior High Schools (SHS) in the country (Ministry of Education [MOE], 2019). Table 1 shows the trends in SHS enrolment in Ghana from the year 2014 to 2018.

Table 1: Senior High School (SHS) Enrolment Trend

Year	Trend
2014	273,152
2015	299,649
2016	308,799
2017	362,108
2018	432,791
2019 (Projection)	469,172

Source: MOE (2019)

Table 1 shows an increase in enrolment trends each year. In 2014, 273,152 students enrolled at the SHS. Again, in 2015, 299,649 students enrolled, which was an increase of 26,497 (9.70%). In 2016, there was also an

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addition of 9,150 (3.10%) augmenting the number of students to 308,799. Furthermore, in the year 2017, 362,108 students enrolled in SHS. This represented an increase of 53,309 (17.30%). In the year 2018, 432,791 enrolled, which was an addition of 70,683 (19.50%). For 2019, the projected student enrolment was 469,172 which meant an addition of 36,381 (8.40%) students.

In the run up to the 2016 General Elections, the then candidate of the main opposition New Patriotic Party (NPP), Nana Addo Dankwa Akufo-Addo promised to make SHS education free (NPP, 2016). After winning the 2016 General Elections, and assuming the Office of the President of the Republic of Ghana, the government in the 2017/18 academic year, implemented the Free Senior High School Policy (FSHSP) for all those who entered senior high schools in the 2017/18 academic year (Abdul-Ramadan, Ramadan, Ming, Ahmed & Salma, 2018).

The FSHSP was in line with the 1992 Constitution of Ghana. In the 1992 Constitution of the Republic of Ghana, Article 25 (1b) provides:

> *Secondary education in its different forms, including technical and vocational education, shall be made generally available and accessible to all by all appropriate means, and in particular, by the progressive introduction of free education.*

The FSHSP required that the central government absorbed all the bills, including feeding, tuition and all other charges of first-year students. Again, admission, library, science centre, computer lab, examination and utility fees, as well as textbooks, were paid for and provided by the central government of

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Ghana. Furthermore, day students were entitled to a lunch in a school day for free. The FSHSP also made agricultural, vocational and technical institutions at the high school level free (Asiedu, 2017).

The first cohort of students under the FSHSP in the 2017/18 academic year were 362,108 (MOE, 2018). The subsequent 2018/2019 academic year had an enrolment of 432,791, that is 70,683 (19.5%) higher than that of 2017 enrolment (MOE, 2019). This therefore called for the implementation of the Double-Track School Calendar. That is, there were 277,537 students completing SHS in June, 2017. Out of which, the MOE had created additional seats of 13,200. Consequently, the total seats available were 290,737. With the expected enrolment of 432,791, there was the need for expected seats of 432,791. However, the difference between seats available and seats created were 142,054.

Furthermore, with the additional cost due to the increase in enrolment, the MOE needed an amount of GHS 1,338,083,639.00. This amount would cover for 622 6-unit classroom blocks, 181,993 students' mono desks, 3,730 furniture for teachers, 415 dormitories, 51,868 bunk beds, and 8,872 teachers. However, all the projects would not be able to meet the demands of 2018 entrants. There was, therefore, the proposal to adopt the Double-Track Calendar (MOE, 2018) to cater for the increased numbers.

The DTSE required that the entire students were grouped into two; the Green Track and Gold Track. While one track was in school, another track would be on vacation (Deho & Agangiba, 2019). An academic calendar was drawn to that effect. Table 2 shows the features of the double-track school calendar.

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Table 2: Features of the School Calendar

Description	Single-Track School Calendar (STSC)	Double-Track School Calendar (DTSC)
Teaching Hours per Year	1,080 Hours per Year	1,134 Hours per Year
Length of school day	8: a.m.- 2:00 p.m.	7:30-3:30 p.m.
Teaching days	180 Days	162 Days
Number of days in Boarding	265 Days	225 Days
Average vacation/Holidays for Teachers (Month Period)	84 Days (12 Weeks)	112 Days (16 Weeks)

Source: MOE (2018)

Table 2 shows the features of the Double-Track Calendar (DTC). The STSC has 1,081, while the DTSC has 1,134 hours in an academic year. The STSC starts class from 8:00 p.m. to 2:00 p.m., while the DTSC starts class from 7:30 a.m. to 3:30 p.m. Thus, the length of school day has been increased from 6 hours to 8 hours. On teaching days, the STC has 180 days, as the DTC has 162 days. Again, while the STC spends 265 days in boarding, the DTC spends 225 days. Finally, the average vacation or holidays for teachers in the STC is 84 days, which is equivalent to 12 weeks. The DTC on the other hand spends 112 days on vacation, which is equivalent of 16 weeks.

The implementation of the DTSE came along with the introduction of the semester system of education at the senior high level. Before then, the academic year operated on termly basis, with each academic year having three terms. The academic calendar started from September and ended in August.

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The first term was from September to December, the second term started in January and ended in April while the third term was from May to July. There were 41 weeks of learning on the academic calendar (Amoah, 2018). Figure 1 shows the academic calendar for the 2018/19 academic year.

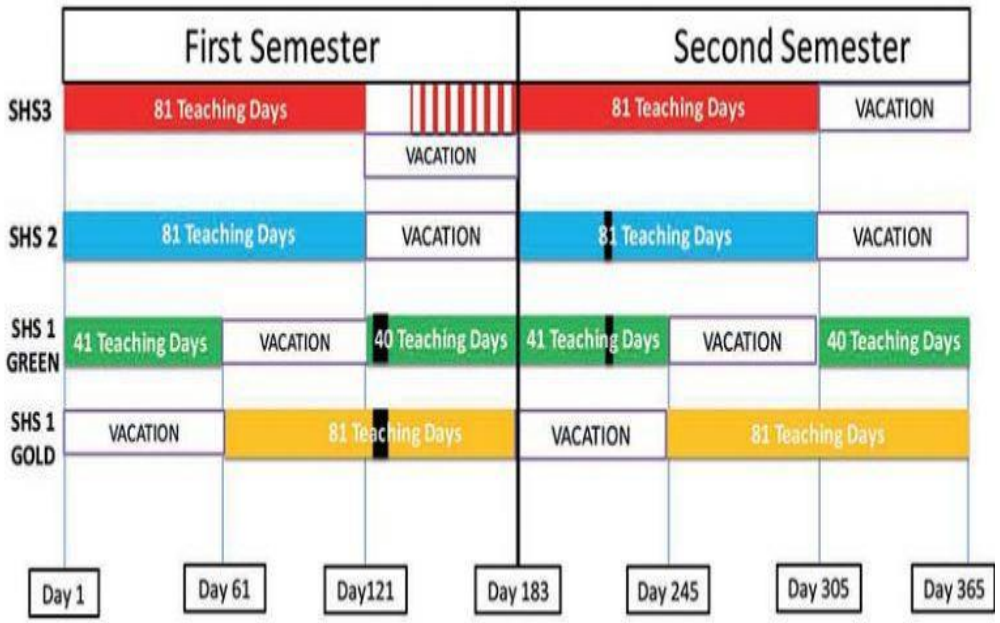

Figure 1: Double-track academic calendar for 2018/19
Source: MOE (2018)

The academic calendar, as shown in Figure 1, is an all year-round calendar. Students in SHS 3 and SHS 2 will spend 81 days in school and go for a 41-day break and return for the second semester, where they will spend 81 days in school. They will again be in school for 162 in the academic year and spend 112 days as holidays.

However, SHS 1 students who are on the Green track would spend 41 days in school and vacate so as to make way for the SHS 1 students on the Gold track to spend 81 days in school. The SHS 1 Green-track students after spending 41 holidays would return to school and spend 81 days, after which they would go back for holidays and return after 41 days to end the academic

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year. The SHS1 Gold-track students, after spending 81 days in school would go for 41 days break, and return afterwards for the second semester where they would also spend 81 days to end the academic year.

During the Ghana National College's 70th anniversary, President Nana Akufo- Addo, said, among other things, that the introduction of the DTSE was to make room for the high enrolment in the SHSs. He further indicated that there would be reduction in class sizes of students. Furthermore, instructional hours were going to be increased (Afful, 2019). However, the DTSE may put high pressure on schools' amenities and facilities. The division of the schools into double system required that students would be utilizing the schools' facilities all year round. About 432,791 students would use the same inadequate facilities used under the single-track system. This will lead to faster wear and tear, and thus cause a lot of damage to most of the facilities.

Again, the extended period of vacation may lead to sluggishness and low academic performance on the part of the students. When students embark on a long break without good monitoring and without library facilities, they may become sluggish. Students, especially those who are quite slow at learning would forget almost everything they learnt in school before they resume. In addition, recalcitrant youth and those without proper supervision or resources at home to learn could be exposed to social vices such as drug abuse (Abeles & Rubenstein, 2015).

Furthermore, longer learning hours may not necessarily enhance students' academic performance. A break in learning or studying is vital to a students' ability to retain information. Learning without a break or with a shorter break will stretch students to unhealthy breaking points. This will

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eventually lead to sluggishness on the part of students, and a reduction in their academic performance due to information overload and exhaustion (Abeles & Rubenstein, 2015).

The DTSE may be likened to the academic calendar used in some public universities in Ghana. The universities, particularly, the University of Cape Coast (UCC) and the University of Education, Winneba (UEW), operate regular semester and sandwich sessions. Under such arrangements, one group will be in school for specific days of each semester, then go on vacation and return for the second semester. When regular students go on vacation after the second semester, sandwich students also make use of the same resources that were used by the regular students (Afful, 2019).

The DTSE is similar to the Double-Shift System (DSS) of education. According to Bray (2008), the DSS takes care of two totally different categories of learners in a school day. One category of students attends school in the morning till midday. The other category also attends from midday to late afternoon. Thus, both categories of learners utilize the same infrastructure. In some instances, the two categories of learners are taught by same teachers, while others may have different teachers for different categories. Bray (2008) argued that some education authorities extended the double-shift model to triple-shift system. Here, three groups of students studied from 6:30 a.m. to 10:55 a.m., from 11:00 a.m. to 3:25 a.m. and from 3:30 p.m. to 7:55 p.m.

The calendar for the DTSE is all year round and this requires that school management stay in schools all year round. Each passing track would need the headmasters/mistresses, assistant headmasters/mistresses, senior house masters/mistresses, house masters/mistresses, school chaplains, heads of

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Departments, and other supporting staff. There is, therefore, no break under the DTSE.

Statement of the Problem

The introduction of the DTSE is likely to make management of SHS face some challenges. Therefore, the study sought to explore the challenges that the management of double-track schools face and how they coped with the challenges. According to Donkor (2018), when the GES announced the operationalization of the DTSE on Tuesday, September, 5, 2018, teachers and management of secondary schools did not understand the system. Thus, it generated divergent opinions. The GES held that the DTSE would provide opportunity for more students to enter SHS. It would also help to break large class sizes to smaller class sizes, add more hours to existing contact hours and increase the number of holidays, by making use of the schools' current infrastructure (MOE, 2018). Management of secondary schools did not know the modalities on the increment of contact hours, decrease in class sizes, and increase in the duration of holidays for both teachers and students.

Some stakeholders in the education sector, such as National Association of Graduate Teachers (NAGRAT), Teachers and Educational Workers Union (TEWU), Civil Society Organizations (CSO) such as Centre for Democratic Development (CDD), and IMANI Africa, a Policy Think Tank, called on the government to consult and collaborate with them on the newly introduced system. According to them, the consultations would help them appreciate the policy, since their children and wards were going to be the direct beneficiaries of the new system (Donkor, 2018).

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With the DTSE, every semester is 81 days for both Green and Gold tracks. For one semester, every track goes to school for 41 days then go for a break for 40 days (Amoah, 2018). Management would however be in school throughout since there was no provision for parallel management. headmasters/mistresses and their assistants, senior housemasters/mistresses, house masters and mistresses, as well as bursars, matrons, would have to remain at post for new admissions, different vacation and reporting times, and scheduling of time tables.

The first batch of candidates placed on the GREEN TRACK, according to the 2018/2019 Academic Year resumed on September 11, 2018, and vacated on November 6, 2018 for the first session of the first semester. The second session of the first semester started from January 3, 2018 to March 5, 2018. However, GOLD TRACK (Second batch) also started on November 8, 2018 and ended the session on March 5, 2019 for the first semester. Students spent 162 days in the classroom which was equivalent to 81 teaching days in each semester. Teachers went on break with the track they taught (Amoah, 2018), with the exception of management.

The officers in-charge of the day-to-day administration of the schools, had to remain at post all year with the implementation of the DTSE. Headmasters, assistant headmasters, senior housemasters and house mistresses, school chaplains, bursars, matrons, are in school every time, and consequently this placed a lot of demands on them. The study, therefore, explored the challenges facing management with the implementation of the double-track system, and how they are coping with the challenges.

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Purpose of the Study

The purpose of the study was to find out the challenges that management of the selected double-track schools in the Eastern Region of Ghana were facing. It also examined how school management were coping with the challenges.

Research Objectives

The main objective was to explore the challenges facing school management and strategies for coping in the face of these challenges. The specific objectives were to:

1. Explore the perception of school management on the double-track system.
2. Assess the effective usage of the contact hours.
3. Examine the challenges facing management in double-track schools.
4. Assess the effects of the challenges on the output of teachers.
5. Explore the coping strategies adopted by school management in double-track schools.

Research Questions

The following research questions were formulated to guide the study:

1. What is the perception of school management on the double-track system?
2. How are the extended contact hours being used effectively?
3. What are the challenges facing school management in double-track schools?
4. How are management affected by the challenges?

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5. In what ways are management of double-track schools coping with the challenges?

Significance of the Study

The study would help to fill the existing gap in literature on DTSE. There is not much literature on the DTSE in Ghana. Thus, the study would help fill the gap in literature. Again, it would help educational policy makers, such as, the Ministry of Education (MOE), Ghana Education Service (GES), Free Senior High School Secretariat, as well as the Scholarship Secretariat in shaping policy on education in Ghana.

Again, the study would throw more light on the peculiar challenges facing specific institutions on the DTSE and suggest ways of dealing with them. This would help the agencies responsible for Education in Ghana to adopt appropriate and specific policies that are tailored towards the common good. It would throw light on how management in other schools are coping with challenges. This would enlighten them on the issues.

Furthermore, the study would also help in fulfilling the United Nation's Sustainable Development Goal 4 (SDG 4) (United Nations Development Programmes [UNDP], 2016). SDG 4 required access, inclusive, and equitable quality education, as well as lifelong learning opportunities.

Delimitation of the Study

Delimitation are the characteristics that result from limitations in the scope of a study, and by the conscious exclusionary and inclusionary decisions that are made when developing a plan for the study. They arise from specific choices that are made by the researcher (Simon & Goes, 2013). These include

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the choice of the problem, objectives and research questions, the choice of participants and respondents, theoretical perspectives, research methods.

Delimitations are the limitations that are consciously set by the researcher (Theofanidis & Fountouki, 2018). They are concerned with the definitions that the researcher decides to set as the boundaries or limits of their work so that the study's aims and objectives do not become impossible to achieve (Theofanidis & Fountouki, as cited in Simon M. 2011). Delimitations can thus be said to be in the control of the researcher. Delimitations are mainly concerned with the study's theoretical background, objectives, research questions, variables under study and study sample.

The choice of topic, which is "exploring the challenges and coping strategies facing management of double-track schools: a study of selected schools in the Eastern Region of Ghana" was a delimitation, since there were other areas of interest. Again, the selection of research area, that is, Eastern Region, was also a delimitation. I could have undertaken the study in other areas apart from the Eastern Region.

Furthermore, the choice of objectives, the theoretical underpinnings, the method, were also delimitations. Furthermore, the time of going to the field was also a delimitation.

The study was delimited to Senior High Schools on the DTSE. It was again delimited to three Double-Track Senior High Schools in the Eastern Region. The management were headmasters/mistresses, assistant headmasters/mistresses, senior house masters/mistresses, house masters/mistresses, school chaplains, bursars, matrons, and students on the double-track system. The students were only second year students in three

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double-track schools in the Eastern Region. However, I did not think these delimitations would affect the outcome of the study.

Operational Definition of Terms Used in the Study

Coping strategies: Actions, a series of actions, or a thought process used in meeting a stressful or unpleasant situation or in modifying one's reaction to such a situation.

Double-Track Schools: Schools that have same grade of students placed under two tracks and operate the double-track calendar.

Double-Track Calendar: It is the academic programme that allows schools to accommodate more students within the same facility. The programme is designed to make room for the different classes of the same grade to have equitable use of school's resources.

School Management: Those in charge of performing the functions of planning, organizing resources, controlling the process, measuring achievement and setting as well as improving organizational standards. These include the headmasters/mistresses, the assistant headmasters/mistresses, senior housemasters/mistresses, house masters/mistresses, heads of departments, school administrators, school bursar, and school matron.

Single Track Year Round School: Students attend school at the same time.

Multi-Track Year Round School: Students attend school on varying schedules.

Job demands: The physical, social or organizational aspects of job that require sustained physical or mental effort and are, therefore, associated with certain physiological and psychological costs.

Job resources: The physical, psychological, social, or organizational aspects of the job that are either functional in achieving work goals, reducing job

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demands and the associated physiological and psychological costs or stimulating personal growth, learning, and development.

Organization of the Study

The study is organized into five chapters. Chapter One looks at the introduction to the study. The chapter thus discusses the background to the study, statement of the problem, purpose of the study, research objectives and questions, significance of the study and delimitations of the study. Chapter One ends with the operational definitions of term that were used. Chapter Two presents a review of literature related to the study. Chapter Three concentrates on the methodology that I employed for the study. It discusses the research design, research philosophy, study area, population, sampling procedure, data collection instruments and procedure, and data processing and analysis. Also included in Chapter Three are ethical considerations, results and discussion of the pilot test, limitations of the study, practical field experience and challenges. The Chapter Four is about analysis and discussion of data. The final chapter, the Chapter Five deals with the summary, conclusions and recommendations.

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CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter concentrates on a review of literature on the topic "exploring the challenges of double-track schools and coping strategies of school management in selected senior high schools in the Eastern Region of Ghana". The chapter traces the history of free formal education since independence to the FSHSP and the DTSE. The chapter also explains the theories that underpin the study and its applicability. Again, some empirical works that are related to the study are reviewed in the Chapter. The conceptual framework for the study is also presented in the Chapter.

The Implementation and Practice of Free Educational Policies in Ghana

Educational Policies are the explicit or implicit single decision or group of decisions that set out directives to guide future decisions, to initiate or retard action, or guide implementation of previous actions (Haddad & Demsky, 1995). Developing countries develop educational policies to make progress in their systems of education. Reforms in education would be successful when teachers and policy makers are involved in the policy bargaining arena (World Bank, 2017). Mingat, Tan and Sosale (2003) argued that policy makers in education ought to develop a vision and strategy for the development of education. Policy makers also mobilize assistance and collaboration for executing the vision and approach from diverse fields. Key parties in policy making include the government, ministries in other divisions and non-governmental service providers, such as those who could make resources accessible to the sector. Other parties are teachers and school

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management who deliver education services, the students and their families who are the close recipients of the services. Finally, employers and the public are also part of policy makers (Mingat, et al, 200 3).

Ghana, over the years, has developed several free educational policies. The subsequent sections review selected free educational policies in Ghana from independence. These are the Accelerated Development Plan of Education (ADPE), the Free Compulsory Universal Basic Education (FCUBE) and the Free Senior High School Policy (FSHSP).

Accelerated Development Plan for Education (ADPE)

Free educational policies, after independence, evolved over a number of years, though it started with the ADPE, in 1951 (Asare-Bediako, 2014). The goal of the ADPE was to, as soon as possible, provide a six-year primary education for all school-going children at the expense of the public (Nkrumah, as cited in Asare-Bediako, 2014).

During independence, Ghana had plans on the way education was going to help the economy to prosper (Akyeampong, 2010). According to Akyeampong (2010), Dr. Kwame Nkrumah's government had education at the centre of its vision. Nkrumah's educational development was meant to make education an instrument for producing a scientifically-literate population by confronting the environmental roots of low productivity and to produce knowledge to harness Ghana's economic potential (Akyeampong, 2010).

According to Abosi and Brookman (1992), a new constitution was drafted when Kwame Nkrumah became leader of government and the constitution provided for the ADPE of 1951. According to Kadingdi (as cited in Adu-Gyamfi, Donkor & Addo, 2016), the Education Act of 1961 gave legal

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backing to the ADPE. The ADPE provided a six-year basic course for free at the primary level for all children aged 6 to 12 years (Asare-Bediako, 2014).

When the ADPE was implemented in 1952, educational facilities rapidly expanded to all parts of the country. By 1961, it was possible for the government to introduce free compulsory elementary school nationally. In addition, teacher training, and university education became free. There were also free textbooks and the expansion of university facilities (Asare-Bediako, 2014). People from disadvantaged backgrounds, as well as girls' enrolment rate increased at the primary level (Graham, 1976).

Dr. Kwame Nkrumah paid particular attention to technical education in Ghana. He felt that technical education was necessary for accelerated growth in technology and the economy. Dr. Nkrumah linked technical education to labour market requirements by encouraging apprenticeship schemes. He encouraged outstanding students to pursue their education to the university level (Akyeampong, 2010). He again saw that the preparatory grounds for higher education was primary education (Adu-Gyamfi, et al., 2016).

The ADPE helped to expand secondary education since secondary education was crucial for the progress of the nation (Quist, 2003). The National Secondary Schools' Project (NSSP), spearheaded by the Ghana Education Trust (GET) assigned quotas to schools in each region. It was meant to assist regions in the Northern, Upper West and Upper East to have access to secondary education, The GET, between 1957 and 1964, established 34 secondary schools (Quist, 2003). The Plan also established technical institutions in Accra, Tarkwa, Kumasi and Sekondi-Takoradi, to boost the

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technical/vocational sector for effective productivity (Adu-Gyamfi, et al., 2016).

The northern part of Ghana was offered free education (Tsikata & Seini, 2004) and in 1951, had its first secondary school (Davison, 2017). The Northern Scholarship Scheme (NSS) was also established to bridge the gap in education between the North and South. However, the plan came to a halt after Nkrumah was overthrown through a coup d'état in 1966 by the National Liberation Council (NLC).

The NLC after overthrowing Dr. Kwame Nkrumah in 1966, introduced cost-sharing in education. Thus, parents and guardians of students were made to pay part of the cost of the distribution of textbooks (Adu-Gyamfi, et al., 2016). Also, the government, in its quest to take the country out of economic crises, slowed the degree of primary school development and reduced price tags of university education, since they were a burden to the government. After the ADPE, another major intervention was the Free Compulsory Universal Basic Education (FCUBE).

Free Compulsory, Universal, Basic Education (FCUBE)

One of the Millennium Development Goals (MDG) was that by 2015 children everywhere ought to have finished a full course of primary schooling. Getting to 2015, African countries were not able to achieve this feat though they had made progress (United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2007). According to Akyeampong (2009), one strategy adopted by many countries to attain Education for All (EFA) was the implementation of fee-free education. Between 2000 and 2006, 14 developing countries had brought an end to tuition fees for primary schools

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(Akyeampong, 2009). This resulted in high enrolments rate in schools. However, getting children from underprivileged groups to sign up and complete basic education was a challenge.

Kandingdi (1996) opined that the FCUBE initiative was the response by the MOE to a provision of Article 39 (2) of the 1992 Constitution of the Republic of Ghana:

> *The Government shall, within two years of parliament first meets (sic) after coming into force of this Constitution draw up a programmes for implementation within the following ten years, for the provision of free, compulsory and universal basic education.*

According to Akyeampong (2009), a policy entitled "Basic Education – A Right: Programmes for the provision of Free, Compulsory and Universal Basic Education by the year 2005" was formulated in 1992. The policy was to eliminate the payment of school fees in order to increase the need for education.

The FCUBE had two main activities of demand and supply as its focus. On the side of demand, the investments were to back education policy and management modifications. The targeted areas were to increase contact hours, decrease fees and levies, expand head teachers' management skills and incentives. On the supply side, the primary focus of the investment was to expand infrastructure and the number of schools by building more schools (World Bank, 2004).

Central to FCUBE, the government was determined to improve the quality of education services and make education at stage 1 through to 9, free

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and compulsory for every child of school-age by the year 2005 (MOE, 1996). Parents were thus, to be compelled to enrol their wards for the entire period of education at the basic level. Parents who did not enrol their wards were going to be fined (MOE, 2001).

Lowering the cost of education reduces the wealth biases associated with primary education. It also reduces dropout rates (Deininger, 2003). Even though the FCUBE was able to produce a balanced and stable progression in school enrolment (World Bank, 2004), Akyeampong (2009) stated that the FCUBE policy produced a slower and steadier growth.

Tomasevski (2006) asserted that educational performance of Ghana had not significantly progressed even after 10 years of introducing the FCUBE. While countries in Eastern Europe and Latin America were moving towards achieving Education for All (EFA) and Millennium Development Goals (MDG) targets, Ghana, and for that matter Sub-Saharan Africa, seemed to be lagging behind very much (Tomasevski, 2006). This according to Akyeampong (2009) may be due to the fact that the FCUBE policy failed to do much to reduce the cost of education to underprivileged families. Nudzor (2013) also contended that a change in government meant a change in policy shift. The FCUBE policy was a "rights-based policy", deeply rooted in social democratic values. That is, FCUBE was committed to enhancing the educational opportunities and outcomes for those who were educationally disadvantaged. However, the advent of neo-liberal ideological rhetoric of 'skills for the world of work' activated the neutralisation of the ideals of FCUBE (Nudzor, 2013).

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Watkins (2000) also stated that even when the cost of education is reduced, education could still be the preserve of the rich. Hannum and Buchmann (2005), in a similar vein, stated that educational development policy does not necessarily improve opportunities in education as far as the social strata is concerned. Rather, groups that benefit most are those with great social and economic capital; poor and vulnerable members of society become still disadvantaged. The people with high social and economic capital gain from discriminated access to quality schooling. Even when income disparities with regard to access are done away with, delayed enrolment, repetition and/or poor attainment can create uneven access.

Opare, Palmas and Barfi (2017) stated that educational policies implemented in Ghana, including Accelerated Development Plan of Education 1951, and Free Compulsory Universal Basic Education (FCUBE), were beset with insufficient textbooks, inadequate infrastructure and teachers. Though the FCUBE was aimed at offering fee free basic education for all, it was beset with a lot of challenges as a result, it could not achieve much.

Free Senior High School Policy (FSHSP)

The FSHSP is an extension of free education to the senior high school level and it replaced the Progressively Free Senior High School Policy (PFSHSP) which started in 2015, by the government of the National Democratic Congress (NDC). In September, 2015, the GOG launched the PFSHSP (MOE, 2015). The Policy was to gradually absorb the fees involved in secondary education. Through the policy, students from the JHS level were to have an easy transition to the SHS without financial barriers. That is, increasing access and quality, as well as equipping Ghanaian students with the

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appropriate skills to make them function well and assume proactive roles in the country (Abdul-Ramadan, Ramadan, Ming, Ahmed & Salma, 2018).

In order to efficiently implement the FSHSP, the GOG released GH¢ 12,178,544.00 to the MOE as funding for the first term of 2015/2016 academic year (MOE, 2015). The funding was to cover costs of examination, entertainment, library and Student Representative Council (SRC) dues. Other costs that the amount was meant to cover included sports, culture, science development and mathematics quiz, information communication and technology, co-curricular activities. With the coming into office of the NPP Government, the PFSHSP was replaced with the FSHSP.

The FSHSP was aimed at improving the human capital base of the country in the long term. The FSHSP required the Government of Ghana (GOG) to fully absorb all bills at the secondary level of education. These included feeding, tuition and all other charges such as admission, library, science centre, computer laboratory, examinations and utility of the first-year senior high/technical students beginning from the 2017/18 academic year (Asiedu, 2017; Amoah, 2018). There was also going to be free provision of text books, boarding, and meals. Day students on the other hand would also get lunch on a school day for free (Asiedu, 2017). The GOG subsequently released an amount of GH ¢400,000,000.00 for the implementation of the FSHSP for the 2017/2018 academic year (MOE, 2018).

Challenges of the Free Senior High School Policy (FSHSP)

Since the policy was a major campaign promise in the run up to the 2016 general elections in Ghana, its' implementation lacked broad national consultation and consensus. Major stakeholders could not make inputs into it

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as their views were not solicited. For example, Integrated Social Development Center (ISODEC), a Non-Governmental Organization in Ghana raised concerns about the hasty manner the FSHSP was implemented, without consultation (Addo, 2019).

The Public Interest and Accountability Committee's (PIAC, 2020) report on the findings on the free SHS monitoring of 51 schools across eight regions in 2018 and 2019 made the following observations: FSHSP had resulted in timely reporting of students at the beginning of each term. Again, core textbooks had been adequately supplied, though late in some instances. Also, there were supply of school uniforms and jerseys as well as increase in enrolment. Finally, food variety and quality had improved under the programmes (PIAC, 2020).

The Committee, however, raised concerns that there were poor quality and unwholesome supplies, delay in the supply of food and other items, as well as over or under supply of the items. Again, the abolition of cut-off grades led to the admission of poor-grade students in the deprived schools.

Furthermore, elective textbooks were not covered under the FSHSP, but was poorly communicated to students. This led to parents feeling reluctant to purchase textbooks for their wards, thereby affecting teaching and learning. Schools also experienced delays in the receipt of funds. Sometimes, they received them in batches and had to rely on funds from non-free SHS students. in addition, there were again insufficient classrooms, beds, laboratories and equipment, poor or inadequate staff quarters, outbreak of bedbugs in students' dormitories and lack of infirmaries, and where they existed, they had no qualified health personnel to run them.

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Again, the operations of the PTAs had halted, therefore the PTAs could not provide additional infrastructure. Those that had been initiated were abandoned. Staffing was also a challenge. This was because those who were running the DTSE had no holidays nor breaks. Supporting staff such as kitchen, security and cleaners, among others were also inadequate (PIAC, 2020).

The committee, therefore, recommended that school authorities became vigilant in monitoring the quality of food supplies. Again, the supply of foods should be based on orders from the school to prevent under and over supply and should be accompanied by advice on the value and quantity of goods.

Furthermore, PIAC (2020) recommended that contract for school uniforms, house jerseys and vests should be awarded on time to prevent delay. Again, cut-off grades should be restored. There should also be expeditious disbursement of funds to the schools to avoid disruptions in the academic calendar. The provision of infrastructure should be expedited so as to end the DTSE. The committee finally welcomed the streamlining of the operations of the PTAs, but should be allowed to operate as voluntary associations outside the control of school authorities (PIAC, 2020).

Studies have shown that a number of challenges confront the provision of free secondary education, thereby affecting quality of education. Asumadu (2019) in a study in Denkyembour District, identified that there was inadequate infrastructure in the senior high schools because increasing enrolment of students into senior high was not met with corresponding

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infrastructure and other facilities and this caused overcrowding and congestion.

Another challenge, according to Asumadu (2019), was the inadequate provision of teaching and learning materials and teachers. Again, the study found out that increased enrolment in SHS brought a heavy workload on teachers. Moreover, delays in the release of funds affected the timely implementation of programmes of the schools while the increasing enrolment without corresponding infrastructure lead to the operationalization of the DTSE.

Again, Okumbe (as cited in Asumadu, 2019) also found that Kenya's implementation of free secondary education had challenges such as inadequate buildings as well as poorly constructed ones, books in short supply, inadequate supply of books and equipment. Other challenges included improper school furniture such as desks, poor maintenance culture, poorly trained teachers, over-crowded classrooms and poor communication.

Similarly, in Kenya, Aluko and Adan (2015) noted that the provision of free education at the secondary level led to many parents being reluctant to make any other payments to schools. Kalunda and Otanga (2015) also found that the free secondary education in Kenya resulted in increased enrolment of students which created problems such as heavy teaching workload on teachers, inadequate number of teachers to meet rising number of students and lack of adequate instructional materials. Morojole (2012) also identified in Lesotho that the implementation of free education led to increased centralization and this subsequently resulted in the loss of local accountability in the development of schools.

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Funding of Education

There are divergent views on the effects of funding on educational achievements. While some studies see a positive effect of funding on education, others do not. Abdul-Ramadan, et al (2018) studied the impact of government funding on performance of students in Wa Municipality of Ghana. The study revealed that funding was useful in improving the performance of students. Again, Blimpo, Gajigo and Putatch (2015) carried a research into the effects of Gambian female scholarship programmes on the academic performance of secondary school students. The study revealed that there was a rise in the test scores for English Language and Mathematics. The programmes also caused an increase in enrolment, a decrease in dropout rates, and an improved academic performance.

In addition, Belot, Canton and Webbink (2007) assessed the impact of financial aid on students' academic attainment and time allocation. The study made use of the huge reforms of the Dutch student's support system and identified that students attained higher grade after the reform was made. Brock and Richburg-Hayes (2006) looked at the impact of a Louisiana needs-based scholarship programmes on course completion and examination score of students of low-income parents attending community college and found that funding occasioned high achievements in students' learning.

There are however, studies that found out that funding did not have a positive effect on academic achievement. Elizabeth and John (2015) used the regression analysis to demonstrate that both grade point average and the percentage of units had small, statistically significant negative relationships with the amount of aid received per unit. Weaver (2013) also did not find any

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significant relationship between financial responsibility, motivation and the academic success of students in college. Douglass and Gregg (2012) studied the effects of financial aid on students' grade points in research institutions and found out that though the recipients of the Pell Grant studied one hour longer than other students, they got lower grades.

Thus, funding of education has impact on academic achievement. The impact may be positive or negative. However, funding alone may not be able to have positive effect unless other factors such as infrastructure and staffing, among other things, are available.

Year Round Education (YRE)/ Year-Round Schooling (YRS)/Double-Track System of Education (DTSE)

At the beginning of the 2017/18 academic year, 362,108 students were enrolled in various SHS throughout the country (MOE, 2018). These were the first beneficiaries of the FSHSP. In the 2018/19 academic year, 432,791 got enrolled in the various SHS nationwide, as the second beneficiaries of the FSHSP. The 2018/19 enrolment was 70,683 higher than 2017/18 enrolment (MOE, 2019). Again, there were 277,537 students who were completing SHS in June, 2017, out of which, MOE had created additional seats of 13,200. With the expected enrolment of 432,791 there was the need for expected seats to meet the number. However, the difference between seats available and seats created were 142,054.

Furthermore, with the additional cost due to the increase in enrolment, MOE needed an amount of GH₵1, 338,083,639. This amount was to cover the cost of 622 6-unit classroom blocks, 181,993 mono desks for students, 3,730 furniture for teachers, 415 dormitories, 51,868 bunk beds, and 8,872 teachers.

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However, due to time and financial constraints, there was the need for the adoption of a Double-Track Calendar (MOE, 2018).

The introduction of the DTSE, gave room for over 8,000 teachers to be recruited to cater for the programmes. The hours of teaching per day were increased from 6 hours to 8 hours. The teaching hours per year were also increased from 1,080 to 1,134 (Allotey, 2018).

DTSE also referred to as the Year Round Schooling (YRS) operates on the Year Round Education (YRE) model. YRE models the school calendar into instructional blocks (Quinlan, George, & Emmett, 1987) and distributes vacation throughout the academic year to make learning continuous (Skinner, 2014). YRS designs the days throughout the year to make room for regular and shorter vacations (Kneese, 2000).

A feature of DTSE/YRS is inter-session/academic intervention. According to MOE (2018), senior high students were to benefit from an academic intervention programmes, that is,

> *All senior high school students shall benefit from additional academic intervention to ensure improvement in learning outcomes. Schools shall receive funding allocations to establish instructional interventions in schools.*

In YRE/YRS, the academic year is scheduled into instructional periods. After each instructional period, there are also days of inter-session or vacation time. Inter-sessions could be 25 days and could be used for focused remediation instruction and enrichment. Teachers have the option of working at the inter-session period so as to earn extra income. The rate of pay for the teachers at inter-session is the same as those in the traditional calendar.

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The DTSE may be likened to the academic calendar used by the University of Education, Winneba (UES) and the University of Cape Coast (UCC). Under this system, each track is allowed to be in school for a number of days in each semester such that as one track is in school, the second track will be on vacation (Afful, 2019).

YRE has been in existence since the early 1900s, and has been implemented in the United States of America over a century. It grew substantially in numbers from the mid-1980s to 2000. Schools opted for the YRE calendar in order to conserve fuel, make space as a result of overcrowding and improve opportunities in education (Peltier, 1991). Some schools may also want to grant continuous learning for students while others also recognize that not everyone will go on vacation in the summer months. Some schools also adopt a year-round calendar because of no space to house all students (Ramos, 2006).

Types of Year-Round Education (YRE)/ Year-Round Schooling (YRS)

Nimaja and Gomes (2018) distinguished between two main types of YRE. These are Single Track YRE (STYRE) and Multi-Track YRE (MTYRE). Schools that have fewer facilities usually operate the MTYRE. This allows the students to make use of the school's limited facilities throughout the year. With this, students go to school at separate times of the day and/or on alternating breaks and weeks of instruction throughout the year. For instance, a set of students attends school from 6am to noon while the other goes to school from 1pm to 7pm. (Nimaja & Gomes, 2018). Here, teachers and students are divided into tracks with each track having its own schedule such that students and teachers go to school and vacate at the same time. The

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year round calendar and traditional calendar have been presented in Figures 2 and 3.

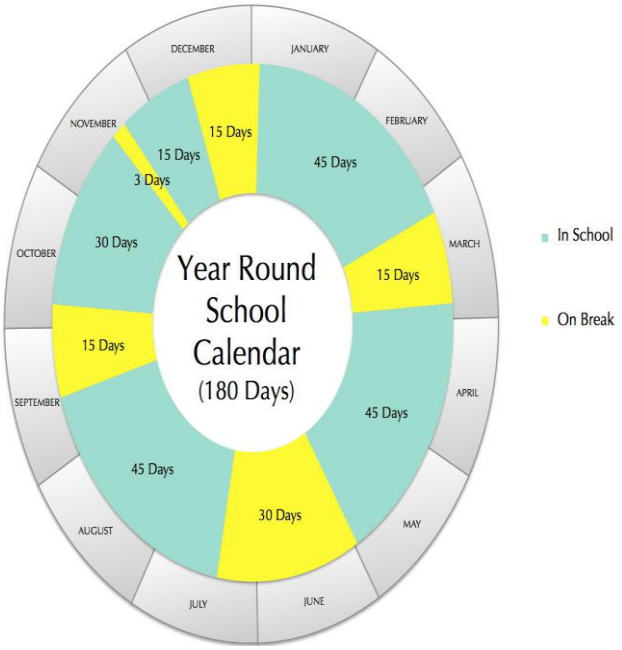

Figure 2: Year-round education calendar
Source: Adopted from Year Round School Calendar (2018)

In Figure 2, students spend 180 days in school throughout the year. Thus, between January and February, students would be in school for 45 days, then have 15 days break. Then they would go back and spend another 45 days in school from the month of March to May. They would then go for 30 days break and return in the month of July and would be in school till September. The students spend 45 days in school within this period and then go for a 15 day break and return in October. They then spend 30 days in school and go for 3 days break and finally go back to school and spend15 days. After this, they go again for a break for 15 days. The traditional calendar is also presented in Figure 2.

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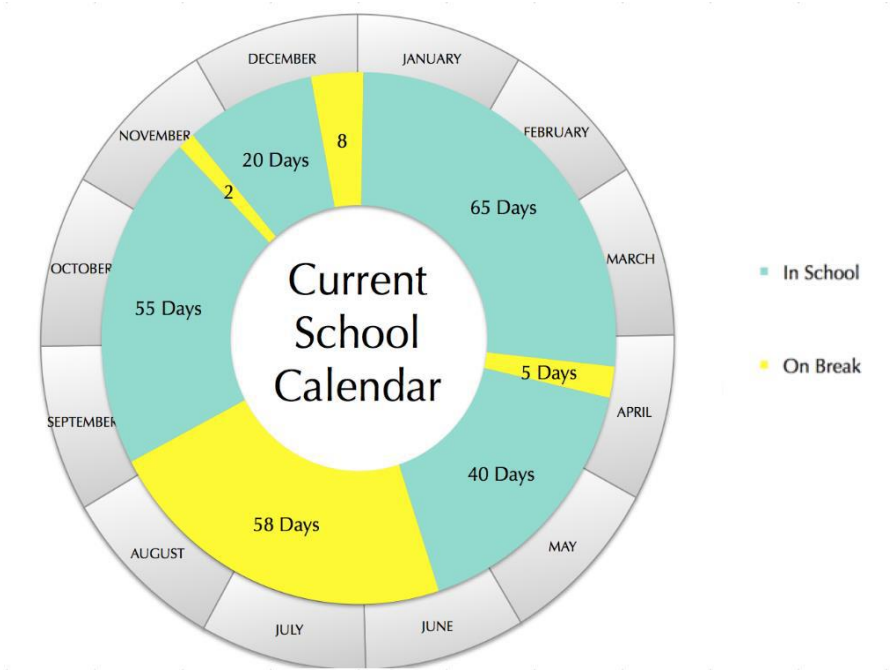

Figure 3: Traditional school calendar

Source: Adopted from Traditional School Calendar (2018)

In Figure 3, the traditional school calendar would have students in school for 65 days from January to April, then go for a 5-day break, then return and spend 40 days in school and break for 58 days. They would then return in September, spend 55 days in school and go for holidays for 2 days. Afterwards, they return and spend 20 days in school and break for 8 days.

Advantages of Year-Round Education (YRE)/ Year-Round Schooling (YRS)

YRS eliminates learning loss during summer breaks (Ballinger 1995). Students do not have to spend long time during summer holidays. It also affords families the chance to attend to the inefficiencies in learning of their wards. Weaknesses in students are attended to immediately since the student would not need to wait for long time to receive assistance. Students, can also get the needed help just after period of instruction.

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Moreover, YRS saves costs, especially capital expenditures since the limited facilities are utilized with the increased enrolment. Again, it has a calendar which is balanced with intermittent breaks. It thus, prevents staff burnout and reduces the boredom associated with long hours of learning. Overcrowding in schools are reduced, saves costs that otherwise would have gone into construction, operation and materials (Dixon, 2011).

Furthermore, YRS provides extra courses and reduces the effects of learning losses during summer breaks. Thus, there is additional time for tutoring, remediation and improvement in a year. It also gives room for salaries of staff to be enhanced. Thus, it motivates teachers due to the incessant breaks (Dixon, 2011).

YRE may impact positively on academic achievement of students. This is because the students have more days for instruction than the traditional calendar students. Again, YRS would mean the use of innovative curricula and teaching strategies. YRS will thus, be a catalyst for reforms in school (Shields & Oberg 2000). In spite of these advantages, YRE/YRS has its challenges.

Challenges of Year-Round Education (YRE)/ Year-Round Schooling (YRS)

White (1992) opined that extra work is created for management due to the continuous operation of schools. There are no holidays for management. It also means meeting two sets of needs such as separate deadlines, deliveries and due dates, as well as two openings and closings of schools (Merino, 1983).

Again, YRE can result in communication problems with students, teachers, parents, and the community (Peltier, 1991). Students may not know what is due them as far as communication is concerned. Communication and

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training among staff are disrupted since part of the staff is always out of the school. Teachers and parents also become confused on which information is meant for them. The community may not also be able to differentiate between when students are at home and at school.

According to Moore (1992), schools running both traditional and year-round calendars will have challenges with developing personnel policies (Moore, 1992). For example, staff will have difficulties to attend classes at colleges or universities to upgrade themselves since the breaks are short. In addition, remediation will also be difficult to schedule since the breaks are short.

YRS comes with a huge cost due to school facilities serving more students for several months. For instance, it will be difficult to embark on large maintenance projects and this will result in undertaking routine maintenance regularly and this may incur overtime costs. In addition, schools on the YRE can incur costs during transition.

Furthermore, YRS may place extra demands on staff, especially management of the schools because it deals with different tracks of schools within the same facility. Teachers would also be expected to share classrooms with other teachers and it will also demand extra storage space. There will, therefore, be the need to employ and pay more staff; teaching and non-teaching. In addition, staff, and especially management, may experience burnout.

Opportunities for summer jobs for older students will be reduced because of the reduction in the period for holidays. Again, there will be a reduction in participating in co-curricular activities during holidays since

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students have few days for holidays (Cooper, Valentine, Charlton, & Melson, 2003).

Again, scheduling of professional development and co-curricular activities will also become difficult because as one track leaves and another returns, the school will operate on a tight schedule.

Finally, parents and guardians who have other children who may not be on the YRE track may have problems with how to schedule other children who are on different tracks. Thus, these challenges impede against successful operationalization of YRS.

The Double Shift System (DSS)

Just as the MTYRE takes care of separate needs of separate students, so does the double-shift system (DSS). The DSS caters for two distinct sets of students on any school day. One group normally show up at school from morning and close at noontime. Another set follows from noontime to late afternoon. The same buildings, facilities, equipment and materials are used by each group. Some schools have separate teachers for separate shifts while others have same teachers teaching the different shifts. In some schools, the double-shift model is expanded to triple shift system. These groups of students study from 6:30 a.m. to 10:55 a.m., from 11:00 a.m. to 3:25 p.m. and from 3:30 p.m. to 7:55 p.m. (Bray, 2008). In Zimbabwe, double-session schooling is referred to as “hot seating”, that is, the chairs do not have time to cool (Bray, 2008).

DSS can also be referred to as double-session, bi-sessional or half-day schools. In Botswana, institutions which had different students in the morning and afternoons were described as double session schools. Here, every session

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had its respective sets of teachers and made use of the same facilities. There were also half session schools which had students in the mornings and afternoons with the same teachers. Therefore, the total classroom hours were reduced (Bray 2008). Uganda also practiced the double-shift system, where schools took the same grades in the morning and afternoon. Schools with different grades in the morning and afternoon were called double-session (Bray, 2008).

Other countries such as Singapore, operated single-session schools. The schools started the day at 7:30 a.m. and ended at 1:00 p.m. In Mexico, the teachers are referred to as "taxi teachers". That is, after the morning session, teachers board taxis in order to catch up for afternoon session at another school. In South Africa and Namibia, double-shift schooling is known as "platooning" (Bray, 2008)

The DSS was introduced in Ghana in September 1960 (Bervel, Sam & Kankam, 2013). It was an intervention with the aim of providing education to many pupils with limited school buildings (MacWillaim, 1964). It was practiced at the basic level of schooling in the urban areas in Ghana. DSS was also part of the Educational Reform Programmes in the 1986/87, where the enrolment rates of pupils in the basic schools were more than what the available facilities could accommodate.

However, in the course of the implementation of the DSS, stakeholders raised serious concerns about its effectiveness on academic work. This was because DSS made students truants, as well as over working the teaching staff. Again, the time for covering the teaching syllabus was inadequate and the

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system had a toll on teaching and learning activities of pupils, thereby, negatively affecting students' academic performance (Bervel, et al., 2013).

Linden (2001) opined that double-shift schools increased efficiency in the use of capital resources. More students were thus, taught with limited facilities. Students were also able to perform productive work after close of school in the morning, afternoon or night. It also reduced overcrowding in places with high enrolment rates.

Theoretical Perspectives

This section of the study reviews the theories that underpinned the study. These theories are the Job Demand Resource JD-R model and models of adaptation by Robert King Merton. I firstly present the JD-R model.

The Job Demand Resources Model (JD-R)

The JD-R is an explanation to the antecedents of burnout. The model holds that the two factors that affect the wellbeing of a worker are job demands and job resources (Bakker & Demerouti, 2007). JD-R assumes that high job demands with limited job resources will lead to job strain. That is, when job resources fail to meet the demands of the job, the employer becomes burnout. Work engagement, on the other hand, arises from adequate job resources (Schaufeli, 2017). In effect, the employer will work harder when the job resources are adequate. According to Schaufeli (2017), the proponents of JD-R model were Demerouti, Bakker, Nachreiner and Schaufeli.

Job demands are the physical, psychological, social and organizational aspects of the job that require physical or mental effort and are thus associated with the consumption of psychophysical energy, and which in the longer run may potentially give rise to health problems (Balducci, Wilmar, Schaufeli &

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Fraccaroli, 2011). Example of job demands are time pressure, workload, emotional demands and poor relationships, among others. Job demands require extra time and attention, assets that are needed for efficient and effective delivery of assignments.

Job demands can damage an employee's health and lead to stress-related problems such as burnout (Bakker & Demerouti, 2007). Job demands arouse workers' nervous system and trigger their defence mechanisms. Workers attempt to struggle with job demands and strive to keep up their performance level by initiating extra vitality. Employees who continuously experience high job demands have their energy reserves drained, leading to exhaustion. Employees who are overstretched try to escape from their job demands by reducing their goals, consequently they gradually withdraw from their jobs (Bakker & Demerouti, 2007).

Job resources are the physical, psychological, social and organizational aspects that, by fulfilling basic human needs or by facilitating the achievement of work goals, attenuate job demands, and/or stimulate personal growth and development. Examples of job resources are social support, organizational justice, career opportunities, strong work relationships, coaching and mentoring, learning and development, opportunities for development, among others (Balducci, Wilmar, Schaufeli & Fraccaroli, 2011). Job resources are the assets at the disposal of the firm or organisation or employee to efficiently and effectively attend to the demands of the job.

Job resources motivate employees by adding to their resources (Hobfoll, 2002). Job resources stimulate a motivational process that leads to helpful aftermaths such as work engagement (Bakker & Demerouti, 2007). Job

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resources also enable the execution of goal (Locke & Latham, 2002), nurture the satisfaction of the mental agreement (Rousseau, 1995), augment self-efficacy (Bandura, 1997), contribute to psychological states of meaning, knowledge and responsibility (Hackman & Oldham, 1976), and/or fulfil the basic psychological requirements for autonomy, competence and relatedness (Gagné & Deci, 2005). Therefore, the unavailability of job resources lead to breakdown (Schaufeli & Bakker, 2004).

Job demands and job resources cooperate with each other (Bakker & Demerouti, 2007). Job resources protect the health-deteriorating effect of job demands. That is, employees who come across high job demands are less burned-out if they dispose of many job resources. Again, job demands improve the influence of job resources (Bakker & Demerouti, 2007). Job resources enhance work engagement, particularly when job demands are high.

Workload and emotional demands show a weaker health-impairing connection with burnout when high job resources are available (Bakker, Demerouti, & Euwema, 2005). The amalgamation of high job demands and high job resources give high task satisfaction and commitment (Bakker et al., 2005). Martin, Salanova and Peiro (2007) argued that job demands boost the positive association between job resources and innovation. According to Van Ruysseveldt, Verboon, & Smulders, (2011), the JD-R model has been adopted in different professions, such as teachers, police officers, dentists, managers, nurses, call center agents, fast food employees, hotel personnel, temporary agency workers, service workers, production workers, students and volunteers.

The JD-R model was adopted for the study because it enabled me to explore the challenges of the DTS and coping strategies employed by

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management in selected senior high schools in the Eastern Region of Ghana. Management of double-track schools may be confronted with lots of challenges and when they not properly dealt with, management may be exhausted and would subsequently affect its effectiveness thereby hindering the effective implementation of DTSE. Consequently, the study sought to examine whether the required resources for the implementation of the DTSE were being provided, and if not examine how management were coping with the challenges.

Modes of Adaptation by Robert king Merton

Another theory that underpinned the study is the Models of Individual Adaptation propounded by Robert King Merton. As a 20th century social scientist, R. K. Merton was influential on modern social science, the study of bureaucracy, deviance, mass communications, social stratification, and sociology of knowledge and of science (Cole, 2004). Merton examined how the choices of individuals were constrained and directed by social structures and the consequences of such choices on institutions. In his "Social Structure and Anomie", he showed how an American virtue, such as the desire to succeed and to get ahead, produced an American vice, deviant behaviour.

According to him, there are two things that are of immediate importance in the constitution of social and cultural structures. One consists of goals that are defined culturally, purposes and interests, held out as legitimate objectives for all or for diversely located members of the society (Merton, 1938). For Merton, one cultural goal for every citizen of the United States of American (USA) is monetary success (Jang & Agnew, 2015)

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The second element regulates and controls the acceptable means of attaining the goals. Individuals of lower classes do not often get the opportunity to legitimately achieve this goal (Merton, 1938). Their parents may not be able provide them with the means to be successful. They may not have the resources to send them to college, or set up business for them. Again, their communities of domicile may have inferior schools (Jang & Agnew, 2015). Therefore, the lower-class individuals many times experience strain due to the disjunction between their goals and the legitimate means for achieving them (Jang & Agnew, 2015).

According to Merton (1938), individuals adapt several ways, including crime. For instance, to attain monetary success, individuals may attempt to employ means that may not be legitimate. Some of these means may be stealing, selling drug, and prostitution. In their frustration, they can strike out at others, use drugs to lessen their frustration. They may even reject the goal of monetary success and focus on the achievement of other goals, which may involve crime. The types of adaptation by individuals, according to Merton, were conformity, innovation, ritualism, retreatism and rebellion. The operation of social structure, therefore may force individuals to choose one or the other as they engage in different spheres of social activities (Merton, 1983).

Conformity, for Merton, is the most common and widely used method and it is only the non-deviant means of adaptation. It is the means in which both societal goals and institutional means are accepted by individuals. Conformity maintains the stability and continuity of the society. For instance, students would have to study, work and obtain certificate so as to get better jobs and success after school. In relation to the DTSE, management would

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have to conform to the goals and means to make it successful. However, if the resources are not available, then management would find it difficult conforming to the situation.

Innovation is one of the earliest notions of resource challenge (Toynbee, as cited in Rosenzweig & Grinstein, 2016). Innovation is adapted when there is a stressful condition for people who are not able to conform to the goals but not the means to achieve them. Those who adapt to this form are the innovators (Merton, 1938). Innovation is adapted when the individual seeks the goals but does not adapt the institutional means. For example, people may indulge in armed robbery, prostitution or drug trafficking. In the case of the DTSE, management may seek new means to adapt to the system. That is, when management find it difficult getting the job resources to meet the demands of the job, they may resort to other means in order to achieve the goals of the DTSE. Resource challenge thus, positively affect innovation and its related performance (Rosenzweig & Grinstein, 2016).

Another adaptation is ritualism in which the ritualist rejects the acceptable standards of success and complies strictly with institutional means. According to Merton (1938), it is due to the continuous failure of making meaningful progress towards the goals. This adaptation is an internal decision. Again, behaviour is institutionally permitted, though not culturally preferred. It is, therefore, not considered a social problem. Here, management may disagree with the DTSE, hence would not work wholeheartedly.

Again, the retreatist which is the least common, is characterized by the rejection of both cultural goals and institutionalized means. The retreatist withdraws completely from society in a non-physical sense thus, are people in

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the society but not of it (Merton, 1938). The retreatist does not make attempts to compete for higher social and economic rewards. The homeless and serious drug addicts fall into this category. They are thus people who have nothing to strive for. Management by virtue of their strategic position may not be able to adopt this strategy. Thus, they should see to it that the DTSE works effectively.

Finally, rebellion presupposes alienation from reigning goals and standards. The rebellious rejects institutional means and goals in an isolated, private and quiet manner. When the institutional means is regarded as the barrier to the satisfaction of legitimized goals, the stage is set for rebellion as an adaptive response. Rebels, usually campaign to enlarge their membership so as to force a change on the prevailing social order. Rebels regard the existing structure as a barrier between their legitimized goals and the satisfaction of these goals. These people would not play by the rules but work to change the system. Terrorist groups are examples of this group. Again, management may use different means to achieve their own sets of goals.

Merton's theory had shortfalls. Firstly, he concentrated specifically on the lower class. However, all persons of socio-economic classes engage in crime (Agnew, 1985). Moreover, he could only describe financial crimes, as against other crimes (Agnew, 1992). Furthermore, Merton did not explain why only some individuals reacted with criminal behaviour when confronted with strain (Agnew, 1992).

Robert Merton's models of adaptation is relevant to the study. This is because even though management of DTSE are facing challenges, they are

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keeping the facilities running. As a result, their ways of coping will apply to the models of adaptation.

Empirical Review

This section of the thesis presents some studies that have been conducted in relation to the study. They have been presented based on the objectives of the study.

Background of Respondents and Participants

The background of respondents (students) included the sex, age, programmes of study, track and status in school. For participants (management), in addition to sex and age, were level of education, rank, and number of years at post.

Sex of Respondents and Participants

According to MOE (2015), the data for 2014/15 academic year indicated that the percentage of female enrolment had improved since 2013/14, and had reached 47.4% out of an enrolment of 750,706 (MOE, 2014). Again, in 2018, enrolment at SHS stood at 1,008,237 students with female enrolment of 47.7% (MOE, 2019). On management, the total workforce of teachers in the country is 361,343. Out of this, 61.2% are females (MOE, 2018). Ahiatrogah and Bervel (2013), in a study on the determinants of equity in access to senior high school education in the Ghanaian education system, revealed that though more males than females gained access to SHS, the difference between male and female JHS graduates offered admission was not statistically significant.

Women have low representation in leadership positions worldwide which the education sector is of no exception. A number of studies have given

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reasons for the low representation of women in leadership positions. Coffey and Delamont (2000) opined that it was based on the decision of women not to apply for promotion at work which may arise from lack of necessary aspiration, lack of awareness of the promotion system and lack of confidence that they would succeed (Coffey & Delamont, 2000). Another reason is the male dominance in educational administration that impedes leadership opportunities of many women (Limerick & Lingard, 1995).

Age of Respondents and Participants

The education system in Ghana is divided into basic, secondary and tertiary levels. The basic begins at age four at the kindergarten. Primary education starts at age six and lasts for six years. The final stage at the basic level is the junior high education which starts at 12 years and lasts for 3 years. Secondary education begins at age 15 and lasts for three years. Tertiary or post-secondary education begins at age 19 and last between three and four years. According to MOE (2018), most Ghanaian children often enter kindergarten late, resulting in over-age kindergarten enrolment. At age six, when most pupils should be in Primary 1, 42.00% of Ghanaians at this age will be in pre-school. This initial over-age enrolment has subsequent effects on all other levels of education. Another reason would be grade repetition when these pupils should move to the next grade.

Again, out of the total teacher workforce of 361,341, 25.00% are within the age range of 18-30 years, as 25.00%t are also between 31-35 years. Furthermore, 17.00% are between 36-40 years, 12.00% between the age cohort of 41-45, 8.00% are between 46-50, 7.00% between 51-55 and 6.00%

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are between 56-60 years. Thus, 50.00% of the workforce are 35 years and below (MOE, 2018).

Programmes of Study of Respondents

According to MOE (2018), SHS enrolment across programmes from 2011 to 2014, General Arts had the highest enrolment of 44.10% in 2014, while Science enrolment hovered around 11.70%. Visual Art enrolment was 6.40%, while technical subjects was 3.30% but fell slightly to 3.10% in 2014. Thus, Arts and Business programmes have a total enrolment of 59.60% while science and applied science programmes constituted about 40.00% (MOE, 2018).

Perceptions on Year-Round Education (YRE)/ Year-Round Schooling (YRS)/Double-Track System of Education (DTSE)

A study on teachers' perception on the implementation of double-track senior high school system in Ghana by Mensah (2019) revealed that the implementation of the DTSE in Ghana led to increase in enrolment and reduction in class sizes. Furthermore, contact hours were increased; more teachers were employed; and there was proficient use of school's facilities.

Mensah (2019) also found that the implementation of the DTSE lacked the needed consultation among stakeholders. Again, the provision of logistics and funds by the government of Ghana was insufficient and untimely. Furthermore, the quality of education was compromised coupled with inability to complete syllabus resulting from the increase in number of holidays and inability to maintain school facilities (Mensah, 2019).

Social Enterprise Development Foundation-Ghana (SEND-Ghana) also opined that implementing FSHSP improved enrolment at the senior high

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school level. That is, from 300,195 students in the 2016/2017 to 396,951 students in the 2017/2018 academic years, (32.2% increment rate). SEND-Ghana further observed that the free SHS uncovered the infrastructural and logistical challenges. These challenges, therefore, affected the smooth operation of the policy and this hampered peaceful academic work (SEND Ghana, as cited in Addo, 2019) ISODEC also said that the hurried implementation of the double-track semester programmes is bad for sustainability of the policy (Addo, 2019).

Also, Heaberlin (as cited in Sexton, 2003) undertook a study by comparing the number of suspension and discipline referrals of students in a YRS and traditional school and revealed that there was no statistically significant difference between YRE and traditional education. YRS was as effective as traditional education.

Wall (1994) studied the perception of principals on YRE. The study revealed that the principals were finding it difficult to arrange for meetings for teachers and non-teaching staff. Furthermore, the principals could not draw a convenient calendar to maintain the facilities, cope with the everyday use of facilities, increase in the cost of transportation and extra funding. Moreover, due to the operationalization of two schools within the same facility at different schedules, there was increase in their time spent at work. They could also not go on vacation. The secretaries in the schools were also stressed out since they had to keep records of two schools. This, therefore, increased their workload (Wall, 1994).

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The Use of Extended Contact Hours

As part of the operationalization of the DTSE, there was an increase in the contact hours and the reduction of class sizes. This part presents empirical works on increase in contact hours and class size. Jez and Wassmer (2013) in a study on relationship between number of contact hours and school site standard test, found out that there was positive relationship between the two. Again, the study revealed that an addition of 15 minutes a day at school, or an extra week of classes in an academic year can cause a 1.00% progress in academics and 1.50% rise in average progress for deprived students.

Again, Dewey, Husted, and Kenny (2000) sampled 4,300 male students in their 12th grade from the United States and examined the influence of days in the school year on verbal and mathematics scores. The study revealed that a longer school year produced higher verbal scores. Figlio (1999) used a regression-based inquiry on a representative sample of high school students in the United States. The study found out that 10% increase in contact hours was connected with about a 5.00% rise in achievement in science.

However, Baker, Fabriga, Galindo and Mishook (2004) researched on the relationship between instructional time and student achievement. The study showed that alterations in instructional time did not make impact positively or negatively on student achievement, unless the changes went beyond low or high amounts of time. Instead, curriculum and instructional quality seemed to have much greater effect on achievement.

It must also be noted that quality of education can be linked to teacher punctuality and time students spend on task in a classroom (Akaguri, 2011). Abadzi (2009) argued that though learners are normally expected to be

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learning during the entire time in the classroom, the time in reality is not properly utilised since teachers had poor knowledge on the subject matter. Donkor and Kuusiemeh (2017) studied the teacher absenteeism on pupils' performance at basic schools in East Gonja District of Northern Ghana. The study revealed that teacher absenteeism led to a reduction in contact hours. Thus, teachers were unable to complete the required syllabus leading to low performance in examinations. The absence of a teacher reduces the academic achievement, disorganises the organisation of the school and signifies a waste of financial resources (Donkor & Kuusiemeh, 2017).

In addition, Mary, Crystal, Nitara and Wendy (2015) found out that 25.00% of teachers in rural primary schools in India were absent on any given school day. This absenteeism resulted to low school-wide student proficiency levels, which ranged from 40.00% to 50.00% in grade-level literacy and numeracy.

Obeng- Denteh, Yeboah, Sam and Monkah (2011) equally found out that the more teachers increased their absence rate, the more students' scores declined. Rogers and Vegas (2009) also saw in Indonesia that a 10.00% point increment in the average teacher absence rate was associated with a .09 s.d. decrease in grade 4 mathematics scores. Miller, Murnane and Willett (2008) concluded that one explanation of the difference in success levels of students is teacher absenteeism. Again, instructional time lost due to teacher absenteeism and lateness resulted in students being taught only two out of ten subjects in a day (Akyeampong, Djangmah, Oduro, Seidu & Hunt, 2007). A study in Indonesia found out that higher teacher absenteeism had an impact on

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lower fourth-grade student achievement in mathematics (Lewis & Lockheed, 2006).

Dunne and Leach (2005), in a study in Botswana found that one major cause for low performance of students was teachers' low professionalism. A lot of schools had issues with absenteeism, lateness and refusal of teachers to teach, even when the teachers were present at school.

Das, Dercon, Habyarimana and Krishnan (2005) opined that 5.00% increase in the absenteeism rate of teachers who stayed with the same class for two years reduced student gains by 4.00-8.00% during the year. Dia (2003) further revealed that the inadequate textbooks caused teachers to commit more time to the writing of lessons and problems on the board.

Bruno (2002), similarly indicated that students were demotivated to learn when the teacher was regularly absent. Similarly, Ehrenberg, Ehrenberg, Rees, and Ehrenberg (1991) stated that the rates of teacher absenteeism decrease the motivation of students to attend school regularly. Jacobson (1989) also said that teacher absenteeism and poor attitude hinders the academic achievement of students.

One study that disagrees with the negative effect of teacher absenteeism on academic performance is the Bureau of Labour Statistics (1996). In the study, teachers in urban areas did not see teacher absenteeism as an issue. That is, only 1.60% of teachers felt that that their inability to go to class negatively affected academic achievement.

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Double-Track System of Education (DTSE)/ Year-Round Education (YRE)/ Year-Round Schooling (YRS) and Academic Intervention/Inter-session

Iddi (2016) after a comparative assessment of academic achievement among public and private junior high schools in the Tamale metropolis of Ghana, found out that private schools outperformed public schools due to the availability of extra classes. Meroni and Abbiati (2016) investigated, in southern Italy, how providing an extra time of instruction affected study behaviours and attitudes. One finding was that an average increase of 25.00% in instruction time led to an increase in 0.12 s.d. in mathematics test score for both females and males.

Similarly, Mutua (2015) established that additional time of tuition helped in early coverage of syllabus, in revision, to occupy students constructively, boosts the performance of individual students and to identify the needs of individual learners. Suleman and Hussain (2014) also discovered that private or home tuition after school time strengthened and improved students' academic successes. Furthermore, Gafoor and Sunnummel (2007) studied the influence of private tuition on achievement in science among secondary school pupils of Kerala and concluded that there was a significant difference between achievement in science of pupils belonging to tuition and non-tuition groups.

Double-Track System of Education (DTSE)/ Year-Round Education (YRE)/ Year-Round Schooling (YRS) and Class Size

Schools in Finland have 195 students on the average with an average of 19 students in each classroom (Finnish National Board of Education, 2016).

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Yelkpieri, Namale, Esia-Donkor and Ofosu-Dwamena (2012) studied the effects of large class size on effective teaching and learning at the Winneba Campus of UEW. They sampled lecturers and students for the study. They concluded that while the lecturers disagreed that large class size affected the quality of teaching, the students felt that large class sizes did not afford lecturers the opportunity to pay attention to weaker students and offer remediation services.

Bingler, Diamond, Hill, Hoffman, Craig, Lawrence, Mitchell, Rudolph and Washore (2002) concluded that small schools worked best by taking advantage of being small. Such schools offered a conducive atmosphere for teachers, students and parents to see themselves as members of the school environment. They would therefore deal with issues of learning, diversity, governance, and building in a home-like learning place.

Rivera-Batiz and Marti (1995) also found out that teachers and students had negative opinions about overcrowding in schools. Such sentiments included being overwhelmed, discouraged and often disgusted. Again, environments with high temperatures, high noise levels and overcrowding provoked interpersonal disputes, hostility, and even violence, which could relate to the classrooms.

Double-Track System of Education (DTSE)/ Year-Round Education (YRE)/ Year-Round Schooling (YRS) and Academic Achievement

Studies on the relationship between year-round schooling and academic success are not conclusive (Shields & Oberg, 2000). While some studies found positive impact on year-round schooling on academic achievement, others found no positive effect. For instance, Curry, Washington

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and Zyskowski (1997) found that students on the 60-20 calendar performed better academically that traditional students. Other studies carried out by Kneese (1996) found out that mean scores were higher for year-round students than traditional students after comparing six matched schools in the West Coast. A similar study was also carried out by Roby's (1995) and found statistical and practical results favouring year round.

Furthermore, Fardig (1992) matched two single-track year-round schools to traditional schools. His study revealed that year round schooling impacted positively just after one year of its implementation. Alcorn (1992) after comparing the academic achievement of six multi-track elementary schools to traditional elementary schools, found that year-round students performed better than traditional students.

Other studies found little or no positive effect year round education on academic achievement. For instance, Worthen and Zsiray (1994), after summarizing thirty-two studies and two reviews concluded that year-round students had slight advantage over traditional students.

Takyi, Azerigyik and Amponsah (2019), in a study on the effects of multi-track year-round education on the delivery of senior high school education in Ghana, found that MTYRE had the prospects of increasing students' enrolment in the SHS level. It, however, had the tendency of negatively affecting educational outcomes. Again, employing more teachers would come with high administrative cost. The increased in contact hours would also result in behavioural problems as a result of fatigue and boredom. The study therefore recommended the need for policy makers to promote

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technical and vocational education to help accommodate the increasing enrolment.

Dossett and Munoz (2000) compared a comprehensive test of basic skills scores of 95 students each of single-track year-round students and traditional students. They found no positive significant difference between them. Similarly, McMillen's (2001) Pittman and Herzog (1998) and Peltier (1991) found no difference between the academic score of traditional students and year-round students.

Challenges of the Double-Track System of Education (DTSE)

The section reviews works on challenges and effects of the challenges of the DTSE/YRE. One challenge is infrastructure. Akomolafe and Adesua (2016) examined the importance of physical facilities in improving students' motivation level and academic achievements of senior secondary school students in South-West Nigeria. The study revealed that physical facilities had an impact on level of motivation and academic performance of students. The study, thus recommended that there should be made available more physical, human and material resources that are of high quality should be made available to motivate students towards learning.

Ayele, Melara, Blaustein, Yajalaal and Abagna (2015) argued that the quality of school facilities and materials had the potential to greatly affect the quality of education provided. Schools that were lacking enough desks, textbooks, libraries, science laboratories and audio-visual aids, jeopardized students' future success by undermining teacher effectiveness.

Brahman (2004) also studied the effect of school infrastructure on student attendance and drop-out rates. The study revealed that school districts

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that wanted to increase attendance of learners and reduce dropout rates out to avoid adopting temporary solutions to inadequate school building. Rather, students, teachers and administrators should be provided with permanent structure that is of high quality and supporting staff to maintain the schools.

Conceptual Framework

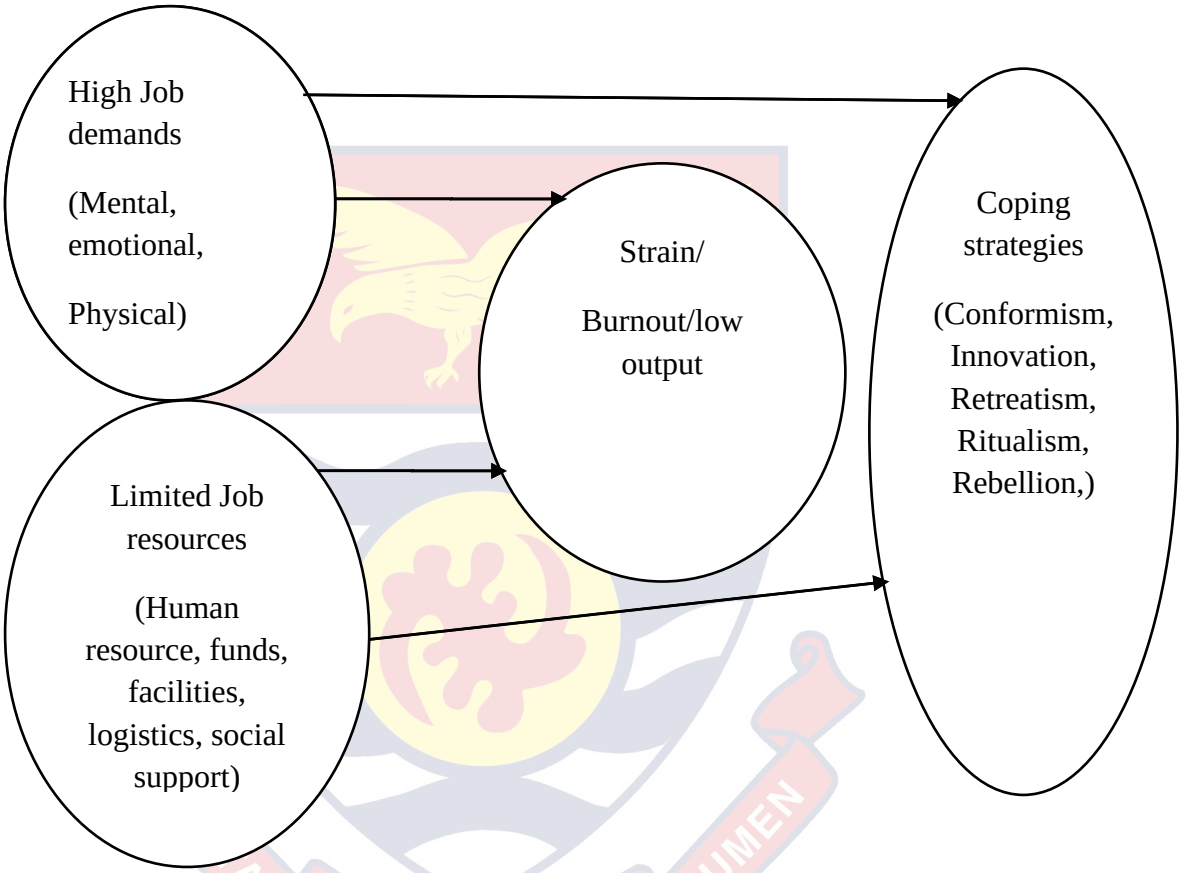

Figure 4: Job demand resources model
Source: Adapted from Bakker and Demerouti (2007)

In Figure 4, mental, emotional, physical and any other job challenges like long hours of work, lack of support and job insecurity result in high job demands that wear out employees' mental and physical resources and, therefore, lead to the depletion of energy and health problems (strain). This may negatively affect employee development. Limited job resources, such as human resource, funds, facilities, and logistics would also result in low output of work. Management facing high demands with limited resources would have

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to find a way of coping. These ways may include conformity, rebellion, retreating, ritualism or innovation.

Chapter Summary

This chapter reviewed the literature related to the work. Various free educational policies in Ghana since independence were reviewed. Again MTYRE/DTSE was reviewed. The chapter also reviewed the JD-R model and models of individual adaptation by Robert Merton. It concluded with the conceptual framework. From the review, it emerged that various free educational policies embarked upon by the successive governments of Ghana were faced with implementation challenges, such as logistics, lack of consultation with stake holders and human resource. It also emerged that the MTYRE had its own challenges, such as increased workload of principals and secretaries. Again, traditional schools and year round schools did not result in significant academic output. The next chapter is a presentation of the methods that were utilized for the study.

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CHAPTER THREE

METHODOLOGY

Introduction

The study explored the challenges and coping strategies facing management of three selected double-track schools in the Eastern Region of Ghana. This chapter concentrates on the methodology that was adopted for the study. This chapter discusses the research design, philosophy, study area, population, sampling technique, data collection instrument, data collection procedure as well as data analysis procedure. It further discusses issues on ethics, reliability and validity, field experience and challenges.

Research Design

A research design is a plan that is systematically intended to study a problem (Hassan, 2014). For MacMillan and Schumacher (2001), it as a plan that is aimed at selecting subjects, research sites, and data collection procedures in order to address the research questions. According to Durrheim (2004), a research design is a strategic framework for action that serves as a bridge between research questions and the execution, or implementation of the research strategy. A research design can best be described as the systematically laid out plan upon which a study is conducted so as to answer research questions. Research design summarizes the procedures for conducting a study, including when, and under what conditions the data will be obtained. It provides the framework of the study. The research design deals with major issues regarding what, where, when, who, which, how and why of the study (Hasan, 2014). The goal of a sound research design is the provision of credible results (MacMillan & Schumacher, 2001).

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I employed mixed method research approach. According to Cresswell and Cresswell (2018), the mixed method research approach involves collecting both qualitative and quantitative data in response to research questions and/or hypotheses. It makes use of rigorous methods of data collection, data analysis, as well as interpretation of both quantitative and qualitative data. These two forms of data are integrated in the design analysis through merging the data, explaining the data, building from one database to another, or embedding the data within a larger framework (Cresswell, 2014; Cresswell & Cresswell, 2018).

Cresswell and Cresswell (2018) identified three designs of the mixed method approach. These are convergent mixed method design, explanatory sequential mixed design and the exploratory sequential mixed method. With the convergent mixed methods design, the researcher collects both quantitative and qualitative data simultaneously, analyses them separately, and then compares the results to see if the findings confirm or disconfirm each other (Cresswell, 2014; Cresswell & Cresswell, 2018).

The explanatory sequential mixed method design is in two phases; firstly, the researcher collects quantitative data and analyses the results. Secondly, the researcher uses the results from the quantitative data to plan or build on to the second, qualitative phase. The intent of this design is to have the qualitative data to explain the initial quantitative results (Cresswell, 2014; Cresswell & Cresswell, 2018). An exploratory sequential mixed method design is where the researcher first begins by exploring the qualitative data and analysis and then uses the findings in the quantitative phase (Cresswell, 2014, Cresswell & Cresswell, 2018).

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I employed the convergent mixed method research design where I gathered both qualitative and quantitative concurrently. I utilized the convergent mixed method research design because it helped me to achieve the specific objectives of the study. The specific objectives included the perception of management on the DTSE, the effective usage of contact hours, the challenges facing management of double-track schools, effect of these challenges on the output of work of management and the various coping strategies that management had adopted. After gathering the data, I analysed them differently and compared the results to determine whether they confirmed one another or not. The participants for the interview were management members of double-track schools, while the respondents were management members and the second year students of double-track schools.

Research Philosophy

The research philosophy that underpinned the subject under study was Pragmatism. Teddlie and Tashakkori (2009) described pragmatism as the "best paradigm" for mixed method research. Pragmatism considers "what works" to answer research questions (Johnson & Onwuegbuzie, 2004). Pragmatism develops research questions that can be answered by integrating the results of quantitative and qualitative research (Teddlie & Tashakkori, 2009). The pragmatic approach allows researchers to be flexible enough to adopt the most practicable approach to address research questions. By doing this, there will be singular and multiple realities derived from the quantitative and qualitative research (Rorty, 1999). I chose the Pragmatic approach since it helped me to use both qualitative and quantitative methods to answer the research questions.

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The approach allowed me the flexibility to adopt the most appropriate method to deal with the research problem.

Profile of Study Area

The study area was the Eastern Region of Ghana. Koforidua is the regional capital. According to Ghana Statistical Service (GSS, 2020), the region as at 2019, had a population of 3,244,834. Agriculture is the main economic activity in the Region employing 53% of the population. The rest are in industry and the services sub-sector. There are currently, thirty-two Municipal and District Assemblies in the Region. They are made up of thirteen Municipal Assemblies and nineteen District Assemblies (Field Survey, 2020). The map of the Eastern Region has been illustrated in Figure 5.

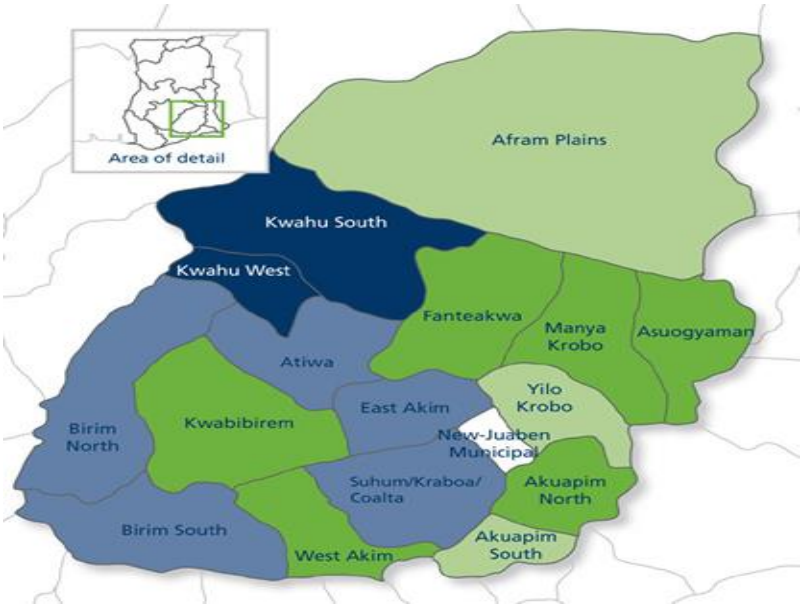

Figure 5: Map of Eastern Region
Source: GSS (2020)

The selection of the region was purposive because I wanted to conduct the study on one of the regions with the highest number of schools on the DTSE. The regional distribution of double-track schools is shown in Table 3.

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Table 3: Regional Distribution of Double-Track Schools

Region	Number of Double-Track Schools	Percentage
Ashanti	79	19.75
Brong Ahafo	41	10.25
Central	45	11.25
Eastern	60	15
Greater Accra	42	10.5
Northern	33	8.25
Upper East	19	4.75
Upper West	18	4.5
Volta	28	7
Western	35	8.75
Total	400	100

Source: MOE (2018)

Table 3 shows the regional distribution of the double-track schools. It shows that Ashanti Region had the highest with 79 (19.75%) schools, the Eastern Region followed with 60 (15%). Other regions were Central Region with 45 (11.25%), Greater Accra with 42 (10.50%) schools. The Northern Region has 42 (8.25%) schools, Upper East has 19 (4.75%), Upper West with 18 (4.50%). The Volta Region has 28 (7.00%) and Western Region has 35 (8.75%) schools,

The five regions of Ashanti, Eastern, Central, Greater Accra and Brong Ahafo, have 267 (66.7%) schools, out of the 400 selected schools for the implementation of the DTSE. From these five regions, the Eastern Region was selected based on the simple random method. In the simple random method

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where each region had equal chance of being chosen. Consequently, the name of each region was written on a piece of paper, folded and placed in a cup, and were mixed. I then randomly took one of the folded papers and opened it, and the Eastern Region was selected for the study.

Population

Population, as defined by Kothari (2004), is the total number of items from which information required can be collected. Mugenda and Mugenda (1999) defined population as the group of individuals having observable characteristics where information may be collected. The population for the study comprised of the 60 double-track schools in the Eastern Region of Ghana. The target population were management and second year students of the double-track schools in the Region. Figure 6 presents the general organogram of SHS in Ghana out of which management were sampled.

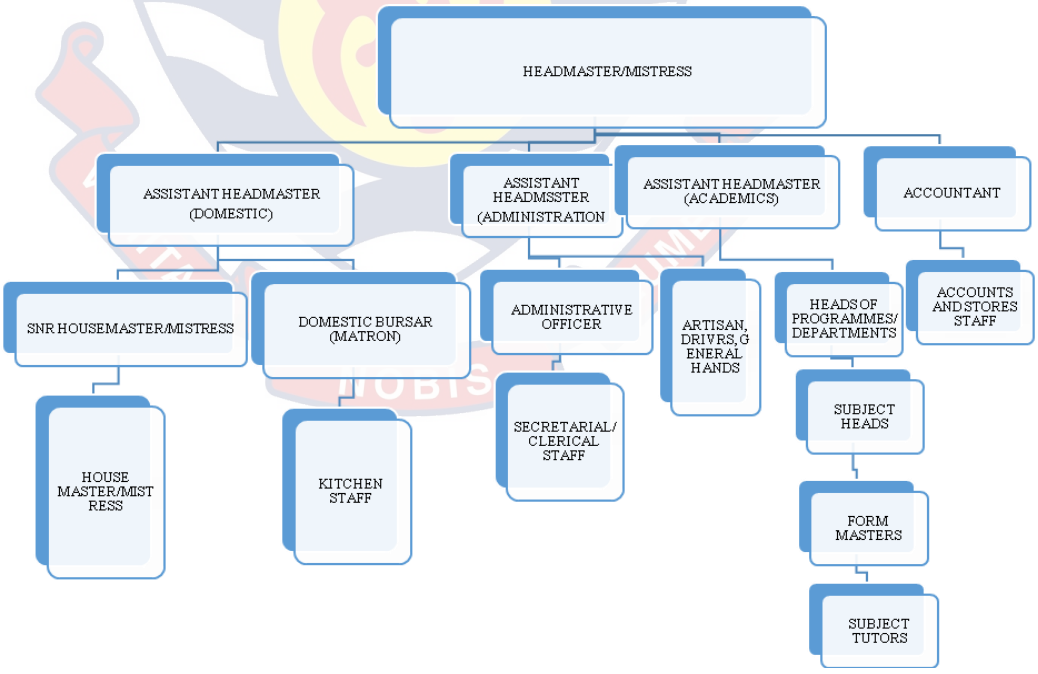

Figure 6: Management structure in SHS

Source: Field Survey (February, 2020)

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Figure 6 is an illustration of the management structure of Senior High Schools. Every SHS is headed by a headmaster/mistress. Each head is supported by these assistants. These are assistant headmasters/mistresses (administration), (academics) and (domestic). Assistant headmaster/mistress (administration) is in charge of the administrative officers, secretarial and clerical staff. The assistant headmaster/mistress (Academics) also caters for the heads of programmes/departments, subject heads, form masters, and subject tutors. The assistant headmaster/mistress (Domestic) has supervisory control of the following officers: senior housemasters/mistresses, house masters and mistresses, domestic bursar or matron and the kitchen staff. Another management member is the Accountant (Bursar). He is supported by the accounting staff and the store keepers.

For the purposes of this study, the following management members in each of the selected schools were sampled: headmasters and mistresses, assistant headmasters and mistresses, senior house masters and mistresses, house masters and mistresses, heads of departments, school chaplains and matrons. This was because they were fully involved in the day-to-day management of the school and sometimes take strategic decisions.

Again, the second year students in the selected schools were sampled for the study. This was because the second years had been in the DTSE for over one academic year. Consequently, they stood a better chance to discuss some of the challenges they were facing and how they were coping with the challenges.

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Sampling Procedure and Sample Size

Sampling involves the process of selecting a portion of the population to represent the entire population. There are generally, two types of sampling techniques namely probability and non-probability sampling techniques (Taherdoost, 2016). Probability sampling denotes that every item in the population has an equal chance of being selected (Brown, 1947). I employed the probability sampling technique to select the schools and students. The sampling techniques under the probability techniques include simple random sampling systematic, sampling, stratified sampling, cluster sampling, and multi-stage sampling

Cluster sampling was used to select the schools. Cluster sampling is where the whole population is divided into clusters or groups, after which a random sample is taken from these clusters (Wilson, 2010). The schools were put into clusters, 'A', 'B' and 'C', based on the GES BECE placement list for 2018. The 2018 list was selected for the study because the DTSE started from the 2018 batch of students who completed junior high schools and enrolled in SHS in 2018/2019 academic year. The school selection list grouped public senior high schools into four main categories: 'A', 'B' 'C' and 'D'. The classifications of SHS in the Eastern Region are shown in Table 4.

Table 4: Classification of SHS in the Eastern Region

School Category	No. SHS	Number of Double-Track Schools	Percentage (%)
A	9	9	15
B	35	29	48.3
C	46	22	36.7
D	85	0	0
TOTAL	175	60	100

Source: Adapted from GES School Selection List and Placement (2018)

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Table 4 shows the classification of the SHS from the GES selection list of 2018, and the number of schools that are running the DTSE. The category 'A' schools were 9 (15%), and all of them were on the DTSE. Schools in the category 'B' were 35 schools, with 29 (48.3%) of these schools on the DTSE. Again, category 'C' had 46 out of which 22 (36.7%) were on the DTSE. From each category, I randomly selected a school.

Category D was not sampled because the list contained a repetition of the schools in categories "A", "B", and "C". Moreover, category "D" schools were the compulsory choices to be selected by BECE candidates. This was to be the Day School for all candidates within the catchment areas and each candidate was to choose a school within his/her community.

After that I wrote the names of all the double-track schools in Category "A" on separate pieces of paper, folded them and put them in a cup, stirred them and picked one. From category 'A', Koforidua Senior High/Technical School (SECTEC) at Koforidua was randomly selected. I repeated the process for category 'B' and selected Attafuah Senior High/Technical School (ASTEC) in Akyem Oda. Again, from category 'C', Akyem Swedru Senior High School (AKISS), which is located at Akyem Swedru was selected.

Informed by Krejcie and Morgan's (1970) table for determining sample size from a given population, I used the simple random technique to select the students. The simple random sampling technique offered an equal chance or probability for any unit within the population to be selected. Each student in second year had an equal chance of being selected. The formula for calculating sample size is as follows:

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Sample size (s) = $X^2NP(1- P) \div d^2(N -1) + X^2P(1- P)$, where

s = required sample size;

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841);

N = the population size;

P = the population proportion (assumed to be .50 since this will provide the maximum sample size); and

d = the degree of accuracy expressed as a proportion (.05).

For example, a population of 4,000, would have a sample size of 351 at a confidence interval of 95% and 0.5% margin of error.

Table 5 outlines the population of students in selected schools and selected sample size.

Table 5: Number of Second Year Double-Track Students

Name of School	Number of Students in Second Year	Percentage (%)	Proposed Sample Size (95% confidence interval, 0.5 margin of error)
SECTEC	1,191	31	108
ATSEC	1,320	34	120
AKISS	1,363	35	123
Total	3,874	100	351

Source: Field Survey (February, 2020)

Table 5 shows the number of students in the second year of selected schools. These selected schools were SECTEC, ASTEC AND AKISS, from categories ‘A’, ‘B’ and ‘C’ respectively. In SECTEC 1,191 (31%) students in

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the second year. ASTEC, 1,320(47%) students in year two. There were one 1,363 (35%) students at AKISS in year two.

With a confidence interval of 95% and a 0.5% margin of error, I sampled 351 students from approximate student population of 4,000. However, Guy, (as cited in Simon & Goes, 2012) suggested, among other things, that if the population size is around 500, 50% of the population should be sampled. Beyond a certain point, for instance, an approximate population of 5,000, the population size is almost irrelevant and a sample size of 400 is adequate. Thus the larger the population, the smaller the percentage one needs to get a representative sample. Again, Leedy and Ormond (2001) opined that larger sample size is needed for heterogeneous population, while smaller samples are needed for homogeneous population. Consequently, I sampled 150 students from each school, making a total of 450 students which sufficed for a homogeneous population of 3,874.

As regards management members of the three selected schools, all of them were selected as respondents for the study. Management members in the three selected schools were 57 in number and Table 6 shows the distribution of management members in selected double-track schools.

Table 6: Distribution of Management in Selected Double-Track Schools

School	Number of Management	Percentage (%)
SECTEC	14	25.00
ATSEC	23	40.00
AKISS	20	35.00
Total	57	100

Source: Field Survey (February, 2020)

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Table 6 shows the distribution of management members in the selected double-track schools. SECTEC had 14 (25.00%) management members while ATSEC had 23 (40.00%) and AKISS also had 20 (35.00%) management members.

Again, I employed the non-probability sampling technique to select 30 management members as participants for the study. Non-probability sampling depends on the subjective judgment of the researcher or evaluator to select units from the population for inclusion in the sample. The goals for non-probability sampling vary, but often include a desire to deeply understand the intricacies of the topic (Taherdoost, 2016). Examples of non-probability sampling techniques are quota sampling, snowball sampling, convenience, purposive or judgmental sampling and self-selection sampling.

I employed purposive and convenience sampling techniques to select 30 school management officers as participants. Purposive sampling involves a situation whereby the researcher deliberately selects participants for a study due to their qualities or focus on particular characteristics which best empower the researcher to answer the research questions (Russell, 2002). The use of the purposive sampling allowed me to decisively select the some of the school management due to their knowledge of DTSE (Denzin & Lincoln, 2011). Convenient sampling is where participants are readily available and agree to participate in a study (Latham, 2007). Convenience sampling was used since those participants were easily accessible. Again, not all the 57 management officers were selected since it resulted in saturation.

Saturation is the criterion for judging when to stop sampling the different groups pertinent to a category (Glaser & Strauss, as cited in

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Saunders, et al, 2018). It means that no additional data is being found. Again, for Given (2016), saturation is the point at which 'additional data do not lead to any new emergent themes. From the definitions, saturation is where there is no new theme emerging.

Ten management members from each school were sampled purposively and conveniently for the study, making 30 participants. At SECTEC, those sampled were the assistant headmasters in charge of administration, and academics, the school chaplain, senior housemaster, three heads of departments, and three housemasters. At ATSEC, those who were sampled were the headmaster, assistant headmasters in charge of academics and administration, the senior housemaster, two housemasters and housemistresses each, and two heads of departments. Again, at AKISS, those interviewed were the assistant headmaster in-charge of academics, assistant headmistresses in-charge of administration and domestic, a senior housemaster and senior housemistress, chaplain, two heads of departments, a housemaster and mistress each and the matron.

Data Collection Instruments

Educational data may be collected through different ways (Nwana, 1981). I used two instruments to gather the requisite data in order to address the research questions. These were questionnaire and structured interview guide and they provided rich sources of detailed primary data. The questionnaire and structured interview guides were selected as research instruments because they are known for their validity and reliability.

I adopted structured questionnaire and interview guide for school management of double-track schools. There were two sets of questionnaires

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one each for management members and students. The questionnaires had six sections with similar items. The sections were; “A”, “B”, “C”, “D” “E” and “F”. These were the perception of management on the DTSE, effective usage of the extended contact hours, challenges facing management of the DTSE, effects of the challenges on the output of teachers and the coping strategies. The questionnaires were made up of closed-ended questions based on the Likert Scale, where management members and students were to indicate their level of agreement. The Likert Scale ranged from Strongly Disagree, Disagree, Agree and Strongly Agree. The close-ended items enabled me to limit responses that were within the scope of this study and, therefore, remained focus on the statement of the problem and the main purpose of the study.

In addition to the structured questionnaire, management were also interviewed with the use of structured interview guide. Interviews produce in-depth data, and they are more flexible (Amadehe & Asamoah-Gyimah, 2005). Again, interviews generate more accurate and honest responses as well as making follow-ups with incomplete or unclear responses. The structured interview guide was developed based on the literature available at the time of the study. The interview guide was also grouped into six sections based on the objectives of the study; the perception of management on the DTSE, effective usage of the extended contact hours, challenges facing management of the DTSE, effects of the challenges on the output of teachers and the coping strategies.

Leedy (1989) pointed out that all questionnaire should be pilot tested on a small sample. Consequently, a pilot testing was conducted in two double-track schools in the Eastern Region. I carried out a pilot test between the 17th

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and 31st of January, 2020 for validity and reliability. Validity explains how well the collected data cover the actual area of investigation (Ghauri & Gronhaug, as cited in, Taherdoost, 2016). That is, whether the instrument measures what it is intended to be measured. Reliability also concerns the extent to which a measurement of a phenomenon provides stable and consist result (Carmines & Zeller, as cited in, Taherdoost, 2016). Reliability is also concerned with repeatability. Thus, the purpose for pre-testing was to sharpen the instruments by correcting possible weaknesses, inadequacies, omissions and ambiguities that characterized the items.

Generally, the pilot test enabled me adjust some of the items in the questionnaires and interview guide before I went for the main study. For example, I was able to change item 7 of the interview guide which initially asked about the advantages and disadvantages of the DTSE. I separated the questions into two. Item 7 asked about the advantages of the DTSE and item 8 asked about the disadvantages of the DTSE. Again, some portions of section "E" of the questionnaire were altered. That is, from "challenges in the classroom affected my studies", to "challenges in the classroom negatively affected my studies".

Data Collection Procedures

In this study, both secondary and primary data were utilized. The sources of the primary data were surveys and interviews conducted with limited assistance from the teachers in terms of the administration of the questionnaire. The primary data were gathered between the 1st and 23rd of February, 2020. The secondary sources of data were media article publications, journals, books and reports from the Ministry of Education.

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For the purpose of collecting relevant and objective data, I personally conducted the interviews and also administered the questionnaires to the management officers. The teachers assisted me by making time for me and managing the students so as not to disrupt the exercise. I spent a week in each of the three schools that participated in the study. Each interview took between 30-45 minutes.

In the course of the field work, I sent a copy each of introductory letter obtained from the Head, Department of Sociology and Anthropology, UCC to ASTEC and AKISS. At ASTEC, I met the Assistant headmaster (Administration). He took the letter and told me since the headmaster was not around, he would keep it and inform him when he came. The next day, I sent another letter to AKISS where I was received by the Assistant headmaster (Academics). He asked me to send the letter to assistant headmistress in charge of administration. She took the letter, sent it to the headmistress, who endorsed it and asked that it be sent to the assistant in charge of academics.

Later, I went back to him and he told me that since there was going to be a meeting by management, he would put it before them. He asked me to list all the management members I had sampled which I did. So he made copies of the letter and attached a copy to the list and gave it to each management member. He gave me his telephone number to contact him for updates. I called him in the evening and he told me that they had approved of it. Consequently, I went there the next day and was able to interview five management members. These included the school chaplain, the three assistant headmaster and mistresses, the senior house mistress, one house master and the matron. They also completed the questionnaire for management. Later, I went to the

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other management members and gave them the questionnaire. Afterwards, I went to the various classrooms, and sampled the student based on those who were in class and were ready to complete the questionnaire.

In sampling the students, I first asked of the number of classes of second years in each school. Then I divided the number of classes based on the proposed sample size. Since in each school, I wanted to sample 150 students, I divided 150 by the number of classes in each school. As a result, I got a fair idea of the proposed sample sizes in each class.

Whenever I entered a classroom, I had a head count of students. Then if they were up to the number I needed, I sampled all. Those that were more than the needed sample, I employed the lottery method to sample them. Here, I took pieces of papers and wrote "Yes" and "No" on them. I made sure that all the "Yes" would be equivalent to the number I needed. All those who picked "Yes" were given the questionnaire to complete, while the "Nos" were not given. This process was repeated in all the classes and schools that I visited.

At ASTEC, after meeting the headmaster, he gave me the permission to conduct the study. I was able to interview the headmaster, the assistant headmasters (academics) and (administration), and the senior housemaster. After the interviews, I gave each of them a questionnaire to complete. Then I went to the classrooms and sampled the students and gave each sampled student a questionnaire to complete. I went back to the school the following day and was able to interview a housemaster and housemistress, the heads of departments for Business, Mathematics, Agricultural Science and Information and Communication Technology. I again gave each of them a questionnaire to

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complete. Afterwards, I went to the classrooms to complete the questionnaire administration.

The third school that I visited was SECTEC at Koforidua. I first of all presented the introductory letter from the Head of Department of Sociology and Anthropology, of the University of Cape Coast, to the assistant headmaster (academics) who willingly gave the permission. On that same day, I was able to interview the chaplain, senior housemaster, assistant headmasters in charge of academics and administration, heads of department for Science, Information and Communication Technology (ICT), Technical, and two housemasters. I returned the following day and continued till I had exhausted the process. All the management members were also given a questionnaire each to complete. I later went to the various classrooms and administered the questionnaire to the students.

All 57 management members in selected schools completed the questionnaire with a 100% return rate. Out of the 57 management members, 10 from each school were purposively and conveniently sampled and interviewed with the structured interview guide. That is, 30 participants were interviewed. Again 450 second year students were sampled with 150 students from each school. However, 436 questionnaires were retrieved with a 97% return rate.

Data Processing and Analysis Methods

Osuala (2005) described data analysis as the ordering and breaking down of data into constituent parts and performing of statistical calculations with raw data to provide answers to the questions initiating the research. In this study, I started processing the data by transcribing all the interviews I

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conducted. After that I printed them out and went back to the various schools and gave each management member who was interviewed their respective transcripts. This was to find out whether they agreed, disagreed or had anything to add to it. In all, they agreed to the respective transcripts. I spent a week in doing all these. The participant agreed to the transcript and then I started finding the various themes.

I adopted Braun and Clarke (2006) thematic analysis approach. The approach has six phases, namely familiarising with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and lastly producing the write up from the data. Through a thorough reading and rereading of transcripts, I was able to identify all the themes and sub-themes that ran through all the transcripts that concerned each research question. The themes and sub-themes were consistent thereby enhancing my understanding of the data. The data was organised around the key themes identified. These key themes were classified as analytical categories (that is, the main theme under which other sub themes or issues emerged).

I assigned specific colours to the analytical categories. I assigned the red colour to the analytical categories. That is, all the main themes were highlighted in its soft copy form and changed the font colour to red. As I was doing that, the subthemes were also identified. These sub themes were also highlighted and changed the font colour to blue. I then copied each theme unto separate word document.

Each questionnaire from both management and students was also edited to find out whether each test item was completely answered. So I made sure that the moment I collected each questionnaire, I inspected it to find out

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whether it was completely filled. Then I coded them and scored them. Then I processed the data with the use of IBM SPSS version 21. I analysed the data with descriptive and inferential statistics. The research questions that were analysed using descriptive statistics were research questions 1, 2, 3 and 5. These were perception of students on the DTSE, the effective use of the extended contact hours, the challenges and the coping strategies respectively. The research question 5 concerned the effects of the challenges on the output of management and students. Here, I used a One-Way ANOVA. The One-Way ANOVA was used to compare the category of school and the extent of the effect of the challenge.

Ethical Considerations

This section contains the ethical issues that were considered in the study, especially with respect to data collection. Ethics in research guarantee uprightness in the research procedures, to think about conceivable harm or advantages to research participants and respondents and ensure the soundness of the discoveries and conclusions. Because social science inquiry includes individuals with sentiments and feelings, it is vital to give due consideration to ethics in research design and confront potential ethical dilemmas that may present themselves in the course of research. I observed all relevant ethical protocols by first, seeking ethical clearance from the supervisor, Department and the Institutional Review Board (IRB) of the University of Cape Coast. The IRB granted the clearance and assigned the ID as 'UCCIRB/CHLS/2020/03'.

Informed Consent

Informed consent refers to the right of individuals to make a free and informed decision about whether or not to take part in the research. I briefed

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participants and respondents on the objectives and methods of the study. This guaranteed that individuals voluntarily took part in the research with full acknowledgement of potential harm and advantages. Each management member signed an informed consent form. However, the students could not sign but was done by the teachers on their behalf.

Confidentiality and Anonymity

I assured the respondents that whatever they said was going to be confidential and their anonymity protected. By so doing their identity or their positions would not be abused or uncovered. As a result, in the analysis, I used pseudo-names (pet names) to identify them.

Results and Discussion of the Pilot Test

I carried out the pilot test between Monday, the 13th and Friday, the 31st of January, 2020. This pre-test was conducted in two selected double-track schools in the Eastern Region. These schools were selected because they had similar characteristics as the sampled schools for the study. One characteristic was that they were all running the DTSE in their schools. Again, one was in Category "A", and the other in category "B". Furthermore, they were in the same region, that is, the Eastern Region of Ghana. The SHS that were included in the pilot test were Ghana Senior High, a category "A" school and St. Francis Senior High/Technical School, a category "B" school.

I made use of the IBM Statistical Package for Service Solution (SPSS) version 21 to process the quantitative data in order to establish the reliability of the research instruments. The result for the reliability test of the questionnaire was 0.794 (Chronbach's alpha). The analysis of the data was categorized into two parts. The first part was the analysis of quantitative data

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that was gathered from the management and second year students. The second part was a qualitative data that was gathered through interview with management of the selected schools.

The pilot test sought data on all the five objectives of the research, that is, the perception of management on the DTSE, the effective usage of the extended contact hours, the challenges, the effects of the challenges and the coping strategies. On the perception, majority of the respondents felt that the DTSE helped students to gain admission, they wanted it to be done at all times and wanted everyone to benefit. They, thus liked everything about the DTSE.

Again, on the assessment of the effective usage of the contact hours, majority of the respondents were of the view that teachers were always in class and even when they were not available, they gave assignments to be completed in their absence. Again, teachers were readily available and could be approached anytime students needed clarification on certain topics.

The challenges the respondents noted were on classrooms, dormitories, dining hall, textbook as well as exercise books. On the classrooms, the study found out that student's desks were not enough and were also overcrowded. In the dormitories, it was detected that some students were not having beds, they were overcrowded and poor lighting system. Concerning the dining hall, students were having tables and others felt they were not getting enough food to eat. Lack of textbooks and exercise books were also posing challenges to students.

In coping with the challenges, some of the students were sharing desks with their mates. Again, students bought their own textbooks and exercise

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books. Furthermore, some students slept on the floor in dormitories. Finally, majority of the students also attended classes whenever they went on vacation.

Management, on their perception of the DTSE, were generally of the view that it was good, since it helped to increase enrolment. It furthermore, helped to make efficient use of the limited facilities in various schools. However, they contended that the implementation of the DTSE was not done well because they were not consulted, and that did not even understand the system very well.

Management, in addition, accepted the fact that contact hours had been increased from 40 minutes per period or session to 60 minutes. However, they contended that since teachers were used to the previous allocation of 40 minutes per period, they were finding it difficult to adjust.

As far as the challenges of the DTSE were concerned, management had challenges with inadequate infrastructure, funding, human resource, workload and co-curricular activities. There was inadequate classroom buildings, furniture, dormitories, and dining hall. Funding was also inadequate and were not released on time. Both the teaching and non-teaching were under staffed. This therefore increased their workload. All these challenges were negatively affecting the work of management.

Management were coping with the challenges as and when they arose. Again, some teachers were teaching more than the required hours of 22 in a week. The kitchen staff were also under resourced, hence students would, sometimes serve their own food. It was recommended that the government should do whatever it can to abolish the system in the shortest time possible.

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At this point it would be necessary to mention the relevance of conducting the pilot test. It was conducted to evaluate some important parts of the study. I compared the problems with time and resources that would occur during the main study (e.g., how much time the main study will take to be completed). Again, it helped with challenges of data management and analysis.

Limitations of the Study

Limitations are the constraints that are beyond the control of the researcher and could affect the outcome of the research (Simon & Goes, 2013). It identifies the weaknesses in a study. The limitations sometimes flow from the methodology and research design. Limitations concern the potential weaknesses that are usually out of the researcher's control, and are closely associated with the research design, statistical model constraints, or other factors (Theofanidis & Fountouki, 2018).

The limitations in the study included the choice of research design. The study made use of the convergent mixed method research design with all its inherent weaknesses, such as its time consuming nature. With the convergent parallel method, I collected both the qualitative data from management and quantitative data from students at the same time. I analysed them differently and compared and contrasted the results.

A further limitation was that some management members did not want their responses to be recorded. As a result, I had to take notes as they were interviewed and this posed a challenge, since I had to be of two minds; that is writing and listening at the same time.

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Practical Field Experience and Challenges

This section explored the experiences and the challenges that I met while on the field. In the first instance, I spent three weeks to gather data. I practically spent one week in each school. One challenge that I was confronted with was that in two of the schools that I gathered data, the headmasters were not in school. So, the assistants received the letters and told me that once it concerned management, I would have to report the next day. Consequently, it was not easy moving up and down.

Again, some management members did not want their responses to be recorded. As a result, I had to take notes as they were interviewed and this posed a challenge, since I had to be of two minds; that is writing and listening at the same time.

Moreover, on the field, most of the students I met were in the Green Track since the Gold Track students were on vacation. The Gold Track Students had been on vacation since 18th December, 2019 and were scheduled to return on 28th February, 2020. However, in one of the schools, some Gold-Track students were present in the school. However, the absence of almost all the Gold-track students would not affect the outcome of the study since both gold-track and green-track students constituted a homogeneous population.

Chapter Summary

The chapter looked at the methods that were employed to conduct the research. It discussed the research design, philosophy. The study thus, employed the mixed method and pragmatic approach. It employed both the qualitative and quantitative approaches. The target population included school management and second year students of selected double-track schools in the

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Eastern Region of Ghana. The study made use of the purposive and convenient sampling techniques to recruit management (participants) and simple random sampling technique to recruit students (respondents). In gathering the data, both interview guides and questionnaires were the instruments used. The qualitative data were analysed thematically, while the quantitative data were analysed with the use of IBM SPSS version 21. The study revealed that management were faced with infrastructural, funds, human resource and workload challenges, and these affected their output. Management conformed to situations as a way of coping with the challenges. The presentation and discussion of data are captured in Chapter Four which forms is next chapter.

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CHAPTER FOUR

RESULTS AND DISCUSSIONS

Introduction

This chapter presents both the results of the data and its discussion. The study explored the challenges of double-track schools and coping strategies of school management in selected senior high schools in the Eastern Region of Ghana. I employed the convergent mixed method design, where I thus, collected both qualitative and quantitative data concurrently. The respondents were the management and second year students from the selected double-track schools. The participants were management of the selected schools. With the use of IBM SPSS version 21, I analysed the respondents' data with descriptive and inferential statistics. I analysed the qualitative data thematically. The analyses and discussions were done simultaneously based on the research questions of the study. All the 57 management members returned their questions. Again, out of the 450 students sampled, 436 returned their questionnaires, that is, 97% return rate. The literature review, including the theories that underpinned the study were also discussed in the light of the findings. The chapter ends with the summary of the chapter.

Demographic Data of Respondents and Participants

This section presents the biodata of students and management of the selected double-track schools. I analysed the demographic characteristics of students and management descriptively, that is frequencies and percentages. Table 7 illustrates the sex distribution of students.

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Table 7: Sex Distribution of Students

Sex	Frequency	Percentage
Male	307	70.00
Female	129	30.00
Total	436	100.00

Source: Field Survey (February, 2020)

Table 7 shows the sex distribution of students in the schools. Out of 436 students, 307 (70.00%) were males, while 129 (30.00%) were females. Thus, there were more males than females in the schools. The disparity between males and females enrolment in SHS is in sharp contrast to the enrolments of 2014 and 2018 (MOE, 2015; 2019). In the 2014/15 academic year, female enrolment in SHS was 47.4% (MOE, 2015). Again in 2018, though enrolment at SHS stood at 1,008,237 girls formed 47.7% (MOE, 2019). Thus, Ahiatrogah and Bervel (2013) in a study on the determinants of equity and access to SHS education in the Ghanaian education system, revealed that though more males than females gained access to SHS, the difference between male and female JHS graduates offered admission was not statistically significant. Thus, though the number of males outnumber the females, the difference was not so much. So the findings in the study actually contrasts with the findings of the Ministry of Education (2015, 2019) and that of Ahiatrogah and Bervel (2013). The illustration of the age distribution of students is presented in Table 8.

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Table 8: Age Distribution of Students

Age (in years)	Frequency	Percentage
12-15	21	5.00
16-19	406	93.00
20-23	9	2.00
Total	436	100.00

Source: Field Survey (February, 2020)

From Table 8, it can be deduced that majority of the students were between the ages of 16 and 19, that is, 406 (93.00%) of the students. Again, 21 (5.00%) of students were between the ages of 12-15. However, 9 (2.00%) were within the age cohort of 20-23. There was no student above the age of 24. It, can, therefore be said that majority of second year SHS students are between the age group of 16-19.years. This is in line with the age for secondary education which ranges from 15 and 19. Those above the required age of 15-19 may be due to enrolling at a later age or might have repeated grades (MOE, 2018). Those below 15-19 might also be due to early enrolment at schools (MOE, 2018). Table 9 presents the programmes distribution of students.

Table 9: Programmes Distribution of Students

Programmes	Frequency	Percentage
General Arts	155	36.00
General Science	135	31.00
Agricultural Science	32	7.00
Business	13	3.00
Home Economics	13	3.00
Visual Arts	35	8.00
Technical	53	12.00
Others	0	0.00
Total	436	100.00

Source: Field Survey (February, 2020)

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Table 9 shows the programmes that students were offering in the selected schools. General Arts programmes had 155 (36.00%), General Science also had 135 (31.00%), and Agricultural Science also had 32 (7.00%) students. Business and Home Economics programmes recorded 13 (3.00%) each, Visual Arts also recorded 35 (8.00%), and Technical programmes recording 53 (12.00%). Majority of the students were thus, reading General Arts and General Science courses. This confirms MOE (2018) enrolment across programmes at the SHS level that enrolment across programmes from 2011 to 2014 had Science enrolment hovering around 11.7%, Visual Arts was 6.4%, and Technical subjects was 3.3%. The largest enrolment was in the Arts with 44.1%. The track of students is presented in Table 10.

Table 10: Track of Students

Track	Frequency	Percentage
Gold	16	4.00
Green	420	96.00
Total	436	100.00

Source: Field Survey (February, 2020)

Table 10 demonstrates that, 420 (96.00%) of the students were on the Green track, while 16 (4.00%) were in the Gold track. Majority of the students were in the Green track since at the time of collecting data, there were only second year Green track students in school. The Gold track students were on vacation. However, the few Gold track students in school was because they reported to school on reopening day and management could not turn them back to their homes. Table 11 presents the status of students.

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Table 11: Status of Students

Status	Frequency	Percentage
Boarder	362	83.00
Day	74	17.00
Total	50	100.00

Source: Field Survey (February, 2020)

Table 11 shows that 362 (83.00%) of students were in the boarding house, while 74 (17.00%) were day students, thus, majority of SHS students were thus, boarders. Table 12 presents the sex distribution of management members.

Table 12: Sex Distribution of Management

Sex	Frequency	Percentage
Male	33	58.00
Female	24	42.00
Total	57	100.00

Source: Field Survey (February, 2020)

Table 12 shows the sex distribution of management members. Out of the 57 management members, 33 (58.00%) were males and 24 (42.00%) were females. This shows that majority of the management members were males. This indicates that females in management positions in SHS are fewer than males, although about 61.20% of the workforce are women (MOE, 2019). Women thus have fewer representation in leadership positions. This probably is due to the reasons put forward by Curry (2000) that women are contributors of ineffective leadership. It may also be due to male dominance that hinders leadership opportunities of many women (Limerick & Lingard, 1995). Furthermore, some women also decide not to apply for promotions at work which may arise from lack of necessary aspiration, lack of awareness of the

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promotion system as well as lack of confidence that they would make it and gender-based socialization (Coffey & Delamont, 2000). Table 13 shows the position of management.

In Table 13, the management members included a headmaster (2.00%), six (10.00%) assistant headmasters and mistresses, sixteen (28.00%) heads of departments, four (7.00%) senior house masters and mistresses. Again, there were twenty-six (46.00%) house masters and mistresses, two (3.50%) school chaplains and two (3.50%) school matrons.

Table 13: Position Distribution of Management

Position	Frequency	Percentage (%)
Headmaster	1	2.00
Assistant headmaster/mistress	6	10.00
Heads of Departments	16	28.00
Senior Housemaster/mistress	4	7.00
Housemaster/mistress	26	46.00
Chaplain	2	3.50
Domestic matron	2	3.50
Total	57	100.00

Source: Field Survey (February, 2020)

The age distribution of management is shown in table 14.

Table 14: Age Distribution of Management

Age(in years)	Frequency	Percentage (%)
36-40	7	12.00
41-45	21	37.00
46-50	14	25.00
51-55	9	16.00
56-60	6	10.00
Total	57	100.00

Source: Field Survey (February, 2020)

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In Table 14, it can be seen that, seven (12.00%) of management members were within the age bracket of 36-40 years, 21 (37.00%) of them were within the age group of 41-45 years and 14 (25.00%) were in between the age group of 46-50 years. Again nine (16.00%) were in the age cohort of 51-55 years and six (10.00%) were between the ages of 56-60 years. Majority of management members were, therefore, within the age group of 41-50 years. This may be due to the years one had to spend on a rank before being eligible to go for next promotion. The average years for one to go on promotion in the GES is four to five years. Thus, though 50% of the teaching workforce are 35 years and below, majority of those in management positions are between 41-50 years. The educational qualification of management is presented in Table 15.

Table 15: Educational Qualification of Management

Qualification	Frequency	Percentage (%)
Bachelor Degree	31	54.00
Master's Degree	26	46.00
Total	57	100.00

Source: Field Survey (February, 2020)

In Table 15, 31 (54.00%) management members were holders of Bachelor's Degree while 26 (46.00%) were also holders of Master's Degree. It must be mentioned that, at the time of gathering data for the study, some of the management members were reading various courses leading to the award of Master's Degrees. In the GES, the basic requirement to teach at the SHS level is the first degree. Any additional qualification would place the person at an

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advantage position for higher office. The ranks of management are presented in Table 16.

Table 16: Rank Distribution of Management

Rank	Frequency	Percentage (%)
Assistant Director II	27	47.00
Assistant Director I	21	37.00
Deputy Director	7	12.00
Senior Domestic Matron	2	4.00
Total	57	100.00

Source: Field Survey (February, 2020)

On the rank of management, 27 (47.00%) were on the rank of Assistant Director II (AD II), 21 (37.00%) were on the rank of Assistant Director I (AD I), and seven (12.00%) were Deputy Directors (DD) of Education (DD) and two (4.00%) were senior domestic bursar (school matron). In the GES, the minimum rank to qualify to teach at the SHS is Principal Superintendent (PS). The next rank is Assistant Director II (AD II), then Assistant Director I (AD I). To qualify to be a head of a SHS, one should be on the rank of Deputy Director (DD). As a result, the ranks of the management offices warranted the positions they were occupying. Table 17 shows the years management had spent on their positions.

Table 17: Years at Post of Management Members

Years at Post	Frequency	Percentage (%)
0-2	19	33.00
3-5	22	39.00
6-8	10	17.00
9 and above	6	11.00
Total	57	100.00

Source: Field Survey (February, 2020)

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Table 17 shows the number of years that management members had spent on their respective positions. 19 (33.00%) management members had spent between 0-2 years at the present position, 22 (39.00%) had spent between 3-5 years, ten (17.00%) had spent between 6-8 years at post and six (11.00%) of the management members had spent 9 years and above at present school.

Table 18 presents the pseudo names that were assigned to the selected participants. The pseudo names were the false names that were assigned to the management officers. They do not in any way reflect the real names of the management officers. This was to ensure anonymity and confidentiality of management members.

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Table 18: Pseudo Names of Management Members

Pseudo Names	Position
Mark	Headmaster
Johnny	Chaplain
Derrick	Chaplain
James	Head of Department
Charles	Head of Department
Cecil	Head of Department
Danny	Head of Department
Lizzy	Head of Department
Ben	Head of Department
Ruth	Domestic Bursar
Diana	Senior Housemistress
Jennifer	Senior Housemistress
Atta	Senior Housemaster
Sampson	Senior Housemaster
Frankie	Senior Housemaster
Gabby	Assistant Headmaster
Lexis	Assistant Headmaster
Richard	Assistant Headmaster
Mensah	Assistant Headmaster
Adwoa	Assistant Headmistress
Esi	Assistant Headmistress
Ken	Assistant Headmaster
Celestine	Housemistress
Peter	Housemaster
Felix	Housemaster
Charles	Housemaster
Aggie	Housemistress
Hetty	Housemistress
Louis	Housemaster
Kobby	House master

Source: Author's Construct (February, 2020)

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Research Question One: What is the Perception of Management on the Double-Track System of Education (DTSE)?

This section presents the results on the perception of students and management on the DTSE. Likert Scale was developed from the scale of 1 to 4 to assess the perception of management and students on the DTSE. Figures were assigned to the various responses on the Likert Scale, where 1 meant Strongly Disagree (SD), 2 for Disagree (D), 3 for Agree (A), and 4 for Strongly Agree (SA). I have presented the results descriptively, that is, in frequencies and percentages and have also discussed the results of the qualitative data alongside. Table 19 shows students' likeness for the DTSE.

Table 19: Students' Responses on whether they liked DTSE or not

I like everything about the DTSE	Frequency	Percentage
Strongly Disagree	127	29.00
Disagree	165	38.00
Agreed	87	20.00
Strongly Agree	57	13.00
Total	436	100.00

Source: Field survey (February, 2020)

When students were asked to respond to the test item "I like everything about double-track system (DTSE)" 127 (29.00%) of them strongly disagreed to the statement, 165 (38.00%) also disagreed to the statement, while 87 (20.00%) agreed, and 57 (13.00%) strongly agreed to the statement. Thus, majority of students disagreed that they liked everything about the DTSE.

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Table 20 shows management members' responses on whether they liked everything about the DTSE.

Table 20: Managements' Response on whether they liked DTSE or not

I like everything about the DTSE	Frequency	Percentage
Strongly Disagree	16	28.00
Disagree	21	37.00
Agreed	13	23.00
Strongly Agree	7	12.00
Total	57	100.00

Source: Field Survey (February, 2020)

On management's responses to the item "I like everything about double-track system (DTSE)" 16 (28.00%) of them strongly disagreed to the statement, 21 (37.00%) also disagreed to the statement, 13 (23.00%) agreed, and 7 (12.00%) strongly agreed to the statement. Majority of management members disagreed that they liked everything about the DTSE, thus both students and management members did not like everything concerning the DTSE. Table 21 shows whether students gained admission through DTSE.

Table 21: Students' Responses on whether DTSE helped them to gain Admission or not

DTSE helped me to get Admission	Frequency	Percentage
Strongly Disagree	114	26.00
Disagree	84	19.00
Agreed	139	32.00
Strongly Agree	99	23.00
Total	436	100.00

Source: Field Survey (February, 2020)

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In Table 21, 114 (26.00%) strongly disagreed, 84 (19.00%) disagreed that the DTSE helped them to gain admission, 139 (32.00%) agreed and 99 (23.00%) also strongly agreed. It can be inferred that majority of the students believed that the DTSE helped them to gain admission. Through the DTSE, a lot of students were able to enrol in senior high schools. Table 22 illustrates management members' to the item "The DTSE has helped to enrol more students"

Table 22: Managements' Responses on whether DTSE helped to Enrol more Students or not

DTSE Enrolled More Students	Frequency	Percentage
Strongly Disagree	2	4.00
Disagree	7	12.00
Agreed	25	44.00
Strongly Agree	23	40.00
Total	57	100.00

Source: Field Survey (February, 2020)

In Table 22, it can be seen that 2 (4.00%) management members strongly disagreed to the statement that "The DTSE has helped to enrol more students", 7 (12.00%) disagreed to the statement. Again, 25 (44.00) agreed and 23 (40.00%) strongly agreed. That is, majority of management members agreed and strongly agreed that the DTSE has helped to admit more students. The responses of the management members is supported by that of the students in Table 21 where majority agreed that the DTSE has helped to get

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more students to be enrolled in SHS. Table 23 shows the responses of students to whether the DTSE should be done at all times.

Table 23: Students' Responses on Whether DTSE Should be done at all Times or not

I want it done all times	Frequency	Percentage
Strongly Disagree	147	34.00
Disagree	134	31.00
Agreed	94	21.00
Strongly Agree	61	14.00
Total	436	100.00

Source: Field survey (February, 2020)

From Table 23, it could be seen that 147 (34.00%) strongly disagreed that they wanted the DTSE to be done at all times, as 134 (31.00%) also disagreed. Again, 94 (21.00%) agreed while 61 (14.00%) strongly agreed. Consequently, majority strongly disagreed that DTSE should be done at all times and it ought to be discontinued at a point in time. Table 24 shows the responses of management on whether the DTSE should be done at all times.

In Table 24, 37 (65.00%) management members strongly disagreed to the statement "I want it to be done all times", 11 (19.00%) disagreed, 6 (11.00%) agreed and 3 (5.00%) strongly agreed. Majority of management members strongly disagreed and disagreed that DTSE should be done at all times. Just as majority of students in Table 23 did not want the DTSE to be done at all times, so were management.

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Table 24: Managements' Responses on Whether DTSE Should be done at all Times or not

I want it done all times	Frequency	Percentage
Strongly Disagree	37	65.00
Disagree	11	19.00
Agree	6	11.00
Strongly Agree	3	5.00
Total	57	100.00

Source: Field Survey (February, 2020)

Table 25 shows the responses of students to the statement "I want everyone to benefit"

Table 25: Students' Responses on whether Everyone Should Benefit from DTSE or not

Everyone should benefit	Frequency	Percentage
Strongly Disagree	72	17.00
Disagree	52	12.00
Agree	140	32.00
Strongly Agree	172	39.00
Total	436	100.00

Source: Field Survey (February, 2020)

In Table 25, 72 (17.00%) strongly disagreed that everyone should benefit, as 52 (12.00%) also disagreed. However, 140 (32.00%) agreed as 172 (39.00%) strongly agreed that they wanted everyone to benefit. Majority of the students therefore wanted everyone to benefit from the DTSE. Table 26 also

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shows the responses of management members on the statement "I want everyone to benefit".

Majority of Management members in Table 26, strongly disagreed to the statement "I want everyone to benefit", that is 27 (47.00%), 14 (25.00%) disagreed, 7 (12.00%) agreed and 9 (16.00) strongly agreed. Management thus did not want everyone to benefit. The position of management contrasts that of students.

Table 26: Managements' Responses on whether Everybody should Benefit from DTSE or not

Everyone should benefit	Frequency	Percentage
Strongly Disagree	27	47.00
Disagree	14	25.00
Agree	7	12.00
Strongly Agree	9	16.00
Total	57	100.00

Source: Field Survey (February, 2020)

The results of the qualitative data from management on the perception of the DTSE are presented in this section. The themes that emerged from the interviews were that the DTSE was good because it had increased enrolment. However, there was lack of infrastructure leading to pressure on all facilities, disciplinary issues arising out of the high enrolment, parents' reluctance to contribute to assist schools' projects, and poor attitudes of students towards learning. Others included the lack of consultation before the implementation, one track benefitting more than others, the poor quality of students posted to the school and inability of management to go for vacation.

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The DTSE was good because it had increased enrolment. Due to it, a lot of people who could not have access to secondary education were now able to do so. Mark, a headmaster, explained:

> *It has solved the problem of enrolment. Many students are now able to access secondary education since a lot of students would have been left out. It is because of the numbers, one group in school, and another group is out. In those times, we had about 1000 students. But now we're getting close to 3,000.*
>
> *Hmmm, the system had a very good intention, the way it increased enrolment, every student had the opportunity with the limited resources. The idea behind it is very good. It has given the chance to every person to go to school, irrespective of the challenges, that everybody, should at least, taste secondary education* (Gabby, an assistant headmaster, said).
>
> *Parents who could not afford to send their wards to school can now send their wards to school. I can say that a lot of students have been enrolled into the 2nd cycle institutions which in those days before you get admission was a problem. It has increased our enrolment. The population size has increased. That has also exposed them to where to get education, formal education* (said Derrick, a chaplain).

One major aim of the DTSE was to create access for all those who wanted to pursue secondary education. Evidence from Table 14 showed that

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the DTSE helped the students to gain admission. Management were also of the opinion that it had increased enrolment. That is, a lot of people had been able to access secondary education. This is also supported by the work of Takyi et al. (2019) that the DTSE had the prospects of increasing students' enrolment in the SHS level. Mensah (2019) also found out that the DTSE led to increase enrolment.

Again, the operationalization of the DTSE resulted from the implementation of the FSHSP in the 2017/18 academic year. That is, the existing schools and their capacities could not accommodate the increase in numbers of those who had qualified to senior high schools. PIAC (2020), after studying 51 SHS in the country concluded that FSHS had led to an increase in enrolment. In a similar vein, separate studies conducted by Asumadu (2019); Kalunda and Otanga (2015) revealed that free secondary education led to a rise in the enrolment of students. Thus, the DTSE created room for more people to be admitted to the SHS as admitted by the students and management. Due to high enrolment, majority of the students in table 16, said that they wanted a lot of people to benefit.

Pressure on schools' facilities was also another theme. Management were of the view that the high enrolment and continuous use of the infrastructure brought pressure on all the facilities. Johnny, a chaplain, also intimated that the lack of furniture was making teaching and learning very difficult. He, thus said:

> *Lack of furniture is making teaching and learning very difficult. Some stand during classes. There is pressure on all*

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> *the facilities. There is pressure on the laboratories. Again, for lack of furniture, students sit on the floor.*

A senior housemaster, Frankie, also said that the dormitories were overcrowded. Some students slept at night on the floor and some slept outside the dormitories since they could not bear with the heat in the dormitories. He said:

> *We have inadequate infrastructure. The dormitories are over-crowded. The form one students have been given new beds to sleep on since they may complain. But the form twos and threes are overcrowded. Some are sleeping on the floor, while others choose to sleep outside due to the hotness of the place. In the classrooms, some students sit on the floor, others stand by the pavilion, while others also sit on the dwarf walls. At the dining hall, we run the shift system. Form ones have to rush to the dining hall and serve food on the tables so that the seniors can come and eat. Afterwards, they also go and eat. All should be done within 15 minutes. Two thousand, one hundred and sixty-four students on campus, form 3, form 2 Green Track, form 1 Gold and Green Tracks. We have 50% furniture deficit. There are 1,136 desks. On the desks, old students provided us with 300metal standard mono desks, else we wouldn't have been able to write the WASSCE in 2019. At the latter part of 2019, old students in the diaspora gave us 100 wooden desks* (said Gabby, an assistant headmaster).

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The facilities in the schools were under pressure since the students outnumbered the facilities. Moreover, there was no time to maintain them because they were in use at all the time. This finding is attested by Mensah (2019) who found that the DTSE lacked adequate infrastructure. Similarly, Asumadu (2019), said that since the furniture could not meet the high intake, there were thus, congestion in senior high schools. This put a lot of pressure on all the facilities. PIAC (2020) and Send-Ghana (as cited in Addo, 2019) also raised concerns about the insufficient classrooms, dormitories, beds and laboratories. The DTSE therefore brought existing school facilities under pressure. This might have accounted for the reason that management and students did not like everything about the DTSE in Tables 19 and 20.

The Double-Track System was also creating disciplinary issues for management. Students were becoming difficult to contain due to the increase in enrolment. Frankie, a senior housemaster, said that issues of discipline came up almost every day. He said:

> *Every day we hear of new cases, and new things. It was only last week that we didn't hear of anything. We should be allowed to care for the students. Even deboardenising a student is not an easy thing.*

Richard, an assistant headmaster, blamed the cause of indiscipline on the Ghana Education Service. This was because the MOE had issued a directive for students not to be caned. Richard said:

> *But the issue of discipline going down, I will not link it with the double-track system. I will rather link it with the policies of the country and maybe internationally…The Bible itself*

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says, spare the rod and spoil the child but here human right activists say we should not.

We do not have full oversight over them so as to monitor them since they come in and go within the shortest time…the DTSE has brought a lot of immoral activities, leading to teenage pregnancies since they go home often. Again, as they go for vacation classes, and having their personal phones, how they comport themselves do not help. After the classes, they hung around with their friends and the devil finds work for them (Johnny, a school chaplain, said).

It is normally assumed that the population of a school should commensurate with adequate staff so as to be able to address issues of students. However, with the DTSE, the enrolled students outnumbered the staff and facilities in the school. This, therefore, created problems as far as having oversight of the students was concerned. The issue of indiscipline could also be attributed to the GES directive on caning. Management should device appropriate sanction, apart from caning to discipline students. Issues of discipline, according to Heaberlin (as cited in Sexton, 2003) did not really depend on a school being single or double-track.

Another theme was that parents were reluctant to contribute to the wellbeing of the school as well as their wards. Sampson, a senior housemaster, said:

Because it is free the parents don't care to come and check about the wellbeing of their own wards. They don't do it. The parent will come here only when you have asked the

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> *student to go on indefinite suspension, to go home for a period or whatever, then they will come and apologize. But when they were paying fees, once in a while you would see a parent coming to you and say that my ward is here, I'm coming to pay his fees and find out how well he is faring academically…And here, they don't mind because may be to them, they are not paying anything.*

It could be said that parents were feeling very reluctant to even visit the schools of their wards. This may be due to the fact that it was free so they did not need to visit the school. This is also confirmed by PIAC (2020) and Aluko and Adan (2015) that free education at the secondary level had made many parents reluctant to make any other payments to schools. Thus, granting free education may make parents not obliged to contribute to the wellbeing of the school and their wards.

A further theme worthy of mention was the poor attitude of students towards learning. Management perceived that students were not interested in serious academic work. Some were in school because their parents wanted them to be in school. As such, they were running to town. Students were not motivated to learn. Mark, a headmaster, said:

> *Most students are not ready for academic work, but because they have been asked to go for free, they do not see the need, hence some of them are truant and run to town.*
>
> *Despite the fact that it has given children the opportunity to be educated, they see themselves to be in school because they have to or everyone is there. So they don't make the*

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> *importance of their being there to be achieved. They come to school as and when they like. Others who desire to be in school are enjoying it. Meanwhile, others don't know why they're in school because they think they have to be there and it's free* (Charles, a head of department, said).
>
> *Because the children think it's free, when they come to school, because they think it is free education, it affects their studies and some of the things they are supposed to do* (Derrick, a chaplain, said).

According to management, because the students thought education was free, students did not feel the need to study well. Probably because parents were not paying fees, as well as not interested in contributing to their wards' wellbeing in school, they were not motivating their wards to learn. Students were rather supposed to approach academic work with all the seriousness it deserved since they were not paying fees.

Scholars are inconclusive on funding for education. Some see funding of education to be crucial, while others do not think so. Funding has been seen to play a pivotal role in academic achievement. Abdul-Ramadan, et al (2018); Belot et al. (2007) Brock and Richburg-Hayes (2006) found funding to be useful in improving academic performance of students. The findings of Elizabeth and John (2015), Weaver (2013), Douglass and Gregg (2012) on the other hand, disagreed that funding had an impact on academic achievement.

A further theme was the way it was implemented. Management were of the view that they were not consulted, and that it was ad hoc. Some even said that the calendar was confusing.

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> *Government should have consulted renowned educationists, asked them of their views and piloted it. But because of politics, the implementation of it was a problem* (Johnny, a chaplain, said).

Lexis, an assistant headmaster, also said:

> *I only have a few challenges with may be authority and management. Here, I'm talking about the Ministry. Sometimes, they have to involve the headmasters a lot in planning, especially the academic calendar. Because this year alone, we received about three different academic calendars before we had in the final one.*
>
> *Their calendar is not straight forward. It's very confusing…What I've realized is that some of the dates they choose are not checked…So if you don't use your personal fix, it won't work* (Mensah, an assistant headmaster, said).

The implementation of DTSE was hurriedly done. A lot of stakeholders were not consulted, including teachers. Thus, Mensah (2019) said that the implementation of the DTSE lacked broader stakeholder consultation. Even though educational policies should involve major stakeholders (Mingat, et al., 2003). The DTSE was implemented without consulting the major stakeholders. In view of its hurried implementation, ISODEC for instance, opined that that the hurried implementation of the double-track semester programmes was bad for sustainability of the policy (Addo, 2019). The implementation was in a rush, and without consultation. This might also account for the reason students did not want it to be done at all times. In Table

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15, majority of the students disagreed strongly that it should be done at all times.

Another theme was the fact that some students who were in the same year were benefitting more than others. The students on the Green Track were having more contact hours more than those in the Gold Track. This was against the rationale for the DTSE that the students would have equal contact hours. Johnny, a chaplain, said:

> *Again, the gold track students are lacking because they come in when there are lots of co-curricular activities. They come in and after a month they vacate. On religious activities, most of them do not benefit fully, either the Green or Gold track. They do not benefit spiritually as it is expected. For instance, every first year, there is first years' crusade. One track, for instance, Green may have it, but may not be so for the Gold since there may be other programmes, to coincide with it. There is no consistency. Non-denominational activities also suffer since, most of them are not benefitting since some come in and go…They are not benefitting from carols service. Prefectship handing over and induction ceremonies, nights of praise are also affected due to the two semesters.*
>
> *But one is benefitting more than the other, the Gold, they are at a disadvantage side. Right now as I speak to you now they have sacrificed them for the form threes to complete school. But the disadvantage is what already I've told you. It's*

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> *almost not the same you know, I'm teaching the two tracks and I know what I'm talking about. One track has moved up, the other track I try as much as possible to catch up, but it's difficult for me to do so* (said Sampson, a senior housemaster).

The second year Gold Track students were not at a disadvantage. They were not spending much time in school as their colleagues in the Green track. This was not so at the time the academic calendar was released. However, the GES wanted to make way for the third years to complete. As a result, the Gold track students in the second year had to alternate with the Green Track so that when the Green Track vacated, they would make way for the Gold Track. The academic calendar was therefore very confusing.

Another theme was the quality of students that were placed in the school. This may be due to the fact that since the students believe that education had become free, they would not worry themselves with serious academic work. This was also experienced by the category "B" and "C" schools. Richard, as assistant headmaster, said;

> *And let me talk about the quality of students they give us. Just a few of them had aggregates like 10, 11 and the like. And there are others like 30, 35 and even 40. Even here in this school, we have students with 40. Amazingly, the average aggregate for BECE is 30. We had a conference and we did the statistics and the chairman was surprised.*

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Esi, as assistant headmistress, also said that a cut-off point should be introduced since that will make students learn at the junior high level of education. She said:

> *If it would be possible, they should introduce a cut-off point which will even help the students to learn at the JHS level. All other things being equal whoever qualifies to the SHS should be the serious ones.*

The quality of students also affected the products of a school. That is, if a school was admitting excellent students, the school would end up in a category "A" but if not, the fortunes of the school would dwindle. PIAC (2020) found this in their study and attributed it to the abolition of cut-off grades. This led to deprived schools admitting students with poor grades

Management since the implementation of the DTSE, had not had any rest. They had not gone on vacation. This was becoming hectic for them. Kobby, a housemaster, said:

> *As for workload, now .., we don't go on vacation. So while one is leaving, another one is coming. You can't even travel, I can't travel.*

Danny, a head of department, also said he had not been able to go for vacation since he became a part of management. He said:

> *It is very very hectic in the sense that as…there is no vacation for me. Since I became…in December, I'm in it, I've been in school every single day up till today. While other teachers in certain track you know, have the time to rest, relax and ponder over what they have taught, because*

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> *if you are teaching assuming track A, and track A are in the house, you are also in the house. But me as…I have to be in school when track A is in school, and I have to be in school when track B is in school. So there is no vacation for me, and there is no rest.*

This was also evident in the findings of PIAC (2020) that since the inception of the DTSE, management had had no rest. They were in school every time since as soon as one track vacated, another track reopened. Thus, management and students had a positive perception about the DTSE in the sense that it had helped with issues of enrolment. However, there were issues such as inadequate logistics and funds, lack of rest for management, and the inability of parents and guardians to contribute to the welfare of the schools and their wards.

Research Question Two: How Effective are the Extended Contact Hours?

This part presented the results and discussion on the effective usage of contact hours. I have analysed the responses of students and management members descriptively and have presented the findings in tabular forms. Table 27 is the result of the use of extended contact hours as responded by students.

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Table 27: Students' Responses on Usage of Extended Contact Hours

Item	N	Min	Max	Mean	Std. Dev. (s.d.)
Teachers are always in class	436	1.00	4.00	2.59	1.002
Teachers give us assignment when they are absent from class	436	1.00	4.00	2.55	.957
Teachers always come to class in time	436	1.00	4.00	3.63	.973
Teachers are readily available for clarification	436	1.00	4.00	2.79	.940
Students lose class through staff meetings, sports, holidays	436	1.00	4.00	2.85	1.063
Teachers make up for lost lessons	436	1.00	4.00	2.28	1.088
I have more time to study	436	1.00	4.00	2.36	.994
Contact hours are being effectively used	436	1.00	4.00	2.67	.930
We study when teachers are not in class	436	1.00	4.00	2.86	.927
We are always kept occupied in school	436	1.00	4.00	2.78	.998
We play in class most of the time	436	1.00	4.00	1.93	1.035

Source: Field Survey (February, 2020)

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In this section, a Likert Scale was designed for students from a scale of 1 to 4. It was meant to assess how contact hours were being utilized. The total number of respondents who completed the questionnaire are grouped under "*N*". They were 436 students. The Minimum (Min) was 1.00 and Maximum (Max) was 4.00. It could be inferred in Table 27 that, with a mean of 2.59 (1.002 s.d.), majority of the students strongly agreed and agreed to the statements that teachers were always in class. Teachers were thus, always in class to be with the students. Again, with a mean of 2.55 (0.957 s.d.), anytime teachers missed classes, they gave assignments in order to keep the students occupied. Students were never left unattended to whenever teachers missed class. Thus, students were occupied even when teachers missed class. Teacher's attendance to class has a positive effect on students' academic achievement. Thus, the quality of schooling can be related to regular teacher attendance and students' time on task in the classroom (Akaguri, 2011). Again, other studies such as Obeng-Denteh, Yeboah, Sam and Monkah, (2011), Rogers and Vegas, (2009), Lewis & Lockheed (2006) contended that absenteeism can have adverse effect on academic achievement. That explains why teachers try as much as possible to get the students occupied anytime they were not in class.

Majority of students also agreed and strongly agreed that teachers always went to class in time. This had a mean of 3.63 (0.973 s.d.). Teachers were not late to class. Furthermore, with a mean of 2.79 (0.940 s.d.), students agreed and strongly agreed that teachers were readily available for clarification. That is, anytime students did not understand any topic that had been taught, or wanted further clarity on other things, the teachers were readily

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available. Though teachers may be in school, and readily available for clarification, time in the classroom was often not efficiently utilised due to poor teacher knowledge of the subject matter, inadequate teaching resources (Abadzi, 2009).

Teachers were losing instructional time during staff meetings, sports competitions and holidays, and sometimes industrial actions, such as, strikes. This had a mean of 2.85 (1.063 s.d.). However, when teachers could not go to class, they did their best to make up for lost periods. This had a mean of 2.28 (1.088 s.d.). Anytime a teacher could not go to class, he found a different time to make up for the lost period. However, according to Akyeampong, et al. (2007), instructional time lost due to teacher absenteeism and lateness resulted in students being taught only two out of ten subjects in a day.

In addition, students agreed they had more time to study. With a mean of 2.36 (0.994 s.d.), majority of students agreed and strongly agreed that they were having enough time to study. Students were also studying when teachers were not in class, (with a mean of 2.86, 0.927 s.d.). Students were, therefore, studying when there was no teacher in class. Students were always kept occupied in class. With a mean of 2.78 (0.998 s.d.), majority of the students agreed and strongly agreed that they were occupied in class every time. According to Agbadzi (2009), it does not matter whether students have more time to study, the instructional time may not necessarily be utilized. However, majority strongly disagreed and disagreed that they played in class most of the time. This had a mean of 1.93 (1.035 s.d.). In effect, students were not playing in class, but took their studies seriously. It can, therefore, be concluded that the contact hours were used effectively. This had a mean of 2.67 (0.930 s.d.).

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The effective usage will in turn have a positive effect on students' academic achievement. Table 28 displays the results of management members on the usage of extended contact hours.

Table 28: Managements' Responses on Usage of Extended Contact Hours

Item	N	Minimum	Maximum	Mean	Std. Dev. (s.d)
Teachers are always in class	57	1	4	2.67	1.006
Teachers give students assignment when they are absent from class	57	1	4	2.61	.959
Teachers always go to class in time	57	1	4	2.96	.981
Teachers are readily available for clarification	57	1	4	2.98	.876
Teachers do not go to class during staff meetings, sports competition, and holidays, among others.	57	1	4	2.82	.984
teachers make up for lost hours	57	1	4	2.65	1.142
Contact hours are being effectively used	57	1	4	2.37	1.046
Students are always kept occupied when in school	57	1	4	2.95	.915
Students play in the class most of the time	57	1	4	2.89	.976

Source: Field Survey (February, 2020)

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In this section, a Likert Scale was designed for management from a scale of 1 to 4. It was meant to assess how contact hours were being utilized. The total number of respondents who completed the questionnaire are grouped under "*N*" and were 57 management members. The Minimum was 1.00 and Maximum was 4.00. It could be seen in Table 28 that all the management members agreed and strongly agreed that the contact hours were being used effectively. All the mean are above 2.0, hence could be concluded that the contact hours were being used effectively.

The study also revealed that contact hours had been increased from 40 minutes per period to one hour, and this made both teachers and students very tired.

On the increase in contact hours, it was revealed that there was an increase in contact hours from 40 minutes per period to 60 minutes. Moreover, the previous contact hours had teachers meeting students for six times in a week, that is, 240 minutes in a week. With the extended contact hours, the contact hours were 60 minutes. Teachers, however, were to meet students for four times in a week. This also added up to 240 minutes. Consequently, there was no significant increase in contact hours. Charles, a head of department, said:

> *At first we started school at 6:30am to 2:30pm. But the actual time for lessons began at 7a.m and lasted for 40 minutes, but now it has been changed to 1 hour.*

Richard, who was an assistant headmaster, also said that though there was a change in contact hours, a careful analysis will reveal that it was equal to the previous contact hours.

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> *There's a change in the contact hours for the new structure. But comparing them, thy look the same as the previous one. Formally, students were doing 40 minutes per period. Then you multiply that by the number of days in a week and will give you 240 minutes. Currently, we are doing 1 hour per period by 4 times in a week. So if you calculate, is the same number of 240 minutes. For the former one, we used to stay in class for a period of about 40 minutes. For now, it's 1 hour, that's 60 minutes. For me I teach Mathematics, so if I'm to take a concept, by one hour's time, it should be enough for me. But the students cannot cope.*

The increase in contact hours from 40 minutes to 60 minutes was evident in the work of Mensah (2019), when he found that the DTSE led to an increase in contact hours. However, the increase in contact hours was making it difficult for students and teachers to cope. Consequently, management felt it was not having any impact. Danny, a head of department, said:

> *The extended contact hours, to me I don't think it is having any impact and at their level, one hour is ok. If it extends to the 2 hours, you realise it becomes too boring, especially the reading courses, considering their stage it is a little boring.*

Even though the contact hours had been increased from 40 minutes to 60 minutes per session, it was not going to have its own effects. Studies on the effect of contact hours on academic achievement are inconclusive on the effects of extended contact hours. Thus, Jez and Wassmer (2013) established a positive relationship between the number of instructional minutes in an

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academic year and school-site standardized test scores. They added that 15 extra minutes of school a day or an additional week of classes over an academic year can result in an increase in average overall academic achievement of about 1%, as well as about a 1.5% increase in average achievement for disadvantaged students.

Again, Dewey, Husted, and Kenny (2000) found that a longer school year in days produced higher verbal scores, but had no impact on math performance. Figlio (1999) found that a 10% increase in hours was connected with about a 5% increase in cumulative science achievement.

However, Baker, Fabriga, Galindo and Mishook (2004) conducted a study on instructional time and student achievement. They found that changes in instructional time did not necessarily increase or decrease student achievement, unless such changes go beyond unusually low or high amounts of time. Rather, curriculum and instructional quality had greater effect on achievement than total hours of instructional time.

Takyi, et al. (2019) also revealed that that increased contact hours would also result in behavioural problems as a result of fatigue and boredom. This finding contradicts the assertion by the students and management that contact hours were effectively utilized. Thus, though increasing contact ours would be good for achieving academic results, sight should also not be lost of the fact that it would have its negative consequence such as loss of focus, boredom, fatigue and disinterest in a subject.

One theme that was also realised was the “academic intervention” programmes. The intervention was an academic programmes which was meant to help the weak, average and above average students. Each school was to

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design a way of going about the intervention. In some schools, it was known as 'extra classes'. The government funded the intervention period. Management thought the funding for the intervention, also known as "intervention money" was not enough.

> *The intervention is designed to motivate teachers to take up the mantle of helping the weak ones. Here, we have our intervention system instituted for the form three students. For instance, we have the early morning preps where the average ones will be doing their normal prep and where we have the weak ones the teachers will organize them to help them. But then I'm still going back to talk about tiredness. The teacher who has never had time to rest for the whole year instead of being in school at 8 and close around 3, this time will have to be in school by 6 or 7:00 a.m. something and go to assembly and in fact it is not easy. Even if it is time to do your intervention which is different from normal classes, which starts at 7:30 there about, in fact you need time to rest, and the teacher has to be around up to 5 to 6:30 before going home very tired. So he comes back the next day and it's… so the intervention is very good but it would have been more motivating if it would have been added to the teacher's salary, which he receives monthly. So it would have been better than the intervention that comes. To be very honest this is what I would prefer* (Lexis, an assistant headmaster, said).

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Again, according to Danny, a head of department, when the teacher realizes that some students have challenges, then an intervention programmes is prepared for the students. He said:

> *That is when you realize that some students have challenges, and with the description of what we have been told about the intervention, after you've taught and examined the kids and some have deficiencies in certain areas, then you prepare an intervention programmes for such students. Sometimes, it's a little difficult in the sense that you have to do all the teaching from the beginning to the last, then find another extra time to teach them. But once you are being paid it is good job because everybody wants to work and get something out of it. Once we are getting something from the intervention, it's good. But the issue is I have to find out the students that actually need the intervention, and it can be two ways, is it those who are bad or those who are extra good? Because those who are extra good, I still continue to give them little questions that are a bit harder so that it can keep them on their toes and still improve. Those who are bad I need to lower the standard to help them push them up. So virtually, the intervention is almost for everybody, but it was actually supposed to be for those who are not good, those who are actually lacking so that they can push up. But from that description, even to us, you realise that it is*

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> *virtually for everybody because you have to help the one on top to climb the more and the one lower to come up.*

Mensah, an assistant headmaster, also said that they met the students at the end of every month for discussion. He intimated:

> *Here we have an intervention programmes. We meet the students at the end of every month, particularly the form 3students to know their personal problems and grievances so that where we can, we manage. We also get to know their challenges. Anytime we meet them, they keep complaining that they can't sit for 8 hours. And it is true. Had it not been the mock exams, we would have stayed up to 1:10pm before they go for lunch break. So between 1:10 and 2:00pm, we take the break. Just after the lunch break, most of the students do not come back to the classroom. The hide from the classroom. I mean they stay away from the classroom.*

The academic intervention had been instituted to make for lost time and also create additional time for each category of student, that is, the above average, average and below average students. The "academic intervention" programmes was similar to "intersession" in the MTYRE, though they differed in practice. In the MTYRE, the school year was divided into instructional periods with days of intersession or vacation time after each instructional period. Intersessions could be 25 days that could be used for focused remediation instruction and enrichment. Teachers had the option of working during the inter-session and earning additional money. Studies have suggested that extra tuition, such as intervention is necessary for increase in

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academic achievement. The works of Iddi (2016), Meroni and Abbiati (2016), Mutua 2015), Suleman and Huaasain (2014), as well as Gafoor and Sunnummel (2007) revealed that extra tuition had positive impact on academic achievement.

Again, the intervention, though had been instituted was not really benefiting both students and teachers since they both became exhausted along the line.

> *In the beginning, after some hours, they become restless. But as a teacher, you have to put things in place to motivate them to sit up. But after 1 year, they become used to the system* (said Richard, an assistant headmaster).

It can therefore, be concluded that the introduction of the academic intervention programmes might or might not reach the desired goal of higher academic achievement. It would depend on students' readiness to adopt an approach to academic work that would be beneficial in the long run. In effect, though contact hours had been increased, it was achieving the very purpose it was intended to.

Research Question Three: What are the Challenges Facing School Management in Double-Track Schools?

The section presents analysis and discussion of results of both students and management. I presented the results of the quantitative data in pie charts and bar graphs. The challenges were centred on classroom, dormitory, dining hall and exercise books. Qualitative data from management members also recounted the challenges of infrastructure, funding, human resource, as well as time for co-curricular activities, including staff meetings, departmental

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meetings, and sports competition. These challenges could also be seen in the light of the JD-R model. The JD-R model assumed that job strain or burnout would develop when job demands were high but with limited job resources. However, when there was low job demands, but adequate resources, there would be work engagement (Schaufeli, 2017). The job demands would be the work load, managing students and staff, facilities, among others. Job resources would be adequate infrastructure, adequate funds and adequate staff, among others.

Infrastructural challenges

The infrastructural challenges included inadequate classrooms, inadequate desks, inadequate dormitories, dining hall, inadequate textbooks and exercise books. The results were analysed and presented in charts. Figure 7 is an illustration of students' responses on whether there were enough desks in classroom or not.

Figure 7 demonstrates the results as to whether students had enough desks in the classroom or not. A total of 268 (61.00%) respondents strongly disagreed that there were enough desks in the classrooms and 62 (14.00%) disagreed. Again, 50 (12.00%) agreed and 56 (13.00%) strongly agreed. Therefore, majority of the students strongly disagreed that there were enough desks in the classrooms. The desks in the classrooms were not enough. This, therefore meant that though the demand for desks was high, the desks were not enough. This may affect the motivation of students to learn.

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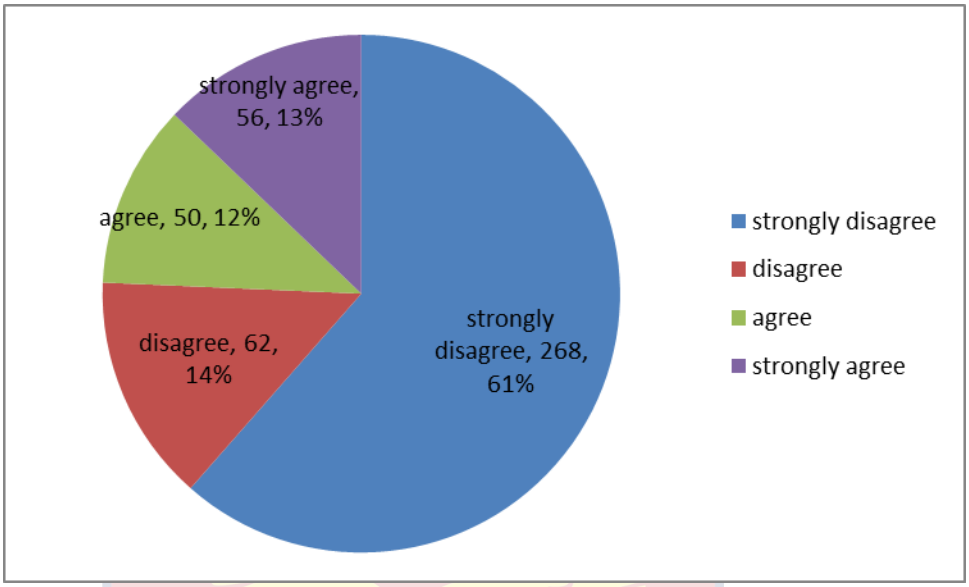

Figure 7: Students' responses whether there were enough desks or not
Source: Field Survey (February, 2020)

Figure 8 illustrates the results of management members on whether there were enough desks in the classrooms or not.

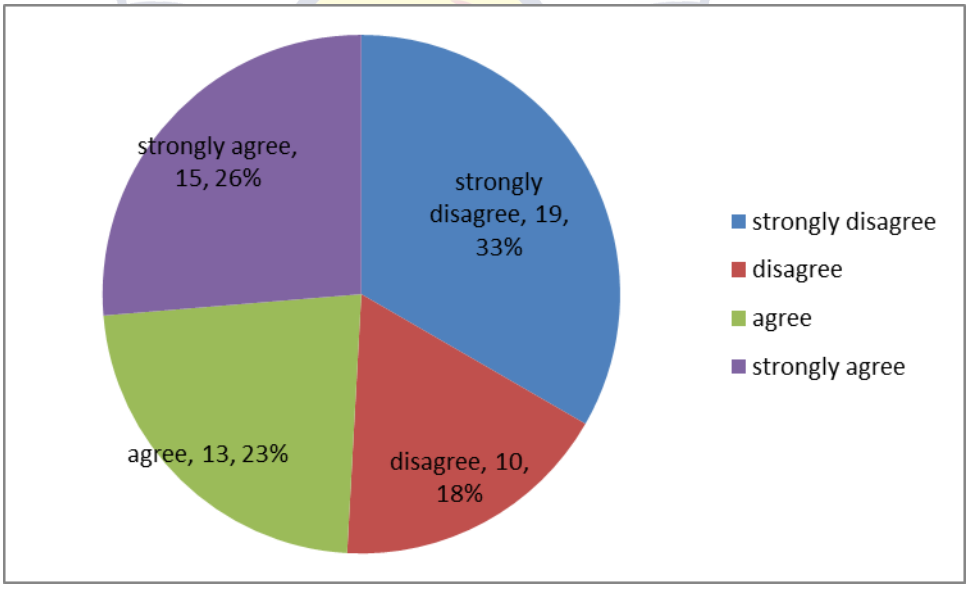

Figure 8: Management' responses whether there are enough desks or not. Source: Field survey (February, 2020)

Figure 8 shows the results of management members' responses on whether there were enough desks in the classrooms. It was revealed that 19 (33.00%) strongly disagreed, 10 (18.00%) disagreed, while 13 (23%) agreed and 15 (26%) strongly agreed. Thus, desks were not enough in the classrooms.

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Thus, both students in Figure 8 and management revealed that the desks in the classrooms were not enough. Figure 9 shows students' results of overcrowding in the classroom.

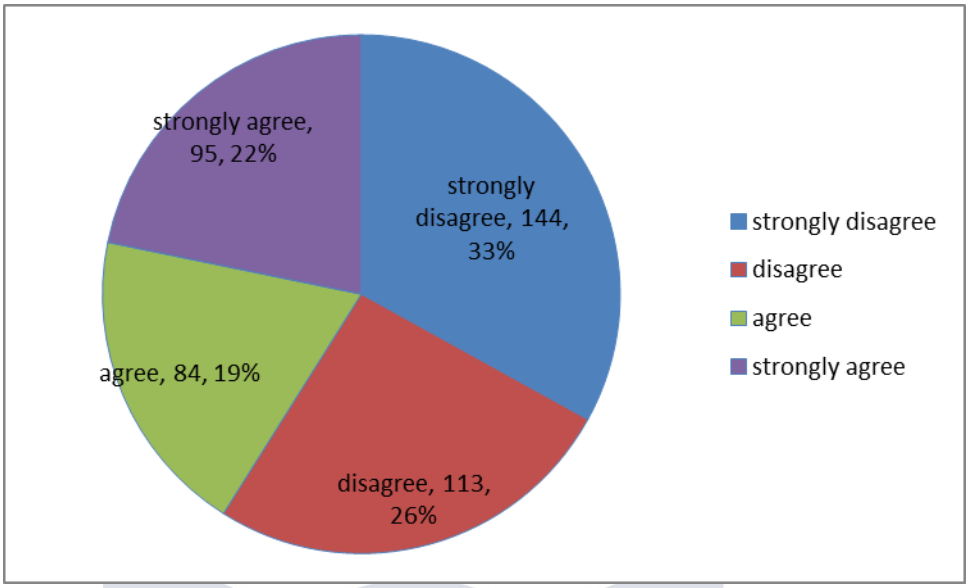

Figure 9: Students' Responses whether classrooms are overcrowded or not
Source: Field Survey (February, 2020)

In Figure 9, it could be seen that 144 (33.00%) of students strongly disagreed that their classrooms were overcrowded while 113 (26.00%) also disagreed. However, 95 (22.00%) strongly agreed and 84 (19.00%) agreed. It can, therefore, be concluded that the classrooms were not overcrowded. Thus, though the demand for classrooms was high, majority of the students felt that the classrooms were enough. Again, some of the classrooms were overcrowded. In Figure 8, as majority felt that their classrooms were not congested, it could act as a motivation to learn since the classrooms were enough to accommodate the students. Figure 10 presents management members' responses on overcrowding in classrooms.

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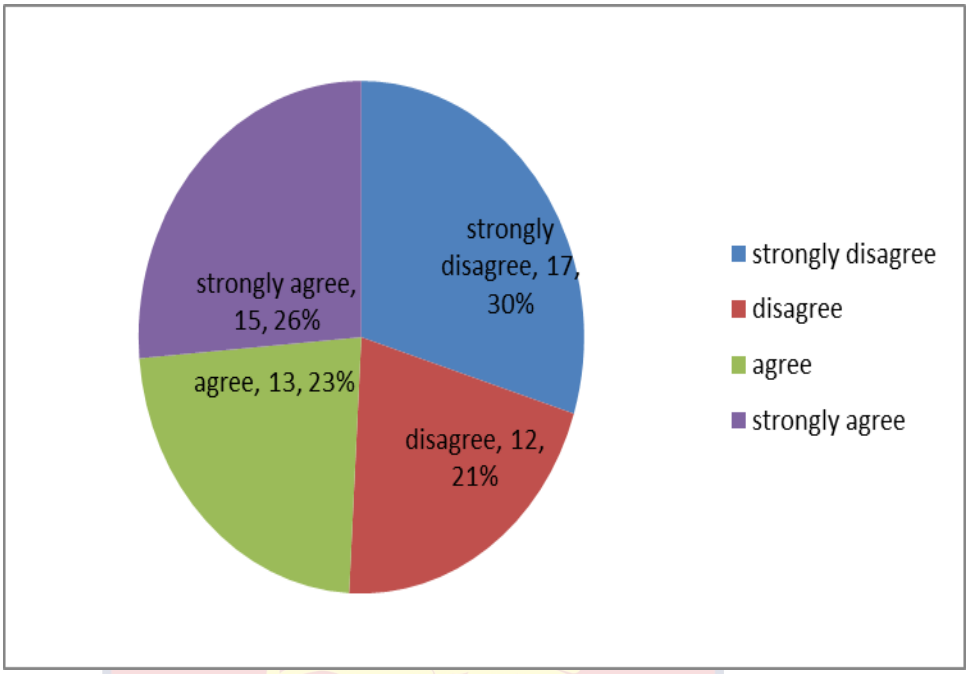

Figure 10: Managements' responses whether classrooms are over-crowded or not. Source: Field Survey (February, 2020)

Figure 10 shows results of management members' responses on overcrowding in the classrooms. A total of 17 (30.00%) management members strongly disagreed and 12 (21.00%) disagreed that classrooms were overcrowded. However, 13 (23.00%) agreed as 15 (26.00%) strongly agreed. That is, majority of management members believed that classrooms were not overcrowded. The results of management members in Figure 10 are an affirmation of the responses of students in Figure 9, where both students and management believed that classrooms were not overcrowded. Figure 11 shows results of students with personal desks in classrooms.

Figure 11 demonstrates that 181 (42.00%) respondents strongly disagreed that they had personal desks, as 64 (15.00%) also disagreed. Again, 102 (23.00%) agreed while 89 (20.00%) strongly agreed. Majority of the students were not having personal desks.

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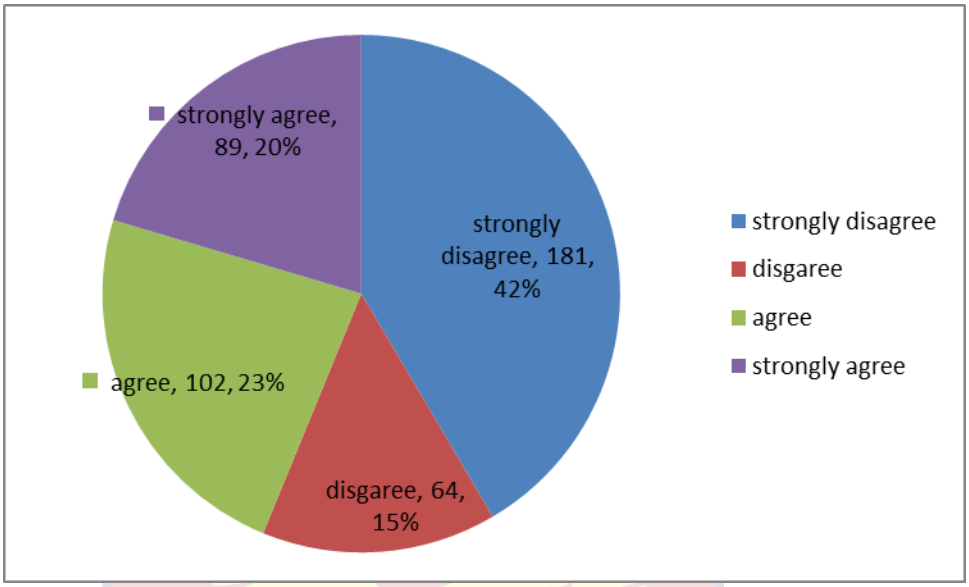

Figure 11: Students responses on whether they have personal desks or not Source: Field Survey (February, 2020)

Figure 12 shows management members' results on students with individual desks.

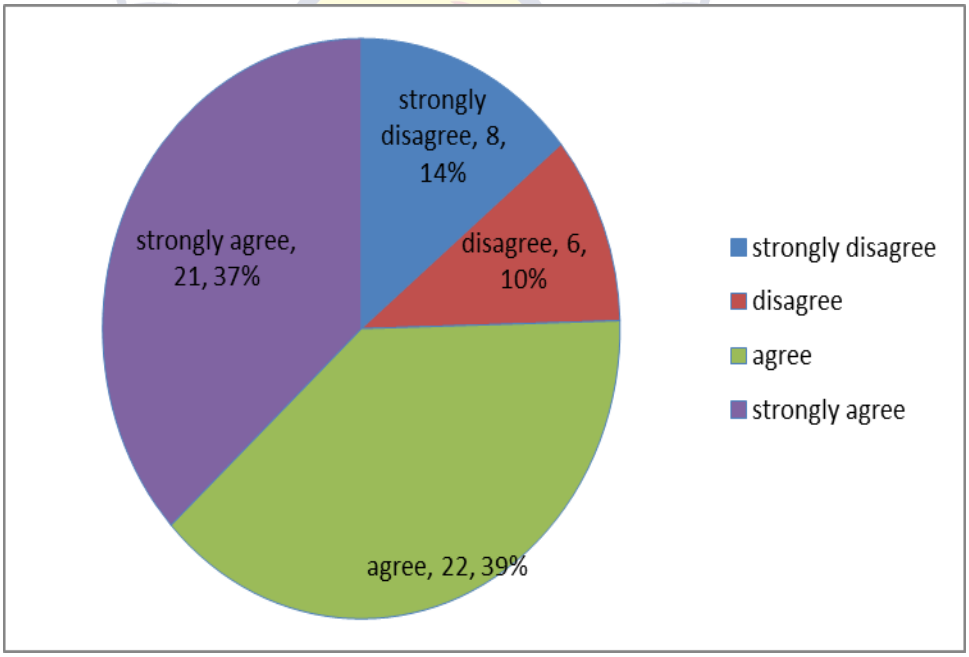

Figure 12: Managements' responses on whether students have personal desks or not. Source: Field Survey (February, 2020)

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Figure 12 shows the results of management members' responses to students having individual desks, where 8 (14.00%) management members strongly disagreed and 6 (10.00%) disagreed. However, 22 (39.00%) agreed and 21 (37.00%) strongly disagreed. That is, students having individual desks in the classrooms. The challenges with classroom infrastructure were explained by management. For instance, Gabby, as assistant headmaster, said that the available furniture could satisfy only 50% of the students. Consequently, there would be lack of it when the final year students started with their examinations since they would make use of 30% of the available furniture. He said:

> *Classroom furniture is seriously challenged. Since the inception of the FSHSP, we have been unfortunate. A total of 2,164 students are on campus, form 3, form 2 green track, form 1 gold and green track. We have 50% furniture deficit. There are 1,136 desks. On the desks, old students provided us with 300 metal standard monodesks, else we wouldn't have been able to write the WASSCE in 2019. At the latter part of 2019, old students in the diaspora gave us 100 wooden desks. So it was not easy. To solve this, we met the PTA, and the parents agreed to pay GHS100 each. Since some of the parents were carpenters, they opted to make the desks. However, this arrangement was reported to government and the headmaster was summoned with the chairman of the PTA. There is a policy and challenges, but management cannot deal with it because of political*

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> *interference. In the dormitories, there are no beds. Students sleep on the floor. Government supplied us with 120 bunk beds for 240 students. Classrooms are not enough. Government has not provided us with any classrooms. There is a GETFUND project which is 90% complete, but government is not interested, but building a new dormitory.*

Mensah, an assistant headmaster, also explained that the students were more than the available desks. Even though, according to him, he had requested for 420 desks from the MOE, they were managing with those that were available. Most of the desks had, however been allocated to the third year students. This meant that the second and first years were really in need of the desks. He said:

> *The students outnumber the desks, the form 3's do not have any problem but the form 1's and 2's do have a problem. You can have a desk today, and tomorrow, it won't be there. I even called for 420 desks when the form 2 gold track students came to join. So as far as desks are concerned, there's a challenge…so we manage with that. But if it becomes necessary that all the students should come as a single track, then we need extra classrooms. So we have even called for classrooms where the government has brought up an intervention project of a 12-unit classroom block which is ongoing.*

Furthermore, Derrick, a chaplain, intimated that the school's capacity of 1,500 students had gone up to 3,000. He said:

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> *So far as my school is concerned, infrastructure is a problem. This is because, the system that used to take student population of about 1,500 is now accommodating almost 3,000 students.*

Sampson, a senior housemaster, also said that once classrooms were available, they would not need the double-track system in their school.

> *The boys dormitory was built in a speedily manner, but we need more classrooms. Because once we have the classrooms, we don't see why there should be double- track. Just last week, the government gave us 300 hundred tables and chairs. I think even though it's not enough, it's better. We are waiting for our beds, our dormitories and our library too small. I think when all these things are provided, we are ready for the single track.*

Frankie, a senior housemaster, also said that some students sat on the floor in the classrooms.

> *In the classrooms, some students sit on the floor, others stand at the pavilion, while others also sit on the dwarf walls.*

Both students and management agreed that there were serious challenges as far as classroom infrastructure were concerned. Some of the classrooms were overcrowded and without desks due to the increase in enrolment in the schools. The infrastructural deficit had become intense with the introduction of the DTSE. Thus, the job demands have outnumbered the

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resources. Figure 13 presents students results on having personal beds in their dormitories.

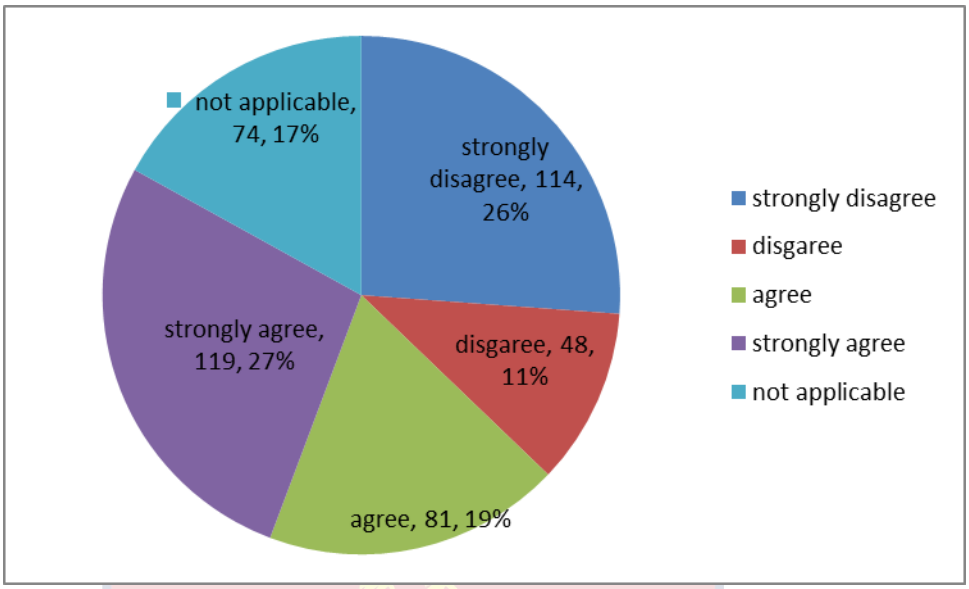

Figure 13: Students' responses whether they have beds or not
Source: Field Survey (February, 2020)

Figure 13 presents results on whether students had personal beds in the dormitory or not. A total of 114 (26.00%) strongly disagreed that they had personal beds and 48 (11.00%) disagreed that they also had beds. However, 119 (27.00%) strongly agreed to the statement as 81 (19.00%) also agreed. 74 (17.00%) were day students, and could not have beds in the dormitories. This showed that while some had beds in the dormitories, others did not. However, those without beds were more than those who had beds. Figure 14 shows management members' responses on students having individual beds.

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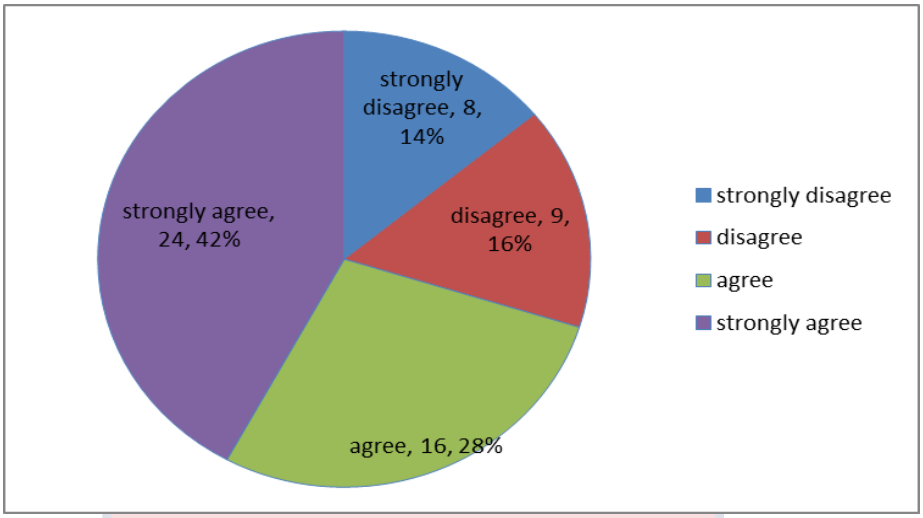

Figure 14: Management's responses on whether students have beds or not.
Source: Field Survey (February, 2020)

Figure 14 shows that out of the 57 management members who responded to item 22 "students have individual beds in the dormitories", 8 (14.00%) strongly disagreed and 9 (16.00%) disagreed. However, 16 (28.00%) agreed and 24 (42.00%) strongly agreed that students had individual desks. That is, majority of management members responded that students were having beds to sleep on in the dormitories. In Figures 13 and 14, some students and management members revealed that some students were not having beds. Louis, a house master, explained that the beds were of poor quality. Moreover, students destroyed the beds in their attempt at killing bedbugs. He said:

> *We used to have enough until the form two students came in. And the ones we were having were not of high quality so they broke down in no time. Also, because of the bedbugs, the students hit the beds on the floor to get them out and through that process, the beds get destroyed. Had it not been that, we wouldn't have had any problems in the dormitories.*

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> *Recently, for my house, they brought additional 17 beds. So about 5 students are still sleeping on the floor. We have all the rooms filled with beds but because of the pressure on the beds, such as hitting it on the floor and so on, it has led to the destruction of so many beds. Actually the problem is that, we have the bed but there's nothing laid in it for them to put their mattresses on. The beds are made of metal. Previously, we had wooden beds until the bedbugs saga which emerged led to the change of the beds into metallic ones. Thinking that the metal ones would be better, it has rather been the worse so far because of the holes in them.*

Frankie, a senior housemaster, also said that there were two dormitory blocks that were not completed. For one of them, the contractor had left the site of work while the other one was ongoing. He explained:

> *There was a dormitory block which was built during the late Prof. Mills' time, it was roofed and wired. However, contractor left the site without informing us, left all the wires in the building for thieves to steal them. The government is putting up a new structure, though the old one is yet to be completed.*

Dormitories blocks were also not sufficient to meet the rising number of students. This also served as a demotivating factor to the management and students in the light of the JD-R model. Figure 15 shows results of students' responses on overcrowding in dormitories.

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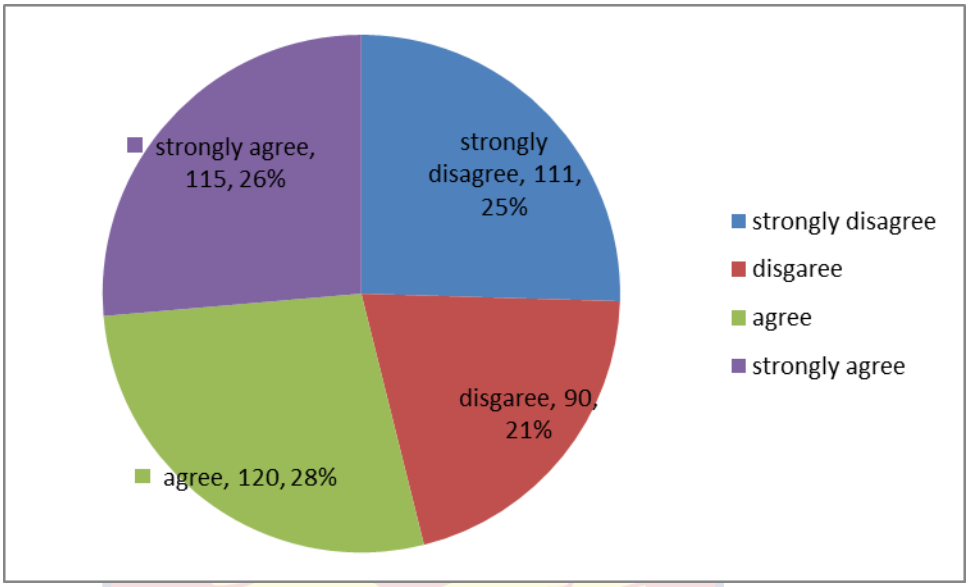

Figure 15: Students' responses on whether dormitories are overcrowded or not. Source: Field Survey (February, 2020)

In Figure 15, 111 (25.00%) strongly disagreed that they were overcrowded in the dormitories, 90 (21.00%) also disagreed. However, 120 (28.00%) agreed and 115 (26) also strongly agreed that they were overcrowded in the dormitories. Thus, students were overcrowded in the dormitories. Figure 16 shows the results of management members on overcrowding in dormitories.

In Figure 16, it can be seen that 13 (23.00%) strongly disagreed that dormitories were overcrowded as 11 (19.00%) disagreed. However, 14 (25.00%) agreed as 19 (33.00) strongly agreed. Dormitories were thus overcrowded.

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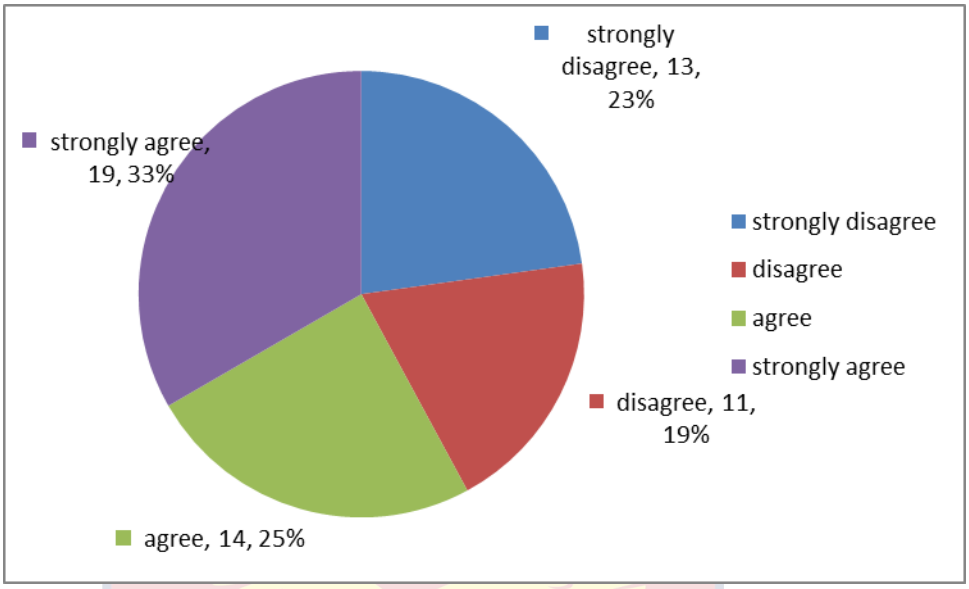

Figure 16: Managements' Responses on whether dormitories are overcrowded or not. Source: Field Survey (February, 2020)

Dianna, a senior house mistress said:

> *We have so many problems on infrastructure. Now that they are all in, there is a lot of burden on the infrastructure, for instance, some students are sleeping on the floor because there isn't enough space for the beds so the mattresses have to be put on the floor to allow much space than to put the bed in there to occupy space. Besides we don't have wardrobes so their things are in the rooms with them on the floor as well. We're really facing problems. And now because they are many, controlling them is a big challenge. Initially, they were manageable. The numbers in the houses were not large so the house masters and mistresses could contain them. But now because of the large numbers, things are becoming difficult.*

Again, according to Diana, a senior house mistress, students were sleeping on the floor because the spaces in the dormitories were so small that

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putting beds in there would occupy much of the spaces. Again, there were no wardrobes in the dormitories for students. As a result, their bags and personal belongings were all lying on the floors in the dormitories and this created congestion.

Franky, a senior housemaster, said that though the dormitories were overcrowded, the form ones were given beds to sleep on so that they would not complain. He said:

> *The dormitories are overcrowded. The form ones have been given new beds to sleep on since they may complain. But the form twos and threes are overcrowded. Some are sleeping on the floor, while others choose to sleep outside due to the hotness of the place.*

Kobby, a housemaster, also explained that there were no beds in the dormitories. He said:

> *The population of the students has increased and this has led to overcrowding in the dormitories. The main problem is the inadequacy of beds. Some metal beds were brought in some years ago but they were not durable. The got broken and the children are sleeping on the floor. Another problem is the dormitory. On the average, fifteen students should be in a dormitory, but now they are about thirty five. We have twelve rooms just like the other houses. Each house is having about four hundred students. So you divide four hundred by twelve, then you know a number that will be in the dormitory.*

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Figure 17 shows results of students on whether lights were working in the dormitories on not.

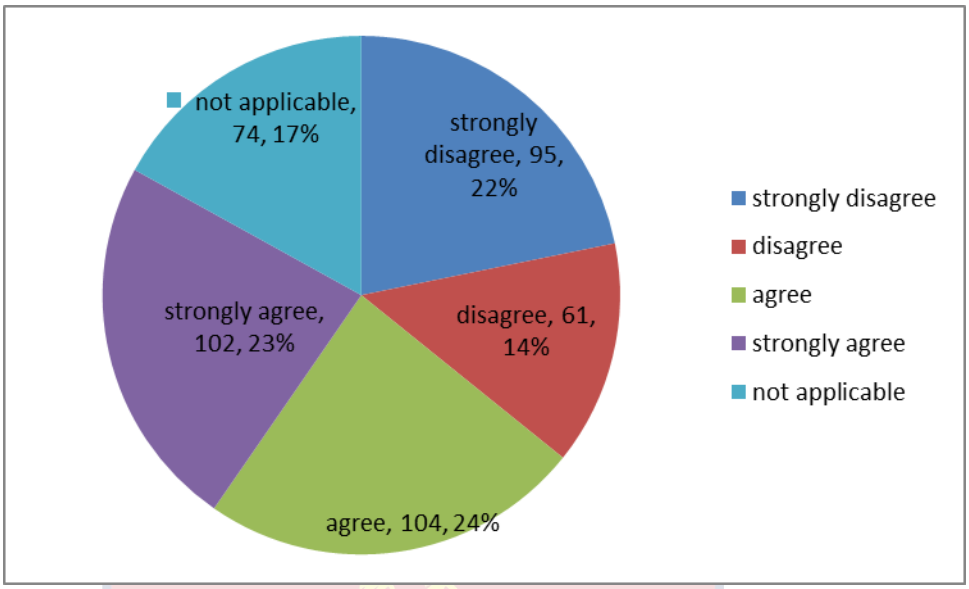

Figure 17: Students' responses whether lights are working in dormitories or not. Source: Field Survey (February, 2020)

Figure 17 showed that 95 (22.00%) strongly disagreed that the lights in their dormitories were working while 61 (14.00%) disagreed. However, 104 (24.00%) agreed as 102 (23.00%) also strongly agreed that the lights were working. This means that majority of the students agreed that the lights in their dormitories were in good condition. Even though the dormitories were congested, majority of students were having access to lights in their dormitories. Figure 18 shows the results of management on whether lights were working in the dormitories or not.

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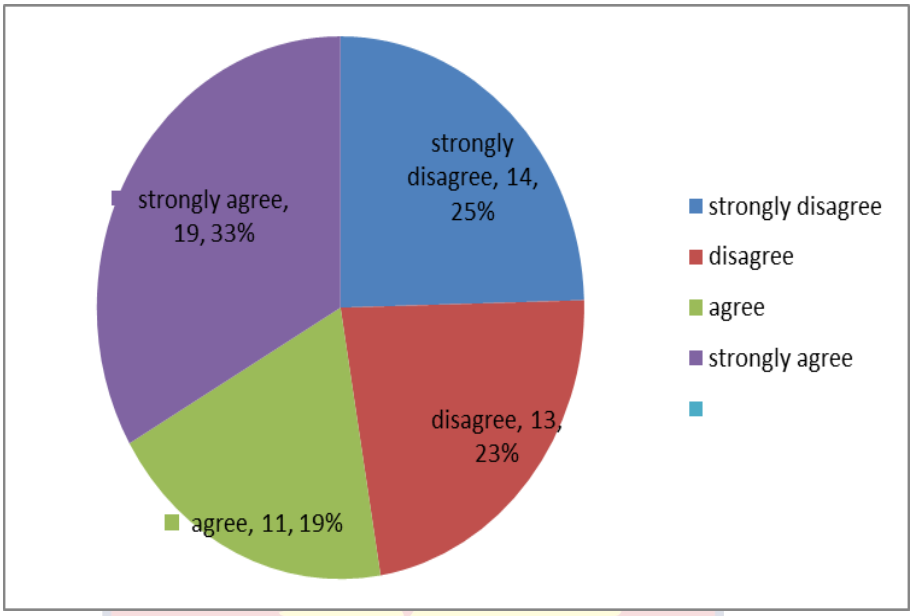

Figure 18: Students' responses whether lights are working in dormitories or not. Source: Field Survey (February, 2020)

Figure 18 shows that 14 (25.00%) of management members strongly diasgreed that the lights were working in the dormitories while 13 (23.00%) disagreed. However, 11 (19.00%) agreed and 19 (33.00%) strongly agreed. That is, majority of the management members agreed and strongly agreed to the statement that the lights were working in the dormitories, and this result from magement members confirms the results of students in Figure 17. Figure 19 illustrates students' results on having tables at the dining hall.

Figure 19 shows that 111 (25.00%) strongly disagreed that they had tables at the dining hall, 90 (21.00%) disagreed to the statement. However, 120 (28.00%) agreed and 115 (26.00%) strongly agreed. Consequently, majority of the students were having tables at the dining hall.

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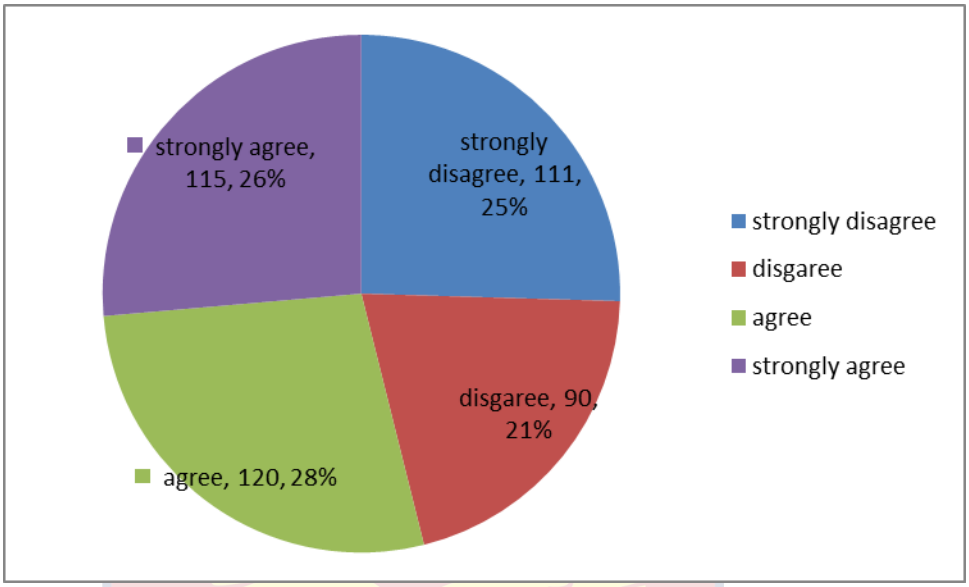

Figure 19: Students' responses whether each student has a table in dining hall. Source: Field Survey (February, 2020)

Figure 20 demonstrates the results of management members' responses to students having tables at the dining hall.

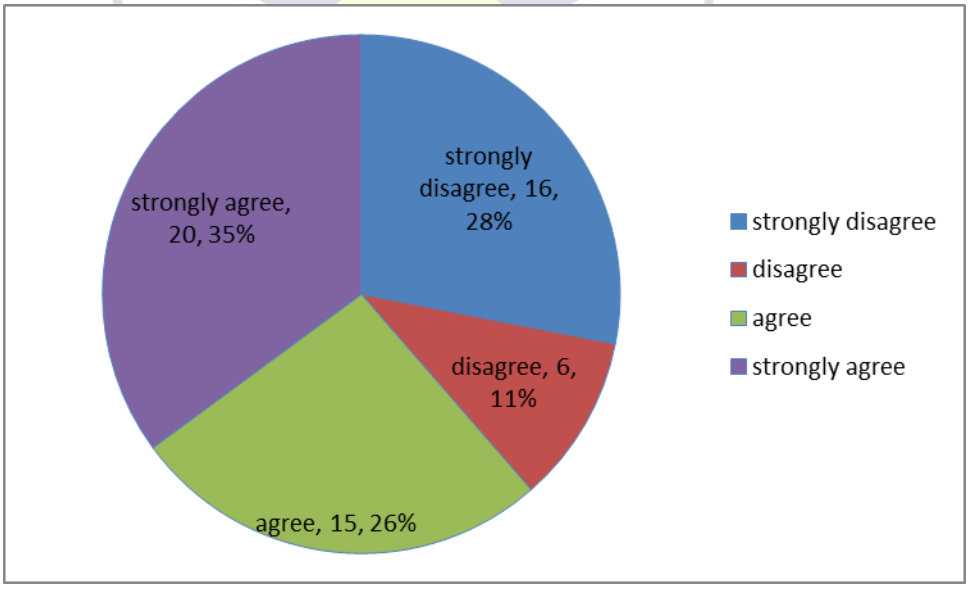

Figure 20: Managements' responses whether each student has a table in dining hall or not. Source: Field Survey (February, 2020)

In figure 20, 16 (28.00%) management members strongly agreed that students had tables at the dining hall and 6 (11.00%) disagreed. However, 15 (26.00) agreed and 20 (35.00%) strongly agreed. Majority of management members strongly agreed that students had tables in the dining hall, thus

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confirms the result in Figure 19 that majority of the students had tables at the dining hall. Figure 21 shows students results on getting enough food at the dining hall.

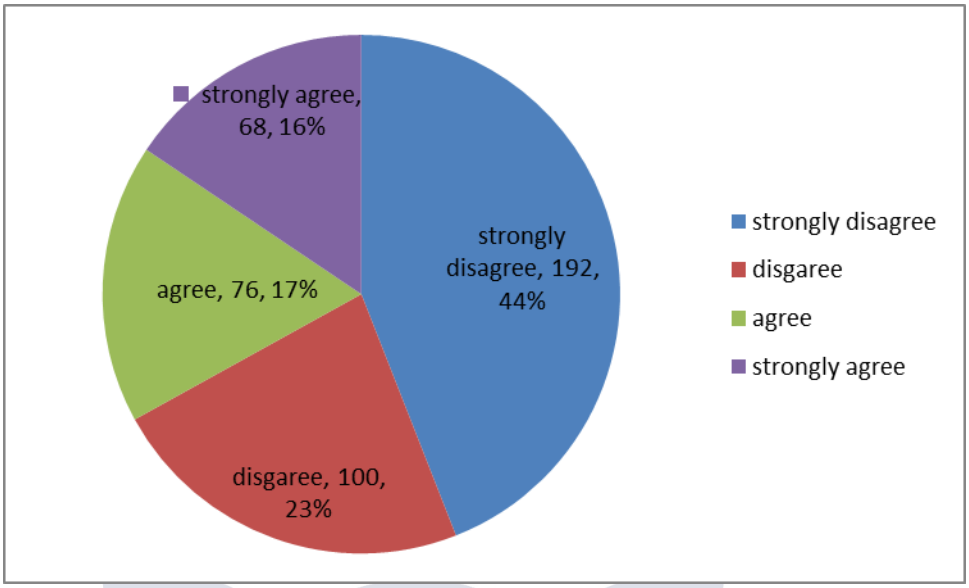

Figure 21: Students' responses whether they get enough food at dining hall or not. Source: Field Survey (2020)

As to whether students were getting enough food at the dining hall, 192 (44.00%) strongly disagreed and 100 (23.00%) disagreed. Also, 76 (17.00%) agreed as 68 (16.00%) also strongly disagreed. This means that, majority of the students were not getting enough food at the dining hall. Figure 22 shows managements' responses on students having enough food at the dining hall.

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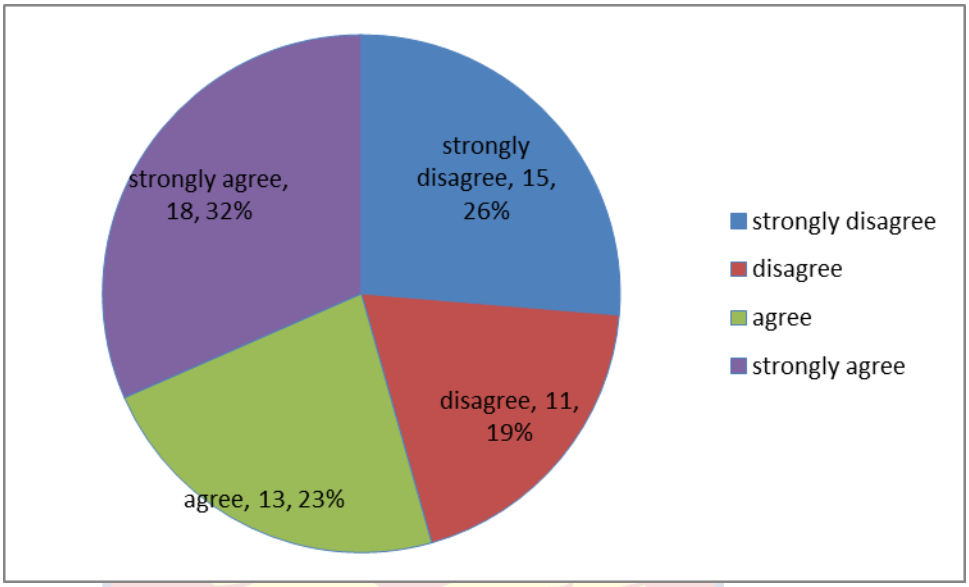

Figure 22: Managements' responses whether or not students get enough food at dining hall. Source: Field Survey (February, 2020)

In Figure 22, 15 (26.00%) strongly disagreed that students had enough food at the dining hall while 11 (19.00%) disagreed. Again, 13 (23.00%) agreed as 18 (32.00%) strongly agreed. Thus, majority of management members disagreed that students had enough food at the dining hall. Mensah, an assistant headmaster, explained that because the dining hall was not large enough to accommodate students at a time, they were practicing shift system at the dining hall. This might probably explain why some students, and even those who had the tables were not having getting enough food.

> *Because of the intake, we run shift at the dining hall. The form threes g for their meals from the dining hall and leave. They don't sit down to eat but the form 1's and 2's stay on to eat. Therefore, we need a bigger dining hall for all the students to go for their meals at the same time.*

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Franky, a senior house master, also said that they were running shifts at the dining hall.

> *At the dining hall, we run shifts. Form ones have to rush to the dining hall and serve meals on the tables so that the seniors can come and eat. Afterwards, they also go and eat. All should be done within 15 minutes. Consequently, it affects classes, especially the ones that come after break time.*

The dining hall could not accommodate high students' demands. Figure 23 demonstrates students results whether they have textbooks or not.

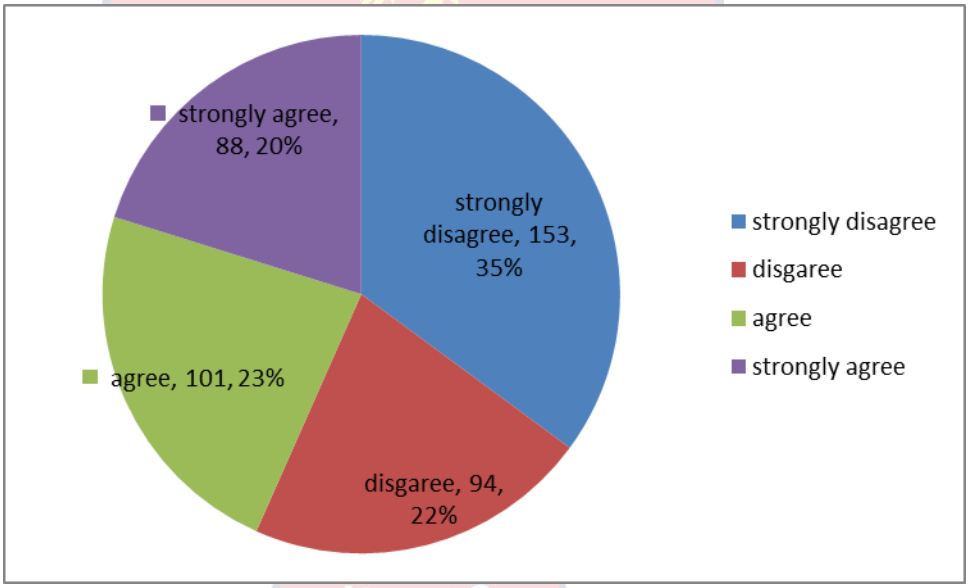

Figure 23: Students' responses whether they have all textbooks or not
Source: Field Survey (February, 2020)

As to whether students had all textbooks, 153 (35.00%) strongly disagreed, and 94 (22.00%) disagreed; 101 (23.00%) agreed as 88 (20.00%) also strongly agreed. It can be concluded that majority of the students did not have all the textbooks. Figure 24 shows management's results on whether students had all textbooks.

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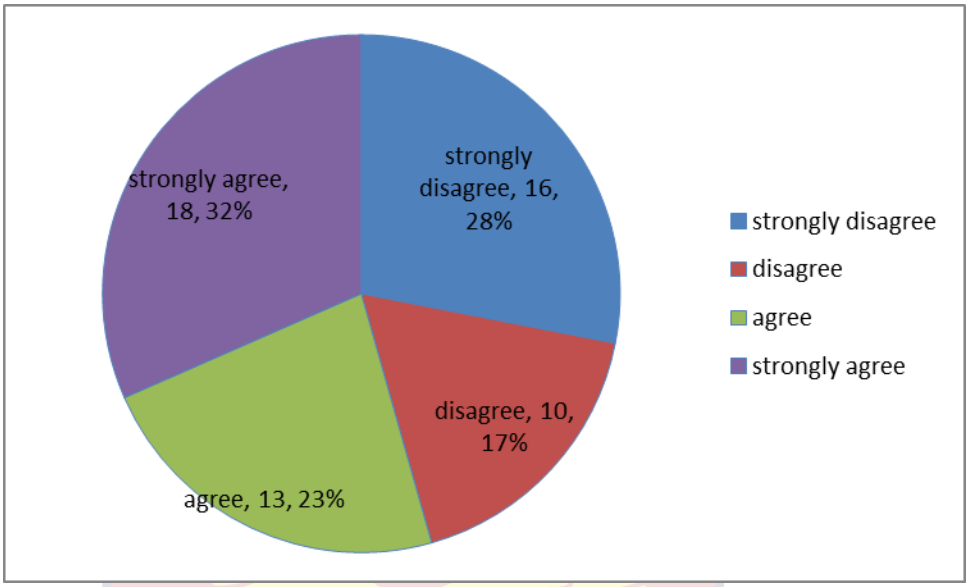

Figure 24: Management's responses whether students have all Textbooks.
Source: Field Survey (February, 2020)

In Figure 24, it can be seen that 16 (28%) of management members strongly disagreed that students had all textbooks and 10 (17.00%) disagreed. Again, 13 (23.00%) agreed and 18 (32.00%) strongly agreed. That is majority of management members agreed that students had the needed textbooks. However, it can be seen from Figure 23 that majority of students did not have all textbooks. Hence, Jonny, a chaplain, said:

There are also no textbooks for elective courses.

Figure 25 shows students' results on whether or not students have exercise books for all subjects.

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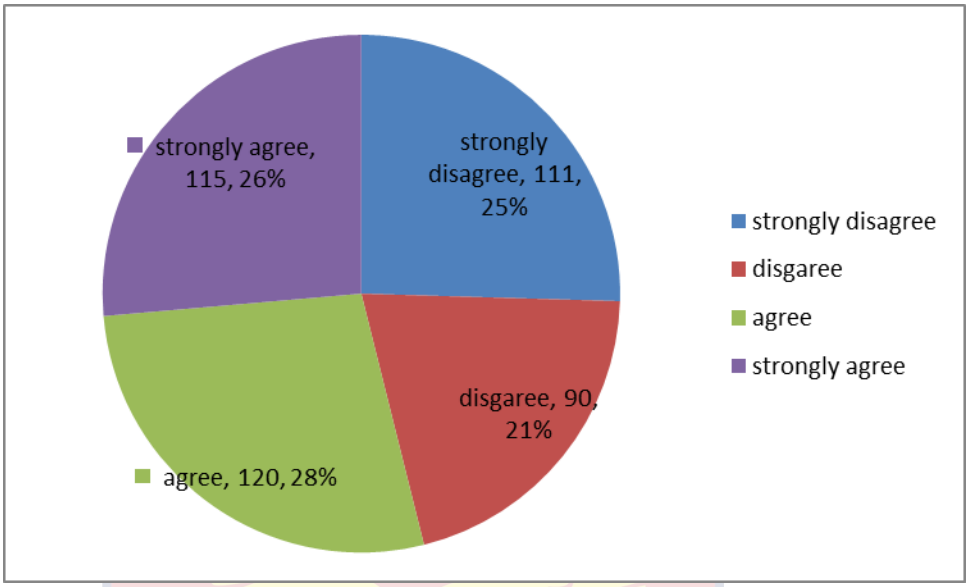
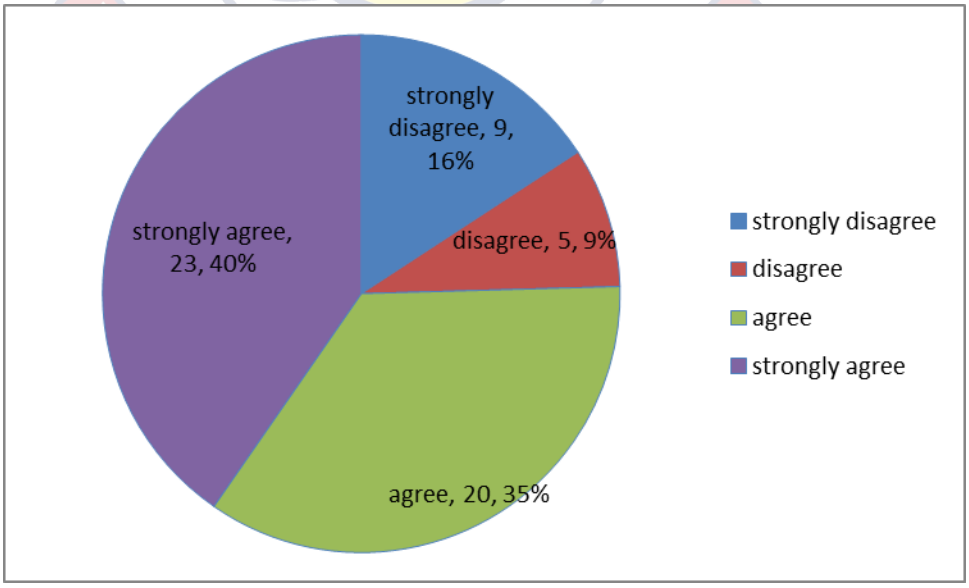


Figure 25: Students' responses whether they have all exercise books or not Source: Field Survey (February, 2020)

It could be seen from Figure 25 that 111 (25.00%) strongly disagreed that they had all their exercise books, as 90 (21%) disagreed. However, 120 (28%) agreed and 115 (26.00%) strongly agreed. Consequently, majority of the students had all their exercise books. Figure 26 shows managements' responses on whether students have all exercise books.



F*igure 26:* Management's responses whether students have exercise Books or not. Source: Field Survey (February, 2020)

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In Figure 26, management members strongly disagreed that students had all exercise books, that is 9 (16.00%), and 5 (9.00%) also disagreed However, 20 (35.00%) agreed as 23 (40.00%) strongly agreed. Therefore, majority of the management members strongly agreed that students had all exercise books. This confirms the results of students in Figure 25 that most of the students had all their exercise books.

Infrastructure was a major challenge. There were inadequate classroom blocks and dormitory blocks to accommodate the increased enrolment. In addition, the dining halls were also not large enough to accommodate all the students at the same time. This confirms the findings of Asumadu (2019), that increasing enrolment of students into senior high schools was not being met with the necessary infrastructure and other facilities and this has led to overcrowding and congestion. SEND-Ghana and ISODEC observed that the DTSE had exposed the infrastructural deficit and logistical challenges affecting the smooth implementation of the policy and, thus impeding sound academic work (Addo, 2019). PIAC (2020) also raised concern on the infrastructural deficit.

The challenge can be situated into the JD-R model. The model states that when demands are high and resources are limited, it causes strain. Consequently, when there is pressure on dormitories, beds, desks and dining hall, among other facilities, it would lead to faster wear and tear. Facilities would not last long, though the aim of the DTSE was to accommodate the increase in enrolment with the limited facilities available. The challenges would therefore, cause faster wear and tear of the available facilities because

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of their usage without any break. Again, this would act as a demotivation for both management and students in their academic enterprise.

Funding Challenges

Another challenge was with funds. Funds were not released on time, and those that were released were for specific purposes. The schools' Parent Teacher Associations were not allowed to support the schools with funding. Funding was solely the responsibility of the central government leading to the centralisation of everything. Other activities such as sports, were not budgeted for. Lexis, an assistant headmaster, said that funding was a problem. Moreover, the PTA was not in a position to help. He said:

> *Hmmmm, funding is a problem. This time too, it is quite difficult speaking about PTA issues. The government will say we have not abandoned PTA but PTA executives will go for a meeting and after the meeting will come and tell you this is the letter that has been given to us so we can't continue. It has become difficult for us organizing the PTA meetings. Formerly, we were surcharging our members based on the wards that they had but currently we have been asked to levy parents and not students, and if the parents decide not to contribute then your hands are tight. So as PTA, we do not have control over their activities. Quite recently, the executive met and they have planned to meet their members very soon since they want to put before them to see how best to move on. So the funding this time is coming from the central government. We don't get anything*

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from the PTA. Old boys are also doing their best in a way, though it is not enough…the funding is not regular.

Danny, a head of department, also said that maintenance was becoming a challenge. This was because the funds were not meant for such purposes. He said:

When you need to maintain something, you write for it. But in this age of free SHS when you write for anything, they actually tell you the money that came is actually not meant for what you are proposing

Again, since the students were not paying any fees, getting access to funds by management was a challenge. Kobby, a housemaster, explained as follows:

Now when there is repairs, you have to report to authority. Sometimes they tell you that there is no money. However, when we were taking the dues we were not hearing any of these.

Esi, as assistant headmistress, explained that at the time when the students were paying house dues, they were using the dues for maintaining the house. However, because students were not required to pay any levy, they were not able to do such. She said:

For the house staff, they use to take dues to provide things needed in the house. The dues was seen as house levy. These days, they don't pay the dues. The government pays it directly into the school's account.

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On the issue of timely release of funds, Richard, an assistant headmaster, said that some schools had been running into difficulties. However, they supported one another.

> *A week ago, we had an executive meeting and we realized that the old students are doing something as well as the P.T.A. Sometimes because of the free policy, they refuse to help. So, if the dues of the P.T.A. was there, it would help. Recently, we nearly broke down but the headmaster called a fellow head for support. We also helped another school.*

Sampson, a senior housemaster, also said the office is managed from his personal resources:

> *The office as you see it like this, this board is the only thing that was provided by the school, the school pays the light bill, but the rest, I do it myself…not that I don't go because if you are going and they tell you we don't have a bin for the kids then your conscience will tell you don't need to tell them about your furniture, when students are not having furniture.*

Funds meant for the administration of the schools delayed and was posing a big challenge to management. Morojole (2012) found out that education in Lesotho led to increased centralization on the Central Government. Management were supposed to be utilizing the funds as and when they were made available. A delay in the funds, therefore, crippled the work of management. PIAC (2020) also said that there was delay in the release of funds and even when it is finally released, it was in tranches, and

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management had to rely on funds that were meant for other things. In order to attain the needed goal of the DTSE, funds should be readily available. This is because management would need fund get the school going, lack of it would serve as a disincentive (Schaufeli & Taris 2014).

Staffing Challenges

There was also a challenge with staffing, both teaching and non-teaching. Teachers were not enough, so were non-teaching staff including kitchen, cleaners, security, among others. Ruth, a domestic bursar, explained that because kitchen staff were not many, it affected their time for serving meals and even their health. She said:

> *Because the kitchen staff are not many, they spend long hours in school Sometimes getting permission to attend hospitals becomes difficult since such hands are always needed. …if a worker is sick and comes with a doctor's report, I have to allow the person to go and rest…the male staff are few and they pack the bowls, clean the dining hall, empty the bowls and wash them. They are however in short supply. They have to serve the first batch of students at the dining hall, pack the bowls and serve the second batch of students at the dining hall. So it affects the time of serving.*

Again, some of the teaching staff were not experienced. They were new recruit who had no experience on the job. Cecil, a head of department, said:

> *The teachers are not enough. Some personnel from the Nation Builders' Corps (NABCO) were posted here, but they are not experts. We need experienced teachers.*

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Richard, an assistant headmaster, also explained that even though new teachers had been added, they were not enough.

> *We have to combine some of them (students)…this is because we had the same number of staff strength of the single stream for the double-track, until we had some NABCO teachers joining us. And even with that we had only two. Later others came to join, yet we have problems.*

Mensah, an assistant headmaster, also said that they needed more teachers.

> *It's a serious problem. We need 13 teachers. For example, we need teachers for Government, English Language, French, History, Literature, and Christian Religious Studies (CRS) among others. We had some teachers for some subjects but other subjects do not have them; some subjects are full whiles others are lacking. And a teacher who teaches in Green is not supposed to teach in Gold but now we are being compelled to let some teachers take some periods from other tracks.*

Lexis, an assistant headmaster, also said that they needed more teachers. He said:

> *We still need more, for instance when it comes to the Mathematics Department, the number of teachers is small so the teachers are over-working themselves. They are doing more than they ought to do. There are some other departments. The Visual Arts teachers as I said, are not over staffed. If we were to bring in more teachers, then we would*

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> *say they are under working and would be over-staffed. The issue here is not only the teaching staff, the non-teaching staff is also in need. A large campus like…we have just 3 security men. Look at the number of students around. When you go to the kitchen then we see how bad the situation is. They are suffering, the workload is too much. We still need more, we need a lot of staff members.*

Both teaching and non-teaching staff were in short supply. This led to an increased workload on management, teachers and non-teaching staff. Kalunda and Otanga (as cited in Asumadu, 2019) reported that free secondary education in Kenya resulted in increased enrolment of students which created problems such as heavy teaching workload on teachers, inadequate number of teachers to meet rising number of students and lack of adequate instructional materials. PIAC (2020) also commented that staffing was inadequate. However, it challenges the earlier held assumption that at the implementation of the DTSE, over 8,000 teachers were recruited to cater for the programmes (Allotey, 2018). Again, the demands of the job had not been met with the needed resources to make it complete. Job demands were more than the resources.

Challenges with Organizing Co-Curricular Activities

A further challenge was organization of co-curricular activities. The academic calendar did not take into account co-curricular activities such as sporting competitions, quizzes and debates, religious activities, maintaining school compound and staff meetings among others. Mark, a headmaster, said:

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The planners of the curriculum planned it in such a way that they did not consider co-curricular activities. So we sacrifice contact hours. When there is a debate, or sports activities, they are all done within contact hours. We have allocated P.E, time on the time table for that. This is because a lot of topics on the core subjects need to be tackled. We also have Project times to catch up with most of the uncovered topics. So honestly, we do not have time for co-curricular activities. We mostly use the inter-school's athletics for that.

Recently, we had to do athletics, but we have most of our good athletes in the Gold track and they were at home. Therefore, they did not participate. Most of the activities we do affect one track or the other. Sometimes we have to invite those who are good but are not in school yet, some don't come…and co-curricular activities and the time we close, it doesn't help at all. When we close at 4pm, they have to do after school duties like; weeding, scrubbing, sweeping and so on. After which they go and bath then go for dining.. So it's only on weekends we get time to do those activities (said Louis, a housemaster).

Management members were not able to schedule co-curricular activities due to the compact nature of the time table. Wall (1994) found that principals on YRS could not plan for meetings with staff. Again, allocating time for sports, quiz competitions and staff meetings, among others, was very

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difficult. There was also no time for maintaining and repairing infrastructure that has been worn out. Mussatti (1981) and Wall (1994) also said that YRS/DTSE had challenges with maintaining building, as well as having time for a thorough cleaning of infrastructure was very challenging.

According to Bakker and Demerouti (2007), when job demands outweigh the resources, it may result in poor health and this can lead to burnout. Management did not have the resource of time to organise other activities which were equally important. Management would then likely seek to move away from their job demands.

Quality and Quantity of Supplied Items

Another challenge worthy of mention was the quality and quantity of items, as well as untimely supply of food stuff and logistics. Ruth, a domestic bursar, said:

> *Again, in terms of food items, the quality is not standard. For example, sometimes the soya beans that are supplied come with weevils and stones in them. This would mean that the few workers would have to pick the weevils and stones and wash them before cooking. This, therefore, affects the time for cooking. On quantity, it is usually small. For example, the rice that is supplied do not reach the required bag. One bag of rice is supposed to be 17 cups of "olonka". However, it does not reach that quantity. Again, each bag is supposed to feed 300 students but because of the shortage in terms of the cup, it affects the quantity of food for the students. There is also a problem of shortage of cooking*

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> *utensils. Since money available is meant for perishable goods, but not for other purposes.*

Esi, an assistant headmistress, also said:

> *For the sake of my office, I'm working on the feeding and other things. Some of the foods they supply to them are not of standard quality. Usually, I go to the kitchen. Food like beans is very little.*

PIAC (2020) also raised concern about the unwholesome supplies and poor quality of food, the delay in the supplies and over and under supply. The quality and quantity of food posed a serious challenge. This could also explain earlier finding in Figures 21 and 22 where majority of the students were not getting sufficient food to eat at the dining hall.

In juxtaposing the challenges with the JD-R model, it can be seen that the high job demand and limited resources will lead to staff burn out and strain. The JD-R model posits that when demands of a job are high, extra effort must be made to reach the goals of the job and to and prevent decreasing performance (Schaufeli & Taris, 2014). The inadequacy of the needed resources and the extra demands of the DTSE would result in strains on management. Thus, the challenges with infrastructure, funds, workload, and inadequate human resource will lead to management burn out. This would negatively affect their output of work. Students would also have their share since they also went through these challenges.

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Research Question Four: What are the Effects of the Challenges on Management?

This section sought to find out how the challenges affected academic work of students and management members. There challenges were with classrooms, dormitories, dining hall, textbooks, infrastructure, funding, staffing and the inability to organize co-curricular activities. The quantitative data of students and management members were analysed with inferential statistics. I made use of a One-Way ANOVA (Analysis of Variance) to compare the effects of the challenge and the category of school. The categories were "A", "B" and "C" schools. The results in ANOVA were presented in an ANOVA table.

From each of the tables, there was a significant value (p-value) and an alpha value of 0.05. The columns were labelled "Sum of Squares" (SS), "d" (degree of freedom), "Mean Square" (MS), "F" (For "F" Ratio) and "sig" (Significance level) which was critical for interpretation. In interpreting, when the significant value was greater than the alpha value (0.05), then there was no statistical significance or effect. However, when the significant value was less that than the alpha value, there was a statistical significance. Significance difference meant that the means differed more than would be expected by chance alone. This would therefore require a post hoc analysis since the table would not tell much about the effects or by looking at the size of various means.

Effects of Infrastructural Challenges

This contained the effects of the challenges with infrastructure. The data for the students were analysed with a one way ANOVA, while that of

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management was done manually. Table 29 presents ANOVA test of students result on the negative effect of challenges in the classroom

Table 29: ANOVA Test for Students' Responses on Negative Effect of Challenges in Classroom

	Sum of Squares	D.f.	Mean Square	F	Sig.
Between Groups	5.884	2	2.942	2.650	.072
Within Groups	480.582	433	1.110		
Total	486.466	435			

Source: Field Survey (February, 2020)

The results in Table 29 was a one way ANOVA to explain if the category of school had a negative effect on the challenges in the classroom. However, it was found out that the negative effect of classroom challenges did not depend on the category of school. That is, there was no significant difference between the category of school and the negative effect of not having enough desks in the classroom. The significant value of 0.72 was greater than the alpha value of 0.05, thus 0.072>0.05. The negative effects of not having enough desks in the classrooms were felt by all schools. Each school was impacted negatively. This may be due to the number of students exceeding the total desks available in the various schools. Table 30 presents ANOVA test of management' results of negative effects of classroom challenges.

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Table 30: ANOVA Tests Managements' Responses for Negative Effects of Classroom Challenges

	Sum of Squares	D.f.	Mean Square	F	Sig.
Between Groups	8.457	2	4.229	3.374	.042
Within Groups	67.683	54	1.253		
Total	76.140	56			

Source: Field Survey (February, 2020)

In Table 30, there was no statistical difference between the category of school and the challenges. The significant value of 0.42 was greater than the alpha value of 0.05, thus 0.042>0.05. All categories of schools were negatively affected by challenges in the classrooms. One head if department, Charles, explained that students could not sit comfortably in class.

> *Students are not able to sit comfortably to learn. They do not have enough chairs and tables to put their books on to write.*

Diana, a senior housemistress, also said that the classrooms were overcrowded.

> *The students are overcrowded in the classroom. And because of the time when you teach, they get tired in no time.*

Lexis, an assistant headmaster, also said that some students sat on the floor during contact hours.

> *In the classrooms, some students sit on the floor, others stand at the pavilion, while others also sit on the dwarf wall.*

Due to the fact that students were not able to sit comfortably during classes, and do not have tables and chairs to write on, they are affected.

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Moreover, because they were over crowded, they got tired along the line. This negatively affected them. Students would then have low motivation to learn since they would not get the resources of classrooms and desks. Table 31 presents ANOVA test for students on the negative effects of dormitory challenges

Table 31: ANOVA Test of Students' Responses for Negative Effect of Dormitory Challenges

	Sum of Squares	D.f.	Mean Square	F	Sig.
Between Groups	18080.151	2	9044.576	8.902	.001
Within Groups	439919.461	433	1015.980		
Total	458008.612	435			

Source: Field Survey (February, 2020)

Table 31 shows the results of whether the negative effects of the challenges in the dormitory depended on the category of school. It indicates that there was a significance difference between the category of school and the negative effect of not having enough desks in the classroom. The significant value is 0.001 which was smaller than the alpha value of 0.05 (0.001<0.05). This means that the means of the negative effects of the dormitory challenges differed from each school. This therefore needed a "post hoc" analysis to ascertain the differences in the means. Table 32 is an illustration of post hoc analysis of dormitory challenges.

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Table 32: Post hoc Test for Negative Effect of Dormitory Challenges

Category of school	N	Subset for alpha =0.05	
		1	2
Grade A	150		15.87
Grade B	141		23.32
Grade C	145	7.43	

Source: Field Survey (February, 2020)

The post hoc compared the means with respect to school categories. Grade "B" had highest mean value of 23.32. This was followed by Grade "A" with 15.87 and Grade "C" with a mean value of 7.43. It was evident that the means of Grades "A" and "B" schools were not statistically significant, hence placed in the same column. The mean of Grade "C" was statistically significant. Thus, the negative effects were felt depending on the category of school. Table 33 presents managements' results on the negative effects of dormitory challenges.

Table 33: ANOVA Test for Management on Dormitory Challenges

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.753	2	3.377	3.043	.056
Within Groups	59.913	54	1.110		
Total	66.667	56			

Source: Field Survey (February, 2020)

From Table 33, there was no statistical significance between the category of school and the negative effects of dormitory challenges. That is, the significant value of 0.56 was greater than the alpha value of 0.05, thus 0.056>0.05. The challenges in the dormitory may be due to the overcrowding and lack of beds. The bed bugs were also a cause for concern. Consequently,

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the challenges with dormitory was very severe. Mensah, an assistant headmaster, explained:

> *Also for the dormitory, there is a lot of congestions there. Because of the huge number and there not being any ceiling fan/good ventilation, some of the students sleep outside. The place gets warm and heated so they prefer to sleep on the veranda. The bedbugs also disturbs them.*

Louis, a housemaster, also said that until the Green Track form two students reported, they did not have challenges. Moreover, the bedbugs had destroyed most of the beds. He said:

> *Oh, the beds are not enough. We used to have enough until the form twos came in. And the ones we were having had no quality so they broke down in no time. Also, because of the bedbugs, the students hit the beds on the floor to get them out. And with that process, the beds get destroyed. Had it not been that, we wouldn't have had any problems in the dormitory. Recently, for my house, they brought additional 17 beds. So about 5 students are still sleeping on the floor. We have all the rooms filled with beds. But because of the pressure on the beds such as hitting it on the floor and so on has led to the destruction of so many beds. Actually the problem is that, we have the bed but there are no planks in the beds for them to put their mattresses on. The beds are metal beds. We used to have wooden beds until the bedbugs saga which led to the change of the beds into metallic ones.*

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Thinking that the metal one will help, it has been the worse so far because of the holes in them.

The congestion and the lack of beds in the dormitories negatively affected the students. Thus, the lack of adequate resources was a heavy burden on the management and students. Table 34 shows students' results on the effects of dining hall challenges.

Table 34: ANOVA Test for Students' Responses on Negative Effect of Dining Hall Challenges

	Sum of Squares	D.f.	Mean Square	F	Sig.
Between Groups	2.065	2	1.032	.793	.453
Within Groups	563.539	433	1.301		
Total	565.603	435			

Source: Field Survey (February, 2020)

Table 34 shows that there was no significant difference between the category of school and the negative effect of challenges in the dining hall. The significant value of 0.453 was greater than the alpha value of 0.05, thus 0.453>0.05. All the schools were having negative effects of the challenges in the dining hall. Table 35 shows management members' results on the negative effects of the dining hall challenges.

Table 35: ANOVA Test for Management on Dining Hall Challenges

	Sum of Squares	D.f	Mean Square	F	Sig.
Between Groups	8.189	2	4.094	3.296	.045
Within Groups	67.075	54	1.242		
Total	75.263	56			

Source: Field Survey (February, 2020)

In Table 35, there was no statistical significance between the category of school and the negative effects of the dining hall. The significant value of

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0.45 was greater than the alpha value of 0.05, thus 0.45>0.05. Lexis, an assistant headmaster, explained that they were running shifts at the dining hall. He said:

> *At the dining hall, we run shift. Form ones have to rush to the dining hall and serve food on the tables so that the seniors can come and eat. Afterwards, they also go and eat. All should be done within 15 minutes. Consequently, it affects classes, especially the ones that come after break time.*

Lack of the job resource of adequate infrastructure was affecting academic work. When students did not feel comfortable studying in the classroom, did not get quality and enough food and did not have proper sleep at night, it affected their output negatively. There is evidence that such resource affect the quality of education. Ayele, et al. (2015), in a study of Zongo community schools in the East and North Ayawaso Sub-Metros concluded that school facilities and materials had the potential to greatly affect the quality of education provided to the students. Schools that were lacking enough desks, textbooks, libraries, science laboratories and audio-visual aids, jeopardized students' future success by undermining teacher effectiveness.

Brahman (2004) also studied the effects of school infrastructure on student attendance and drop-out rates in schools in the Houston Independent School District (HISD) in Houston, Texas. He concluded that school districts who wished to maximize attendance and minimize drop-out rates should avoid temporary solutions to school building inadequacies and provide students, teachers and administrators with quality permanent structure, schools, and

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quality janitorial staffs to maintain those schools. That is, students were likely to be truants because of the lack of physical infrastructure. This confirmed an earlier finding that the attitude of students towards learning was poor.

Akomolafe and Adesua (2016) examined the relevance of physical facilities in enhancing the level of motivation and the academic performance of senior secondary school students in South West Nigeria. They found that there was a significant relationship between physical facilities and students' level of motivation and academic performance. Based on the findings of the study, they recommended that more physical, human and material resources that are of high quality should be made available in public school to motivate students towards learning. In addition, more priority should be given to allocation of funds to make the public school conducive for teaching and learning to take place; this will improve the academic standard of public schools. Resources (infrastructure), thus, play a vital role in academic achievement. Table 36 shows ANOVA test for students' results of challenges with textbooks.

Table 36: ANOVA Test for Students' Responses on Effect of Textbook Challenges

	Sum of Squares	D.f.	Mean Square	F	Sig.
Between Groups	.794	2	.397	.352	.704
Within Groups	487.193	432	1.128		
Total	487.986	434			

Source: Field Survey (February, 2020)

In Table 36, it could be seen that that there was no significant difference between the category of schools and the negative effect of not

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having textbooks. The significant value was 0.704, which was greater than the alpha value of 0.05, thus 0.704>0.05. All the schools were having negative effects of not having enough desks in the classrooms. Table 37 presents ANOVA test for managements' results on the effects of challenges with books.

Table 37: ANOVA Test for Management on Challenges with Textbooks

	Sum of Squares	D.f.	Mean Square	F	Sig.
Between Groups	2.314	2	1.157	.785	.461
Within Groups	79.581	54	1.474		
Total	81.895	56			

Source: Field Survey (February, 2020)

Table 37 shows that there was no statistical difference between the category of school and the challenges with textbooks. The significant value was 0.461, which was greater than the alpha value of 0.05, thus 0.461>0.05. The textbook challenges were felt in each school. Textbooks and exercise books were needed for the smooth implementation of any academic work. Consequently, a lack of it would affect negatively the academic achievement. Textbooks are resources where students can visit and revise. However, lack of them would affect their output.

Effects of Inadequate and Untimely Release of Funds

Funding is a valuable job resource that motivates workers to function effectively. The lack of it would prove otherwise. The untimely release of funds and releasing funds in tranches affected smooth implementation of any project and, especially the DTSE (PIAC, 2020). Frankie, a senior housemaster, said that there were no funds allocated to his office nether did he get anything

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from the government. Sometimes, he financed things from his personal resources.

> *There are no funds allocated to the …but government does not give us anything. I bought pesticide last week with my own money…. I am yet to see the head if he will buy the rest.*

Richard, an assistant headmaster, also said:

> *Recently, we nearly broke down but the headmaster called a fellow head for support. We also helped another school.*

It could be seen that the lack of funds affected the smooth work of management of the DTSE. The availability and release of funds on time would motivate managers of DTSE to give off their best. Funding helps improve academic performance. Abdul-Ramadan, et al (2018); Blimpo et al. (2015); Brock and Richburg-Hayes (2006); and Belot et al. (2007), in their works found that funding was useful in improving academic performance. Other researchers supported it with their findings.

There are some researchers whose works proved that funding had no effect on achieving academic results. The works of by Douglass and Gregg (2012); Weaver (2013); and Elizabeth and John (2015) did not find any significant relationship between students' grade points and financial aids. However, adequate and timely release of funds is needed for smooth running of the schools by management.

Effects of Inadequate Staffing

Human resource is a valuable job resource to achieve desired results. Insufficient or lack of it would affect the outcome. This was also an issue with the DTSE. Inadequate staffing was affecting teaching and learning. This was

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because, though the demands of the work had increased, human resources remained the same. This therefore, led to an increase in the workload of management. All the three schools complained of the need for more teachers. There was also a challenge with staffing, both teaching and non-teaching. The challenges with staffing was putting too much work on the staff. Management were not going on break nor for holidays. All the management members in the schools felt that the workload was too much. Mensah, an assistant headmaster, said:

> *It's a serious problem. We need 13 teachers. For example, we need teachers for Government, English Language, French, History, Literature and Christian Religious Studies (CRS) among others. We had some teachers for some subjects but other subjects do not have them; some subjects are full while others are lacking. And a teacher who teaches in Green is not supposed to teach in Gold, but now we are being compelled to let some teachers to take some periods from other tracks.*

Lexis, an assistant headmaster, also said that the teachers were doing more than they were supposed to do. He maintained:

> *We still need more, for instance when it comes to the Mathematics Department, Mathematics teachers are over-working themselves, they are doing more than they ought to do. There are some other departments…The issue here is not only the teaching staff, the non-teaching staff is also in need. A large campus like…we have just 3 security men. Look at*

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> *the number of students around. When you go to the kitchen then we see how bad the situation is. They are suffering, the workload is too much. We still need more, we need lots of staff members*.

Danny, a head of department, also said that since he became part of management, he had never been on vacation. He had been working since the inception of the DTSE. He explained:

> *It is very hectic in the sense that there is no vacation for me. Since I became… in December, I'm in it, I've been in school every single day up till today. While other teachers in certain track, have the time to rest, relax, ponder over what they have taught, because if you are teaching assuming track A, and track A are in the house, you are also in the house. But I have to be in school when track A is in school, and I have to be in school when track B is also in school. So there is no vacation for me, and there is no rest.*

Inadequate staffing led to heavy workload on management. Management had not been on break since the inception of the DTSE and they are getting worn out, thereby affecting their work. Asumadu (2019) revealed that increased enrolment in senior high schools brought a heavy workload on teachers. Increase enrolment without corresponding workforce would cause burnout and thereby affecting academic work. Inadequate staff was therefore, a demotivating tool for management and affected their work.

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Organization of Co-Curricular Activities

A further effect is the inability to organize co-curricular activities. This is supported by Wall (1994), who found out that the principals were finding difficulty in scheduling meetings, and that of teachers, especially, itinerant and fine arts teachers. Warrick-Harris (1995) also found out that students again missed out on camps and other organized recreational programmes. Mark, a headmaster, said that the curriculum had been scheduled that it made no room for other activities, aside academic. Sometimes, in order to carry out a co-curricular activity, they had to sacrifice contact hours. He said:

> *The planners of the curriculum planned it in such a way that they did not factor co-curricular activities. So we sacrifice contact hours. When there is a debate, or sports activities, they are all done within contact hours. We have allocated P.E, time on the time table for that. This is because a lot of topics on the core subjects need to be tackled. We also have Project times to catch up with most of the uncovered topics. So honestly, we do not have time for co-curricular activities. We mostly use the inter-school's athletics for that.*
>
> *Recently, we had to do athletics, but we have most of our good athletes in the Gold Track and they were at home. Therefore, they did not participate. Most of the activities we do affect one track or the other. Sometimes, we have to invite those who are good, but are not in school yet, some don't come…and co-curricular activities and the time we close, it doesn't help at all. When we close at 4:00 pm, they*

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> *have to do after school duties such as weeding, scrubbing and sweeping after which they go for dining, and bath as well. So it's only on weekends we get time to do those activities* (said Louis, a housemaster).

Thus, management had to substitute one job resource meant for a particular job for another. They had to use the contact hours to make room for another job demand. This therefore, affected their output.

Effects of Unwholesome Supply of Food Items

Another challenge worthy of mention was the quantity and quantity of items, as well as untimely supply of food stuff and logistics. The food items that were supplied to the schools were sometimes undersupplied. Some were also not needed at the time. The quality was also unwholesome. This finding was supported by PIAC (2020) that, the supply of goods and other items were unwholesome and under or over supplied. The finding also supported the challenges in the dining hall in Figures 21 and 22, where majority were not getting enough food at the dining hall. Thus, Ruth, a domestic matron, said:

> *Again, in terms of food items, the quality is not standard. For example, sometime the soya beans that are supplied come with weevils and stones in them. This would mean that the few workers would have to pick the weevils and stones and wash them before cooking. This therefore, affects the time for cooking. On quantity, it is usually small. For example, the rice that is supplied do not reach the required number.. One bag of rice is supposed to contain 17 cups of "olonka". However, it does not reach that quantity. Again,*

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> *each bag is supposed to feed 300 students, but because of the shortage in terms of the cup, it affects the quantity of food for the students. There is also a problem of shortage of cooking utensils. Since money available is meant for perishable goods, but not for other purposes.*

Esi, an assistant headmistress, also buttressed the story of Ruth, the domestic matron. Esi said:

> *Some of the raw foods they supply to them are not of standard looking at the quality of it. Usually, I go to the kitchen. Food like beans is very little. To be frank, I don't know the source of it. I perceive it's from people of the ruling party and for that matter they are at an advantage. So we don't get the chance to go to the market to buy what you wish for. You'll be there and all of a sudden, it'll be brought to you. So whatever it is, that is what has been supplied to you. And you are supposed to make use of it.*

It was perceived that the items were purchased by the party in power. They therefore, could not demand for answers.

The lack of adequate resources such as infrastructure, fund, staff and logistics were impeding the demands of the work. Management were expected to work assiduously to get the job done. However, due to the inadequacy of the resources, they were developing strains and burnout. Management therefore needed to cope with the challenges.

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Research Question Five: In What ways are Management Coping with the Challenges?

In the face of the challenges, management and students had to cope to keep the school running. This section presents the results of the various coping strategies that were adopted by students and management. These coping strategies have been discussed in the light of Merton's adaptation strategies; conformism, retreatism, innovation, ritualism and rebellion.

The results are presented in tables. One way of coping with the classroom challenges was to share desk with colleagues. Table 38 shows results of students' sharing desks with their colleagues in the classroom.

Table 38: Students' Responses on whether they Share Desks with Colleagues or not

Sharing desks	Frequency	Percentage
Strongly Disagree	39	9.00
Disagree	30	7.00
Agree	166	38.00
Strongly Agree	201	46.00
Total	436	100.00

Source: Field Survey (February, 2020)

In the Table, 38 (9%) strongly disagreed that they shared desks with others in the classroom, as 30 (7%) disagreed. Again, 166 (38%) agreed that they shared desks and 201 (46%) strongly agreed. Students were therefore sharing desks with their colleagues in the classroom. Table 39 shows management's results of students sharing desks with colleagues.

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Table 39: Management's Results on whether Students Share Desks with Mates or not

Sharing desks with classmates	Frequency	Percentage
Strongly Disagree	4	7.00
Disagree	4	7.00
Agree	21	37.00
Strongly Agree	28	49.00
Total	57	100.00

Source: Field Survey (February, 2020)

In Table 39, it can be seen that 4 (7.00%) of management members strongly disagreed that students were sharing desk with classmates and 4 (7.00%) also disagreed. However, 21 (37.00%) agreed as 28 (49.00%) also strongly agreed. Thus, students were sharing desks with their classmates in the classrooms. This finding was in line with an explanation offered by Gabby, an assistant headmaster. He explained that they needed to merge some of the classes. He said:

> *We need 50 classrooms, but only 43, so we fall short of 7. So management sat and merged two classes from two tracks, who were offering the same programmes.*

Frankie, a senior housemaster, also said that some students sat on the floor during class' hours, while others stood on pavilions.

> *In the classrooms, some students sit on the floor, others stand at the pavilion, while others also sit on the dwarf walls.*

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There were others who were using other places apart from the classrooms for classes. They were using the dining hall, technical workshops and science laboratories as classrooms. Richard, an assistant headmaster, said:

> *As at now, we have some classrooms under construction. Some (students) are at the technical workshops, while others are at the laboratory.*

Here, one method that was adopted was innovation. Innovation is when people conform to the goals but not the means to achieve them (Merton, 1938). Management, thus tried to keep to the goals of the DTSE, but adopted the sharing of desks, combining classes and using other facilities to achieve them. Students were also able to adapt to the proposal by management so as to achieve the goals. Both management and students were therefore innovative. Table 40 illustrates students sleeping on the floor in the dormitories.

Table 40: Students' Responses whether they Sleep on Floor or not

Sleeping on Floor	Frequency	Percentage
Strongly Disagree	118	27.00
Disagree	70	16.00
Agree	89	20.00
Strongly Agree	85	20.00
Non applicable	74	17.00
Total	436	100.00

Source: Field Survey (February, 2020)

In Table 40, 118 (27.00%) strongly disagreed that they slept on the floor in the dormitories and 70 (16.00%) disagreed. However, 89 (20.00%)

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agreed and 85 (20.00%) strongly agreed that they slept on the floor. Majority of the students, thus were not sleeping on the floor. Table 41 presents management's results on students sleeping on the floor.

Table 41: Managements' Responses whether Students Sleep on Floor or not

I share desks with classmates	Frequency	Percentage
Strongly Disagree	4	7.00
Disagree	5	9.00
Agree	22	39.00
Strongly Agree	26	45.00
Total	57	100.00

Source: Field Survey (February, 2020)

In Table 41, 4 (7.00%) of management members strongly disagreed that students slept on the floor in the dormitories and 5 (9.00%) also agreed. However, 22 (39.00%) agreed and 26 (45.00%) strongly agreed that students slept on the floor. Thus, according to management members, students were sleeping on the floor in the dormitories. Management explained that due to the high enrolment, coupled with few dormitories, some students were compelled to sleep on the floor. Esi, an assistant headmistress, said:

> *For the bed, for instance, some are sleeping on the floor. They are sleeping on the floor because there isn't enough space to put the beds so the mattresses have to be put on the floor to allow much space than to put the bed in there to occupy space.*

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Gabby, an assistant headmaster, also said students were sleeping on the floor in the dormitories. There was pressure on the dining hall due to the high enrolment. As a result, they were going to the dining hall on shift basis.

> *In the dormitories, there are no beds. Students sleep on the floor. There is pressure in the dining hall too and that ultimately affects academic work. We run shifts at the dining hall.*

Again, management adopted the method of innovation. They kept the goals and used the means of sleeping on the floor to reach the goals (Merton, 1938). The condition was stressful. There were no beds but the schools were supposed to contain students. Management members therefore, needed to rely on other means to contain the students. As a result, they had to sleep on the floor. Table 42 shows results of students having provisions to supplement food from the dining hall.

Table 42: Students' Responses whether they have Provisions or not

I have provisions	Frequency	Percentage
Strongly Disagree	30	7.00
Disagree	23	5.00
Agree	111	26.00
Strongly Agree	198	45.00
Non applicable	74	17.00
Total	436	100.00

Source: Field Survey (February, 2020)

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To cope with the challenges in the dining hall, 30 (7.00%) strongly disagreed that they had provisions and 23 (5.00%) also agreed. However, 111 (26.00%) agreed and 198 (45.00%) strongly agreed that they had provisions to supplement food given at the dining hall. A total of 74 (17.00%) were day students and did not provide answer to this item. Majority of the students thus agreed and strongly agreed that they had other provisions to support the food at the dining hall. This might be due to the fact that some of the products were under supplied and unwholesome. Table 43 shows management members' results of students with provisions to supplement food at the dining hall.

Table 43: Management' Responses whether Students have Provisions or not

Students have Provisions	Frequency	Percentage
Strongly Disagree	3	5.00
Disagree	6	10.00
Agree	22	39.00
Strongly Agree	26	46.00
Total	57	100.00

Source: Field Survey (February, 2020)

In Table 43, management members had 3 (5.00%) strongly disagreeing as 6 (10.00%) agreed. However, 22 (39.00%) agreed and 26 (46.00%) strongly agreed that students had provisions to supplement food at the dining hall. Majority of students thus had provisions. Ruth, a domestic matron, put it in these words:

Again, in terms of food items, the quality is not standard. For example, sometime the soya beans that are supplied

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come with weevils and stones in them. This would mean that the few workers would have to pick the weevils and stones and wash them before cooking. This, therefore, affects the time for cooking. On quantity, then it is usually small. For example, the bags of rice that are supplied do not reach the required bag. One bag of rice is supposed to be 17 cups of "olonka". However, it does not reach that quantity. Again, each bag is supposed to feed 300 students but because of the shortage in terms of the cup, it affects the quantity of food for the students.

This also confirmed the findings of PIAC (2020) that, some of the items that were supplied were unwholesome. Students again, adopted innovative means of achieving satisfaction. They spent their personal resources, such as pocket money, to make up for the quantity and quality of food at the dining hall. Students' responses on whether or not they have additional books is presented in Table 44.

Table 44: Students Responses on Whether or Not they have Additional Books

I have additional books	Frequency	Percentage
Strongly Disagree	28	6.00
Disagree	27	6.00
Agree	133	31.00
Strongly Agree	248	57.00
Total	436	100.00

Source: Field Survey (February, 2020)

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In Table 44, it could be seen that, in order to cope with the challenges of textbooks, 28 (6.00%) students strongly disagreed while 27 (6%) also disagreed. However, 133 (31%) agreed and 248 (57%) strongly agreed that they had bought additional books. Majority of the students were therefore having other books to supplement the ones that had been supplied by the school. Students trying to get additional books was an innovative way of adapting to the situation. Table 45 shows management members result that students had additional books.

Table 45: Management's Results on whether Students have Additional Books or not

Students with additional books	Frequency	Percentage
Strongly Disagree	8	14.00
Disagree	5	9.00
Agree	21	37.00
Strongly Agree	23	40.00
Total	57	100.00

Source: Field Survey (February, 2020)

Table 45 shows the results of management members on students with additional books. A total of 8 (14.00%) strongly disagreed that students had additional books, 5 (9.00%) disagreed, 21 (37.00%) agreed and 23 (40.00%) strongly agreed. Students were therefore having additional books to supplement what they were provided by their schools. This was also an innovative coping strategy. Table 46 shows results of students whether increased their personal time for studies or not.

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Table 46: Students' Responses whether they have Increased Personal Time for Studies

Personal time for studies	Frequency	Percentage
Strongly Disagree	24	6.00
Disagree	52	12.00
Agree	179	41.00
Strongly Agree	181	42.00
Total	436	100.00

Source: Field Survey (February, 2020)

Another way of coping with classroom challenges was increasing personal time for private studies. This is shown in Table 46 where 24 (6.00%) strongly disagreed that they had increased their personal time for studies, and 52 (12.00%) disagreed. However, 179 (41%) agreed and 181 (42%) strongly agreed. Thus, majority of the students had increased their personal time for studies. Table 47 shows management members' results on whether students had increased their time for studies.

Table 47: Managements' Responses on whether Students have Increased their Time for Studies

Increased Time for studies	Frequency	Percentage
Strongly Disagree	18	32.00
Disagree	10	17.00
Agree	12	21.00
Strongly Agree	17	30.00
Total	57	100.00

Source: Field Survey (February, 2020)

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In Table 47, 18 (32.00%) of management members strongly disagreed that students had increased their personal time to study and 10 (17.00%) disagreed. However, 12 (21.00%) agreed and 17 (30.00%) strongly agreed. Management members were thus had divided opinions whether students had increased personal time for studies or not. Table 48 shows students' results whether they attended vacation classes.

Table 48: Responses of Students whether they Attend Vacation Classes or not

I attend vacation classes	Frequency	Percentage
Strongly Disagree	90	20.00
Disagree	78	18.00
Agree	130	30.00
Strongly Agree	138	32.00
Total	436	100.00

Source: Field Survey (February, 2020)

In order to make up for the challenges, students were also attending classes during vacations. On the question of whether students attended vacation classes or not, 90 (20.00%) strongly disagreed that they were attending classes during vacation, as 78 (18.00%) disagreed. 10 (30.00%) agreed and 138 (32.00%) strongly agreed. Majority were therefore attending vacation classes. Students also attended vacation classes so as to supplement what they were taught at school. This was also innovative way of coping with the challenge. Students made use of personal resource of time to make up for what was lost during school hours. They coped by being innovative. Table 49

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also shows Management members' responses on whether students attended vacation classes.

Table 49: Management Results on whether Students Attend Vacation Classes or not

I attend vacation classes	Frequency	Percentage
Strongly Disagree	9	16.00
Disagree	10	17.00
Agree	17	30.00
Strongly Agree	21	37.00
Total	57	100.00

Source: Field Survey (February, 2020)

In Table 42, 9 (16.00%) of management members strongly disagreed that students attended classes during vacation, 10 (17.00%), 17 (30.00%) agreed as 21 (37.00%) strongly agreed. Thus, majority of students were attending vacation classes.

Coping with Financial Challenge

On funding, some management members sometimes had to use their personal money to provide for certain things with the hope that they would be reimbursed. Frankie, a senior housemaster, said that he made use of his personal resources, that is, money. He said:

I bought pesticide last week with my own money.

Charles, a housemaster, also reiterated a similar sentiment:

We run the school sometimes with our personal monies.

Management here coped by going the unconventional means. They used their personal resources. They therefore adopted an innovative strategy.

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Sometimes, they coped by asking for support from "sister" schools. Management had to call upon other schools nearby that had the items they needed in stock. This was also innovative. Richard, an assistant headmaster, said:

> *Recently, we nearly broke down but the headmaster called a fellow head for support. We also helped another school who were assured that money will be coming from the government.*

Ruth, a domestic matron, said:

> *As I speak, some schools are in crises. Sometimes we assist them. Sometimes we give them sugar and when their supplies come in they pay us back. We have bags of sugar but short of flour, so we sometimes discuss and negotiate with other schools.*

Coping with Staffing Challenge

As far as human resource is concerned, some teachers were teaching both Gold and Green tracks. Management members were also teaching in addition to managing their respective offices. Lexis, an assistant headmaster, said:

> *The teachers are also sharing in these because they try as much as possible to structure things such that gold teachers might not be teaching green, nor gold or green teachers might not be teaching gold form threes. In some areas, it is not possible. For instance, considering my school, we have only one stream for Visual Arts class. So we have only one*

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teacher for Picture Making, another teacher for Sculpture, and one teacher for GKA, and the rest. These same teachers will have to come and teach the Green as well. So, these same teachers have no rest. So, if we should request for more teachers, these teachers would be doing less than the required periods, that is, they will be underutilized seriously. Again, when you get to the General Arts Department, some teachers teaching subjects such as Twi and CRS, are similar to that of the Visual Arts. We have only one stream so they have to take up the Green, Gold as well as the form threes.

Adwoa, an assistant headmistress, also said that she taught and managed the office at the same time. She had to apportion her time in order to achieve that.

I teach for about four hours in a week and I run the office too. At times, I come back to see people there waiting for me. If it is emergency, I've to leave the students and attend to them.

Management made some teachers teach more than the average period of 18 to 22 hours. Some teachers were also teaching in both tracks. Management thus, had to do work extra hard so as to cope with the challenge of inadequate human resource. Management were therefore conforming to the goal and the means to achieve the goal by working extra hard (Merton, 1938).

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Coping with Co-Curricular Activities

Since the academic calendar did not make room for co-curricular activities, school hours were sacrificed for them. Again, activities such as cleaning and clearing of the school were done after school hours and on weekends. Lexis, an assistant headmaster, said:

> *You see, hmmm, the time by which the students would close, they would be called upon to do a few grounds work, they are tired. Sometimes, as I said, you have to structure things such that co-curricular activities can take place, may be after class.*

One senior housemaster, Atta, also said:

> *The co-curricular activities and the time we close, it doesn't help at all. When we close at 4pm, they have to do after school duties such as weeding, scrubbing, sweeping and so on. After which they go and bath and go for dining. So it's only on weekends we get time to do those activities.*

Management was also able to cope with the organization of co-curricular activities though rebellion. The academic calendar was designed in such a way that there was no room for co-curricular activities. Consequently, management put aside the academic activities of the classroom and instituted their own means to organize other activities (Merton, 1938). They, therefore, adopted the rebellious strategy.

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Coping with Workload

On coping with workload, management sometimes felt helpless, and sometimes had to rely on God. For instance, Lexis had no option than to conform to the situation. Lexis, an assistant headmaster, said:

> *Every aspect has doubled, or more than doubled. It's not easy, every sector at the moment is tired but what can we do?*

Mark, a headmaster, also adopted innovative strategy. He said:

> *When challenges come, we do innovation. We are really managing. And we pray and hope that in future things will change for the best.*

Richard, an assistant headmaster, was equally hoping that things would change to suit their interest. As a result, they had to conform to the situation.

> *I don't come to work on weekends, except when there is emergency or heavy load. I have four assistants, but they rotate weekly, that is on each weekend, one goes off. Consequently, it takes four weeks for each to go off on weekend* (said Ruth, a domestic matron).

Thus, management had adopted the conformist strategy to deal with the challenges. This may be because they could not exercise other strategies aside conforming to the situation.

The contributions of Old Students Association in some schools were significant to mitigate the challenges confronted by some of the schools. Gabby, an assistant headmaster, said:

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At the latter part of 2019, old students in the diaspora gave us 100 wooden desks.

One chaplain, Derrick, also said:

They do support us. They have even adopted one of the classrooms to do renovations. They donate some items such as mower and so on which help the school.

This was also innovative because they relied on resources from outside to achieve the goals.

Other schools also did not feel the impact of the past student of the school. Mark, a headmaster, said:

I don't see the contribution of old students, it is now getting on its feet. We don't have a vibrant Old Student Association. They just started since the school is not that old.

The Parent Teacher Associations (PTA) were doing their best to assist the schools. Mark, a headmaster, said:

The PTA have been very supportive until their activities were halted somehow. Initially, they suspended all their activities but the GES said they did not mean that. If they wanted to do anything, they did not have to do it through the school, but do it on their own.

We met the PTA and the parents agreed to pay GhS 100 each. Since some of the parents were carpenters, they opted to do it. However, it was reported to government. The headmaster was summoned with the chairman of the PTA" (an assistant headmaster, Gabby, said).

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> *These days, P.T.A.s are not part of the school. At first, they were helping with dues. But these days, the government says they are not part of the school system* (said Esi, an assistant headmistress).

It can be concluded that management members adopted innovative strategies to deal with the challenges. Innovation, thus, is the oldest and earliest form of strategy used to deal with a situation. (Toynbee, as cited in Rosenzweig & Grinstein, 2016).

Chapter Summary

The chapter presented and discussed the results of the study: exploring the challenges and coping strategies facing management: a study of selected school in the Eastern Region of Ghana. The study was guided by five Research Questions. Research Question 1 was to find out the perception of management on double-track schools. It was revealed that the double-track had led to increase in enrolment. However, management were having problems with limited facilities as well as workload. Research Question 2 was also to find out the effective usage of contact hours. It was revealed that teachers were attending to students. Again, the contact hours had increased from 40 minutes to 60 minutes. There was however, no difference between the total number of contact hours between students and teacher in a week. Research Question 3 was on the challenges of the double-track system. The management were faced with infrastructural challenges, such as inadequate classrooms, dormitories and small dining halls. Other challenges were with funding which was inadequate, human resource, undersupply and unwholesome supply of food items. All these challenges affected the output of

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work of management. This was what Research Question 4 sought to establish. Finally, Research Question 5 revealed that management mostly adopted the innovative strategy to deal with most of the challenges. In the light of the JD-R model, lack of resources would lead to staff burnout which was evident in the study. The summary, conclusions and recommendations of the study have been presented in Chapter Five.

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CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter is the final phase of the study, which was designed to explore the challenges and coping strategies facing management in double-track schools in selected schools in the Eastern Region of Ghana. The chapter thus, provides the summary of the research process and draws conclusions. The chapter then provides recommendations arising out of the study and suggests other areas where research can be conducted.

Summary of the Research Process

The study explored the challenges and coping strategies facing management in double-track schools and their coping strategies in the Eastern Region of Ghana. Specifically, the study sought to; explore the perception of management on the double-track system, assess the effective usage of the extended contact hours, examine the challenges and assess the effect the challenges on the work of management, as well as exploring the adopted coping strategies of management. The study purposed to fill the gap in literature on the double-track in Ghana, to bring into the awareness of the major stakeholders of education some of the challenges and how management was coping with the challenges.

In the study, I employed the convergent mixed method approach. Here, I gathered both qualitative and quantitative data concurrently. I selected all management members and sampled second year students from three selected double-track schools in the Eastern Region. The selection of the schools was based on the 2018 placement list of the GES. One school each was sampled

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from three categories of "A", "B" and "C". These schools are Koforidua Senior High/Technical School (SECTEC) in Koforidua, Attafuah Senior High Technical School (ATSEC) in Akyem Oda and Akyem Swedru Senior High School (AKISS) in Akyem Swedru. I sampled 150 students from each school, totalling 450 students and selected 57 management members from the three selected double-track schools. Each student and management member completed a set of questionnaires. A total of 30 Management members in addition to completing the questionnaire, were interviewed. I analysed the quantitative data descriptively and inferentially. The qualitative data of management members was also done manually but based on themes. The themes were derived from the research objectives. I have presented the key findings in the subsequent section.

Summary of the Key Findings

The key issues that came out of the study have been presented in this section.

1. On the perception of the double-track system, management and students were of the view that it was good and helped to enrol more students. Moreover, they wanted everyone to benefit. They however, felt that the DTSE should be done at all times. Management members, in addition, also saw the DTSE to be good since it had increased enrolment. However, due to the increase in enrolment and limited resources, there was pressure on all facilities. The pressure also arose from the continuous use of the few facilities. The high enrolment also brought attendant problems such as disciplinary. Furthermore, parents

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were not ready to contribute to assist schools' projects. Again, students have adopted poor attitudes towards academic work.

2. The study also revealed that there was lack or inadequate consultation on the implementation of the DTSE. The Green Track students were benefitting more than the Gold Track students. The quality of students posted to categories "B" and "C" schools were poor. Finally, management could not go for vacation because they had to be at post throughout the year.
3. Another objective was on how the extended contact hours were effectively being used. It emerged from the study that the extended contact hours were being used effectively. This was because teachers were always in class and in time. However, if a teacher could not go to class, the teacher gave assignment to occupy the students in his absence. The teacher again, made up for lessons that were lost. On the part of management, it was found out that the contact hours had been increased from 40 minutes per period to 60 minutes per period. However, teachers were meeting students four times in a week instead of six times in the previous contact hours. As a result, contact hours though had been increased was not different from the previous one since the contact hours in both instances were 240 minutes in a week. Again, the extended contact hours were making students and teachers tired. This is because students were not used to sitting for long hours, as teachers were also not familiar with teaching for longer hours. Furthermore, academic intervention activities were ongoing, though was practiced differently in each school.

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4. The study revealed that infrastructure was a major challenges facing double-track schools. These were inadequate classrooms and desks. Classrooms were overcrowded and desks were in short supply. Moreover, dormitories and dining halls could not accommodate the students. In the dormitories, some students were not having beds and were sleeping on the floor. Again, in the dining hall, students were going there on shift basis since the hall could not contain all them at the same time.
5. Again, funds were not released by the central government on time. As a result, departments could not embark on their activities. Furthermore, teaching and non-teaching staff were in short supply and could not meet the rising numbers of students. Co-curricular activities were also difficult to organise. This was because the planners of the academic calendar did not factor co-curricular activities. Moreover, some food items were overly supplied, while others were undersupplied. Again, most of the supplied food items were unwholesome.
6. These challenges had negative effects on students and teachers. The infrastructural challenges negatively affected academic teaching and learning. The lack of sufficient textbooks and exercise books also affected students negatively. Furthermore, the untimely release of funds from the central government affected the smooth running of the schools. Inadequate teaching and not-teaching staff affected teachers since they overworked. Lack of time for co-curricular activities also affected the students.

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7. On the coping strategies, majority of the students were sharing desks in the classrooms. Again, some students were sleeping on the floor to make up for inadequate beds and dormitories. Students had also bought provisions to supplement food that was eaten at the dining hall. Students were attending vacation classes in order to make up for lost periods at school. Again, management sometimes had to rely on sister schools to for support. In order to cope with insufficient teachers, teachers were made to sometimes teach in two tracks. Again, to make up for co-curricular activities, management had to substitute contact hours for that.

Conclusions

1. It can be concluded that DTSE has created opportunity for any JHS leaver who has the desire to access secondary education to do so.
2. It can again be concluded that major stakeholders in education were not consulted before implementing the DTSE.
3. Again, it can be concluded that instructional hours remained the same, hence the claim the contact hours had been increased was not justified by the study.
4. The challenges with the double-track schools were more severe than the previous system since there was no time for co-curricular activities, inadequate human resource. These challenges negatively affected academic work.
5. Finally, management members adopted innovative coping strategies to deal with the challenges.

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Recommendations

The study therefore makes the following recommendations based on the findings:

1. Again, major stakeholders should be consulted in the event of the implementation of a major intervention in the education sector. Teacher unions like Ghana National Association of Teachers (GNAT), National Association of Graduate Teachers (NAGRAT), Teachers and Educational Workers Union (TEWU), University Teachers Association of Ghana (UTAG), Polytechnic Teachers Association of Ghana (POTAG), civil society organizations like IMANI, Centre for Democratic Development (CDD), and leadership of Parent teacher Association (PTA) ought to be consulted in the event of a policy intervention. Their involvement will provide education to the citizenry as far as the policy is concerned.
2. In addition, management of SHS should be given the room to make decisions concerning their schools, rather than coming from the central government as this was not done in many cases. In giving management the room, they should be checked by their respective education directorates.
3. It is also recommended that the government, the local authorities, churches, and communities provide the needed remittances to support efforts of government. They should provide classrooms and desks, dormitories and beds and expansion of dining hall facilities in senior high schools. Again, the government should allow the PTAs in the various schools to operate to partner government in the provision of

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infrastructure. It is also recommended that funds should be released on time.

4. Finally, the GES should employ more teachers to deal with the rise in enrolments at the Senior High level.

Suggestions for Further Research

I suggest that since the study was carried out in three schools in the Eastern Region, similar research can be carried out in other regions with more schools.

Again, the respondents were students and management members. It is, therefore, recommended that the views of parents, civil society organizations, as well as other stakeholders in education should be considered for further research.

In addition, I suggest that research should be conducted on the effects of the following challenges on academic performance: human resource, co-curricular activities and work environment. Further research can also be carried out by comparing the results of West African Senior High Examinations of Single Track SHS and the DTSE when the results of the DTSE are released.

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APPENDICES

APPENDIX A

QUESTIONNAIRE FOR STUDENTS

UNIVERSTY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Questionnaire for students

The questionnaire has been developed by a master student undertaking a research on the topic "**Exploring the Challenges and Coping Strategies of School Management in Selected Double-Track Schools in the Eastern Region of Ghana".** I kindly request your assistance to help fill the questionnaire frankly and honestly. I assure you that any information you provide will be treated and held in strict confidence. The information provided will be used solely for academic purposes. Thank you for your time.

Instructions: Please tick (√) the box where applicable to your choice concerning each statement.

SECTION A: BIO DATA

1. Sex of student: male [ ] female [ ]
2. Age: 12-15 [ ] 16-19 [ ] 20-24 [ ] Above 25 [ ]
3. Programmes of study: General Arts [ ] General Science [ ] Agricultural Science [ ] Business [ ] Home Economics [ ] Visual Arts [ ] Technical [ ] others [ ]
4. Track: Gold [ ] Green [ ]
5. Status: Boarder [ ] Day [ ]

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SECTION B: STUDENT'S PERCEPTION OF DOUBLE-TRACK SYSTEM

This section relates to the perception of the Double-Track System. Please, indicate the extent to which you agree or disagree with the following statements by ticking (√) 1=Strongly Disagree (SD), 2=Disagree (D), 3=Agree (A) and 4=Strongly Agree (SA)

SN	General	SD	D	A	SA
		1	2	3	4
6	I like everything about Double-Track System (DTSE).				
7	The DTSE helped me to gain admission.				
8	I want it to be done at all times.				
9	I want everyone to benefit.				

SECTION C: EXTENDED USE OF CONTACT HOURS

		SD	D	A	SA
		1	2	3	4
10	Teachers are always in class.				
11	Teachers give us assignment when they are absent from class.				
12	Teachers always come to class in time.				
13	Teachers are readily available for clarification.				
14	We lose class through staff meetings, sports competition, holidays.				

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15	Teachers make up for lost lessons.				
16	I have more time to study.				
		SD	**D**	**A**	**SA**
		1	**2**	**3**	**4**
17	Contact hours are being effectively used.				
18	We study when teachers are not in school.				
19	We are always kept occupied when in school.				
20	We play in the class most of the time.				

SECTION D: CHALLENGES OF THE DOUBLE-TRACK SYSTEM

a. Classroom

		SD	**D**	**A**	**SA**
		1	**2**	**3**	**4**
21	There are enough desks in the classrooms.				
22	We are over-crowded in the classrooms.				
23	I have a personal desk to sit on.				

b. Dormitory (to be completed by boarding students)

		SD	**D**	**A**	**SA**
		1	**2**	**3**	**4**
24	I have my personal bed in the dormitory.				
25	We are over-crowded in the dormitory.				
26	The lights are working in the dormitories.				

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c. Dining Hall

		SD	D	A	SA
		1	2	3	4
27	I have a table at the dining hall.				
28	I get enough food at the dining hall.				

d. Textbooks and Exercise Books

		SD	D	A	SA
		1	2	3	4
29	I have been given all the textbooks I need by the school.				
30	I have all exercise books that I need.				

SECTION E: EFFECTS OF THE CHALLENGES

		SD	D	A	SA
		1	2	3	4
31	The challenges in the classroom negatively affect my studies.				
32	The challenges with the textbooks negatively affect my studies.				
33	The challenges with the Dormitory negatively affect my studies.				
34	The challenges with the Dining Hall negatively affect my studies.				

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SECTION F: COPING STRATEGIES

		SD	D	A	SA
		1	2	3	4
35	I share desks with classmates in the classroom.				
36	I sleep on the floor in the dormitories.				
37	My parent have given me provisions to supplement food from the dining hall.				
38	I have additional books to supplement what we get from school.				
39	I have increased personal time for studies.				
40	I attend vacation classes.				

40. Any Other…….

……..……

……

……..…..

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APPENDIX B

QUESTIONNAIRE FOR MANAGEMENT

UNIVERSTY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Questionnaire for School Management

The questionnaire has been prepared by a master student undertaking a research on the topic "**Exploring the Challenges and Coping Strategies of School Management in Selected Double-Track Schools in the Eastern Region of Ghana".** I kindly request your assistance to help fill it frankly and honestly. I assure you that any information provided will be treated and held in strict confidence. The information provided will be used solely for academic purposes. Thank you for your time.

Instructions: Please tick (√) the box where applicable to your choice concerning each statement.

SECTION A: BIO DATA

1. Sex: male [ ] female [ ].
2. Age: 26-30[ ] 31-35 [ ] 36-40 [ ] 41-45 [ ] 46-50 [ ] 51-55 [ ] 56-60 [ ] above 60 [ ].
3. Level of education: Bachelor's Degree [ ] Master's Degree [ ] Doctorate Degree [ ] Others; please specify……..
4. Rank: Principal Superintendent [ ] Assistant Director II [ ] Assistant Director I [ ] Deputy Director [ ] Other: please specify…

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5. Number of years at post: 0-2 years [ ] 3-5 years [ ] 6-8 years [ ] 9 and above [ ].

SECTION B: MANAGEMENT'S PERCEPTION OF DOUBLE-TRACK SYSTEM

This section relates to perception of the Double-Track System. Please, indicate the extent to which you agree or disagree with the following statement by ticking (√) 1=Strongly Disagree (SD), 2=Disagree (D), 3=Agree (A) and 4=Strongly Agree (SA).

SN	General	SD	D	A	SA
		1	2	3	4
6	I like everything about double-track system (DTSE).				
7	The DTSE has helped to enrol more students.				
8	I want it to be done at all times.				
9	I want everyone to benefit.				

C) EXTENDED USE OF CONTACT HOURS

		SD	D	A	SA
		1	2	3	4
10	Teachers are always in class.				
11	Teachers give students assignment when they are absent from class.				
12	Teachers always go to class in time.				
13	Teachers are readily available for clarification.				

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14	Teachers do not go to class during staff meetings, sports competition, and holidays, among others.				
15	Teachers make up for lost lessons.				
16	Contact hours are being effectively used.				
17	Students are always kept occupied when in school.				
18	Students play in the class most of the time.				

D. CHALLENGES OF THE DOUBLE-TRACK SYSTEM

a. Classroom

		SD	**D**	**A**	**SA**
		1	**2**	**3**	**4**
19	There are enough desks in the classrooms.				
20	Students are over-crowded in the classrooms.				
21	Students have individual desks to sit on.				

b. Dormitory

		SD	**D**	**A**	**SA**
		1	**2**	**3**	**4**
22	Students have individual beds in the dormitories.				
23	Students are over-crowded in the dormitory.				
24	The lights are working in the dormitories.				

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c. Dining Hall

		SD	D	A	SA
		1	**2**	**3**	**4**
25	Students have tables at the dining hall.				
26	Students get enough food at the dining hall.				

d. Textbooks and Exercise Books

		SD	D	A	SA
		1	**2**	**3**	**4**
27	Students have been given all the textbooks by the school.				
28	Students have all exercise books they need.				

SECTION E: EFFECTS OF THE CHALLENGES

		SD	D	A	SA
		1	**2**	**3**	**4**
29	Classroom challenges negatively affect students' academic work.				
30	Textbook challenges negatively affect students' academic work.				
31	Dormitory challenges negatively affect students' academic work.				
32	Dining Hall challenges negatively affect students' academic work.				

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SECTION F: COPING STRATEGIES

		SD	D	A	SA
		1	2	3	4
33	Students share desks with classmates in the classroom.				
34	Students sleep on the floor in the dormitories.				
35	Parents have given provisions to their wards to supplement food from the dining hall.				
36	Students have increased their personal time for studies.				
37	Students attend vacation classes to supplement tuition in school.				
38	Students depend on dining hall for food.				

39. Any Other……

……..……..……

……..……

……..…..

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APPENDIX C

INTERVIEW SCHEDULE FOR MANAGEMENT

UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

INTERVIEW GUIDE FOR THEMANAGEMENT

The Interview Guide has been developed by a master student undertaking a research on the topic, **"Exploring the Challenges and Coping Strategies of Management of Double-Track Schools in Selected Schools in the Eastern Region of Ghana".** I kindly request your assistance to help fill it frankly and honestly. I assure you that any information provided will be treated and held strictly confidential. The information provided will be used solely for academic purposes. Thank you for your time.

SECTION A: BIODATA

1. Sex: Male [ ] Female [ ]

2. Age……

3. Educational Level……

4. Rank ……

5. How long have you held the position in this school?

SECTION B: PERCEPTION OF THE DOUBLE-TRACK SYSTEM

6. What is your view about the DTSE?

7. What are the advantages of the DTSE?

8. What are some of the disadvantages associated with the DTSE?

9. What do you make of the way DTSE was implemented?

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10. What have been your experience with the DTSE?

SECTION C: USAGE OF THE EXTENDED CONTACT HOURS

11. How does the previous time allocation differ from the current contact hours?

12. How are the contact hours being effectively used?

13. Are teachers always in class?

14. What prevents teachers from coming to class??

SECTION D: CHALLENGES FACING MANAGEMENT IN DOUBLE-TRACK SCHOOLS

15. How do the following constitute a challenge in the Double-Track System;

a) infrastructure,

b) funding,

c) human resource,

d) co-curricular activities,

e) work load

f) work environment?

16. Are there other challenges?

SECTION E: THE EFFECTS OF THE CHALLENGES ON THE OUTPUT OF TEACHERS AND STUDENTS

17. How do these challenges affect the work of management;

a) infrastructure,

b) Funding,

c) Human resource,

d) co-curricular activities,

e) Work load

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g)Work environment?

19. In what ways do these challenges affect students?

SECTION F: COPING STRATEGIES ADOPTED BY SCHOOL MANAGEMENT IN DOUBLE-TRACK SCHOOLS

28. How is management coping with these challenges:

a) infrastructure,

b) Funding,

c) Human resource,

d) co-curricular activities,

e) Work load

g) Work environment?

29. Is there any other information to be added?

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APPENDIX D

INFORMED CONSENT FOR THE STUDENTS

Title: Exploring the challenges and coping strategies facing school management in double-track schools: a study of three selected schools in the Eastern Region

Principal Investigator: Adjei Enoch Ampofo

Address: Department of Sociology and Anthropology

University of Cape Coast

Cape Coast

General Information about Research

The main purpose of the study is to explore the challenges and coping strategies facing school management in double-track schools: a study of selected schools in the Eastern Region. I am hoping that the findings of this study are important because it will shed light the challenges of the Double-Track System and how management is coping. This will help policy makers, the Ghana Education Service, and researchers to be aware of the challenges facing the system, and to offer the needed support

Procedures

For this purpose, I invite you to be one among other respondents to participate in a survey. I am conducting a research work on the topic "*Exploring the challenges and coping strategies facing school management in double-track schools: a study of selected schools in the Eastern Region*". The structured questionnaire has been developed to ascertain the challenges and coping strategies among management of Double-Track Schools. The survey will take about twenty to thirty minutes (20-30 minutes). The survey will take

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place in your institution and no one else but I will be present during the exercises. Before the collection of the data, questionnaire to be collected will be packed in an envelope and kept in a cabinet to prevent any losses. After data collection, the questionnaire will be packed back in an envelope and kept in a cabinet for three weeks to screen off unsightly view. The key to the cabinet will be kept by the researcher to avoid any losses. You will not be named in any reports. You will fill out a survey which will be provided by the principal investigator by name Adjei Enoch Ampofo and collected by the same principal investigator.

Possible Risks and Discomforts

There is no possible risk to you from your participation in this study. I shall safeguard the confidentiality of information. However, this document contains no personal identification information and, therefore, your participation and information will remain confidential.

Possible Benefits

This information you provide us today will be useful to explore the challenges and coping strategies facing school management in double-track schools: a study of selected schools in the Eastern Region in Eastern Region, Ghana. It will help identify the challenges of the Double-Track System and seek to make recommendations to improve the system.

Confidentiality

The information that you share with me will be kept confidential; it will be used strictly for research only. The report will use the collective responses and will not reveal names or any identifiers that may be linked back to the person who gave the information. Nor will anyone who is not directly

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involved in this research be allowed to access the information that I obtain from you. Your response on the questionnaire will not have your name or any information that could be used to trace your identity. This consent form will be kept separate from the research instrument and will be destroyed in one year. The research instrument and responses will be kept under lock and key and will not be accessed except by myself. The completed research instrument will be destroyed one year after the study is completed. This will be destroyed by burning. The questionnaires will have no personal identification information. I would like to reassure you that the information you provide will not be provided to anyone except the researcher (Adjei Enoch Ampofo).

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VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title **"Exploring the challenges and coping strategies facing school management in double-track schools: a study of selected schools in the Eastern Region"** has been read and explained to me. I have been given an opportunity to have any ***questions*** about the research answered to my satisfaction. I agree to participate as a volunteer.

_____ _____

Date Name and signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____ _____

Date Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_____ _____

Date Name Signature of Person Who Obtained Consent

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APPENDIX E

INFORMED CONSENT FORM FOR SCHOOL MANAGEMENT

Title: Exploring the challenges and coping strategies facing school management in double-track schools: a study of three selected schools in the Eastern Region

Principal Investigator: Adjei Enoch Ampofo

Address: Department of Sociology and Anthropology

University of Cape Coast

Cape Coast

General Information about Research

The main purpose of the study is to explore the challenges and coping strategies facing school management in double-track schools: a study of selected schools in the Eastern Region. I am hoping that the findings of this study are important because it will shed light the challenges of the Double-Track System and how management is coping. This will help policy makers, the Ghana Education Service, as well as researchers to be aware of the challenges facing the system. You will be interviewed based on an interview guide that I have developed. I have adopted this approach because I believe management can provide the study with detailed information on the challenges of the double-track system.

Procedures

For this purpose, I invite you to be one among other participants in survey. I am conducting a research work on the topic "*Exploring the challenges and coping strategies facing school management in double-track schools: a study of selected schools in the Eastern Region*". The interview

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guide has been developed to ascertain the challenges and coping strategies among management of Double-Track Schools. You are being interviewed because you possess adequate information that will be very useful for the study. This is because you have been at the level of management since the inception of the Double-Track System. The interview will be recorded with an audio recorder and can last for about thirty to forty five minutes. The interview will take place in your institution and no one else but I will be present during the exercises. Before the interview, the interview guide will be packed in an envelope and kept in a cabinet to prevent any losses. After the data collection, the interviews will be transcribed, edited and coded. You will not be named in any reports.

Possible Risks and Discomforts

There is no possible risk to you from your participation in this study. I shall safeguard the confidentiality of information. However, this document contains no personal identification information and, therefore, your participation and information will remain confidential.

Possible Benefits

This information you provide us today will be useful to explore the challenges and coping strategies facing school management in double-track schools: a study of selected schools in the Eastern Region in Eastern Region, Ghana. It will help identify the challenges of the Double-Track System and seek to make recommendations to improve the system.

Confidentiality

The information that you share with me will be kept confidential; it will be used strictly for research only. The report will use the collective responses

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and will not reveal names or any identifiers that may be linked back to the person who gave the information. Nor will anyone who is not directly involved in this research be allowed to access the information that I obtain from you. Your response to the interview will not have your name or any information that could be used to trace your identity. This consent form will be kept separate from the research instrument and will be destroyed in one year. I would like to reassure you that the information you provide will not be provided to anyone except the researcher (Adjei Enoch Ampofo).

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VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title **"Exploring the challenges and coping strategies facing school management in double-track schools: a study of three selected schools in the Eastern Region"** has been read and explained to me. I have been given an opportunity to have any ***questions*** about the research answered to my satisfaction. I agree to participate as a volunteer.

_____ _____

Date Name and signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____ _____

Date Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_____ _____

Date Name Signature of Person who obtained consent

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