Sprin Journal of Arts, Humanities and Social Sciences
ISSN: 2583-2387 (Online)
Vol. 5(2), Jun 2026, pp, 15-27
Journal homepage: https://sprinpub.com/sjahss

Research Article

Teachers and Students' Views of Ghana's Double Track System of Education

Philip Dorsah[1], *Richard Acheampong*[2], *Raabi Darkom*[3]

[1]*Department of Science Education, University of Technology and Applied Sciences, Ghana*
[2]*Department of Science Education, Berekum College of Education, Ghana*
[3]*Department of Science Education, Gambaga College of Education, Ghana*

ARTICLE INFO

Keywords:

double-track system, free senior high school, instructional quality, educational equity, Ghana

Article History:

Received: 02-02-2026
Revised: 16-05-2026
Accepted: 22-05-2026
Published: 01-07-2026

ABSTRACT

The Double-Track System (DTS) was introduced in Ghanaian Senior High Schools to accommodate increased enrollment following the implementation of the Free Senior High School policy. This study examined the challenges associated with the DTS from the perspectives of teachers and students in selected schools in the Upper East Region of Ghana. Guided by the positivist paradigm, the study adopted a quantitative cross-sectional survey design. A purposive sample of 45 teachers and 40 students from four senior high schools was surveyed using a structured questionnaire comprising Likert-type items and an open-ended question. Quantitative data were analyzed using descriptive statistics, while qualitative responses were analyzed thematically. The findings indicated that infrastructural challenges, including overcrowded classrooms, inadequate laboratory facilities, and poor sanitation, constituted the most critical constraints. The DTS was also perceived as negatively affecting instructional quality due to reduced contact hours, limited teacher–student interaction, and disruptions to study routines, all of which were associated with lower academic performance. Equity concerns emerged, with students reporting unequal learning opportunities across tracks. Although increased workloads affected teacher motivation, teachers demonstrated resilience in managing instructional demands. The study found that the DTS was perceived as presenting more challenges than benefits, despite improving access to senior high school education.

Cite this article:

Dorsah, P., Acheampong, R., & Darkom, R. (2026). Teachers and Students' Views of Ghana's Double Track System of Education. Sprin Journal of Arts, Humanities and Social Sciences, 5(2), 15–27. https://doi.org/10.55559/sjahss.v5i2.653

1.0 Background

Education is universally recognized as a fundamental human right and a key driver of individual and societal development. This principle is enshrined in both national and international legal frameworks, policy documents, and sustainable development agendas. The 1992 Constitution of Ghana explicitly guarantees the right to education for all citizens. Article 25(1) states:

"All persons shall have the right to equal educational opportunities and facilities and with a view to achieving the full realization of that right (a) basic education shall be free, compulsory and available to all; (b) secondary education in its different forms, including technical and vocational education, shall be made generally available and accessible to all by every appropriate means..." (Republic of Ghana, 1992, Art. 25(1)). The Constitution emphasizes the need for free and compulsory basic education and progressive accessibility to higher levels of education based on merit. The Ghana Education Service (GES), as the implementing agency of the Ministry of Education, aligns with the constitutional provision by ensuring that every child of school-going age has access to quality, equitable, and inclusive education. The GES (2015) highlights that education is essential for human resource development, national integration, and the promotion of democracy and good citizenship.

Globally, the United Nations' Sustainable Development Goal 4 (SDG 4) advocates for "inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030 (United Nations, 2015). The SDG framework underscores the need for education to end poverty, reduce inequalities, and foster sustainable economic growth. According to UNESCO (2020), "the right to education is enshrined in Article 26 of the Universal Declaration of Human Rights (1948) and guaranteed in international law through various treaties." Education is viewed as indispensable for the exercise of all other human rights and for the development of human potential.

The United Nations Children's Fund emphasizes that education is a right for every child, as stipulated in the Convention on the Rights of the Child (CRC, 1989), particularly Articles 28 and 29. UNICEF (2021) argues that education equips children with knowledge, skills, and confidence to shape a better future and is essential for breaking cycles of poverty and inequality. International curricular bodies such as the International Bureau of

*Corresponding Author:
pdorsah@utas.edu.gh (P. Dorsah)
https://doi.org/10.55559/sjahss.v5i2.653
© 2026 The Authors. Published by Sprin Publisher, India. This is an open access article published under the CC-BY license
https://creativecommons.org/licenses/by/4.0

Education (IBE-UNESCO) and the Organization for Economic Co-operation and Development (OECD, 2019) stress the need for education systems to prepare learners for the challenges of the 21st century, promoting equity, inclusiveness, and lifelong learning.

Education in Ghana has undergone several major reforms aimed at improving access, equity, and quality at all levels of the system. Notable among these is the Free Compulsory Universal Basic Education (FCUBE) policy of 1995, the 1987 educational reforms, and the 2007 Senior High School (SHS) reforms, all designed to address issues of access, affordability, and quality of education (Akyeampong, 2009). Despite these policy initiatives, significant challenges remain, particularly in achieving equitable access to secondary education.

To address these inequities, the New Patriotic Party (NPP) government, as part of its 2016 campaign promise, introduced the Free Senior High School (Free SHS) policy in 2017. The policy sought to remove financial barriers to secondary education by making tuition-free SHS universally accessible to all qualified students (Ministry of Education, 2018). While the Free SHS initiative was widely welcomed as a progressive step toward inclusive education (UNESCO, 2021), its implementation presented serious challenges for the already strained educational infrastructure.

The introduction of Free SHS led to a substantial increase in enrollment at the senior high level, as many more students who would otherwise have been excluded sought admission. However, most schools lacked adequate classrooms, dormitories, laboratories, and teaching and learning resources to accommodate the surge in numbers. To address the pressure on facilities, the government implemented the Double-Track System (DTS), which divided students into two cohorts (commonly called "Green" and "Gold") that attended school in alternating shifts (Adarkwah, 2022). Although the system temporarily expanded access, it also introduced new challenges.

Schools have since struggled with insufficient infrastructure and resources. Feeding the increased number of students under the school feeding program has also been inconsistent, creating further stress on the system (Boateng, 2020). Additionally, teachers have been burdened with heavier workloads, while reduced instructional time per cohort under the DTS has raised concerns about the quality of education and academic performance of students. These challenges have sparked debates about the sustainability and effectiveness of the Free SHS and Double-Track policies, highlighting the need for comprehensive strategies that address not only access but also equity and quality of education in Ghana.

1.1 Statement of the Problem

Over the past four decades, Ghana has implemented several major educational reforms aimed at improving access, equity, and quality in education. These include the 1987 Education Reforms, the Free Compulsory Universal Basic Education (FCUBE) policy enacted in 1995, and the 2007 Senior High School (SHS) reforms, which collectively sought to restructure the education system and enhance student progression across levels (Akyeampong, 2009). Despite these reforms, persistent inequities and limited access to secondary education remained significant challenges, with many students unable to enroll in SHS due to financial constraints and inadequate infrastructure.

To address these challenges, the Government of Ghana introduced the Free Senior High School (Free SHS) policy in 2017, aimed at eliminating tuition fees and expanding access to secondary education for all eligible students. This policy significantly increased SHS enrollment nationwide (Duah Dwomoh et al., 2022). However, the rapid surge in student numbers quickly strained existing school infrastructure and educational resources, particularly classrooms, dormitories, and teaching materials. To mitigate these pressures, the government introduced the Double Track System (DTS), which divides the student population into two cohorts that attend school in alternating tracks to maximize limited facilities (Duah Dwomoh et al., 2022; Osei-Owusu & Menka, 2021).

Although the DTS addressed immediate capacity issues, its implementation has been accompanied by several challenges. Duah Dwomoh and colleagues (2022) found that schools operating under the DTS experienced infrastructure deficits, delayed and inadequate food supplies, shortages of teaching and learning materials, and reduced instructional contact hours, as well as financial constraints affecting implementation fidelity. These factors combined to negatively affect students' academic performance and overall quality of education outcomes outside of traditional single-track settings.

Stakeholders, including teachers, parents, and educational researchers, have raised concerns that the reduced instructional time, overcrowded facilities, and logistical difficulties inherent in the DTS may compromise teaching quality and learning outcomes. Moreover, inadequate stakeholder consultation before implementation has been identified as a significant operational challenge, contributing to feelings of disengagement and implementation difficulties among school leaders and communities (Osei-Owusu & Menka, 2021).

Despite these growing concerns, there remains limited empirical evidence on the specific challenges faced by schools, teachers, and students under the DTS, and how these challenges affect teaching and learning outcomes. This knowledge gap constrains policymakers' ability to design targeted, evidence-based interventions that improve the quality and sustainability of the Free SHS policy and its associated systems. Consequently, this study seeks to examine the challenges associated with the implementation of the Double Track System in senior high schools in Ghana, with a specific focus on schools in the Upper East Region.

The study sought to examine the implementation of the Double-Track System (DTS) in senior high schools by investigating the challenges and effects associated with its operation. Specifically, the study aimed to:

1. Examine infrastructural challenges in implementing the Double-Track System.
2. Explore students' perspectives on the challenges posed by the Double-Track System.
3. Investigate teachers' perspectives on the challenges associated with the Double-Track System.
4. Assess the effects of the Double-Track System on the quality of education, equity, and teacher motivation.

2.0 Theoretical Framework

In the context of multi-track education systems, which are commonly introduced to address overcrowding and resource constraints in schools, it is critical to understand how implementation processes influence outcomes. The study is based on two theories: policy implementation theory and Time-on-Task Theory.

2.1 Policy Implementation Theory

Policy Implementation Theory provides a valuable lens for analyzing the complexities involved in translating multi-track schooling policies into effective practice at the school and classroom levels. Pressman and Wildavsky (1973) argue that policy implementation is not simply the execution of directives but a dynamic process shaped by interactions among multiple actors, institutional settings, and available resources. They note that the greater the number of actors involved—and the more discretion they have—the higher the likelihood that outcomes will diverge from the original policy goals.

Applied to multi-track schooling, this theory suggests that the effectiveness of such systems depends not only on sound policy design but also on how implementers, including school administrators, teachers, and other stakeholders, interpret and operationalize the policy. Owusu-Ansah and Asare (2019) highlight that adequate resource allocation, clear communication of objectives, teacher training and motivation, stakeholder engagement, and ongoing monitoring are critical to ensuring faithful and effective implementation. Ampiah and Adu (2021) similarly emphasize the role of contextual adaptation by school-level actors in influencing the success of policy implementation.

Lipsky (1980) further develops this perspective with his concept of Street-Level Bureaucrats, emphasizing the crucial role of frontline workers—such as teachers and school leaders—whose daily decisions and coping strategies directly shape students' experiences of multi-track systems. Constraints like increased workload, reduced instructional time, and scheduling conflicts can compel these actors to make discretionary choices that affect instructional quality and equity among student cohorts.

Informed by these perspectives, this study assumes that the successful implementation of multi-track education policies requires alignment between policy design and local capacities. Implementation outcomes are shaped by both structural factors, such as the availability of resources and organizational capacity, and human factors, including the attitudes and discretion of implementers. Understanding the challenges and enablers at the implementation stage is therefore essential to enhance the effectiveness and sustainability of multi-track schooling. Consequently, Policy Implementation Theory frames this research as an inquiry into how multi-track schooling policies are enacted on the ground, identifying gaps between policy intent and actual outcomes, and exploring strategies to improve educational access without compromising quality.

2.2 Time-on-Task Theory

Time-on-Task Theory, as articulated in John B. Carroll's (1963) Model of School Learning, posits that student learning depends on the ratio of the time actually spent engaged in learning activities to the time needed to learn a task. Carroll's model asserts that learners achieve higher levels of mastery when the time they spend working on instructional tasks approaches or meets the time required for learning (Carroll, 1963). Researchers further distinguish between time available for learning (e.g., instructional hours scheduled) and time-on-task (actual engaged learning time), with engaged time being more directly related to student achievement outcomes (Carroll, 1963; Scheerens & Bosker, 1997).

In the context of multi-track education systems, such as double-track schooling, students may experience reduced instructional time per cohort due to alternated schedules designed to maximize limited facilities. According to Time-on-Task Theory, both the quantity and quality of instructional time matter for learning, and reductions in either can limit students' opportunities to engage meaningfully with curriculum content (Carroll, 1963). Research on academic learning time highlights that effective learning requires not just time in school, but time during which students are actively engaged in academically relevant tasks (Huitt, 2006; Scheerens & Bosker, 1997).

Moreover, empirical studies demonstrate that variations in how time is used—such as higher levels of engaged time versus mere attendance are associated with better achievement outcomes (Goldhammer et al., 2014). For example, Goldhammer and colleagues found that learners who spent more time actively engaged on cognitively demanding tasks showed higher success in problem solving, indicating that time spent on task is linked to how students interact with learning demands.

Therefore, Time-on-Task Theory provides a valuable framework for examining whether students in multi-track schooling systems receive sufficient instructional time to meet curriculum requirements, the extent of their active engagement during learning periods, and how differences in instructional scheduling across tracks may relate to variations in student outcomes. Grounding this study in Time-on-Task Theory enables a critical assessment of how multi-track education impacts engaged learning time and informs strategies to mitigate potential negative effects on instructional quality, equity, and effectiveness.

2.3 Free SHS Policy

Education is universally recognized as a fundamental human right and a catalyst for social and economic development (UNESCO, 2020). In Ghana, significant efforts have been made to expand access to education at all levels, culminating in the implementation of the Free Senior High School (Free SHS) policy in 2017. The concept of free secondary education in Ghana is rooted in the country's constitutional commitment to universal education, with Article 25 of the 1992 Constitution of Ghana guaranteeing equal educational opportunities for all citizens (Republic of Ghana, 1992). Historically, Ghana also made progress in providing free and compulsory basic education through the Free Compulsory Universal Basic Education (FCUBE) policy initiated in the 1990s (Akyeampong, 2009).

The idea of extending free education to the secondary level gained prominence in the political discourse in the early 2000s. In the lead-up to the 2016 general elections, the New Patriotic Party (NPP) campaigned on a manifesto promise to implement free secondary education, and upon assuming office in January 2017, President Nana Addo Dankwa Akufo-Addo officially launched the Free SHS policy later that year (Ministry of Education, Ghana, 2018). The policy sought to remove financial barriers that prevented many Ghanaian students from accessing senior high school education. Data from the Ministry of Education shows a sharp increase in SHS enrollment following the policy, with the number of placed but unenrolled students falling significantly after its introduction, reflecting improved access (Ministry of Education, Ghana, 2018).

The Free SHS policy was underpinned by considerations of equity and access, aiming to bridge socio-economic disparities in education by ensuring that students from poor and rural communities could attend senior high school without financial hindrance (Ministry of Education, Ghana, 2018). It was also rooted in human capital development, recognizing education as critical for building a skilled workforce and promoting national development (UNICEF, 2021). The constitutional directive principles of state policy further oblige the state to make secondary

education progressively free and accessible (Republic of Ghana, 1992).

One of the most immediate impacts of the policy was a significant rise in enrollment at the secondary level. According to SEND-Ghana data cited in research on double-track schooling, senior high school enrollment increased by over 30% from the 2016/17 to the 2017/18 academic year following the introduction of Free SHS (Addo, 2019, as cited in research on double-track implementation).

However, the surge in enrollment strained existing infrastructure, resources, and teacher capacity, revealing gaps between access and quality (Duah Dwomoh et al., 2022). Despite increased access, the rapid enrollment growth exposed infrastructural inadequacies, including overcrowded classrooms, insufficient dormitories, and inadequate teaching and learning materials (Duah Dwomoh et al., 2022). To manage these pressures, the government introduced the Double Track System (DTS) as part of the Free SHS policy framework, dividing students into alternating cohorts (commonly referred to as "Green" and "Gold" tracks) to maximize the use of existing facilities.

Research evaluating the Free SHS policy and DTS found that while the intention was to accommodate increased enrollment, several implementation challenges emerged. Duah Dwomoh et al. (2022) reported that the introduction of the double-track system was associated with infrastructure deficits, financial constraints, delays in the release of food supplies, lack of teaching and learning materials, and reduced contact hours, which together negatively affected educational quality outcomes. Students in double-track schools performed worse in core subjects compared with their counterparts in traditional single-track settings.

The compressed academic calendar and reduced instructional hours under the double-track approach have been linked to rushed instruction and limited opportunities for remediation and practical work. Research indicates that such conditions can undermine effective teaching and learning by compressing syllabi into shorter periods, often without proportional increases in instructional support or resources. In addition to academic concerns, the DTS administration increased teacher workload and complicated class scheduling, contributing to fatigue and stress among educators. Teacher capacity challenges have been noted as part of the broader implementation issues, as schools struggled to maintain instructional quality amidst larger cohorts and alternating schedules (Duah Dwomoh et al., 2022).

The DTS has also faced social and psychological critiques. Extended breaks between tracks have been associated with disruptions in students' routines and concerns about loss of learning continuity, particularly for students in rural settings who may engage in non-academic activities during off-periods. While the Free SHS policy represents a landmark reform in Ghana's educational landscape, reflecting a strong commitment to equitable and inclusive education, its implementation, especially through the double-track system, has underscored persistent challenges related to infrastructure, quality, and sustainability. These empirical findings highlight the ongoing need for policies that balance access with robust support for educational quality and systemic capacity.

Empirical studies

Empirical studies on Ghana's Free Senior High School (Free SHS) policy and the accompanying Double-Track System (DTS) consistently highlight significant gains in access and enrolment alongside persistent implementation and quality-related challenges. Several studies report that the Free SHS policy has substantially increased enrolment and improved access to secondary education, particularly for students from low-income households and rural communities, largely due to government absorption of schooling costs (Alagbela & Denteh, 2025; Casely-Hayford et al., 2025; Turkson et al., 2020; Yirper & Ziem, 2020). The introduction of the DTS has further contributed to reduced class sizes, improved teacher–student ratios, increased contact hours, optimal utilisation of school facilities, and the recruitment of additional teachers (Mensah, 2019; Osei-Owusu, 2021; Yirper & Ziem, 2020).

Despite these gains, the literature reveals widespread concerns regarding policy formulation, implementation processes, and educational quality. Studies indicate that stakeholder consultation before implementation was inadequate, and policy decisions were driven more by political and programmatic considerations than by process, effectiveness, or contextual analysis (Adarkwah, 2022; Mohammed & Kuyini, 2020; Mensah, 2019). At both the agenda-setting and formulation stages, limited problem diagnosis and the absence of alternative policy options were evident (Adarkwah, 2022). These weaknesses have manifested in post-implementation challenges such as inadequate funding, delayed disbursement of government funds, limited textbooks, overcrowded classrooms, insufficient infrastructure, and difficulties in maintaining school facilities due to year-round usage (Alagbela & Denteh, 2025; Osei-Owusu, 2021; Tamanja & Pajibo, 2019).

Concerns about educational quality are recurrent across studies. Several studies report that increased enrolment has outpaced available infrastructure and resources, resulting in compromised instructional quality and declining academic performance (Dwomoh et al., 2022; Turkson et al., 2020; Tseer et al., 2024). Teachers, in particular, have expressed negative perceptions of the DTS, citing incomplete syllabus coverage due to frequent holidays, logistical constraints, and perceived declines in instructional effectiveness, although many still demonstrate positive attitudes towards its implementation (Gyaase et al., 2024). Additionally, issues of equity remain insufficiently addressed, as intersectional factors such as gender, region, school type, and socioeconomic status continue to drive disparities in access and outcomes, contrary to the policy's stated equity goals (Akuffo, 2025).

Beyond academic outcomes, some studies raise concerns about unintended social and moral consequences. For instance, while the Free SHS policy has contributed to moral literacy, students' moral development has reportedly been impaired (Tawiah & Addai-Mensah, 2023). Public perception of the policy is also shaped by these negative outcomes, with growing concerns about quality, motivation, and pressure on boarding facilities (Casely-Hayford et al., 2025).

3.0 Methodology

This study was guided by the positivist paradigm, which assumes that reality is objective, measurable, and independent of the researcher. The positivist perspective emphasizes the use of empirical, observable, and quantifiable evidence to test relationships and describe phenomena (Creswell & Creswell, 2018). Accordingly, the study employed standardized procedures and statistical techniques to ensure objectivity and reliability. A quantitative research approach was adopted, as it aligns with the positivist paradigm by focusing on numerical data and statistical analysis to examine the challenges of the double-track system. The quantitative approach allows for generalizations to be made from the sample to the larger population and facilitates the

measurement of variables using structured instruments (Bryman, 2016).

The study employed a cross-sectional survey design, which involves collecting data from a sample of respondents at a single point in time. The target population comprised students and teachers in selected senior high schools operating under the double-track system in the Upper East Region of Ghana. The target population consisted of all 18 public senior high schools operating the double-track system in the Upper East Region of Ghana. Out of these, 4 schools were selected for the study. A purposive sampling technique was employed in selecting the schools. This technique was deemed appropriate for a case study design because it allows the researcher to deliberately select double-track schools that are information-rich and relevant to the objectives of the study. This ensured that the selected schools provided a representative diversity of experiences and practices within the double-track system.

Within each of the 4 selected schools, respondents were sampled randomly. A total of 45 teachers and 40 students participated in the study. Teachers were chosen based on their involvement in the implementation of the double-track system and their willingness to participate. Students were selected to ensure a balance of representation across the two tracks (green and gold) and between different grade levels.

The instrument used for data collection in this study was the Double-Track System Questionnaire (DTSQ). The questionnaire was designed to gather detailed information on the perceptions and experiences of teachers and students regarding the implementation of the double-track system in senior high schools. Two separate but similar versions of the questionnaire were developed: Teachers' Views of the Double Track System Questionnaire (TVDTSQ) and Students' Views of the Double Track System Questionnaire (SVDTSQ).

Each version of the questionnaire consisted of 16 Likert-type items, designed to measure respondents' level of agreement or disagreement on various statements related to the double-track system (e.g., its impact on teaching and learning, workload, effectiveness, and challenges) and 1 open-ended question, which provided respondents the opportunity to express their views more freely by highlighting any additional opinions, suggestions, or concerns about the double-track system. The Likert-type items were scored on a five-point scale: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. The questionnaire was validated through expert review to ensure content validity, and minor revisions were made based on feedback to enhance clarity and relevance.

The quantitative data obtained from the Likert-type items on the Double-Track System Questionnaire were coded and entered into Statistical Package for the Social Sciences (SPSS). Descriptive statistical tools were employed to summarize and describe the data. Specifically, means, standard deviations, and frequencies were computed to capture respondents' levels of agreement with the various statements regarding the double-track system. The data generated from the open-ended question were analyzed using thematic analysis. Responses were carefully reviewed and grouped into emerging themes that reflected common patterns, concerns, and suggestions expressed by the respondents. This approach helped to complement the quantitative findings with deeper insights into the lived experiences and perceptions of teachers and students.

4.0 Results

4.1 Demographic characteristics

Table 1 presents the demographic characteristics of the respondents of the study.

Table 1. Table 1. Demographic characteristics of respondents.

Characteristic	*Category*	*f*	*%*
Gender (Teachers)	Male	33	73.3
	Female	12	26.7
	Total	45	100
Gender (Students)	Male	29	72.5
	Female	11	27.5
	Total	40	100
Role of the Teacher	Teacher	39	86.7
	Administrator	6	13.3
	Total	45	100
Student Track	Green	28	70
	Gold	12	30
	Total	40	100

The study sample included 45 teachers and 40 students. Among the teachers, the majority were male (73.3%), while females constituted 26.7%. Similarly, most of the student participants were male (72.5%), compared to 27.5% female. Regarding roles, most teacher participants were classroom teachers (86.7%), while 13.3% were administrators. For students, 70% were enrolled in the Green Track, while 30% were in the Gold Track.

4.2 Infrastructural Challenges in Implementing the Double-Track System

Students' and teachers' perceptions of infrastructural challenges associated with the implementation of the double-track system are presented in Table 2.

Table 2: Students' and teachers' perceptions of infrastructural challenges of the DTS

Respondent Group	*Item*	*Statement*	*M*	*SD*
Students	1	My school has enough classrooms to accommodate all students.	2.38	1.35
	2	Science laboratories are sufficient under the double-track system.	2.05	1.04
	3	Sanitation facilities meet the needs of the increased student population.	2.28	1.26
	4	School facilities are overstretched due to increased enrolment.	2.93	1.54
		Subscale Mean	*2.41*	*0.75*
Teachers	5	My school has enough classrooms to accommodate all students.	2.38	1.39
	6	Science laboratories are sufficient under the double-track system.	1.71	1.08
	7	School facilities are overstretched due to increased enrolment.	4.4	0.81
	8	There are enough teachers to handle the increased number of students.	2.58	1.23
		Subscale Mean	*2.77*	*0.68*

Students reported low levels of agreement regarding the adequacy of school infrastructure (M = 2.41, SD = 0.75). Specifically, students disagreed that their schools had sufficient classrooms to accommodate all students (M = 2.38, SD = 1.35), adequate science laboratories (M = 2.05, SD = 1.04), or sanitation facilities that met the needs of the increased student population (M = 2.28, SD = 1.26). However, students tended to agree that school facilities were overstretched as a result of increased enrolment (M = 2.93, SD = 1.54).

Teachers similarly expressed unfavorable perceptions of infrastructural adequacy under the double-track system, with an overall mean score of M = 2.77 (SD = 0.68). Teachers disagreed that their schools had enough classrooms to accommodate students (M = 2.38, SD = 1.39) and reported particularly low agreement regarding the sufficiency of science laboratories (M = 1.71, SD = 1.08). Additionally, teachers reported that staffing levels were insufficient to manage the growing student population (M = 2.58, SD = 1.23). In contrast, there was strong agreement among teachers that school facilities were overstretched due to increased enrolment (M = 4.40, SD = 0.81).

The findings indicate that both students and teachers perceived existing infrastructure as insufficient to support the effective implementation of the double-track system, with concerns particularly evident in classroom availability, laboratory facilities, and overall capacity to accommodate increased enrolment.

4.3 Teachers' Perspectives on the Challenges of the Double-Track System

Teachers' perceptions of the challenges associated with the double-track system are presented in Table 3. Overall, teachers reported a moderate level of challenge (M = 3.04, SD = 0.33), indicating that multiple aspects of the system posed concerns for effective implementation.

Table 3: Teachers' Perspectives on the Challenges of the Double-Track System

Domain	*Item*	*Statement*	*M*	*SD*
Policy	1	The double-track system has improved access to senior high school.	3.31	1.41
	2	The alternating track schedule is clearly communicated to students and teachers.	2.84	1.3
	3	The double-track system was introduced without adequate preparation.	4.07	1.21
	4	The policy has created more challenges than benefits for schools.	3.6	1.34
		Subscale Mean	*3.46*	*0.72*
Sustainability	5	The double-track system can be sustained over the long term.	2.27	1.3
	6	Without significant investment, the system is not sustainable in the future.	4.13	1.1
		Subscale Mean	*3.2*	*0.82*
Infrastructure	7	My school has enough classrooms to accommodate all students.	2.38	1.39
	8	Science laboratories are sufficient under the double-track system.	1.71	1.08
	9	School facilities are overstretched due to increased enrolment.	4.4	0.81
	10	There are enough teachers to handle the increased number of students.	2.58	1.23
		Subscale Mean	*2.77*	*0.68*
Teacher Motivation	11	Teachers' workload has increased because of the double-track system.	4.22	1.04
	12	Teachers remain motivated despite the additional workload.	1.71	1.04
	13	The double-track schedule has affected teachers' morale.	3.93	1.07
		Subscale Mean	*2.92*	*0.54*
Quality of Education	14	Teachers have enough time to cover the curriculum effectively.	1.82	1.01
	15	Students receive adequate attention from teachers under the system.	1.69	0.9
	16	The quality of education has declined because of the double-track system.	3.98	1.2
		Subscale Mean	*2.83*	*0.52*
		Overall Mean	*3.04*	*0.33*

Among the thematic domains, infrastructure (M = 2.77, SD = 0.68) and quality of education (M = 2.83, SD = 0.52) were perceived as the most pressing challenges. Teachers disagreed that their schools had sufficient classrooms (M = 2.38, SD = 1.39) or adequate science laboratories (M = 1.71, SD = 1.08), and reported that facilities were overstretched due to increased enrolment (M = 4.40, SD = 0.81). In addition, teachers indicated that students did not receive adequate attention (M = 1.69, SD = 0.90) and that there was insufficient time to cover the curriculum effectively (M = 1.82, SD = 1.01), while perceiving a decline in the quality of education (M = 3.98, SD = 1.20).

Teacher motivation was also identified as a notable challenge (M = 2.92, SD = 0.54). Respondents strongly agreed that teachers' workload had increased under the double-track system (M = 4.22,

SD = 1.04) and that teachers' morale had been negatively affected (M = 3.93, SD = 1.07). Conversely, teachers largely disagreed that they remained motivated despite the additional workload (M = 1.71, SD = 1.04). Regarding sustainability, teachers expressed concerns about the long-term viability of the system (M = 3.20, SD = 0.82). Respondents disagreed that the system could be sustained over time (M = 2.27, SD = 1.30) and strongly agreed that, without significant investment, the system would not be sustainable in the future (M = 4.13, SD = 1.10).

Policy-related issues were perceived as comparatively less challenging (M = 3.46, SD = 0.72), although teachers agreed that the system was introduced without adequate preparation (M = 4.07, SD = 1.21) and that it had created more challenges than benefits for schools (M = 3.60, SD = 1.34). At the same time, teachers acknowledged that the double-track system had improved access to senior high school (M = 3.31, SD = 1.41). The findings suggest that teachers perceived the implementation of the double-track system as constrained by interconnected challenges related to infrastructure, instructional quality, teacher workload, and sustainability, despite recognizing some policy-level gains in access to education.

A thematic analysis of teachers' responses to the open-ended question regarding the challenges of the double-track system revealed six major themes: infrastructure and resources, time/contact hours, teacher stress and motivation, student discipline and social issues, policy and planning, and meal and welfare issues. Infrastructure and resources were the most frequently cited challenge (13 responses). Teachers reported inadequate classrooms, furniture, instructional materials, and overstretched school facilities. For example, one teacher explained,

"Lack of infrastructure, which demotivates teachers and students together," while another highlighted "classroom availability" as a major concern.

Time and contact hours were the second most prominent theme (10 responses). Teachers expressed concern that the system reduces instructional time, as students spend extended periods at home rather than in school. Representative statements included,

"Students spend more time at home than in school," and "Contact hours have reduced significantly."

Teacher stress and motivation were raised in seven responses. Teachers indicated that the double-track system has increased their workload without corresponding incentives, resulting in stress and low motivation. Illustrative remarks included,

"The DTS gives teachers a lot of stress," and "Teachers teaching across tracks are

unmotivated."

Student discipline and social issues were noted in four responses. Teachers observed that prolonged stay-at-home periods contributed to indiscipline and idleness among students. One teacher commented,

"Students do not get enough time to stay on campus to learn, leading to many social vices as they stay home."

Policy and planning issues were identified in three responses, with teachers pointing to unclear policy directions and mass enrollment as major challenges. For instance, participants mentioned,

"Lack of clear policies" and "mass enrollment. There should be a cutoff point."

Finally, meal and welfare issues were reported, including shortages in student feeding and inadequate accommodation. For example, one teacher remarked that,

"Some challenges of the DTS are feeding, infrastructure, e.g., students' accommodation & classrooms, and low teacher motivation."

The findings suggest that the double-track system exerts a considerable strain on both physical resources and human factors. Teachers particularly emphasized the need for improved infrastructure, better instructional time management, clear policy guidelines, enhanced teacher motivation, and adequate provision for student welfare.

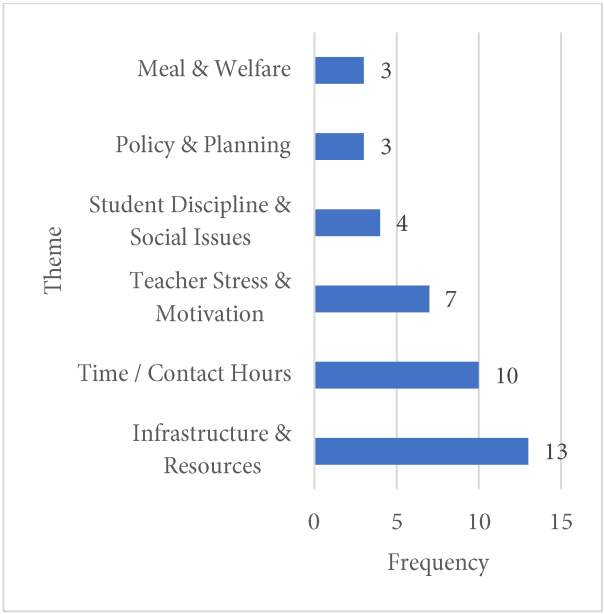

Figure 1. Teachers' perspectives on the challenges of the double-track system

4.4 Students' Perspectives on the Challenges of the Double-Track System

Students' perceptions of challenges associated with the double-track system are summarized in Table 4. Overall, students reported a moderate level of challenge (M = 2.87, SD = 0.57), suggesting that multiple factors constrained their learning experience.

Table 4: Students' perceptions of challenges associated with the double-track system

Domain	*Item*	*Statement*	*M*	*SD*
Infrastructure	1	My school has enough classrooms to accommodate all students.	2.38	1.35
	2	Science laboratories are sufficient under the double-track system.	2.05	1.04
	3	Sanitation facilities meet the needs of the increased student population.	2.28	1.26
	4	School facilities are overstretched due to increased enrolment.	2.93	1.54
		Subscale Mean	*2.41*	*0.75*
Student Challenges	5	The alternating schedule disrupts my study routine.	3.08	1.31
	6	The reduced instructional time affects my ability to master the curriculum.	3.3	1.22
	7	I feel disadvantaged compared to students on the other track.	3.4	1.35
	8	The double-track system limits my participation in extracurricular activities.	3.73	1.38
	9	The school calendar makes it hard for me to plan my learning.	3.1	1.46
		Subscale Mean	*3.32*	*0.82*
Quality of Education	10	Teachers have enough time to cover the curriculum effectively.	2.65	1.41
	11	Students receive adequate attention from teachers under the system.	2.43	1.32
	12	The quality of education has declined because of the double-track system.	2.95	1.6
	13	The system has negatively affected my academic performance.	3.15	1.61
		Subscale Mean	*2.79*	*0.99*
Equity	14	Students have equal opportunities regardless of the track they belong to.	2.78	1.31
	15	Students on one track are given preferential treatment over others.	2.8	1.2
	16	The system promotes fairness of access to secondary education.	3	1.36
		Subscale Mean	*2.86*	*0.8*
		Overall Mean	*2.87*	*0.57*

Infrastructure was identified as the most pressing concern (M = 2.41, SD = 0.75), with students reporting insufficient classrooms (M = 2.38, SD = 1.35), inadequate science laboratories (M = 2.05, SD = 1.04), and overstretched sanitation facilities (M = 2.28, SD = 1.26). Students also acknowledged that school facilities were overstretched due to increased enrolment (M = 2.93, SD = 1.54). Student-related challenges, such as disruptions to study routines (M = 3.08, SD = 1.31), limited instructional time (M = 3.30, SD = 1.22), perceived disadvantage relative to peers on other tracks (M = 3.40, SD = 1.35), restricted participation in extracurricular activities (M = 3.73, SD = 1.38), and difficulties planning learning around the school calendar (M = 3.10, SD = 1.46) were perceived as moderately challenging (M = 3.32, SD = 0.82).

Challenges related to the quality of education were also evident (M = 2.79, SD = 0.99), with students reporting limited teacher time (M = 2.65, SD = 1.41), insufficient attention from teachers (M = 2.43, SD = 1.32), a perceived decline in educational quality (M = 2.95, SD = 1.60), and negative impacts on academic performance (M = 3.15, SD = 1.61). Equity-related concerns were moderately important (M = 2.86, SD = 0.80), as students noted unequal opportunities between tracks (M = 2.78–2.80) and limited fairness in access to education (M = 3.00). The findings indicate that students experienced multiple interrelated challenges under the double-track system, with infrastructure, instructional support, and equity being the most critical areas affecting their learning and participation.

Student responses to the open-ended question revealed several interrelated challenges associated with the double-track system. A dominant theme was the impact of the double-track system on academic performance. Students consistently reported that the limited instructional time and extended vacations disrupted the teaching and learning process. As one participant explained,

"There is not enough time to cover the curriculum effectively" (Student 1).

Another student echoed this concern, noting that

"The biggest challenge of the double-track system is that it has negatively affected my academic performance" (Student 7).

Long breaks between school terms were also cited as contributing to disengagement and dropout. For instance, one student reflected,

"It made students lose hope in education" (Student 23).

Collectively, these accounts suggest that reduced instructional contact time hindered both curriculum coverage and overall academic achievement.

Another frequently cited challenge by the students concerned the inadequacy of infrastructure and learning facilities. Students highlighted shortages of classrooms, dormitories, and laboratories, which led to overcrowded learning environments. For example, one participant observed,

"Our classrooms are not enough to accommodate the students" (Student 18),

while another emphasized,

"Lack of science laboratories for science practical" (Student 19).

Accommodation was a recurrent concern, as reflected in the succinct statement:

"Lack of accommodation" (Student 15).

In addition, sanitation facilities were deemed insufficient for the increased student population, with one student remarking,

"The sanitation facilities do not meet the needs of the increased student population."

(Student 39).

Students also reported persistent shortages of food and water, with many describing both inadequate quantity and poor quality. One participant explained,

"We don't have enough food" (Student 2),

The students also complained,

"They will give us beans without gari" (Student 10). Water scarcity compounded these difficulties, with students citing "shortage of water" (Student 14) and "lack of food and water" (Student 12) as key concerns. These conditions were perceived as detrimental to students' health and concentration.

The long vacations associated with the double-track system also created space for negative social outcomes. Teenage pregnancy emerged as a recurring concern, with students noting that

"Most of the girls were impregnated because of the long vacation" (Student 29).

Similarly, another reflected,

"Students were getting unwanted pregnancies during that time" (Student 22).

Some students also described involvement in high-risk activities during vacation, such as illegal mining. For example, one participant reported,

"Some students were travelling to Kumasi to do illegal mining, and because of that, they ended up dead" (Student 25).

Indiscipline among students was also perceived to have increased, with one noting,

"The increase of indiscipline among students is a challenge for the DTS" (Student 16).

Concerns about teacher shortages were also common. Several students emphasized that there were not enough teachers to meet the instructional needs of the expanded student population. As one explained,

"Lack of teachers was also a problem we were facing" (Student 10).

The students also added,

"There were not enough teachers" (Student 30). Teacher fatigue was also mentioned, with one student stating, "Teachers don't get enough time to rest" (Student 17).

The double-track system also limited opportunities for extracurricular engagement. Sporting and recreational activities were reportedly sidelined, as captured in the statement:

"Sporting activities were not active" (Student 12).

Similarly, another participant noted,

"The double-track system limited my participation in extracurricular activities" (Student

39).

These accounts suggest that the system narrowed the educational experience by restricting co-curricular involvement. Finally, students described feelings of frustration, neglect, and demotivation arising from the system. For instance, one observed,

"The biggest challenge of the double-track system is that students waste more time at home" (Student 38).

They also shared,

"There was poor treatment of students" (Student 32). Food shortages also contributed to physical weakness, with one student noting, "It makes students lean" (Student 13).

Such experiences contributed to declining morale and doubts about the value of continuing education.

Students identified a range of challenges associated with the double-track system. The most prominent concerns related to inadequate instructional time, poor academic outcomes, insufficient infrastructure, food and water shortages, teacher unavailability, and weakened extracurricular engagement. Serious social and psychological consequences, including teenage pregnancy, risky behavior during long vacations, and declining motivation, compounded these issues.

4.5 Effects of the Double-Track System on Quality, Equity, and Teacher Motivation

Students' perceptions of the effects of the double-track system (DTS) on the quality and effectiveness of education are presented in Table 5.

Table 5: *Students' Perspectives on the Effects of the Double-Track System on Quality, Equity, and Teacher Motivation*

Domain	*Item*	*Statement*	*M*	*SD*
Quality and Effectiveness	1	Teachers have enough time to cover the curriculum effectively.	2.65	1.41
	2	Students receive adequate attention from teachers under the system.	2.43	1.32
	3	The quality of education has declined because of the double-track system.	2.95	1.6
	4	The system has negatively affected my academic performance.	3.15	1.61
		Subscale Mean	*2.79*	*0.99*
Equity	5	Students have equal opportunities regardless of the track they belong to.	2.78	1.31
	6	Students on one track are given preferential treatment over others.	2.8	1.2
	7	The system promotes fairness of access to secondary education.	3	1.36
		Subscale Mean	*2.86*	*0.8*
Teacher Motivation	8	Teachers' workload has increased because of the double-track system.	4.22	1.04
	9	Teachers remain motivated despite the additional workload.	1.71	1.04

10	The double-track schedule has negatively affected teachers' morale.	3.93	1.07
11	Teachers have enough time to cover the curriculum effectively.	1.82	1.01
	Subscale Mean	*2.92*	*0.54*

Respondents reported a moderately negative perception of educational quality (M = 2.79, SD = 0.99). Specifically, students indicated that teachers had limited time to cover the curriculum effectively (M = 2.65, SD = 1.41) and were unable to give students adequate attention (M = 2.43, SD = 1.32). In addition, respondents perceived a decline in the quality of education (M = 2.95, SD = 1.60) and reported that the system had negatively affected their academic performance (M = 3.15, SD = 1.61).

With respect to equity, students expressed moderately negative perceptions of fairness under the double-track system (M = 2.86, SD = 0.80). Respondents indicated that students did not have equal opportunities regardless of track placement (M = 2.78, SD = 1.31) and perceived preferential treatment of students on certain tracks (M = 2.80, SD = 1.20). Perceptions of fairness in access to secondary education were also moderate (M = 3.00, SD = 1.36), suggesting concerns about equity across tracks.

Regarding teacher motivation, students reported generally unfavorable perceptions (M = 2.92, SD = 0.54). Respondents strongly agreed that teachers' workload had increased under the double-track system (M = 4.22, SD = 1.04) and that teachers' morale had been negatively affected (M = 3.93, SD = 1.07). In contrast, students perceived teachers as remaining less motivated despite the increased workload (M = 1.71, SD = 1.04) and reported that teachers had insufficient time to cover the curriculum effectively (M = 1.82, SD = 1.01).

5.0 Discussion

The findings of this study reveal that the implementation of the Double Track System (DTS) under Ghana's Free Senior High School policy has generated substantial infrastructural, pedagogical, equity, and motivational challenges for both students and teachers. These findings resonate strongly with existing empirical evidence and reinforce concerns about the sustainability and quality implications of the DTS.

The study established that both students and teachers experienced severe infrastructural inadequacies, including insufficient classrooms, poorly equipped science laboratories, and overstretched sanitation and boarding facilities. Students' accounts of overcrowded classrooms and shortages of necessities such as food and water point to systemic resource constraints, while teachers' observations underscore the inability of existing infrastructure to cope with increased enrolment. These findings corroborate earlier studies, which indicate that the rapid expansion in enrolment resulting from the Free SHS policy has outpaced infrastructural development, thereby placing significant strain on school facilities (Dwomoh et al., 2022; Turkson et al., 2020; Tamanja & Pajibo, 2019; Alagbela & Denteh, 2025; Casely-Hayford et al., 2025). Consistent with Osei-Owusu (2021) and Mensah (2019), the year-round utilisation of facilities under the DTS has further exacerbated maintenance challenges, undermined the physical learning environment, and potentially affected student well-being and academic engagement.

The study further revealed that the DTS negatively affected the quality of instruction. Students reported disruptions to study routines, limited instructional time, and incomplete syllabus coverage, while teachers highlighted increased workloads, compressed academic calendars, and difficulties in maintaining instructional standards. These findings align closely with Dwomoh et al. (2022), who found that compressed schedules under the DTS reduce effective contact hours and adversely affect academic performance. Similar concerns have been raised by Yirper and Ziem (2020) and Osei-Owusu (2021), who reported that frequent breaks and alternating tracks hinder curriculum continuity and depth of learning. Collectively, these results suggest that while the DTS expands access, it inadvertently compromises pedagogical effectiveness, particularly in content-heavy subjects that require sustained instructional time.

Equity emerged as a significant concern in this study, with students perceiving disparities between tracks and reporting feelings of disadvantage and preferential treatment. These perceptions indicate that structural and scheduling differences inherent in the DTS may inadvertently reproduce inequalities within the same school system. This finding supports Akuffo's (2025) argument that the equity intentions of the Free SHS policy are inadequately matched with practical solutions, particularly in addressing intersectional differences among students. Similarly, Dwomoh et al. (2022) observed that unequal access to learning resources and instructional time across tracks can exacerbate disparities in academic outcomes. Thus, while the DTS aims to democratise access, its implementation appears to generate new forms of inequity that undermine the policy's social justice objectives.

The study also found that teacher motivation was negatively affected by the DTS, largely due to increased workloads, extended teaching schedules, and insufficient time for curriculum coverage. Teachers' expressions of diminished morale are consistent with prior studies that associate DTS implementation with heightened stress, burnout, and reduced job satisfaction (Alando, 2025; Dwomoh et al., 2022). Although some teachers demonstrated resilience and commitment, sustained exposure to such conditions without adequate institutional support risks diminishing instructional quality and teacher retention. These findings align with Gyaase et al. (2024), who reported that while teachers may exhibit positive attitudes towards the DTS, poor understanding of the system and inadequate support structures constrain effective implementation.

The findings indicate that the challenges associated with the DTS are interrelated and systemic. Infrastructure deficits intensify instructional constraints, which in turn exacerbate equity concerns and negatively affect teacher motivation. While the DTS has successfully addressed access constraints arising from increased enrolment, its implementation has introduced quality-related trade-offs that threaten the long-term effectiveness of the Free SHS policy. This conclusion is consistent with earlier evaluations suggesting that policy implementation in Ghana has prioritised political and programmatic objectives over process-oriented planning and quality assurance (Adarkwah, 2022; Mohammed & Kuyini, 2020).

These findings underscore the need for targeted infrastructural investment, improved stakeholder consultation, equitable resource allocation across tracks, and workload-sensitive teacher support mechanisms. Without such adjustments, the gains in access

achieved through the DTS may be undermined by declining educational quality and persistent inequities.

6.0 Conclusion

This study concludes that although the Double-Track System (DTS) has been instrumental in expanding access to senior high school education in Ghana, its implementation has been accompanied by significant structural and pedagogical challenges. The most critical issues identified include infrastructural inadequacies, compromised instructional quality, equity-related concerns between tracks, and declining teacher motivation. These challenges collectively threaten the attainment of core educational objectives and may negatively affect students' academic performance, learning experiences, and overall school effectiveness if left unaddressed.

While the DTS has successfully responded to enrolment pressures arising from the Free Senior High School policy, its benefits are constrained by operational inefficiencies and resource limitations. The findings suggest that access-oriented reforms, when not matched with commensurate investments in infrastructure, human resources, and implementation planning, risk producing unintended consequences that undermine educational quality and equity. Consequently, the long-term sustainability of the DTS depends on deliberate policy adjustments that prioritise quality assurance, equitable resource distribution, and teacher welfare alongside expanded access.

7.0 Recommendations

In light of the findings of this study, the following recommendations are proposed to enhance the effectiveness and sustainability of the Double-Track System:

Government and relevant education authorities should prioritise increased investment in physical infrastructure, including classrooms, science laboratories, libraries, and sanitation facilities, to adequately support the growing student population under the DTS. Such investments are critical to reducing overcrowding and improving the learning environment. Schools should adopt strategies to maximise effective instructional time, such as improved scheduling of track rotations, reduction of unnecessary interruptions, and the introduction of remedial or supplementary instructional sessions where necessary to ensure full syllabus coverage and maintain academic standards.

Clear policies should be established to promote equity between tracks, including fair allocation of teaching resources, uniform access to learning materials, balanced teacher deployment, and equal opportunities for participation in extracurricular and enrichment activities. Teachers should be supported through targeted professional development programmes, manageable workloads, and appropriate incentive structures to sustain morale and enhance instructional effectiveness. Strengthening teacher support systems is essential to mitigating burnout and improving educational outcomes under the DTS.

The Ministry of Education and allied agencies should institute continuous monitoring and evaluation mechanisms to assess the implementation of the DTS. Regular data-driven reviews will help identify emerging challenges, inform timely policy adjustments, and ensure that implementation aligns with the policy's access, quality, and equity goals.

References

Aboagye, J., & Wilson, E. (2021). Stakeholders' perspectives on the double-track system of education in Ghana: Achievements and challenges. International Journal of Educational Development in Africa, 8(1), 23–38. https://doi.org/10.1504/IJEDA.2021.100392

Adarkwah, M. A. (2022). Anatomy of the "Free Senior High School" Policy in Ghana and Policy Prescriptions. *Interchange*, *53*(2), 283–311. https://doi.org/10.1007/s10780-022-09459-3

Akuffo, A. G. (2025). In pursuit of equity in upper secondary education: The curious case of Ghana's free senior high school policy. *The Australian Educational Researcher*, *52*(3), 2255–2280. https://doi.org/10.1007/s13384-025-00810-y

Akyeampong, K. (2009). Revisiting Free Compulsory Universal Basic Education (FCUBE) in Ghana: Lessons and implications. Comparative Education, 45(2), 175–195. https://doi.org/10.1080/03050060902920534

Akyeampong, K., Djangmah, J., Oduro, A., Seidu, A., & Hunt, F. (2020). Access to basic education in Ghana: The evidence and the issues. CREATE Pathways to Access Research Monograph No. 2. University of Sussex. https://www.researchgate.net/publication/277237141_Access_to_Basic_Education_in_Ghana_The_Evidence_and_the_Issues

Alagbela, A. A., & Denteh, K. F. (2025). Assessing The Free Senior High School Policy in The Savelugu Municipality of Northern Ghana: Successes and Challenges. *Journal of Education, Learning, and Management*, *2*(2), 304–315. https://doi.org/10.69739/jelm.v2i2.1069

Alando, B. (2025). Contribution of Free Senior High School Policy to students' academic performance and progression in the Northern Region of Ghana: A review. International Journal of Research and Innovation in Social Science, 9(08), 1522–1534. https://doi.org/10.47772/IJRISS.2025.908000126

Ampah-Mensah, A. K., Bosu, R. S., Amakyi, M., & Agbevanu, W. K. (2024). Preparing and implementing education policy initiatives in Ghana: The role of district and community-based education structures. Cogent Education, 11(1). https://doi.org/10.1080/2331186X.2024.2385791

Ansong, P. (2019). The double-track senior high school policy in Ghana: Prospects and challenges. African Educational Research Journal, 7(2), 67–73. https://doi.org/10.30918/AERJ.72.19.025

Asare, K., & Frempong, F. (2021). Assessing the impact of Ghana's double-track system on student learning outcomes. Contemporary Journal of Education and Research, 3(1), 1–15. https://doi.org/10.1234/cjer.2021.3101

Boateng, F. (2020). The impact of the Double-Track System on school feeding and student welfare in Ghana. Journal of Educational Policy and Development, 12(1), 67–80.

Carroll, J. B. (1963). A model of school learning. Teachers College Record, 64 (8), 723–733. https://doi.org/10.1177/016146816306400801

Casely-Hayford, L., Gruijters, R. J., Adjei, L. O., & Yeboah, V. A. (2025). The intended and unintended effects of secondary school fee abolition: Evidence from Ghana's free senior high school policy. *Comparative Education*, *61*(4), 566–585. https://doi.org/10.1080/03050068.2025.2463820

Danso Mensah, D. K. (2019). Teachers' Perspective on Implementation of the Double Track Senior High School System in Ghana. International Journal of Emerging Trends in Social Sciences, 5(2), 47–56. https://www.researchgate.net/publication/335919174_Teachers%27_Perspective_on_Implementation_of_the_Double_Track_Senior_High_School_System_in_Ghana

Dwomoh, D., Godi, A., Tetteh, J., Amoatey, C., Otoo, R., Tornyevah, L., & Hazlett, C. (2022). The impact of the Free Senior High School Education policy and Double-Track System on quality education outcomes: A quasi-experimental policy evaluation study in Ghana. Africa Education Review, 19(2), 1–24. https://doi.org/10.1080/18146627.2023.2225754

Free Senior High School (Free SHS) policy — Ministry of Education, Ghana. (2018). Free SHS policy overview and implementation. Ministry of Education. https://moe.gov.gh/free-shs-policy/

Ghana Education Service. (2015). Education strategic plan 2010–2020. Accra: Ministry of Education.

Ghana Education Service. (2015). GES annual report. Ghana Education Service.

Goldhammer, F., Naumann, J., Stelter, A., Tóth, K., Rölke, H., & Klieme, E. (2014). The time-on-task effect in reading and problem solving is moderated by task difficulty and skill. Journal of Educational Psychology, 106(3), 608–626. https://doi.org/10.1037/a0034716

Gyaase, P., Ampim-Kyei, E., Bawammah, L. W., Amoakoaa, E. A., Adu-Gyamfi, I., Adueming, E. O.-W., Lanquaye, M. O., Akwechoe, A., & Sampson, D. B. (2024). Teachers' Perceptions and Attitudes on the Double-Track Educational System: A Case Study from Upper Denkyira East Municipality, Ghana. *Journal of Education, Society and Behavioural Science*, *37*(6), 151–165. https://doi.org/10.9734/jesbs/2024/v37i61336

Huitt, W. (2006). Overview of classroom processes. Educational Psychology Interactive. Valdosta, GA: Valdosta State University. http://www.edpsycinteractive.org/topics/process/class.html

Lipsky, M. (1980). Street-level bureaucracy: Dilemmas of the individual in public services. Russell Sage Foundation.

Mensah, D. K. D. (2019). Teachers' Perspective on Implementation of the Double Track Senior High School System in Ghana. *International Journal of Emerging Trends in Social Sciences*, *5*(2), 47–56. https://doi.org/10.20448/2001.52.47.56

Ministry of Education (Ghana). (2018). Free Senior High School (Free SHS) policy overview and implementation. Government of Ghana. https://moe.gov.gh/free-shs-policy/

Ministry of Education, Ghana. (2018). The Free Senior High School policy implementation plan. Accra: Government of Ghana.

Ministry of Education. (2018). Education sector performance report. Accra: Ministry of Education.

Ministry of Education. (2018). Free Senior High School policy: Policy document. Ministry of Education, Ghana.

Mohammed, A., & Kuyini, A. (2020). An evaluation of the Free Senior High School Policy in Ghana. *Cambridge Journal of Education*, 51, 143 - 172. https://doi.org/10.1080/0305764x.2020.1789066.

Mohammed, Y., Bolagi, M. H. A. G., & Agbenyo, F. (2025). A systematic review of the effects of pre-tertiary education policy reforms on educational quality in Ghana: The case of the Free Senior High School policy. European Journal of Education Studies, 12(11).

Nyamekye, C., & Ofori, D. (2020). The double-track system of education in Ghana: Challenges and implications for quality education delivery. Journal of Educational Administration and Policy Studies, 12(3), 87–94. https://doi.org/10.5897/JEAPS2020.0642

Oduro, G. K. T., Essuman, A., & Asiedu, A. (2021). Educational policy reforms and their unintended consequences: The case of Ghana's double-track system. International Journal of Education Development, 81, 102352. https://doi.org/10.1016/j.ijedudev.2021.102352

OECD. (2019). OECD future of education and skills 2030: OECD learning compass 2030. Organisation for Economic Co-operation and Development. https://www.oecd.org/education/2030-project/

OECD. (2019). OECD learning compass 2030: A series of concept notes. Organisation for Economic Co-operation and Development.

Offei, E. (2018). The Semester and Double Track System in Senior High Schools in Ghana. GRIN Verlag. https://www.grin.com/document/437474

Osei, K., & Adjei, J. K. (2019). The implications of the double-track system on the quality of secondary education in Ghana. *International Journal of Educational Development*, 68, 15–23. https://doi.org/10.1016/j.ijedudev.2019.02.002

Osei, R., & Ankomah, Y. A. (2022). Administrative challenges of the double-track system: Perspectives from senior high school heads in Ghana. *Ghana Journal of Education and Teaching*, *16*(2), 101–118. https://doi.org/10.4314/gjet.v16i2.8

Osei-Owusu, B. (2021). Retrospective assessment of the successes and challenges of double track system in senior high schools in sekyere central district of Ghana. *British Journal of Education*, *9*(9), 18–30. https://www.eajournals.org/wp-content/uploads/Retrospective-Assessment-of-the-Successes-and-Challenges-of-Double-Track-system-in-Senior-High-Schools-in-Sekyere-Central-District-of-Ghana.pdf

Pajibo, E., & Tamanja, E. M. J. (2017). Influence and Challenges of the Capitation Grant on Education Delivery in Basic Schools in Ghana. *Asian Journal of Education and Training*, *3*(1), 53–63. https://doi.org/10.20448/journal.522.2017.31.53.63

Pressman, J. L., & Wildavsky, A. (1973). Implementation: How great expectations in Washington are dashed in Oakland. University of California Press. https://academic.oup.com/edited-volume/27993/chapter/211710362?utm_source=chatgpt.com

Republic of Ghana. (1992). Constitution of the Republic of Ghana. Article 25(1)(b). Government of Ghana. https://www.constitutionnet.org/sites/default/files/Ghana%20Constitution.pdf

Scheerens, J., & Bosker, R. J. (1997). The foundations of educational effectiveness. Pergamon. https://repository.up.ac.za/server/api/core/bitstreams/d57493a3-5d41-4871-bc10-2a4f51317c27/content

Tamanja, E., & Pajibo, E. (2019). Ghana's free senior high school policy: evidence and insight from data. edulearn19 Proceedings. https://www.researchgate.net/publication/334676264_ghana's_free_senior_high_school_policy_evidence_and_insight_from_data

Tseer, T., Ngmenkpieo, F., & Damwah, A. K. (2024). Unpacking the dynamics of educational access and teacher wellbeing in Ghana's free senior high school policy. Social Sciences & Humanities Open, 10, Article 100984. https://doi.org/10.1016/j.ssaho.2024.100984

Turkson, F. E., Baffour, P. T., & Wong, B. (2020). Cost-benefit analysis of an intervention to accelerate the end of the Double Track system at the SHS Level: Provision of

Government Subsidies to Children to attend private schools, Ghana Priorities. *Copenhagen Consensus Center.*

UNESCO. (2020). *Right to education.* United Nations Educational, Scientific, and Cultural Organization. https://en.unesco.org/themes/right-to-education

UNESCO. (2021). *Global education monitoring report: Non-state actors in education—Who chooses? Who loses?* UNESCO Publishing. https://unesdoc.unesco.org/ark:/48223/pf0000379875

UNICEF. (2021). *Every child learns: Global Annual Results Report 2021.* United Nations Children's Fund. https://www.unicef.org/media/121736/file/Global-annual-results-report-2021-goal-area-2.pdf

United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. United Nations. https://sdgs.un.org/2030agenda

Universal Declaration of Human Rights. (1948). United Nations. https://www.un.org/en/about-us/universal-declaration-of-human-rights

Yirper, D., & Ziem, R. (2020). Effectiveness of Free Senior High School Double Track Policy System and Its Impact on Student Performance in the Nkoranza North and South District, Ghana. *International Journal of Innovative Research and Development.* https://doi.org/10.24940/ijird/2020/v9/i4/apr20049.