



## Research Article

# Influence of Heads of Schools' Instructional Supervision on Senior High School Students' Performance in the North East Region of Ghana: Implications for Orientation

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**Abstract:** The study investigated the influence of instructional supervision of Heads of Senior High School (SHS) on students' academic performance in the North East Region, Ghana and its consequences for their orientation. The study utilized a cross-sectional survey design guided by two research questions and a null hypothesis. Using simple random sampling, 5 SHSs accounting for 35% of 14 schools were selected for the research. Self-developed questionnaires served as the primary tool for data collection. The internal consistencies of the items in the surveys were verified by the Cronbach alpha calculation which yielded  $r = 0.80$ . The data was analyzed using mean, standard deviation and multiple regression. The study revealed that the level of instructional supervision of heads of schools was generally moderate. It was further discovered that the oversight provided by heads of schools did not significantly affect students' academic performance. Lack of time, overload of tasks, and lack of means of transport were the challenges highlighted. The study concluded that it would take more than moderate instructional supervision to influence students' academic performance and recommends that the Ghana Education Service and the National Schools Inspectorate Authority (NASIA) strengthen their monitoring of school administrators and regional education directorate. It has also been recommended that the same organizations provide clear instructional supervision targets for SHS heads along with appropriate motivation rewards to enhance regular and effective instructional supervision by the heads to improve the overall quality of teaching and learning. The SHS heads should also be given budgetary support, vehicles, and further training on effective instructional supervision by the Ministry of Education and its agencies.

**Keywords:** instructional supervision, lesson planning, portfolio assessment, Pupil-Teacher Ratio, students' academic performance

## 1. Introduction

The United Nations Sustainable Development Goal 4 aims to guarantee comprehensive and fair access to high-quality education for everyone by the year 2030 (UNESCO, 2015). The attainment of Sustainable Development Goal 4 has the potential to effectively diminish poverty and enhance collective prosperity by promoting equitable access to

and high standards of education. Nations must collaborate to guarantee that every child has equal access to high-quality education and continuous learning opportunities throughout their lifetime, irrespective of their place of birth, gender, or family income. To achieve Sustainable Development Goal 4, the Government of Ghana implemented various measures, such as the 1 teacher 1 laptop initiative, the introduction of Continuous Professional Development (CPD) allowance for pre-tertiary teachers, and the implementation of the Free Senior High School (FSHS) policy in 2017 (Gunu, 2018). The government's endeavors will be rendered futile if the efficacy of instructional monitoring, particularly at the SHSs, is lacking. Within the scope of this study, Senior High Education denotes the educational phase preceding tertiary education. Currently, the duration is three years according to Bariham (2020). Ghana's secondary education system, known as SHS, is comparable to high schools in both developing and advanced nations. Since the implementation of the fee-free secondary education policy in 2017, there has been a notable rise in enrollment rates (Dua et al., 2023; Gunu, 2018). In the 2018/2019 academic year, there was a notable rise in admissions in SHSs, with the number of students increasing from 362,118 to 472,000, representing a growth of around 23% (Ministry of Education, 2018).

Nevertheless, except for 2022 and 2023, the educational accomplishments at the SHSs and the pass rate of students in the West African Senior Secondary Certificate Examination (WASSCE) have been inadequate in all academic fields within the North East Region. Table 1 presents the trends of pass rate at the West African Senior School Certificate Examination (WASSCE) among Senior High Schools in the research area.

**Table 1.** Trends of WASSCE pass rate among some senior high schools in North East Region (2018-2020)

Name of School	2018	2019	2020
Walewale Senior High/Technical School	1.00%	9.20%	22.10%
Nalerigu Senior High School	2.00%	2.10%	10.70%
Wulugu Senior High School	1.10%	0.80%	9.20%
Chereponi Senior High/Technical School	0.50%	1.30%	9.20%
Bunkpurugu Senior High/Technical School	0.60%	0.40%	9.10%
Yagaba Senior High School	0.00%	0.00%	5.70%
Nakpanduri Senior High School	0.80%	0.00%	4.30%
Gambaga Girls Senior High School	0.30%	0.30%	1.30%

Source: Ministry of Education (2021)

The results from Table 1 indicate that the pass rates across all the schools in the study area were unacceptable. The pass rate in this context refers to the proportion of students who obtained qualifying grades to be able to successfully transition into tertiary institutions. It measures the number of students who scored Grades A1-C6 for any three core subjects including English and Mathematics and three electives (Ministry of Education, 2021). Several factors affect students learning outcomes. These include instructional supervision by heads of schools. Instructional supervision offers teachers constructive feedback and guidance, helping them to modify their instructional pedagogies to provide authentic learning experiences. Instructional supervision also fosters a culture of continuous learning and professional development of the teachers, supports teachers in developing effective classroom management strategies, improves students' academic performance, and encourages teachers to reflect on their teaching and assessment practices. This research focuses on such as school-induced factors, home-induced factors, teacher-related factors, student-related factors, and government-related policies (Zambaga, 2017). It is worth noting that quality education indicators are mainly three, namely; input, process, and output (Oduro, 2019). If all the inputs are appropriate but there is poor supervision of the process, the outcomes will be poor achievement of students. Quality supervision of the educational process has the propensity to yield the desired educational goals. Instructional supervision plays a crucial role in educational

management by improving the quality of services offered by educational institutions (Maldrine & Kiplangat, 2020). The main objective of supervision extends beyond mere repair and learning, encompassing the coordination, stimulation, and promotion of the growth of the teaching profession (Shikokoti et al., 2023).

A study conducted in Ormoc City Senior High School, Philippines, found that school heads' and master teachers' instructional supervision skills-particularly in subject mastery, teaching strategies, classroom management, evaluation, and mentoring-significantly correlated with teachers' performance. Enhanced teacher performance, in turn, positively affected student academic outcomes (Bagulaya, 2024). Similar research in Ubungo Municipality, Tanzania, revealed that school heads' supervisory practices, such as classroom visits, teacher mentoring, and assistance in lesson planning, played a crucial role in enhancing teaching quality and students' learning achievements. However, challenges like inadequate facilities and limited resources hindered effective supervision (Msuya & Mwila, 2023). Another study focusing on public secondary schools in Tanzania examined the influence of school heads' clinical supervision practices on teachers' professional competency development. The findings indicated that effective clinical supervision by school heads significantly enhanced teachers' professional competencies, which are essential for improving student academic performance. The study highlighted the importance of training school heads in clinical supervision techniques to foster teacher development (Chaula et al., 2024). In Ghana, there are few empirical studies on the impact of heads of school instructional supervision on the academic performance of senior high school students especially in the study area. It was as a result of this gap that this research was conducted to examine the level of frequency of instructional supervision conducted by leaders of SHSs in the study area and its impact on student's academic achievement.

### **1.1 Research questions**

The research found answers to the following questions:

- i. To what extent do heads of SHSs conduct instructional supervision in their schools concerning lesson planning, classroom observation, and portfolio assessment?
- ii. What challenges do heads of SHSs encounter in managing and conducting general instructional supervision in their respective schools?

### **1.2 Hypothesis**

The following null hypothesis guided the study.

Ho1 Heads of schools' instructional supervision has no statistically significant effect on the academic performance of SHS students in the North East Region.

### **1.3 Significance of the study**

This study holds significant value in the context of educational quality and academic performance of secondary school students. In Ghana, the role of heads of schools' instructional supervision has been emphasized as a key factor in stimulating students' academic achievement. This study's main goal is to explore how the actions, strategies, and leadership qualities of school supervisors impact the learning outcomes of senior high school students. By examining this relationship, the study provides insights into effective educational leadership practices that can foster an environment conducive to better academic outcomes. One of the study's key contributions lies in its focus on instructional supervision-a concept central to quality teaching. Effective supervision involves guidance, monitoring, and support of teachers to improve their teaching practices, which directly influences student learning. This study can highlight the ways in which supervisors' involvement, such as regular classroom observations, feedback provision, and mentoring, correlates with enhanced student performance. In Ghanaian senior high schools, where resources can be limited, effective instructional leadership can serve as a cost-effective way to improve teaching standards and student academic achievements. Consequently, the findings can inform policymakers on the importance of training and supporting school heads to develop strong supervisory skills. In addition, the findings of the study would contribute to global discourse on educational quality, particularly, in the context of developing countries. By focusing on the Ghanaian educational system, the study has provided local perspectives on how headteachers supervision practices affect learning in senior high school settings where they may be unique cultural, social, and economic challenges. The

demonstration of correlation between instructional supervision and learning outcomes of senior high school students in Ghana can serve as a case study for other nations with similar educational landscapes. Ultimately, this study underscores the crucial role that effective leadership in schools plays in achieving better student performance, potentially guiding educational reforms and teacher professional development programs both locally and internationally.

## **2. Literature review**

### **2.1 Theoretical framework**

This study was based on McGregor's Theory X and Theory Y, which were first introduced in 1960. Theory X is based on the assumption that the average person has an inherent aversion to work and will go to great lengths to avoid it. Due to an inherent aversion to work, most individuals necessitate compulsion, control, guidance, discipline, and intimidation to exert the requisite effort to achieve organizational objectives. The typical individual possesses a strong inclination towards seeking guidance, exhibits a reluctance to assume responsibility, demonstrates less ambition, and places a high value on security. Hence, a management style based on theory X entails rigorous and authoritative oversight, where roles and duties are explicitly outlined and employees are driven by the prospect of disciplinary measures or increased remuneration. Conversely, idea Y is based on the premise that exerting physical and mental effort in the workplace is just as innate as resting or engaging in recreational activities. The average individual does not inherently detest work; there are alternative methods to motivate individuals toward achieving company objectives beyond relying on external authority and the fear of punishment. Taking this into consideration, on one hand, it can be inferred that, teachers who engage in the actual teaching and instruction to achieve better academic performance will ordinarily not engage students in a meaningful way that can yield the desired outcomes unless there are in place mechanisms to cause the necessary effort. It therefore suffices to say that heads must put in place rigorous instructional supervision measures (Theory X). On the other hand, teachers do not necessarily detest work. Rather, they need the right mechanism that can elicit intrinsic motivation to work and help achieve high academic performance (Theory Y).

As to McGregor's (1960) findings, work can either bring enjoyment or punishment based on controlled circumstances. Individuals will exercise self-direction and self-control when pursuing their dedicated goals. The level of commitment towards goals is determined by the advantages associated with their achievement. The most significant advantages, such as the fulfillment of ego and self-actualization needs, might directly stem from efforts made to accomplish organizational objectives. Under appropriate conditions, an ordinary individual not only becomes willing to embrace but also actively pursues accountability. The capacity to employ a significantly elevated level of inventiveness, resourcefulness, and originality in resolving organizational issues is prevalent throughout the population, rather than being limited to a certain group.

The propensity to evade accountability, absence of drive, and fixation on stability are commonly derived from experience rather than inherent human characteristics. In the context of contemporary industrial society, the intellectual capabilities of the average individual are only partially actualized (McGregor, 2015). The use of theory Y assumptions may lead to enhanced communication between senior high school principals and their instructors. A theory Y management style seeks to establish a work environment that fosters the alignment of individuals' individual needs and objectives. McGregor posits that leadership is influenced by various elements, including the attitudes and requirements of followers, the organizational form and structure, and the social, economic, and political context. According to McGregor, leadership is a complex interaction of multiple elements rather than an individual characteristic. McGregor (2015) further argued that leadership encompasses not just the leader's attributes but also the dynamic relationship between the leader and their environment. This study suggests that the Government of Ghana, specifically the Ministry of Education, should provide incentives to secondary school teachers and empower school monitoring institutions like the National Schools Inspectorate Authority (NASIA) to effectively monitor and supervise them to ensure they deliver. This will ensure high-quality teaching and learning, ultimately improving the educational outcomes of all students in alignment with Sustainable Development Goal 4.

## **2.2 Conceptual framework**

This research was conceptualized based on the assumption that heads of schools' instructional supervision practices will improve quality teaching and learning, and increase learning outcomes of the students. The independent variable was heads of senior high schools' instructional supervision practices while the dependent variable was an improvement in students' performance. For effective teaching and learning to occur, heads of SHSs, assistant heads, and heads of departments should routinely conduct supervision of their teachers concerning lesson planning, classroom lesson observation, portfolio assessment, post-observation conferences, and checking of students' academic records to inform the kind of support teachers and students required to address the gaps identified. Supportive supervision practices can improve the relationship between the heads and teachers thereby increasing the job satisfaction of the teachers which can eventually dovetail into higher learning outcomes of students.

## **2.3 Impact of heads of school instructional supervision on the academic performance of students**

The research on the correlation between heads of schools' instructional supervision and student learning outcomes has been consistently positive. For instance, a study in the Philippines (Abdulsalam et al., 2023) which investigated the effects of instructional supervision by school heads on student learning, with a focus on lesson delivery and assessment practices using multiple regression analysis found a strong correlation between effective instructional supervision and improved student engagement and learning outcomes. It emphasized that consistent supervision, including classroom visits and feedback on instructional strategies, leads to better alignment with curriculum goals and improved academic performance of students. A similar study was conducted in Machakos County, Kenya by (Mutunga et al., 2023). This research focused on the influence of principals' instructional supervision on academic outcomes in public secondary schools. It was a descriptive survey which employed 247 participants, including 19 headmasters and 228 teachers. Data were collected through questionnaires and analyzed using SPSS software. The findings revealed that effective instructional supervision by school heads positively impacted students' performance in national exams, emphasizing the importance of active leadership in curriculum management and teacher oversight. In agreement, a study in Mandera East Sub-County, Kenya (Hanshi & Mosomi, 2023) which probed the impact of principals' supervision practices on the academic performance of public secondary schools using a mixed-method approach found that instructional supervision by school heads directly influences students' academic achievements, although effectiveness varied among schools. The research noted a declining trend in student performance over recent years, suggesting that improvements in instructional leadership could help reverse this trend. In Ghana, similar empirical research was carried out by Ampofo et al. (2019) which explored the relationship between school heads' supervision and teacher role performance in the Central Region of Ghana. The research focused on how supervision in lesson planning, classroom observation, and assessment practices influences the effectiveness of teachers, which in turn impacts student performance. The study found that direct supervision, including classroom observations and regular feedback, significantly enhances instructional quality. This improvement in teaching practices contributes positively to students' learning outcomes by fostering a supportive and goal-oriented educational environment. However, the above-reviewed studies were conducted in different contexts and at different times. Again, literature on the effects of heads of school instructional supervision on students' outcomes especially in the North East Region of Ghana was virtually non-existent. Little studies in the North East Region focused on the effects of headteachers' leadership practices on the job satisfaction of senior high school teachers (Bariham et al., 2024). Therefore, to fill this gap, the team formulated and tested a hypothesis to find out whether heads of schools' instructional supervision have a statistically significant effect on the academic performance of senior high school students in the North East Region of Ghana.

## **3. Methodology**

### **3.1 Research design**

This study utilized a descriptive survey approach, allowing the research team to distribute questionnaires to gather data from SHS principals, assistant principals, department heads, and teachers. Descriptive research is carried out to ascertain and effectively delineate the attributes of the variables under investigation in a particular context (Ashun,

2022). To comprehend the characteristics of a group within a specific context, it is beneficial to systematically analyze the circumstances, propose avenues for further investigation and research, and assist in making clear and objective assessments. Descriptive studies that coherently present data can be particularly useful for this purpose (Ashun, 2022).

### 3.2 Research approach

There are three main approaches often used by researchers in conducting empirical studies, namely; quantitative, qualitative, and mixed methods. This study adopted a quantitative research approach grounded in positivism. Grix (2004) states that quantitative research employs methodologies that apply to numerical data.

### 3.3 Ethical considerations

Research ethics such as informed consent, participants' rights, confidentiality, research permit, and participants' safety has been respected throughout the study. Before fieldwork, a letter from the research team was sent to the North East Regional Director of Education explaining clearly the objectives of the study and the need for permission to carry out the research which was approved. The approved letter from the regional director was then used by the team to access the schools for the survey. Informed consent was obtained from all the respondents before they took part in the survey. Participants' rights and privileges were respected throughout the study. They participated willingly and had the right to pull out of the survey at any time. Furthermore, participating in the survey did not expose the respondents to any physical, social, or emotional harm. Finally, the data collected was kept confidential and applied solely for this research.

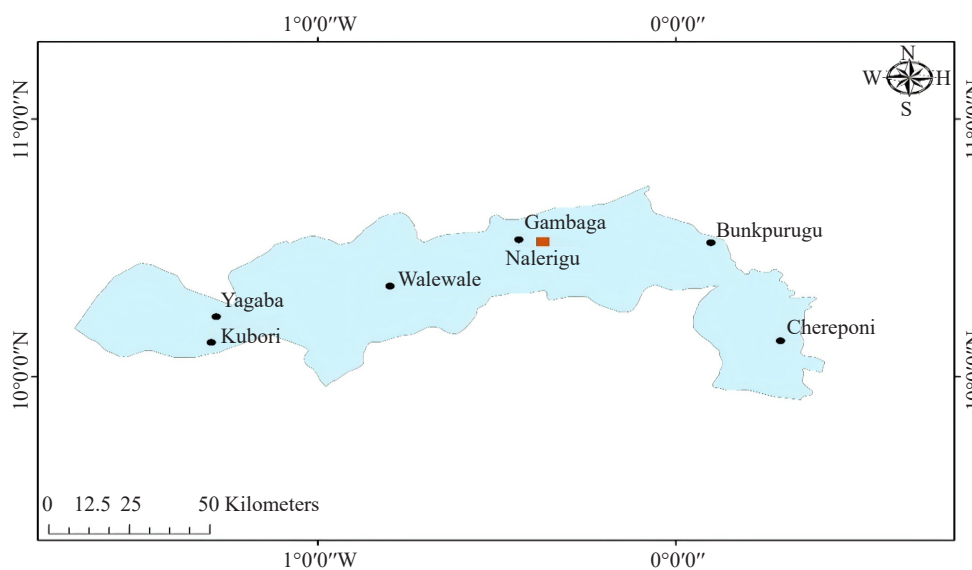


Figure 1. Political map of north east region

### 3.4 Profile of study location

The study was carried out in selected SHSs located in the North East Region of Ghana. The area is located in the northern part of Ghana and is one of the country's 16 administrative divisions. The region was founded in December 2018 after a referendum that separated it from the former Northern region, with Nalerigu as its capital. The Upper East region is adjacent to the North East area in the north, Togo in the east, the Northern Region in the south, and the Upper West region in the west. There are 6 districts in the area. According to Ghana's Population and Housing Census (2021), 658,946 people are living in the North East Region, including 322,149 males and 336,797 females. In comparison to the national average of 13.4%, the region had the third-highest unemployment rate of 20.7% as of 2021. Additionally, 67.4% of people live in rural areas, compared to 32.6% who live in urban centers within the region (Ghana's Population



and Housing Census, 2021). This suggests that the region is rural. The area is home to a large number of educational institutions, including primary schools, junior high schools, SHSs, as well as teachers and nurses training colleges. The need for this research to influence policies and best practices is due to the appalling performance of senior high school students in the region during the past seven (7) years (2015-2021). Figure 1 is a political map of the North East Region.

### 3.5 Sampling procedure and sample size

In this study, out of 14 public SHSs in the study area (North East Region), 5 schools representing 35% were sampled for the research using the Simple Random Sampling (SRS) technique. SRS strategy was adopted to offer all schools an equal opportunity to be selected for the study. Patten and Newhart (2018) report that one of the strategies for selecting an unbiased sample is to provide every member of a population with an equal chance of being included in a sample. Again, in each of the 5 sampled schools, at least 26 teachers were randomly selected to complete the questionnaire yielding a total of 130 teachers. According to Roscoe (quoted in Sekaran, 2003), it is generally recommended to use sample sizes between 30 and 500 for most surveys. An accurate and credible sample should allow the researcher to make generalizations about the findings from the sample to the population being studied (Ashun, 2022). School heads in this study refer to headteachers, assistant headteachers, and heads of departments who are required to supervise their respective teachers to ensure that quality teaching is provided to all students enrolled in their schools.

### 3.6 Data analysis methods, software and process

The Statistical Package for Social Sciences (SPSS) version 27 was used to analyze the data in the study. The survey data collected for the study were analyzed using descriptive and inferential statistics. The data on the extent to which heads of senior high schools in the North East Region conduct instructional supervision and the challenges they encounter were analyzed with descriptive statistics such as frequencies, percentages, mean, and standard deviation. A standard multiple regression analysis was employed to test the hypothesis and determine whether heads of schools' instructional supervision have a statistically significant effect on the academic performance of SHS students in the study area.

### 3.7 Research instruments

A Standardized Questionnaire (SQ) on instructional supervision for educational managers developed by Ampofo et al. (2019) was adopted, modified, and administered to SHS teachers to determine the extent of instructional supervision often undertaken by heads of their schools. The validated SQ consisted of 28 closed-ended items on a five-point Likert scale. The internal consistency of the items in the questionnaire produced an alpha of  $r = 0.876$ . The responses in the questionnaire were: (1) Strongly Disagree = Not at all (NA); (2) Disagree = Some Extent (SE); (3) Undecided = Moderate Extent (ME); (4) Agree = Great Extent (GE); (5) Strongly Agree = Very Great Extent (VGE). The questionnaire had three (3) parts; Lesson planning, Classroom observation, and Portfolio assessment as illustrated in Table 2.

**Table 2.** Interpretation of the rating scale used in the study

Scale	Description of measurement
5	Very great extent
4	Great extent
3	Moderate extent
2	Some extent
1	Not at all

## 4. Descriptive analysis

The data in Table 2 illustrates that the Pupil-Teacher Ratio (PTR) is within the UNESCO acceptable standard of 40 students per teacher (1:40) in primary, and 25 students per teacher (1:25) in secondary schools. Pupil-Teacher Ratio (PTR) refers to the average number of pupils (students) per teacher at a specific level of education in a given school year. The total number of teachers in the study area stood at 370 and that of students was 7,409 as captured in Table 3.

**Table 3.** Total Number of teachers and students in sampled schools

	Teachers	Students	Teacher-student ratio
School A	91	2,335	1:26
School B	29	290	1:10
School C	118	1,947	1:17
School D	74	1,637	1:22
School E	58	1,200	1:21
Total	370	7,409	1:20

Similarly, the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) framework stipulates that PTR should be 30:1 at the primary level, at the upper primary level it should be 35:1, and 30:1 at the secondary school level. The results shown in Table 3 demonstrate that the PTR was favorable because there was a sufficient number of teachers accessible for all SHSs in the North East Region that were part of this investigation. The poor performance of the students in the region cannot be attributed to lack of teachers. The findings presented here are in sharp contradiction to the research undertaken by (Duah et al., 2023) which investigated the impact of higher student enrollment on the quality of education in secondary schools in the Ejisu Municipality in the Ashanti Region of Ghana. The analysis revealed that while there were certain advancements noted from 2019 onwards, the scholastic achievement of students had decreased during the initial years of the implementation of the Free Senior High School (FSHS) policy. In addition, they uncovered that schools faced a substantial student-teacher ratio, inadequate dormitory facilities, congested classrooms and dining halls, and inadequate teaching and learning resources. The empirical studies on the influence of class size on students' academic achievement have produced inconclusive findings over the years. Several quasi-experimental studies have investigated the impact of class size but did not provide a definitive conclusion about the effect of larger classrooms on the academic achievement of economically disadvantaged learners. According to numerous experts, modifications in class size can impact the academic performance of children.

The Tennessee Student-Teacher Achievement Ratio (STAR) research, as cited by Uhrain (2011), revealed a significant improvement in student academic performance when class sizes were reduced in Grades K-3. Nevertheless, Owoye and Yara (2011) and Wyss et al. (2007) found no substantial statistical differences in student performance between large and small classes in secondary education. Hence, the existing research on the impact of class size on student learning outcomes is equivocal and lacks clarity. However, to establish policy guidelines for Ghana's situation, it is crucial to analyze the effects of the growing number of students on teaching and learning in senior high schools after the implementation of the Free Senior High School (FSHS) policy.

### **4.1 Research question 1: To what extent do heads of SHSs conduct instructional supervision in their schools concerning lesson planning, classroom observation, and portfolio assessment?**

To address the above research query, teachers were asked to indicate the extent to which they agree or disagree with the following statements about the frequency at which heads of schools, assistant heads, and heads of departments



routinely conduct the following instructional supervision activities in connection with lesson planning which results are presented in Table 4.

**Table 4.** Heads of school instructional supervision in connection with lesson planning (N = 130)

Instructional supervision practices	Mean ( <i>M</i> )	Standard Deviation ( <i>SD</i> )	Interpretation
Lesson planning supervision	3.2538	1.12278	Moderate extent
Timely inspection of the scheme of work	3.5692	1.14755	Moderate extent
Discussion of challenges in preparation of teachers' scheme of work	3.1077	1.22155	Moderate extent
Always offer constructive suggestions to improve the preparation of the scheme of work and lesson plans	3.4769	1.22176	Moderate extent
Weekly vetting of teachers' lesson plan	3.3692	1.10066	Moderate extent
Ensures teachers' instructional objectives are clear, specific, measurable, and achievable	3.7077	1.15769	Moderate extent
Ensures teachers' lesson plans are up to date	3.8077	1.09329	Moderate extent
Ensures that teachers' lessons are planned based on the allocated time	3.5154	1.22781	Moderate extent
Ensure that teachers' lesson plans provide enough activities to support students acquire problem-solving, critical thinking, creativity, communication, collaboration, and leadership skills	3.7462	1.03663	Moderate extent

Results in Table 4 show that the majority of teachers agreed to a moderate extent that heads of SHSs have been conducting supervision of lesson planning by their teachers. Specifically, the majority of the teachers agree to a moderate extent that heads of schools often conduct timely inspection of their schemes of work ( $M = 3.5692$ ,  $SD = 1.14755$ ); Weekly vetting of teachers' lesson plans ( $M = 3.3692$ ,  $SD = 1.10066$ ); Ensures teachers' instructional objectives are clear, specific, measurable and achievable ( $M = 3.7077$ ,  $SD = 1.15769$ ); Ensures teachers' lesson plans are up to date ( $M = 3.8077$ ,  $SD = 1.09329$ ); Ensures that teachers teach based on the allocated time ( $M = 3.5154$ ,  $SD = 1.22781$ ); and Ensure that teachers' lesson plan provides enough activities to support students acquire problem-solving, critical thinking, creativity, communication, collaboration, and leadership skills ( $M = 3.7462$ ,  $SD = 1.03663$ ).

#### 4.1.1 Heads of SHSs instructional supervision concerning direct classroom lesson observation

Teachers were surveyed to assess their agreement or disagreement with the claims on the frequency of instructional supervision by school heads during classroom lesson observation. The findings of this survey are provided in Table 5.

**Table 5.** Heads of school instructional supervision with classroom lesson observation (N = 130)

Instructional supervision practices	Mean ( <i>M</i> )	Standard Deviation ( <i>SD</i> )	Interpretation
Teachers' teaching is regularly observed by the head of the school	3.7692	0.86185	Moderate extent
Teachers are often informed before the lesson observation by the head	2.9538	1.11005	Some extent

**Table 5.** (cont.)

Instructional supervision practices	Mean ( <i>M</i> )	Standard Deviation ( <i>SD</i> )	Interpretation
Teachers' teaching is the focus rather than their personality during instructional supervision	3.7846	0.97616	Moderate extent
The school head regularly plans with teachers for lesson observation	2.8000	1.10680	Some extent
School heads always offer teachers feedback from lesson observation in a constructive and desirable manner	3.4000	1.15650	Moderate extent
School head often ensures teachers' lessons are student-centered and inclusive to provide authentic learning experiences for students	3.8923	1.01740	Moderate extent
The head of the school often ensures teachers' instructional objectives are specific, clear, and achievable	3.8769	1.05338	Moderate extent
Heads of schools always ensure that teachers teach based on the allocated time	4.1846	0.95020	Great extent
Heads of schools often ensure teachers' classroom teaching provides enough activities to support students acquire problem-solving and leadership skills	3.8923	1.01740	Moderate extent

Table 5 results indicate that the SHS teachers endorsed to a moderate extent the fact that heads of schools often observe their classroom teaching and learning processes. Specifically, Teachers' teaching is regularly observed by the head of school ( $M = 3.7692$ ,  $SD = 0.86185$ ); Teachers' teaching is the focus rather than their personality during classroom supervision ( $M = 3.7846$ ,  $SD = 0.97616$ ); School heads always offer teachers feedback from lesson observation constructively and desirably ( $M = 3.4000$ ,  $SD = 1.15650$ ); School head often ensures teachers' classroom teaching activities are student-centered and inclusive to provide authentic learning experiences for students ( $M = 3.8923$ ,  $SD = 1.01740$ ); and Heads of school often ensure teachers classroom teaching provide enough activities to support students acquire problem-solving and leadership skills ( $M = 3.8923$ ,  $SD = 1.01740$ ).

#### 4.1.2 Headteachers' instructional supervision in terms of portfolio assessment

The instructors at SHS were also requested to indicate their level of agreement or disagreement with the statements on the degree to which school administrators engage in instructional supervision concerning portfolio assessment. The findings of this survey are displayed in Table 6.

**Table 6.** Headteachers instructional supervision in terms of portfolio assessment

Instructional supervision practices	Mean ( <i>M</i> )	Standard Deviation ( <i>SD</i> )	Interpretation
School heads often review teachers' scheme of work	3.5692	0.88868	Moderate extent
School heads regularly review the lesson plans of their teachers	3.5923	0.89526	Moderate extent
School heads regularly review teachers' record of work	3.7077	0.83940	Moderate extent
School heads regularly moderate test items for examination of their students and their corresponding marking schemes from teachers	3.4846	0.95019	Moderate extent
School heads often review sample records of students' academic work	3.4846	0.99794	Moderate extent
School heads regularly review samples of instructional resources used by teachers during teaching and learning	3.3692	0.99719	Moderate extent

**Table 6.** (cont.)

Instructional supervision practices	Mean ( <i>M</i> )	Standard Deviation ( <i>SD</i> )	Interpretation
School heads often review samples of teachers' artifacts used during teaching and learning	3.3231	1.09414	Moderate extent
School heads often review teachers' philosophy of teaching and provide suggestions on how to improve it	3.5923	0.97006	Moderate extent
School heads often review teachers' reflective practices and offer them advice on how to improve it	3.3615	1.14799	Moderate extent

Table 6 data illustrates that a significant number of the respondents agreed to a moderate extent that heads of schools frequently conduct an assessment of teachers' portfolios in their schools. For instance, School heads regularly review the lesson plans of their teachers ( $M = 3.5923$ ,  $SD = 0.89526$ ); School heads regularly review teachers record of work ( $M = 3.7077$ ,  $SD = 0.83940$ ); School heads regularly moderate the test items teachers designed for examination of their students and their marking schemes ( $M = 3.4846$ ,  $SD = 0.95019$ ); School heads regularly review samples of instructional resources used by teachers during teaching and learning ( $M = 3.3692$ ,  $SD = 0.99719$ ); School heads often review teachers' philosophy of teaching and provide advice on how to improve it ( $M = 3.5923$ ,  $SD = 0.97006$ ); and School heads often review teachers' reflective practices and offer them advice on how to improve it ( $M = 3.3615$ ,  $SD = 1.14799$ ).

#### **4.2 Research question 2: What challenges do heads of SHSs encounter in managing and conducting instructional supervision in their respective schools?**

A structured questionnaire was administered to five heads of SHSs to find out the extent to which the following challenges they frequently encounter when conducting supervision in their respective schools. The results are presented in Table 7.

**Table 7.** Challenges heads of schools' face when conducting instructional supervision

Challenges of instructional supervision by heads of schools	Mean ( <i>M</i> )	Standard Deviation ( <i>SD</i> )	Interpretation
Lack of time	3.0000	1.87083	Moderate extent
Congested classrooms	2.8000	1.64317	Some extent
Lack of qualified teachers	2.2000	1.30384	Some extent
Rigid school timetable	2.2000	1.30384	Some extent
Negative attitude of teachers toward supervision	2.8000	1.64317	Some extent
Lack of teacher motivation	2.6000	1.51658	Some extent
Poor relationship between school heads and teachers	1.4000	0.54772	Not at all
Not being clear about the boundaries of instructional supervision	2.4000	1.14018	Some extent
The overload of tasks makes instructional supervision stressful	4.2000	0.44721	Great extent
Indiscipline among teachers makes my work cumbersome	2.8000	1.09545	Some extent

**Table 7.** (cont.)

Challenges of instructional supervision by heads of schools	Mean ( <i>M</i> )	Standard Deviation ( <i>SD</i> )	Interpretation
Supervisees are disrespectful and sometimes do not implement my suggestions	2.8000	1.09545	Some extent
Lack of means of transport	3.0000	1.87083	Moderate extent
Financial difficulties make it difficult to implement instructional supervision duties and require support services	4.4000	0.54772	Great extent

Table 7 results indicate that heads of SHSs do encounter several challenges in their quest to supervise instruction in their respective institutions. For instance, lack of time had a mean score of ( $M = 3.0000$ ,  $SD = 1.87083$ ); Overload of tasks makes instructional supervision stressful ( $M = 4.2000$ ,  $SD = 0.44721$ ); Lack of means of transport ( $M = 3.0000$ ,  $SD = 1.87083$ ); and financial constraints ( $M = 4.4000$ ,  $SD = 0.54772$ ). These findings concur with (Boakye & Authur, 2022) whose examination of the attitudes of head teachers towards instructional supervision of secondary school economics teachers found overload of tasks, indiscipline on the part of the supervisees, financial constraints, and lack of means of transport as barriers to the supervision of SHSs by school heads. However, the least challenges the head teachers encountered according to the data in Table 7 were lack of qualified teachers ( $M = 2.2000$ ,  $SD = 1.30384$ ); rigid school timetable ( $M = 2.2000$ ,  $SD = 1.30384$ ); poor relationship between heads of schools and teachers ( $M = 1.4000$ ,  $SD = 0.54772$ ); and lack of teacher motivation ( $M = 2.6000$ ,  $SD = 1.51658$ ).

### 4.3 Research Question 3: What strategies are often employed by heads of SHSs to improve the quality of teaching and learning?

SHS instructor in the study area were also asked to rate the level at which they agree or disagree with the following statements on interventions regularly put in place by heads of school to improve the quality of teaching and learning in their respective schools. KEY: *SD-Strongly Disagree*, *D-Disagree*, *N-Neutral*, *A-Agree*, *SA-Strongly Agree*. The results are presented in Table 8.

**Table 8.** Strategies often employed by heads of schools to improve the quality of teaching

Instructional supervision to improve quality of teaching	Mean ( <i>M</i> )	Standard Deviation ( <i>SD</i> )	Interpretation
School heads often plan induction training for newly appointed teachers in the school	3.2077	1.09754	Moderate extent
School heads often facilitate best practice sharing programmes for their teachers	3.3462	1.03961	Moderate extent
School heads often support teachers in lesson planning	3.4462	1.03476	Moderate extent
School heads frequently support teachers in selecting instructional resources suitable for the topics they teach	3.4231	1.19343	Moderate extent
School heads regularly share new innovative instructional pedagogies among teachers	3.3462	1.12554	Moderate extent
School head regularly facilitates Continuous Professional Development (CPD) programmes for their teachers through workshops, seminars, and conferences	2.9077	1.53737	Some extent
School heads often support teachers in conducting Action Research	2.4538	1.21433	Some extent

The results as presented in Table 8 indicate that the majority of the respondents agreed to a moderate extent that school heads have been carrying out instructional leadership practices and providing them with strategies to improve the quality of their instruction. For instance, School heads often plan induction training for newly appointed teachers in the school had a mean score ( $M = 3.2077$ ,  $SD = 1.09754$ ); School heads often facilitate best practice sharing programs for their teachers ( $M = 3.3462$ ,  $SD = 1.03961$ ); School head frequently support teachers in selecting instructional resources suitable for topics they teach ( $M = 3.4231$ ,  $SD = 1.19343$ ); and School heads regularly share new innovative instructional pedagogies among teachers ( $M = 3.3462$ ,  $SD = 1.12554$ ). In addition, heads of schools were not frequently supporting teachers' Continuous Professional Development (CPD) programs and Action research which recorded ( $M = 2.9077$ ,  $SD = 1.53737$ ) and ( $M = 2.4538$ ,  $SD = 1.21433$ ) respectively.

## 4.4 Exploratory analysis

### 4.4.1 Effects of heads of school instructional supervision on SHS students' performance

A null hypothesis was generated and evaluated using standard multiple regression analysis to examine the impact of heads of school instructional supervision on students' performance. Table 9 provides a concise summary of the outcomes obtained from the multiple regression analysis.

**Table 9.** Standard multiple regression analysis on the effects of heads of school instructional supervision on students performance

Independent variable	Sum of squares	df	Mean square	F	R square ( $R^2$ )	Beta ( $\beta$ )	Sig.
Instructional Supervision	0.450	1	0.450	1.800		-0.612	0.272
	0.750	3	0.250		0.375		
Total	1.200	4					

Dependent Variable: The performance of students at WASSCE over the last 7 years (2016-2022)  
Independent variable: (Constant), Heads of Schools Instructional Supervision

### 4.4.2 Multiple regression equation

In the multiple regression equation,  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \varepsilon$ ;  $\beta_0$  is the intercept term;  $\beta_1$  is the slope or coefficient;  $\varepsilon$  is the error term; and  $X_1$  is the predictor.

Table 9 displays the outcomes of a standard multiple regression analysis, where the independent variable is the heads of the school's instructional supervision of instructors, and the dependent variable is the performance of students. Table 9 displays an  $R^2$  value of 0.375, indicating that 37.5% of the variability in students' performance may be traced to the direct supervision of teachers' training by heads of schools. Table 9 demonstrates that the p-values for heads of schools' instructional supervision are lower than the significant value ( $\beta = -0.612$ ,  $p = 0.272 > 0.05$ ). This suggests that the involvement of school administrators in supervising instruction does not have a major impact on the outcome variable, which is students' performance. Based on this information, the study did not find enough evidence to reject the null hypothesis that the instructional supervision of senior high school heads had no statistically significant impact on students' learning outcomes. This finding deviates from multiple studies conducted in Africa that have identified a positive association between instructional monitoring by school administrators and students' academic achievement. Kenya provides an example of this phenomenon, as demonstrated by a study conducted by Wanzare (2011) on instructional supervision in public secondary schools. The study found that when school heads directly supervise teachers, it improves the quality of teaching, increases students' academic performance, and enables the monitoring of teachers' instructional techniques. Panigrahi's (2012) study on the implementation of instructional supervision in secondary schools in Ethiopia found that conducting classroom visits enables head teachers to interact with teachers, evaluate the caliber of instruction provided, and offer feedback to rectify any identified shortcomings. A study conducted by Asiyai (2009) in Nigeria revealed that the implementation of regular instructional supervision by the school principal,

which involved closely monitoring teachers, led to improvements in teacher lesson planning, punctual attendance, and active participation in school community events.

## **5. Discussion of results**

### **5.1 Lesson planning**

This finding confirms those from Ampofo et al. (2019) conducted a study on the influence of school heads' direct supervision on the proficiency of teachers at public senior high schools in Ghana's Central Region. The study revealed that school heads dedicated minimal time to supervising lesson planning and the actual presentation of lessons. Lesson plans and schemes of work are essential pedagogical resources that enable efficient teaching delivery. The structure and content of a course are clearly defined in schemes of work and lesson plans, which also include the use of materials, classroom activities, and evaluation procedures to ensure the achievement of course objectives (Gakuya, 2013). The research conducted by Too et al. (2012) offers data supporting the association between the supervision of teachers by head teachers and the academic accomplishment of students in the Kenya Certificate of Secondary Education. The study results indicated a clear and positive correlation between students' performance on national examinations and the degree of supervision offered by head teachers in monitoring instructors' teaching and learning approaches.

#### **5.1.1 Classroom lesson observation**

This implies that heads of schools' supervision of classroom teaching among their teachers in the study area was average. This revelation departs completely from those from Ampofo et al. (2019) who found that the majority of SHS teachers expressed support for the idea that school heads frequently monitor the presentation of their lessons in classrooms. In contrast, Kipngetch (2016) previously found that the headteachers' frequency of conducting clinical supervision practices was highly inadequate and had a substantial impact on the students' underperformance in their final examination. The poor performance of SHS students as evidenced by their performance over the past five years can therefore be attributed to low supervision of classroom teaching and learning by head teachers, assistant heads, and heads of departments.

#### **5.1.2 Portfolio assessment**

This evidence indicates that the extent to which heads of SHSs in the study area conduct portfolio assessments of their teachers is relatively average. This means teachers' portfolios were not being effectively monitored by their heads. This discovery presents a contradiction to the findings of Baggay et al. (2021), who reported that instructors expressed high levels of satisfaction with how school heads carried out portfolio assessments. Multiple empirical research has demonstrated that implementing efficient portfolio supervision can significantly improve teacher effectiveness in classroom instruction and learning (Sule et al., 2015; Usman, 2015) as noted in Baggay et al. (2021). Every Portfolio Assessor is assigned a distinct PIN code to have access to the portfolio content of teachers for evaluation purposes. The specific criteria for portfolio assessment are recorded in the teachers' portfolio document. The Assessors can evaluate the data through an online platform and input information without being aware of the identity of their clients. Nevertheless, their clients can view their comments. The administrators of the portal can monitor any communication exchanged between the assessor and the teacher through the portal. The assessors' Rated scores are combined with the Professional Development (PD) scores accumulated in the point-based system to determine whether a teacher's license can be renewed or issued, as is the case with Newly Qualified Teachers (National Teaching Council, 2020). Heads of SHSs should therefore increase their level of supervision of their teachers' portfolios since it can enhance their performance and offer evidence for their future career progression in the teaching profession.

#### **5.1.3 Designing interventions to improve the quality of teaching**

This statement contradicts the guidelines set by the National Teaching Council (2020) for continuing professional development (CPD) programs in all pre-tertiary educational institutions in Ghana. Continuing Professional Development (CPD) is the method via which educators uphold and improve their knowledge, abilities, and acquired experiences



while they continue to work, beyond their initial training. It is a documentation of the knowledge, skills, and attributes that teachers acquire, utilize, and cultivate to fulfill their professional and technical responsibilities throughout their teaching tenure. Continuing Professional Development (CPD) is a crucial aspect of teacher growth. It encompasses training and educational courses that are endorsed by the National Teaching Council (NTC) and are deemed pertinent to the teaching profession while adhering to specified requirements (National Teaching Council, 2020). The purpose of introducing CPD activities is to create a platform for exchanging ideas and experiences to enhance professional competence and dedication. Provide opportunities for teachers to engage intellectually, emotionally, and socially to enhance their experiences; Uphold a high level of competence through continuous lifelong learning; Foster social responsiveness by promoting collaboration among teachers as a community of experts; Ensure teachers maintain good standing and stay current with the times; Uphold professional excellence. Provide opportunities to enhance the initial training of teachers and enhance their knowledge, abilities, attitudes, and practices to effectively address the learning requirements of various learners. The objective is to support teachers in adjusting, contributing, engaging in critical thinking, and actively participating in resolving difficulties related to teaching and learning. Additionally, the aim is to enhance teachers' dedication to their chosen profession (National Teaching Council, 2020).

## 6. Conclusions

Research question one sought to find out the extent to which heads of senior high schools conduct instructional supervision in their schools concerning lesson planning, classroom observation, and portfolio assessment. The findings revealed that the extent to which the heads of senior high schools conduct instructional supervision was moderate. The study therefore concludes that the extent of instructional supervision among the heads is inadequate. This has the propensity to negatively affect the academic performance of the students.

The study also uncovered a lack of time, overload of tasks, and lack of means of transport as the main obstacles preventing heads of SHSs from carrying out effective supervision of their schools. However, the most insignificant challenges often encountered by the heads of SHSs were a lack of qualified teachers, rigid school timetables, poor relationships between heads of schools and teachers, and lack of teacher motivation.

On the hypothesis tested to ascertain the effects of heads of school instructional supervision on SHS students' academic performance, the study failed to reject the null hypothesis as instructional supervision of the heads did not significantly contribute to the outcome variable (students' performance). The study therefore concludes that the instructional supervision carried out by the heads of the schools' understudy is ineffective.

## 7. Recommendations

It is recommended that the Ghana Education Service and the National Schools Inspectorate Authority enhance monitoring of the heads through regular visits and follow-ups by the national officers and the regional directorate of education. Second, it has also been recommended that the same outfits should give specific instructional supervision targets to the heads with corresponding motivational incentives to encourage the heads to do frequent and effective instructional supervision to improve the quality of teaching. Third, heads of senior high schools should be given further training on effective instructional supervision by the Ministry of Education and its agencies. This can be supervised by the regional education directorate with specific terms of reference. Finally, the role of a senior high school head is well-defined in the Ghana Education Service. Heads of schools are therefore expected to provide leadership roles for both curriculum and co-curriculum-related activities in their respective schools. This requires that they take time to assess the value of both and put in place a mechanism in order not to fulfill one at the detriment of the other. Owing to this, and all the other school-related activities that call for the attention of the head, there is the need for orientation and or reorientation for the heads of schools on this specific responsibility. The government of Ghana through the Ministry of Education should provide enough budgetary support and vehicles to SHSs to enhance instructional supervision activities.

## Conflict of interest

The authors declare no conflict of interest.

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