

Student Teachers' Perception on the Implementation of Double-Tracking System in the Colleges of Education in Ghana

Theophilus Kweku Bassaw; Eric Sekyi; Alhaji Waziri Ibrahim; Bright Essel; Uriel Amuah

Social Science Tutors of Komenda College of Education, Ghana.

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ABSTRACT

Ghana's educational system has undergone substantial transformations since the introduction of the Free Senior High School (SHS) policy in 2017. This policy led to a significant increase in the number of SHS graduates, many of whom opted to pursue higher education, particularly at Colleges of Education. However, the rapid surge in applicants exceeded the existing infrastructural capacity of these institutions. In response to the increasing demand for teacher education, Colleges of Education introduced the Double Track System during the 2019/2020 academic year. This study examines student-teachers' perceptions of the implementation of the Double Track System at Komenda College of Education, Ghana. The study adopted a cross-sectional descriptive survey research design. The study selected 400 students from the second and fourth years of Komenda College of Education using the simple random sampling procedure. The findings revealed that the implementation of the double-track system helped reduce pressure on the existing facilities in the college since a cohort of teacher trainees stayed away from it for a period stipulated in the academic calendar. Additionally, it helped increase the number of students admitted to the college. However, it also came to light that some students used the break or the holidays to seek job opportunities at the expense of their academic studies. It was recommended that policies should not be pushed down to students from the top for implementation, but rather student teachers should be involved in decisions that derive those policies.

Keywords: Double-track System, Perceptions, Colleges of Education, Ghana

INTRODUCTION

Governmental bodies are responsible for enacting laws, creating policies, and distributing funds across all levels of society. Over time, the focus of policy analysis has shifted toward evaluating the impact of these policies on their intended targets (Van Meter & Van Horn, 1975). Tandberg (2010) notes that individuals and organisations frequently seek to influence public policy through advocacy, education, and the mobilisation of interested groups. While systems of governance differ globally, especially between Western-style democracies and other forms, it is widely acknowledged that interest groups will attempt to sway policymakers to align with their objectives. Advocacy, in this context, can be understood as the strategic use of political pressure, lobbying, or public education to shape policy outcomes (Tandberg, 2010). Advocacy groups frequently attempt to inform both the public and policymakers about the nature of problems, the types of laws required to address them, and the amount of funds necessary to provide services or conduct research. Public policy priorities are undoubtedly influenced by advocacy, even though some professionals and researchers see it as impolite.

Governments around the world implement public policies to fulfil their responsibility for ensuring the welfare of their citizens. Ghana is no exception. As Asumadu (2019) notes, since gaining independence, the country has introduced over 200 public policies aimed at addressing key developmental challenges. These include landmark programs such as the Free Education Policy (1961), the Economic Recovery Program (ERP) (1983), Ghana Vision 2020 (1996), Furthermore, the development planning of Ghana is influenced by the Coordinated Program of Economic and Social Development Policies and its related National Development Policy Framework, which are used as reference documents for ministries, departments and agencies in the preparation of their policies for specific sectors. Some of the notable recent policies include the Free Maternal Health Policy (2008), the National Ageing Policy (2010), the Forest and Wildlife Policy (2012) and the Free Senior High

School Policy (2017).

Although many social issues have been addressed through the development of various public policies, Ghana's policy terrain continues to grapple with many structural problems. Adu-Gyamfi et al. (2016), among others, say that important challenges include the lack of policy local ownership, limited participation of stakeholders and, insufficient implementation setup, financial shortages, and disparities in policy documents. They also observe that some policies have a good background, justification and scope - while many others do not. As they observe "Some public policies have been implemented without full stakeholder's participation" (Adu-Gyamfi, et al., 2016). As a result, many public policies no longer have their depth, quality, validity and original ownership. The operations are not clearly defined as to the policy steps and modus that policymakers have to take—it may be vague, conflicted, with unclear overlaps and duplication. This is especially true in the context of public policy formation and adoption processes. Asumadu (2019) however argues that "other issues further include a lack of understanding about the roles of main institutions and weak institutional arrangements, based on policy loopholes in policy authorisation [sic] and term of office and party policy direction changes". These gaps have usually limited the effectiveness of some public policies.

Acknowledging the importance of education and reaffirming its national pledges under various international declarations, the Government of Ghana has introduced several social policy programmes encouraging households to access education from primary to tertiary levels. These include the Free Compulsory Universal Basic Education (FCUBE) policy initiated in 1995, the Education Sector Review conducted in 2002, and the Government's White Paper on Education Reform (2004). Ghana also aligned itself with the international *Education for All* framework (UNESCO, 2000), and developed national strategies such as the Education Strategic Plan (ESP), the Capitation Grant Program (2005), and various distribution initiatives including free school uniforms, exercise books, and computers, especially between 2010 and 2016. Particularly in underdeveloped areas of the country, these social policy measures sought to improve educational access and lower expenses for school-age children. Despite the various public policies carried out before to solve social concerns, the terrain of policies presents several challenges.

Significant challenges have plagued Ghana's educational system in the modern political era. Until the NPP took over in 2016, there was fees-paying under the SHS system of education. In line with its campaign promises, the government of the NPP has initiated a nationwide Free Senior High School Policy for the 2017–2018 academic year. "The policy has led to an increase in student enrolment at the university, which has challenged the available infrastructure." (Okertciri, 2018, pg 166) The government has, however, set out programs to address these infrastructural challenges; these programs have not effectively addressed the underlying problems in SHS.

In response to the growing number of students taking advantage of the Free SHS policy, President Akuffo-Addo introduced the double-track system in senior high schools, enabling higher enrolment rates. President Akuffo-Addo remarked that *"the double-track system aims to provide capacity for the rise in enrolment. Additionally, it will decrease class size, augment the contact hours between educators and students, and expand the number of holidays."* He further stated that the existing infrastructure would support these objectives, saying that *"the double-track system will enhance the quality of our Senior High School structure"* (Yeboah, 2018). Osei-Owusu and Akenten-Appiah (2021) suggest that "colleges resort to the double-track method to manage increased enrolment efficiently; however, this reactive measure raises critical questions about the sustainability of infrastructural planning in higher education."

However, many education stakeholders have expressed mixed feelings about the implementation of the double-track system. Mensah, Duah, and Gyabaah (2023) caution that while such policies provide short-term relief, they may not be sustainable unless infrastructural growth accompanies them. Additionally, Dr Daniel Yielpieri, a senior research fellow at the University of Education, Winneba, is cited in a media report by Anim-Appau (2018, as cited in Deho & Agangiba, 2019) arguing that the drawbacks of the double-track system outweigh its advantages. According to him, the long idle periods students experience may result in social issues, since "the devil finds jobs for idle hands". Others have said that the SHS double intake is a commendable idea that would boost enrolment. However, an entrepreneur, Ms. Alexina Asmah, believes that "the double intake would not be acceptable" (Okertciri, 2018). She suggested that the government should focus on expanding schools rather than

straying from the usual intake. Furthermore, a university professor in California, United States of America, claims that, “if implemented, the multi-track system may assist in addressing the problems associated with overcrowding, but little may change in terms of academic performance” (Okertciri, 2018). According to Akoto-Baako and Heeralal (2021), “the double-track system increases stress levels and reduces job satisfaction.” This is so because teachers in Ghana’s secondary double-track system have reported increased stress levels and reduced job satisfaction due to limited time for meaningful rest. The implementation of the Free Senior High School (SHS) policy in Ghana led to a substantial increase in the number of SHS graduates. Consequently, more graduates have shown interest in pursuing further education at university institutions, particularly at colleges of education. This unexpected surge in applications has placed considerable strain on the existing infrastructure. In response, some tertiary institutions, such as the colleges of education, have adopted the double-track system. This transition coincided with a shift from offering three-year diploma programmes to four-year bachelor’s degree programmes.

Despite its growing relevance, there appears to be limited empirical research examining stakeholders’ perceptions of the double-track system’s implementation at the tertiary level. This study, therefore, investigates student teachers’ perceptions of the implementation of the double-track system in Ghana’s colleges of education. Specifically, it aims to answer the following research questions: What are student teachers’ views on the implementation of the double-track system in colleges of education? What attitudes do they hold regarding its effectiveness and implications? The study focused on student teachers enrolled at Komenda College of Education, located in Ghana’s Central Region.

This study is based on Bronfenbrenner’s Ecological Systems Theory (1979), offering a comprehensive framework for examining how interactions among various environmental systems shape educational experiences. The theory suggests that human development is not isolated but is shaped by a complex interaction of interconnected systems, from close personal environments to wider societal frameworks. Utilising this framework enables the investigation to understand how policy interventions like the double-track system engage with different aspects of student teachers’ environments, influencing their perceptions, motivation, and academic results.

The focus at the microsystem level is on the direct interactions that student teachers encounter, including their relationships with tutors, classmates, and the college learning environment. The quality and consistency of contact hours, instructional support, and availability of educational materials are direct factors that impact student engagement and learning experiences.

The mesosystem illustrates the connections among these microsystems, especially how the home environments of student teachers, their economic responsibilities, and institutional structures interact and affect one another. The findings of the study indicate that numerous students pursue part-time jobs during off-track periods, frequently at the cost of their academic concentration, which can be interpreted through this interactional layer.

The exosystem encompasses structures that, while not directly involving student teachers, nonetheless exert influence on them. This includes aspects like college administrative decisions, curriculum schedules, and governmental directives regarding calendar structuring. For example, the misunderstandings students have regarding academic timelines highlight decisions made at the exosystem level that lack adequate communication with stakeholders or inclusive policy-making processes.

At the macrosystem level, the double-track system reflects national educational policy intertwined with wider political, cultural, and economic values, particularly the Ghanaian government’s focus on increasing access to education via the Free SHS policy and mass tertiary enrolment. The macro-level changes emphasise access, yet they might unintentionally undermine quality and continuity, as reflected in the student responses collected during the study.

Ultimately, the chronosystem emphasises the evolution of these systems. The implementation of the double-track system signifies a significant change in policy, likely impacting student development paths due to interruptions in academic calendars, the introduction of new teaching methods (such as online learning), and modifications in teacher training structures.

This study situates the double-track policy within Bronfenbrenner's ecological model, recognising the intricate layers of complexity in how policies affect teacher trainees. This theoretical framework provides a comprehensive foundation for analysing the findings, connecting student perceptions to a wider developmental ecology influenced by institutional and national dynamics. This highlights the significance of engaging at multiple levels and the possible unforeseen effects of reforms that concentrate solely on enrolment figures, neglecting the need for comprehensive system integration and support.

This study incorporates an ecological perspective while also utilising Self-Determination Theory (SDT) as proposed by Deci and Ryan (1985). This theory highlights that learner motivation is enhanced through the satisfaction of three fundamental psychological needs: autonomy, competence, and relatedness. Within the framework of the double-track system, diminished time on campus and the shift to remote instruction could weaken students' sense of connection and structure, potentially compromising their intrinsic motivation.

Additionally, Cognitive Load Theory (Sweller, 1988) offers a cognitive psychology framework to analyse how compressed academic calendars and hybrid learning formats elevate mental effort. In these circumstances, students might find it challenging to comprehend, remember, and utilise instructional material, resulting in a decline in academic achievement. Theories presented here provide insights into both perceptual and performance-related outcomes in this study, enhancing the ecological systems framework.

The findings of this study will significantly enhance comprehension by offering insights to education policymakers and various educational organisations, including the Ministry of Education, Ghana Education Service, and the National Council for Curriculum and Assessment (NaCCA), regarding the double-track education system and its impact on student academic performance. As a result, it will make well-informed choices about enhancing, discontinuing, or sustaining the system. This investigation adds to the current body of knowledge on the topic. The subsequent sections will cover the methodology, results, discussions, conclusions, and recommendations.

METHODOLOGY

Research Design

A descriptive research design, specifically a cross-sectional survey, was employed to investigate student teachers' perceptions of the implementation of the double-track system in Ghanaian colleges of education. Descriptive research aims to "produce an accurate representation of individuals, events, and situations" (Best & Khan, 2016), and is well-suited for defining existing phenomena through the collection of detailed data. Kothari (2004) notes that this design is advantageous as it "helps to generate a good number of replies from a diverse variety of people, provides good statistical results, and can be used with greater assurance when posing targeted questions of interest." However, Lewis, Thornhill, and Bristow (2015) caution that "descriptive surveys have certain drawbacks, such as the time required to ensure a representative sample and the difficulty in conducting them because they demand more time and effort." Additionally, descriptive surveys allow researchers to include "a maximum number of questions...in a questionnaire for responses" (Best & Khan, 2016), thereby enhancing the scope of data collection. Overall, this methodological approach enabled the study to effectively observe, evaluate, and describe student teachers' perceptions of the double-track system during a defined period.

Population

Creswell (2012) describes a population as the entire group of individuals or items that share certain characteristics relevant to a study's focus. All level 200 and 400 student teachers at the Komenda College of Education in Ghana's Central Region made up the study's population. At the Komenda College of Education, there were 1,820 student teachers in total, including 611 second-year student teachers and 434 fourth-year student teachers (Directorate of Academic Affairs, Komenda College of Education, 2022). Komenda College was chosen as a representative site because of its early implementation of the double-track system and its demographic resemblance to other public colleges of education in Ghana. Nonetheless, the results could also be relevant to comparable institutions facing resource limitations, including rural colleges in Nigeria, Malawi, or Liberia. Future investigations ought to incorporate multi-site studies to improve generalisability and examine

differences across various institutional types.

Sample and Sampling Procedure

Komenda College of Education was selected for its representative role in the implementation of the double-track system among colleges of education in Ghana. Findings from this institution may offer insights applicable to other colleges experiencing comparable systemic challenges across the country.

Given time limitations and the logistical challenges of surveying the entire population, a sample was selected to statistically represent student teachers at Komenda College of Education in Ghana's Central Region. The sample size was determined using the Krejcie and Morgan (1970) sample size determination table, which provides a standardized method for selecting representative samples from known populations. The study's sample consisted of three hundred and twenty-seven (327) student teachers from the second and fourth years at the Komenda College of Education in Ghana's Central Region. To ensure proportional representation of both genders from second and fourth-year students, proportional stratified sampling was employed. The population consisted of 1,045 students, with 611 second-year students (285 females and 325 males) and 434 fourth-year students (179 females and 255 males). To achieve a total sample size of 327, the proportions of students in each year group and gender were calculated. This resulted in a sample of 191 second-year students (89 females and 102 males) and 136 fourth-year students (56 females and 80 males). The final sample maintained proportional gender representation, ensuring that both second and fourth-year students were adequately represented in the study. A simple random sampling technique was employed to select student teacher participants, specifically using the lottery method to ensure equal and unbiased chances of selection. This approach was appropriate given the homogeneous nature of the population and the study's aim to minimize sampling bias. All participants were given a fair chance to be chosen (Amedahe & Asamoah-Gyimah, 2014). They were provided with sheets of paper inscribed with the words "yes" and "no." Participants who responded "yes" engaged in the research.

Research Instruments

Student teachers were selected using a simple random sampling technique, specifically the lottery method, to ensure each individual had an equal chance of participation. Data were collected using two instruments: a structured questionnaire and an interview guide, both aligned with the study's objectives and methodological framework. The structured questionnaire was employed to efficiently collect quantifiable data from a larger number of participants, facilitating statistical analysis and broader insight into prevailing perceptions. This method ensures consistency across responses, making it easier to analyse trends and patterns in the data that directly support the study's objectives. It also enables the researcher to gather specific information across multiple respondents, ensuring the generalizability of the findings. The interview guide facilitated the collection of comprehensive qualitative data, offering profound insights into respondents' experiences, attitudes, and views that closed-ended questions in the questionnaire may not fully encompass. Interviews allow for follow-up questions and clarification, offering a richer understanding of the responses and revealing subtle distinctions that are crucial for achieving the research objectives.

A questionnaire is defined as a systematic instrument for gathering data from numerous respondents efficiently, particularly when the target population is readily accessible and individual interviews are impractical due to financial or logistical constraints (Osuala, 2005; Deng, 2010). This instrument was selected for its suitability to provide respondents with "enhanced confidentiality and anonymity assurances" (Sarandakos, 2005). "Each participant was instructed to answer identical questions in a specified sequence" (Saunders & Lewis, 2012).

To collect data, the study employed a structured questionnaire consisting of closed-ended items based on a five-point Likert scale, where 1 represented "strongly disagree" and 5 represented "strongly agree." This design facilitated the application of both descriptive and inferential statistical techniques during data analysis. The questionnaire comprised 18 items divided into three sections: **Section A** included 3 items focusing on respondents' demographic characteristics. **Section B** consisted of 10 items assessing student teachers' perceptions of the implementation of the double-track system in colleges of education. **Section C** comprised 8 items examining their views and experiences related to the effectiveness and implications of the double-track method.

The semi-structured interview method was also used to collect information from some of the students. This approach was selected due to its greater flexibility compared to both structured and unstructured interviews. To complement the quantitative survey data, a sample of 50 students (approximately 15% of the total sample) was selected for semi-structured interviews. Proportional stratified sampling was used to ensure gender representation consistent with the overall population. This resulted in the selection of 29 second-year students (14 females and 15 males) and 21 fourth-year students (9 females and 12 males). Interviews, according to Oppenheim (1992, pp. 81–82, as cited in Cohen et al., 2018), “have a greater response rate than questionnaires because participants become more engaged and motivated. Additionally, they facilitate a deeper discussion of the topic than is typically possible.”

One rationale for choosing semi-structured interviews is that they “give the researcher the chance to learn about the student teachers' values, meanings, experiences, and other characteristics that were not readily available when employing procedures like surveys and observations” (Cohen et al., 2018).

Similarly, Cohen, Manion, and Morrison (2011) argue that “semi-structured interviews give the researcher the possibility to get to know the interviewees on a deeper level, and people can discuss their innermost thoughts and experiences uninhibitedly in one-on-one interviews.”

Validity and Reliability of the Instrument

An evaluation of validity and reliability was conducted on the research instruments. The concept of validity refers to how well theory and evidence support the interpretation of test results obtained from assessments. A valid evaluation should precisely measure what it promises to evaluate and offer consistent data for guiding decisions. Thus, the formulation of evaluations as well as the interpretation of their results depend on guaranteeing validity. The degree to which a tool effectively measures the intended variable serves as a measure of its validity. The instrument underwent validity assessments for both face and content. The researcher collected data while the students were in school. It took two weeks to administer the questionnaire, and the students' presence facilitated the smooth administration process. Each focus group interview lasted 35 minutes and was recorded and transcribed. Prior to participation, all respondents received comprehensive information regarding the nature and objectives of the study. A comprehensive outline was provided regarding the objectives, methodologies (including questionnaires and interviews), as well as the anticipated duration of participation. The privacy of all participants was prioritised, and the data collected was treated with strict confidentiality, accessible only to the research team. The questionnaire and interview guide were submitted to professionals for evaluation to determine if the items accurately assessed the intended qualities or traits, thereby ensuring face validity. The experts, knowledgeable about the relevant construct, assessed the questionnaire items for readability, clarity, and comprehensiveness before deciding which questions would be included in the final version of the questionnaire. To test the questionnaires, 25 student teachers from Foso College of Education were given the questionnaires to complete as part of a pilot study. This allowed the researcher to assess the clarity, reliability, and validity of the questions, as well as to identify any issues that needed to be addressed before administering the final version to the full sample. This is due to the double track system that is used by both the research site and the student teachers at Foso College of Education. Data obtained for each item related to the two research objectives **were** analysed, and reliability coefficients were computed. Cronbach's alpha values for the perceptual constructs and the construct measuring student teachers' attitudes toward the double-track system were .85 and .79, respectively. Fraenkel and Wallen (2000, p. 17) assert that “reliability should be a minimum of .70, ideally above this threshold for research purposes.” Thus, it can be argued that the instrument was of exceptional quality and proficient in gathering pertinent data for the investigation.

Data Analysis

This study aimed to examine the perspectives of student teachers on the implementation of the double-track system at the Komenda College of Education in the Central Region of Ghana. The study employed both quantitative and qualitative approaches to address the formulated research topics. Descriptive statistics were employed for quantitative data analysis. Questions 1 and 2 were analysed using questionnaire data by calculating frequency counts, percentages, mean distributions, and standard deviations. The data was compiled using Version 25 of the Statistical Package for the Social Sciences. Thematic analysis was employed to qualitatively

assess the responses obtained from the semi-structured interview guide after the transcription of the interview. Thematic content analysis was conducted following a systematic procedure. First, the researchers familiarised themselves with the data by thoroughly reading and re-reading it to identify patterns. Initial codes were then generated by breaking the data into smaller units and labelling key concepts. Similar codes were grouped into broader themes, capturing overarching patterns within the data. These themes were reviewed and refined to ensure they accurately reflected the data's content and context.

RESULTS AND DISCUSSION

The respondents' background information was assessed and provided first, followed by the research questions that served as the study's core principles. The participants, identified as student teachers from the Komenda College of Education in Ghana's Central Region, are detailed in Table 1 according to their characteristics.

Table 1: Characteristics of student-teacher (n=327)

Variable	Subscale	No.	%
Gender	Male	176	53.8
	Female	151	46.2
Age	20-24 years	215	65.7
	25-29 years	112	34.3
Form	2 nd Year	154	47.1
	4 th Year	173	52.9

Source: Field Data, 2022

Table 1 clearly shows that there were several male student teachers. The gender distribution of the population was used to determine a proportional sample, with 53.8% males and 46.2% females, ensuring the sample accurately reflected the composition of the population. The analysis of the respondents' age distribution revealed that the majority (65.7%) were between 20 and 24 years old, while 34.3% fell within the 25 to 29 years age range. An analysis by year group reveals that 65.6% of 2nd-year students fall within the 20–24 years age range, while 34.4% are categorised in the 25–29 years group. Similarly, among 4th-year students, 65.9% are aged 20–24 years, while 34.1% fall within the 25–29 years range. The higher proportion of students in the 20–24 years category aligns with the expectation that most individuals enrol in college at a younger age. The presence of students aged 25–29 years may reflect cases of delayed entry, career transitions, or academic gaps before enrolling in the program. The consistency in age distribution between 2nd- and 4th-year students suggests a stable enrolment trend over time, indicating that the institution maintains a relatively uniform intake pattern.

This section outlines the findings and analyses derived from the information gathered to address the two guiding questions of the study. It comprises data collected from the student teachers' surveys and semi-structured interviews.

This study aimed to collect insights from student teachers about their perspectives on the implementation of the double-track system at Komenda College of Education in Ghana's Central Region.

Table 2 presents the responses provided by the student teachers.

Table 2: Student Teachers' Perceptions of the Implementation of the Double-Track System

Statements: How do you perceive the implementation of the double-track system	M	SD
The implementation of the double-track system alleviated pressure on the college's existing facilities, as one cohort of teacher trainees remained off campus during specific periods defined by the academic calendar.	3.97	.46
The implementation of the double-track system has expanded access to teacher education by increasing the number of students admitted to the college.	4.33	.47

Student teachers use the break or the holidays to seek job opportunities at the expense of their academic studies.	4.48	.50
The implementation of the double-track system has compromised the depth and consistency of training offered to student teachers.	4.24	.43
The double-track educational system has effectively reduced student overcrowding by distributing enrolment across alternating tracks.	4.23	.42
The double-track educational system has led to increased educational expenses for students and their families.	4.34	.48
The double-track educational system is rather confusing.	4.29	.46
The implementation of the double-track system has increased teachers' workload by extending their teaching schedules and reducing rest periods between academic terms.	4.14	.65
The double-track educational system should be abolished.	1.84	.79
I still do not have a good understanding of the double-track system.	4.78	.26

Source: Field Data, 2022

Table 2 shows that an overall mean score of **4.06** and a mean standard deviation of **0.49** were recorded. These figures indicate that student teachers generally agreed with most of the statements related to their perspectives on the implementation of the double-track system at Komenda College of Education. The means and standard deviations were calculated based on responses to each questionnaire item completed by the participants.

A substantial proportion of the student teachers agreed that the introduction of the double-track system alleviated pressure on the college's existing facilities, as one cohort of trainees remained off-campus during designated periods in the academic calendar. This item recorded a mean of 3.97 and a standard deviation of 0.46.

Furthermore, the findings revealed widespread agreement with the statement that the implementation of the double-track system increased student enrolment at the college. This item yielded a mean score of 4.33 and a standard deviation of 0.47, which reflects a high level of agreement on the Likert scale.

This finding affirms that of Okertciri, who explains that the SHS double intake is a commendable idea that would boost enrolments (Okertciri, 2018). When asked about whether student teachers utilise breaks or holidays to pursue job opportunities at the cost of their academic studies, the respondents expressed strong agreement with the statement. The analysis revealed a mean score of 4.48 (SD = 0.50) for this item, suggesting a strong level of agreement among respondents. As shown in Table 2, participants also indicated that the double-track education system has negatively affected the quality of training at the college. This is supported by a mean score of 4.24 (SD = 0.43), reinforcing the conclusion. The average score is around 4, indicating that the participants were in agreement with the statement.

A significant number of participants agreed with the statement that the double-track system has helped mitigate student overcrowding. The analysis yielded a mean of 4.23 along with a standard deviation of 0.42 to support this observation. This finding resonates with that of a university professor in California, United States of America, who claims that, if implemented, the multi-track system may assist in addressing the problems associated with overcrowding, but little may change in terms of academic performance (Okertciri, 2018). A significant proportion of participants expressed strong agreement with the assertion that the double-track system has alleviated the issue of student overcrowding. The average of 4.23 and a standard deviation of 0.42 illustrate this concept effectively. This finding agrees with Azumah (2018), who asserts that to get students and parents to buy into the system, it is necessary to motivate, consult, and educate them on how it functions. Most respondents agreed that the double-track education system has placed additional pressure on teachers by requiring them to work extended hours throughout the year. This is reflected in a mean score of 4.14 (SD = 0.65), indicating agreement on the Likert scale used (see Table 2). Conversely, the statement "We should abolish the double-track system" yielded a mean score of 1.84 (SD = 0.79), suggesting overall disagreement. Furthermore,

participants reported limited understanding of the system, as evidenced by high agreement with the statement indicating unfamiliarity.

Semi-Structured interviews were conducted with student teachers regarding their perceptions of the double-track system in the colleges of education

A sample of 4 student teachers was selected and asked various questions about their experiences and perspectives on the policy, and it was done on an individual basis. The findings from these interviews are discussed in the following paragraphs." Discussions with the respondents are presented in the subsequent paragraphs.

The majority of respondents concurred when asked if the double-track system has alleviated the strain on the college's existing facilities. In line with this, one of the respondents explained that:

"Because the students are running the double-tracking system, they stay at home for some time, and this reduces the pressure on the school facilities" (Respondent 1).

However, a few of the student teachers expressed a contrasting view that:

"I don't think so because when one category of students on a particular tracking system go on break then those on the other tracking system also resume. So, I think that there is rather a pressure on the existing school facilities" (Respondent 2).

Additionally, a majority of the student teachers expressed the opinion that the introduction of the double-track system has contributed to a rise in the number of students gaining admission to the college. Nevertheless, the student teachers readily acknowledged that its implementation negatively impacted their academic studies. In light of this, they stated that:

"You know that some of us come from average families, therefore, during the holidays we have to find something to do so that we can help our parents in paying our fees before school resumes; and this also affects our learning" (Respondent 1).

Another respondent also said that:

"...Times are hard, and looking at the current economic difficulties in the country; we have to hustle so that we can get some items before we return to school" (Respondent 2).

The student teachers expressed their opinion that the double-track system of education has had a detrimental impact on the quality of education they experienced in the colleges. In line with this, some of the respondents indicated that:

"It has reduced the contact hours in school" (Respondent 1).

Another also mentioned that:

"We do online lectures whilst at home, but due to network challenges and home destructions, we are unable to fully participate" (Respondent 2).

Furthermore, a majority of the respondents concurred that the implementation of the double-track system has alleviated the issue of student overcrowding. One of the respondents mentioned that:

"Yes, because it has allowed for effective use of limited resources in school" (Respondent 1).

Another respondent said that:

"Yes, because it makes it possible for students to have easy and efficient access to school resources. E.g. food, furniture, tables and chairs, dormitories, etc." (Respondent 3).

In relation to the potential confusion surrounding the double-track system of education, most students concurred with this viewpoint. A student teacher remarked that:

“Yes, because at times, I am confused concerning when we will vacate and when we will resume school (Respondent 4).

Notwithstanding the challenges, the majority of student teachers believed that the double-track system in colleges of education should remain in place.

The findings suggest that student-teachers held mixed perceptions regarding the double-track education system. While many agreed that the system has negatively affected the quality of education, contributed to increased workload for both teachers and students, and was generally confusing, they also acknowledged its benefits. Specifically, respondents noted that the double-track system has expanded access and increased student enrolment. However, responses indicated uncertainty about whether the system has effectively addressed overcrowding or whether it should be abolished. Additionally, there was considerable agreement that many student-teachers lack a clear understanding of the policy's full implications. The study, centred on Ghana, reveals findings that reflect similar trends in various sub-Saharan African countries experiencing increased enrolment despite limited infrastructure. Rwanda and Kenya have implemented double-shift systems and compressed school calendars as strategies to manage student flow (UNESCO, 2020; Ngugi & Otieno, 2019). In both scenarios, similar to Ghana, the emergence of teacher burnout and decreased contact hours surfaced as unforeseen outcomes. This comparative perspective underscores the necessity for policy design that prioritises sustainability and equity. Incorporating student perspectives, as demonstrated in this study, plays a crucial role in developing adaptive educational systems in resource-constrained environments.

In addition to the quantitative findings, semi-structured interviews were carried out with 50 student teachers, from which a representative subsample of four was chosen for more in-depth reflection. The interview guide examined their personal experiences with the double-track system, focussing on aspects such as academic motivation, teaching quality, institutional support, and coping strategies during off-track periods.

Participants expressed a variety of views regarding the system. Numerous individuals recognised that the double-track system reduced strain on physical infrastructure, noting that staggered attendance facilitated a more effective utilisation of dormitories and classrooms. Nevertheless, multiple participants voiced apprehensions regarding the ambiguity surrounding academic calendars and the constraints on instructional time. Several students reported that they engaged in employment during off-track periods to provide financial support, acknowledging that this choice negatively impacted their academic concentration. Some individuals pointed out difficulties associated with online learning, such as inadequate internet access and home distractions, which hinder effective participation in remote instruction.

The interview excerpts provided additional context to the survey responses and were subsequently categorised into thematic patterns to enhance the interpretation of the findings, as elaborated in the next section.

1. **Educational Disruption and Uncertainty:** Participants frequently conveyed concerns regarding alterations in academic schedules, ambiguous academic timelines, and unforeseen modifications in instructional methods. A student expressed, “Sometimes, I find myself perplexed about when we will leave and when we will return to school,” highlighting the uncertainty of the system and its mental impact. The disruptions correspond with the dissatisfaction expressed by students in survey responses regarding academic continuity and contact hours.
2. **Economic Survival vs Academic Focus:** A consistent theme emerged regarding the conflict between scholarly obligations and monetary challenges during off-track intervals. One interviewee remarked, “During the holidays we have to find something to do so that we can help our parents in paying our fees,” highlighting the tension between economic challenges and academic involvement. This supports the elevated mean score (4.48), indicating that student-teachers tend to prioritise work over their studies during breaks.
3. **Digital Learning Gaps:** Despite efforts by institutions to enhance in-person learning through online platforms, participants pointed out challenges with engagement, noting issues such as unreliable internet

access and distractions in their home environments. One student articulated, “We engage in online lectures from home; however, network challenges hinder our ability to participate fully.” This theme elucidates the gap between the efforts of tutors and the perceived support from college management, as underscored by the quantitative findings.

The findings indicate that student teachers generally held favourable views toward the implementation of the double-track system in college education. Many perceived that the system helped alleviate pressure on existing institutional facilities, aligning with the policy's primary objective of accommodating growing enrolments without overburdening infrastructure. The staggered enrolment structure was seen as a practical solution for maximizing limited physical resources while maintaining access. This perception is consistent with earlier research in secondary education, which found that the double-track system enabled institutions experiencing enrolment surges to optimize resource utilization (Osei-Owusu & Akenten-Appiah, 2021). A recurring concern in the responses is that student teachers often use their break periods to seek employment opportunities rather than focus on their academic studies. This implies that while the system allows for flexibility, it also creates unintended consequences, where students prioritize financial gains over academic engagement. To reduce this problem, institutions could introduce structured academic activities during breaks, such as online tutorials or assignments, to keep students academically engaged. Student teachers reported that the double-track education system places significant pressure on teachers, requiring them to work continuously throughout the year. This sustained workload, they suggested, may result in fatigue and reduced productivity. These observations are supported by Akoto-Baako and Heeralal (2021), who found that double-track systems increase stress levels and lower job satisfaction among educators.

This study examined student teachers’ perspectives on the implementation of the double-track system in colleges of education. Their responses are summarized in Table 3.

Table 3: Perspectives of student teachers regarding the implementation of the double-tracking system in colleges of education.

Statements:	M	SD
The implementation of the double-tracking system of education is essential.	4.13	0.21
I feel motivated to learn under the double-tracking system.	3.03	0.23
I am satisfied with the support I receive from tutors under the double-tracking system of education.	4.09	0.25
I am satisfied with the materials/systems that management has put in place to support learning under the double-tracking system.	3.26	0.19
Students do not take their academic work seriously under the double-tracking system.	4.15	0.38
The introduction of the double-tracking system has negatively affected my academic performance.	4.58	0.16
I simply dislike the double-tracking system of education.	4.27	0.13
I would be happy if the double-tracking system is completely abolished.	4.08	0.53

Source: Field Data 2022

Rating Scale:

1= Strongly Disagree, 2= Disagree, 3 = Uncertain,

4= Agree, 5= Strongly Agree

Mean of means = 3.95

The mean standard deviation is 0.26.

As shown in Table 3, the findings yielded a mean score of 3.95 (SD = 0.26), indicating that student teachers generally agreed with the statements regarding the implementation of the double-track system in colleges of education. Effect sizes (Cohen's *d*) were computed to assess the extent of the differences in student perceptions among various year groups. The reported motivation levels between second- and fourth-year students showed a notable difference ($M = 3.17$ vs. 2.91), resulting in a small effect size ($d = 0.31$). Furthermore, 95% confidence intervals for all key means were computed to reflect precision.

The analysis revealed that a majority of student teachers agreed that the implementation of the double-track system is important, with a mean score of 4.13 (SD = 0.21), indicating a high level of consensus. The low standard deviation suggests minimal variation in responses. This perspective aligns with Azumah (2018), who emphasizes the importance of motivating, consulting, and educating stakeholders to facilitate acceptance of the system. However, as shown in Table 3, student teachers were generally uncertain about their motivation to learn under the double-track system, as reflected by a mean of 3.03 (SD = 0.23). In contrast, participants expressed satisfaction with the support received from tutors, as evidenced by a mean score of 4.09 (SD = 0.25), suggesting a strong level of agreement. Additionally, as shown in Table 3, the student teachers conveyed a lack of confidence in their satisfaction with the materials and systems implemented by management to support learning within the double-tracking system. The average score of 3.26, accompanied by a standard deviation of .19 for this item, supports this conclusion effectively. About the assertion that students do not approach their academic responsibilities with seriousness within the double-tracking system, a significant number of student teachers concurred with this viewpoint. This is reflected in a mean score of 4.15 (SD = 0.38), indicating a generally high level of agreement. Additionally, the statement "The implementation of the double-track system has affected my academic performance negatively" received a mean score of 4.58 (SD = 0.16), suggesting that a significant number of student teachers strongly agreed with this sentiment. The mean is positioned at scale 5 (strongly agreed), as indicated in Table 3. This finding aligns with Anim-Appau (2018), who argues that the double-track system could lead to significant social issues. The results indicate that a majority of student teachers expressed their discontent with the double-tracking system of education. A mean score of 4.27 (SD = 0.13) indicates that respondents generally agreed with the related statement, reflecting strong consensus. Similarly, when asked whether the double-track system should be removed, participants expressed agreement, as shown by a mean score of 4.08 (SD = 0.53). The results indicate a strong consensus among student teachers regarding the need to eliminate the double-track system. The reported low motivational scores correspond with the principles outlined in Self-Determination Theory (Deci & Ryan, 1985), which suggests that learner motivation is influenced by factors such as autonomy, competence, and relatedness. The absence of peer engagement and organisation during off-track times could diminish intrinsic motivation. Additionally, insights regarding the decrease in academic performance can be framed through the lens of Cognitive Load Theory (Sweller, 1988), as condensed curricula and online learning require increased mental effort in less than ideal circumstances.

Qualitative Analysis of Student Teachers' Attitudes Toward the Implementation of the Double-Track Education System

The semi-structured interview guide complemented the questionnaire by providing deeper insights into the rationale behind student teachers' responses. The findings revealed that while many student teachers expressed concerns about the implementation of the double-track system—citing issues such as increased workload and institutional strain—they also acknowledged its relevance as a short-term solution to accommodate growing enrolment in colleges of education. Yet, most of them did not feel motivated to learn under the double-tracking system. With this one of the respondents explained that:

"Of course... You cannot compare learning at home with learning in the school which has an enabling environment." (Respondent 1).

The majority of student teachers expressed satisfaction with the assistance provided by the tutors within the double-tracking system. Several student teachers expressed that:

"As for the teachers, they are doing quite alright trying to engage us using the online teaching and

learning, but the problem is with the student teachers because they are not serious about it.” (Respondent 1).

“...I like the fact that some tutors record our zoom/google meetings and share them with us on our class platforms so that I can play back and get what I missed earlier and also for better clarification” (Respondent 2).

However, the student teachers felt that the management of the college were not doing enough to support learning under the double-tracking system. In line with this, the student indicated that:

“Management should monitor and ensure that both tutors and student teachers take the online teaching which has become necessary due to the double-tracking system, seriously” (Respondent 1).

Also, one student teacher stressed that,

“Management should support us with data bundles, communicate earlier on changes made to the academic calendar and should check the regularity on both sides of student teachers and tutors” (Respondent 2).

The student teachers expressed the opinion that certain peers do not approach their academic responsibilities with the necessary seriousness within the double-tracking system, and they believe that this system's implementation has adversely impacted their academic performance. A number of the student teachers expressed that:

“Since the implementation of the double-tracking system is affecting my studies, I think it should be completely abolished” (Respondent 1).

Another also said that:

“The disadvantages outweigh the advantages, so we should do away with it” (Respondent 2).

Based on the discussions presented, it can be inferred that the student teachers exhibited a somewhat positive attitude towards the implementation of the double-tracking system in the colleges of education. This is because, while the student teachers perceived the implementation of the double-tracking system as pertinent, they expressed satisfaction with the assistance provided by tutors within this framework; yet, they were unsure as to whether they felt motivated to learn under the double-tracking system; and were unsure as to whether they were satisfied with the materials/systems management had put in place to support learning under the double-tracking system. Once more, students did not approach their academic responsibilities with the seriousness required under the double-tracking system and expressed that the implementation of this system has adversely impacted their academic performance. As a result, they disliked the double-tracking system of education and indicated that they would be happy if the double-tracking system is completely abolished.

CONCLUSIONS

The feedback from student teachers indicates a varied understanding of the double-track system in colleges of education. While it has successfully reduced overcrowding and expanded access, it has also led to challenges such as academic disruptions, economic distractions, teacher workload, and concerns about training quality.

STUDY RECOMMENDATIONS

Based on the findings, the following recommendations are made for policymakers and educational stakeholders, including the Ministry of Education, the Ghana Education Service, and the National Council for Curriculum and Assessment (NaCCA):

1. **Enhance Participatory Policy Development:** Education policies, including those related to the double-track system, should be developed through inclusive and consultative processes. Student teachers should be actively involved in decision-making to ensure policies are grounded in the lived experiences of those

directly affected.

2. **Improve Policy Orientation and Communication:** College administrators should ensure that student teachers are thoroughly educated on the purpose, structure, and operational aspects of the double-track system. Providing clear information and engaging students in policy dialogues can improve their understanding and foster a sense of ownership.
3. **Promote Student Motivation through Engagement:** Greater involvement of student teachers in the design and implementation of education reforms can enhance motivation and reduce resistance. When student teachers understand and identify with the objectives of a policy, they are more likely to support and engage with it constructively.
4. There should be provision of structured academic activities during breaks to keep students engaged. This will ensure effective learning through the break, where the teacher-students will be in the house.
5. Recruiting additional lecturers or offering incentives to mitigate the increased workload will motivate lecturers to put in their maximum best.
6. Incorporating flexible and innovative teaching methods to enhance learning quality.
7. There must be a long-term evaluation to assess the long-term sustainability of the policy and explore infrastructural expansion as a permanent solution.

Ethical Statement

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Conflict of Interest

All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Ethical Approval

The research obtained ethical approval from the academic offices of Komenda, Foso, and Ola Colleges of Education. The approvals were issued in compliance with Ghana's national ethics guidelines, which are consistent with international standards like the Declaration of Helsinki and UNESCO's Code of Ethics for Research in Education (2016). Informed consent was obtained from all participants, and confidentiality was rigorously upheld.

Informed consent

Before participating, all respondents were fully informed about the nature and purpose of the research. This included a detailed explanation of the objectives, methods, and the expected duration of participation. The privacy of all participants was prioritized, and the data collected was treated with strict confidentiality, accessible only to the research team

REFERENCES

1. Adu-Gyamfi, E., Donkoh, M., & Addo, F. (2016). How politics shape the quality of education in Ghana (ESID Working Paper). Effective States and Inclusive Development Research Centre.
2. Amedahe, F. K., & Asamoah-Gyimaah, E. (2014). Introduction to research methods in education. [Unpublished manuscript]. University of Cape Coast.
3. Akoto-Baako, H., Heeralal, P. J., & Kissi-Abrokwah, B. (2021). Concept of increased enrolment: Its effect on teachers in Ghana. *Mediterranean Journal of Social Sciences*, 12(1), 84–94.

- <https://doi.org/10.36941/mjss-2021-0008> (Example DOI—please confirm exact one from journal site)
4. Anim-Appau, F. (2018, July 26). Double-track system: Disadvantages outweigh advantages – Educationist. MyJoyOnline. <https://www.myjoyonline.com/news/2018/July-26th/double-track-system-disadvantages-outweigh-advantages-educationist.php>
 5. Asumadu, S. (2019). Educational reforms in Ghana: Past and present. *Journal of Education and Human Development*, 5(3), 158–172.
 6. Best, J. W., & Kahn, J. V. (2016). *Research in education* (10th ed.). Pearson Education.
 7. Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
 8. Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). Routledge. <https://doi.org/10.4324/9780203720967>
 9. Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge. <https://doi.org/10.4324/9781315456539>
 10. Creswell, J. W. (2021). *A concise introduction to mixed methods research* (2nd ed.). SAGE Publications.
 11. Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. Springer.
 12. Deng, R. F. (2010). *Scale development: Theory and applications*. Carwin Press.
 13. Deho, O. B., & Agangiba, W. A. (2019). Sentiment analysis with word embedding—the case of double-track education system in Ghana. *Ghana Journal of Technology*, 4(1). <http://www2.umat.edu.gh/gjt/index.php/gjt/article/view/200>
 14. Fraenkel, J., Wallen, N., & Hyun, H. (1993). *How to design and evaluate research in education* (10th ed.). McGraw-Hill Education.
 15. Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Age International.
 16. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
 17. Lewis, P., Thornhill, A., & Bristow, A. (2015). Understanding research philosophy and approaches to theory development. In M. Saunders, P. Lewis, & A. Thornhill (Eds.), *Research methods for business students* (7th ed., pp. 122–161). Pearson Education.
 18. Okertchiri, J. A. (2018, August 15). Understanding the school placement and double-track system. Daily Guide Network. (Direct article link not found—please verify and insert URL)
 19. Oppenheim, A. N. (1992). *Questionnaire design, interviewing and attitude measurement* (New ed.). Pinter Publishers.
 20. Osuala, E. C. (1982). *Introduction to research methodology*. Africana-FEP Publishers.
 21. Osei-Owusu, B., & Akenten-Appiah, M. (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.
 22. Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
 23. Sarantakos, S. (2005). *Social research* (2nd ed.). Palgrave Publishers.
 24. Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). Pearson Education.
 25. Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257–285. https://doi.org/10.1207/s15516709cog1202_4
 26. Sweller, J., Ayres, P., & Kalyuga, S. (2011). *Cognitive load theory*. Springer. <https://doi.org/10.1007/978-1-4419-8126-4>
 27. Tandberg, D. A. (2010). Politics, interest groups and state funding of public higher education. *Research in Higher Education*, 51, 416–450.
 28. Yeboah, R. M. (2018, August 23). Double-track system will improve the country’s education system and not destroy it – President Akufo-Addo. Ghana.gov.gh. (Exact article URL not found—use homepage: <https://www.ghana.gov.gh> or locate direct link)