

Improving Quality Education: Influence of Academic Facilities Conditions on Teachers' Commitment to Work in the Public Senior High Schools in the Cape Coast Metropolis

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ABSTRACT

In Ghana, the Central region's Cape Coast boasts several elite public senior high schools, without a doubt, with many high-achieving student numbers. Among others, exceptional head teachers' leadership styles have been associated with these schools that outweigh those of other schools. Additionally, strengthened old students association and their support for their Alma mater is yet another avenue for developmental changes in schools. Oftentimes, these variables come upfront when compared to other potential variables that equally contribute to teachers' commitment positively. The objective of this study is to determine the influence of academic facilities conditions on teachers' work commitment in public senior high schools within Cape Coast. The research employed a quantitative descriptive survey design. A sample size of 297 teachers completed a questionnaire to determine their commitment to their schools. The Statistical Product and Service Solution (SPSS) version 23.0 was used to statistically analyse the data. The findings revealed that good academic facilities and teachers' commitment ($r=.601$, $p<0.05$) has a positive, strong significant relationship with teachers' work commitment. A further one sample t-test for academic facilities condition ($T=41.25$, $DF=224$, $sig.000$, Md , 2.54), and teachers' commitment ($T=30.09$, $DF=224$, $sig.000$, Md , 3.04) indicated a significant association between the two variables. Based on the findings, the study suggested that the Ministry of Education and NGOs should prioritise providing well-maintained academic facilities to improve teachers' commitment to ensuring low teacher retention rates to maintain the educational standards in public senior high school settings.

Keywords: Academic Facilities Conditions, Teachers' Commitment, Quality Education

INTRODUCTION

The concept of quality education is complex due to its culturally influenced and value-based purposes. Some view education as a way to enhance cognitive, moral, and social growth, while others see it as a tool for social unity, nation-building, or career preparation (Ankomah et al., 2005). According to UNESCO (2004), quality education aims to foster learners' creative and emotional development, promote peace citizenship and security, uphold equality, and transmit cultural values to future generations. It should also enable children to reach their fullest potential in cognitive, emotional, and creative capacities.

In the Ghanaian context, quality education means providing a comprehensive and unbiased education to all children and young people, preparing them for the workforce without discrimination based on income, color, gender, language, religion, political views, or social origin (Amakyi & Ampah-Mensah, 2016). Given this, the foundation of achieving and improving quality education has been linked to several potent variables, among which good physical (academic) facilities status and teacher considerations are key. Effective teaching and learning processes depend on the school facilities' condition judging from Issah et al. (2016) finding of the advanced relationship that exists between the two variables. For Issah et al. (2016), good condition of academic facilities and committed teachers are more at play than teachers and learners transferring knowledge in the classroom setting. It is well recognised that the condition of the facilities in a

learning environment has an impact on how committed teachers are and how students perform. This statement is supported by Issah et al. (2016), that if facilities are accessible, but in poor condition, it hinders teachers' progress, leading to a decline in teachers' commitment which in turn impact academic productivity negatively. Thus, while the bond between academic facilities and teachers' commitment has been established at other levels of education in different geographical contexts, the same thing cannot be said about how these two variables connect as well as how they are well grounded in the Ghanaian literature, especially Cape Coast, the formal educational hub of Ghana.

In formal education, where facilities and teachers are considered valuable resources, it is impossible to overstate the importance of the link between schools' academic facilities' conditions and teachers' commitment (Peretomode & Bello, 2021). Therefore, one of the ways teachers show their commitment to their profession and guarantee the effectiveness of the educational process is to provide top-notch academic facilities (Sam-Kalagbor, 2021). Furthermore, it is known that education can experience success when teachers are committed and begin to play a significant role in educational institutions when provided with the right resources. Because of this, every school desires to have committed teachers as well as good facilities because they have the potential to improve the quality of education (Khan, 2019). Hence, competent educational stakeholders' responsibility is to provide excellent and adequate academic facilities to nurture teachers' commitment to their work to ensure efficiency in the education system.

The concept of teachers' commitment to their profession and schools has gained attention recently. It is also significant in schools' success since it speaks to a teacher's involvement and the strength of the bond with the school towards the management of schools' properties, imparting knowledge and attitudes, and inspiring and motivating students in the right direction to make good decisions to achieve success (Peretomode & Bello, 2018). Furthermore, it determines the strength of the link between a teacher and a school, which enhances the teaching profession, school achievement, and student performance and lowers the turnover rate (Aziz, Mahmud, & Muda, 2019). The high-level commitment of teachers aims to have a favourable or rewarding impact on students' behaviour (Shanks & Dore, 2017). As a result, achieving high-quality teaching and keeping academic professionals committed and satisfied in their work is vital. According to Hari (2019), schools with a high level of teachers' commitment experience these benefits: teachers' work happiness, transparency, duty diligence, accountable and effective workers, decreased employee resignation, a lower difference of opinion, and low absenteeism. Affective, normative, and continuous commitment are the three types of commitment (Hari, 2019).

Research has stressed the significance of the physical conditions of schools in terms of educational effectiveness. This is an assertion with Sam-Kalagbor and Ezeala (2021), academic facilities conditions are the state of the libraries, laboratories, classrooms, and the ICT centres responsible for promoting effective teaching and learning in educational institutions. Again, it is significant in the sense that regardless of the system's workforce strength, the education system requires excellent academic facilities for efficient teaching (Nwaogu, 2019). In the view of Sam-Kalagbor and Ezeala (2021), academic facilities conditions have to do with the set-up of the available classroom buildings, laboratory equipment, furniture, and chalkboard, among others responsible for teaching and learning. Ani (2017), claims good academic facilities condition serves as a medium for effectively implementing the school curriculum. According to Nyangoya et al. (2020), academic facilities conditions are significant for students' academic performance. A positive school climate with good academic facilities gives teachers the impression that students' academic outcomes can be productive and teachers' determination to become committed to the school (Lawanson & Gede 2011; & Berg & Cornell, 2016). From the above discussions, it is known that teachers become committed in the presence of well-maintained or enhanced academic facilities.

The scenario is that over the years, the government of Ghana in collaboration with Ghana Education Service (GES) has implemented several initiatives for teachers, including housing schemes, loans, paid study leave,

and a single-spine pay structure, all of which have boosted teachers' commitment positively to function more efficiently towards the desired results (Biney, 2020). In addition, other incentive tools include free meals for boarding school teachers, motivational allowances from the Parents Teachers Association, extra class allowances, and accessible houses for teachers (Biney, 2020). These methods were implemented to help teachers become committed by the Government of the Republic of Ghana through the Ghana Education Services (GES). Despite these initiatives from the Ghana Education Services (GES), teachers still need more in other areas to maintain and also improve their commitment to their profession (Biney, 2020). Therefore, it is imperative to conduct this study to provide valuable insights to educational policymakers, school administrators, and relevant stakeholders to inform policy decisions aimed at enhancing teachers' commitment and, subsequently, improving the quality of education in public senior high schools.

PROBLEM STATEMENT

The role of teachers' commitment to their work has been significant in the educational setting and its success (Dagli and Gençdal, 2019). Given this, researchers such as Ekpoh (2018), and Khan (2019), have conducted studies using different variables to determine their significance on teachers' commitment to their profession and its influence on schools' success. It is known that salary, students with high IQs, schools' curricular and extra-curricular performance, and headteachers' leadership styles influence teachers' commitment to their work. However, recent studies to determine teachers' commitment to their work focus on leadership styles whilst neglecting the other equally competitive variables such as academic facilities conditions, teachers' promotion, and study leave. Despite these findings, literature has highlighted a strong and significant connection between academic facilities' conditions and teachers' commitment to work (Akomolafe and Adesua, 2016). For example, a study by Sam-Kalagbor (2021) and Dagli and Gençdal (2019), in Nigeria and Turkey, respectively, on the connection between academic facilities' conditions and teachers' commitment to work indicates a statistically significant relationship. Similarly, the findings of Kiptum (2018), and Otchere et al. (2019), revealed a significant connection between the two variables. In a nutshell, based on the gaps and controversies from the reviews and frameworks supporting this study's goal, the research problem was determined.

In the Ghanaian context, the Central region's Cape Coast boasts several elite public senior high schools, without a doubt, with many high-achieving student numbers. Among others, exceptional headteachers' leadership styles have been associated with these schools that outweigh those of other schools. Additionally, strengthened old students association and their support for their Alma mater is yet another avenue for developmental changes in schools. Oftentimes, these variables come upfront when compared to other potential variables, such as academic quality, physical facilities conditions, and school resourcefulness connect to teachers' commitment to their work.

Topical among the nuanced variables that often receive little research and development attention in Ghana's Central region is the association between academic facilities' conditions and their linkage with teachers' commitment to work. Given the pressing need for an explanation of why low student performance on exams continues to show troubling tendencies at the public senior high schools in Cape Coast, Ghana, this gap in the field of education research needs to be filled quickly. Thus it is imperative to bridge the gap of unavailability of research evidence to establish the link between academic facilities conditions and teachers' commitment to work. The present study aims to explore the relationship between academic facilities' conditions and teachers' commitment to work in public senior high schools in Cape Coast Metropolis.

Research questions

1. What is the condition of the available academic facilities and commitment level of teachers in Cape Coast public senior high schools?

2. What is the influence of academic facilities' conditions on teachers' commitment to work in Cape Coast public senior high schools?

Hypothesis

To achieve this objective, this hypothesis was formulated.

H_0 : There is no significant association between academic facilities condition and teachers' commitment to work

H_1 : There is a significant association between academic facilities condition and teachers' commitment to work

The discussion above set out to review literature related to this study to improve the understanding of the connection between academic facilities conditions and teachers' commitment to work to help deepen educational stakeholders' understanding of the role of schools' academic facilities' conditions on teachers' commitment, and how best they can help to achieve it.

LITERATURE REVIEW

This chapter is dedicated to examining literature relevant to the study in order to establish a strong foundation for the study problem, goal, and questions as outlined in the introduction. This chapter discusses literature related to this study to improve understanding of the connection between academic facilities conditions and teachers' commitment to their work in the public senior high school context. This chapter reviewed literature on three broad areas namely: concepts related to the study, theoretical frameworks, and empirical research. First, it consulted a conceptual review of academic facilities conditions followed by teachers' commitment. Second, the conception of the area of the study made it possible to advance a pertinent empirical research review. Again, the theoretical underpinnings of the study were laid thereby resulting in a theoretical framework that anchors the study. Finally, the conceptual framing of the study came next to accentuate the theoretical framework and contextual realities around the study.

Conceptual review

Khan (2013), claims teachers' identification with and attachment to the organisation make them effective. In contrast, employees' commitment to the organisation due to the costs they perceive are involved with quitting secures their continuation (Tarcan et al., 2015). Finally, employees' commitment becomes normative when they feel obligated to stay with the company. Teachers' work happiness, decisions, transparency, duty diligence, accountability, effective workers, decreased employee resignation, a lower difference of opinion, and low absenteeism are examples of teachers' importance to the school's commitment (Hari, 2019). Teachers' commitment is a psychological attachment of teachers to schools which determines their loyalty to the school's values and goals (Altun, 2017). The author added that teachers have an emotional link with their students and are at the heart of good education, and one of the most crucial components of effective teaching. As a result of this, committed teachers significantly impact their students' learning and achievement. Again, it is recognised that passionate teachers generate an excellent learning environment where students significantly develop their skills. Moreover, teachers' commitment is a person's desire or psychological state to stay with a company. It is a relationship between employees and employers (Noraishah et al., 2019). The study focused on three types of commitment; namely; affective, continuance, and normative commitment.

Though other types of commitment are equally important, these three types of commitment, affective, continuance, and normative commitment were selected for this study based on their distinct advantages in

fostering a strong and sustainable bond between employees and the organization. According to Erdogan and Cavli (2019), these three types of commitment encompass different dimensions of employee engagement, aligning with various motivations and psychological factors that drive employees to stay loyal and dedicated to the company. To add it up, affective, continuance, and normative commitment focus on intrinsic motivators, such as emotions, personal investment, and ethical alignment, which are more enduring and less susceptible to external factors. By prioritizing these types of commitment, organizations can cultivate a workforce that is genuinely passionate, loyal, and committed, leading to higher employee satisfaction, better organizational performance, and lower turnover rates.

In view of Dagli and Gençdal (2019), academic facilities condition is the state of the libraries, laboratories, classrooms, and ICT centres that strive to provide an equitable, high-quality, and welcoming environment for teachers and students. The authors further emphasised that the conditions of school facilities can be determined as excellent, good, average, and poor based on outline criteria. Murungi (2018), postulates that academic facilities conditions refer to either the excellent, good, or poor state of schools' libraries, classrooms, a playground, and other essential resources for teaching and learning. According to Mutai (2016), classroom learning environments are conducive when academic facilities, laboratories, classrooms, and libraries are in good working order. Murungi (2017), agreed with the previous remark and also contributed by saying that good school amenities make the classroom environment very engaging and exciting, pushing pupils to work harder and produce more. As a result, schools must have available and suitable academic facilities to help achieve the goal of curriculum instruction. Da?i? and Gençdal (2019), claim that academic facilities condition refers to the excellent, good, average, or poor state of the regular classrooms, labs, skills-teaching workshops, libraries, and individual study rooms that are instrumental in the teaching and learning environment. For this current study, the researcher shifted his attention to the condition of the available classrooms, science laboratories, ICT centres, and libraries as his main variables

Empirical review

Studies opine that academic facilities conditions positively improve teachers' commitment to their profession. Common studies undertaken include Sam-Kalagbor's and Ezeala's (2021), empirical study that examine the conditions of academic facilities and teachers' commitment and argued that good academic facilities (school facilities) substantially impact teachers' commitment and students' performance. Furthermore, academic facilities positively and negatively affect teachers' commitment to work. The study concludes that poor academic structure or outdated teaching and learning facilities can harm teachers' performance or commitment. This implies that good instructional facilities can help enhance and improve teachers' performance, likewise affecting students' academic performance. A study by Warmbier (2018), A Correlational Study of Factors That Contribute to Private School Enrollment and Teachers' Commitment: School Culture and Physical Facilities revealed that good academic facilities positively influence teachers' commitment. However, the author's attention to academic facilities condition was confined to only age neglecting other factors, resulting in a gap that requires more research. Again, Da?i? and Gençdal's (2019), study on "The Relationship between Academic Facilities' Conditions and Teachers' Commitment in Turkey", which employed a quantitative correlational survey design, indicates a significant relationship between academic facilities and teachers' commitment. The study also reveals that teachers' commitment to the organisation grows when academic facilities are in good working order. Appropriate facilities support employees' high commitment above and beyond to fulfil their responsibilities and meet organisational goals, allowing employees to keep favourable relationships with the institution and their membership for longer periods. According to a (2016), study by Nigerian researchers Akomolafe and Adesua, having good academic facilities considerably increases the degree of teachers' commitment to schools, whilst inadequate and subpar academic facility conditions contribute to teachers' bad performance at work. The findings above are promising because they have helped to discover that good or excellent academic facilities conditions can equally contribute to the increase in the level of teachers' commitment in schools likewise

other variables such as leadership styles, promotion, and high level of students' IQ. Thus, it will be beneficial for educational stakeholders to understand the role of academic facilities conditions as another variable for strengthening teachers' commitment to help improve quality education. Moreover, Olel et al. (2020), study using regression analysis indicates that good and enough academic facilities ensure a learner-friendly learning environment, ensuring both the teacher and learner love teaching and learning. According to the study, academic facilities are vital for teachers' commitment and students' success. Worn-out buildings inhibit learning, and in certain circumstances, the absence of important facilities, such as a laboratory, the library, computer rooms, classrooms, and even offices, results in low performance. Again, schools with poor academic learning facilities deprive teachers of motivation for effective teaching, which has a detrimental impact on their performance. The regression method effectively showed how a change in the independent variable affects the result variable. A study in Ghana by Issah et al. (2016), indicates a significant relationship between academic facilities conditions and teachers' commitment. The education system normally depends on the foundations of excellent academic facilities and committed teachers. The authors said that good academic facility influences teachers' commitment and improve the school's teaching profession. A study by Eliasu (2019), in Ghana, indicates that academic facilities enable teachers' commitment and assist students in learning effectively, much above what is feasible when students do not have access to these resources.

Theoretical frameworks

The focus of this study on the academic facilities and conditions of schools as a place of the human institution and their relation with teachers' commitment to education is multidisciplinary. Thus, the study uses multidisciplinary theoretical perspectives to describe the understanding of the phenomenon studied. These frameworks are James Coleman's (1966), production function model of education and Von Bertalanffy's (1968), system theory. Whereas the former places more emphasis on the facilities' availability, the latter places emphasis on the availability of the facilities' conditions and how that relates to teachers' commitment to work.

James Coleman's (1966) education production function framework

James Coleman's (1966) production function framework is one of the theories that underpin this study based on the study's goal and objectives. To begin with, James Coleman's (1966), production function views school as a corporation that processes educational inputs (school academic facilities, students, and teachers) into educational outputs (high teacher commitment via performance and effort as a result of the facilities, and the academic success of students through test scores as graduates). Several authorities have made use of the production function, including its proponent James Coleman (1966), and later Fuller (1985). In the United States of America, Coleman (1966), applied this technique to assess the contribution of academic outcomes in relation to the available facilities. The study was done to determine teachers' commitment and students' performance based on the available facilities. This study revealed that teachers exhibit a high level of commitment and as well as high performance on the part of the students due to enough facilities. In regards to this current study, "school input" is academic facilities conditions, while "school output" is teachers' commitment. Despite the significance of this framework, it also has its shortfall. The shortfall of this theory is that it does not factor in the conditions of the school facilities. Instead, it concentrates on the availability of the facilities neglecting the conditions. Aside from the shortfall, the theory is still significant to this study because the concentration is on the conditions of the available facilities in the schools and their influence on teachers' commitment to work.

Von Bertalanffy's (1968) system theory

Von Bertalanffy (1968) built on the production function model by factoring in the conditioning aspect of the facilities. According to Bertalanffy (1968), the general system theory applies to all sciences or procedures,

including education. The author, though a biologist, was interested in knowing how systems work to achieve a common goal. The author referred to the system theory in education as a “black box” (Input and output production). The general system theory developed by Von Bertalanffy (1968), in the educational context, focuses on how educational resources influence outcomes. The theory’s interconnected elements are the input, transformational process, and output. The input process encompasses physical facilities installation which academic facilities availability and conditions are part, teachers, and students. In contrast, the transformation process entails the successful execution of the school curriculum and the transformation of the inputs into outputs (teacher commitment, school success, and student performance). The system in education can refer to the entire institution, academic division, or department, as well as the human and academic resources that work together to ensure the school’s success. For instance, studies by Bozkus (2014) these theories, and the result aligns with the theory that when facilities are available and in good condition, it affects teachers’ professionalism (commitment). Again, studies also indicate that when institutions function well with all their components, it creates a positive relationship. The outcomes are the school’s results and services that are useful to users. A functional link between educational inputs and outputs is a production function for education and a corresponding output meter. Overall, high-quality school facilities provide favourable conditions that match the changing demands of teachers resulting in significant improvements in the teachers’ profession. Not, disputing the role of learning materials and curriculum in teachers’ performance, the role of academic facilities conditions are known to have a positive strong connection with teachers’ commitment to work.

Conceptual Framework

Based on the conceptual findings of the literature supporting this study and theoretical frameworks by James Coleman’s (1966), education production function framework and Von Bertalanffy’s (1968), general system theory underpinning this study, a conceptual framework was developed to explain the relationship between academic facilities’ conditions and teachers’ commitment which serve as the reflection about the research and its scope.

The conditions of the study’s facilities and the commitment of teachers make up its conceptual framework. Additionally, based on the conclusions from the theoretical frameworks, an intermediate variable (effective implementation of the curriculum) that was not taken into account before the study was included in the conceptual framework. The degree of the teachers’ involvement and their sense of loyalty to the school are related to their level of commitment. On the other hand, the state of the academic facilities is thought to have a significant effect on the dedication of the teachers. Furthermore, when facilities are available and in good condition, teachers’ commitment is important in defining their professionalism. To conclude, the quality and availability of facilities promote the effective implementation of the school curriculum and allow teachers to perform their duties diligently. The conceptual framework illustrates an interaction between the main variables of the study; academic facilities conditions and teachers’ commitment.

Figure 1:A Conceptual Framework for academic facilities conditions and Teachers’ Commitment



Source: Author’s construction.

From the above discussion, the review of correlated literature served to inform the study's topic, aim, and questions. The chapter built a conceptual framework to direct the investigation to fill the research gap caused by the unavailability of research evidence to determine the role of academic facilities' conditions in teachers' commitment to work. The research methodology utilised to shed light on the study is laid forth in the reviews and frameworks as well as the study's objective.

METHODOLOGY

The study employed a descriptive survey design to aptly achieve its purpose. This design utilizes specific techniques to analyse and interpret current conditions in real-time. It aims to uncover relationships between existing variables (Neuman, 2011). By choosing this design, the study obtains accurate information about the independent and dependent variables, describing the phenomenon in its natural state rather than inferring cause-and-effect correlations (Aggarwal & Ranganathan, 2018). This design is instrumental in understanding the relationship between the schools' facilities conditions and teachers' behaviour patterns (commitment).

The study focused on headteachers and teachers from public senior high schools in the Cape Coast metropolis. Based on Krejcie and Morgan's published tables in 1970, a sample size of 297 was chosen from a study population of 1264 to ensure an accurate representation of the target population. The selection of participants was done through a simple random procedure, ensuring each individual had an equal chance of being chosen, as recommended by McCombes (2019). To prevent any bias, the sample size for each of the 11 schools was determined proportionally. Besides, the study was conducted under a duly approved research and ethics environment. The research got in contact with the participants in their schools upon securing the University of Cape Coast Institutional Review Board's approval which makes it an ethically sound study. The formula below was used in calculating the sample size of the study by Krejcie and Morgan

$s = \frac{X^2 NP}{d N + X P}$ s = required sample size.

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

N = the population size.

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

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

A structured teachers' questionnaire and observation checklist on academic facilities conditions were developed to determine the influence of academic facilities conditions on teachers' commitment to work. The questionnaire was adopted from Sowah (2017), based on reviewed literature and study goals and a self-developed observation checklist for academic facilities conditions which adapted Da?li & Gen?dal's (2019) criteria for determining schools' academic facilities conditions. The measurement of the facilities' condition was based on core areas of equal importance. Moreover, the academic facilities condition checklist consists of four items including classrooms, libraries, laboratories, and ICT centres on a four-point Likert scale ranging from Poor to Excellent. On the other hand, the teacher commitment questionnaire was structured in three dimensions, each with four (4) items rated on a five-point Likert scale ranging from Strongly Disagree (SD) to Strongly Agree (SA). The three categories were Affective commitment, Continuance commitment, and Normative commitment. There were three sections on the instruments. Section A consists of (demographic profiles), Section B (academic facilities conditions), and Section C (teachers' commitment).

In order to assess the instruments' dependability, Cronbach's alpha was calculated. The academic facilities condition had a reliability coefficient of .73, while affective, continuance, and normative commitment had

reliability coefficients of .81, .83, and .74, respectively, and with an overall Cronbach's alpha of .79. These Cronbach's alpha values show that the constructs of teachers' commitment and the state of academic facilities are suitable and dependable for the study. These results support Oso and One's (2013) assertion that an instrument is sufficiently dependable when its coefficient is 0.70 or higher.

In an attempt to achieve the study's goal, there was a need to test the validity of the research instruments. The instruments were validated or their validations were established through the use of an expert in the field of Educational Planning and Test and Measurement in the Institutional Review Board, University of Cape Coast. Given this, my supervisor, an expert in Educational Planning assisted in validating the instrument to ensure that it includes all relevant items for the study. Again, the Institutional Review Board of the University of Cape Coast assessed the instruments and later approved them as suitable for the study since it contains items that can help achieve the purpose of the study.

Again, in this study, Cronbach's alpha coefficient was employed to determine the reliability of the constructs measuring physical facilities' conditions and teachers' commitment. The reliability coefficients were .73, .75, .80, and .89 for academic, administrative, ancillary, and boarding facilities, respectively. On the other hand, it was .81, .83, and .74 for affective, continuance, and normative commitment, respectively. The entire reliability coefficients for physical facilities conditions and teachers' commitment constructs were .80 and .79, respectively. Therefore, Cronbach's alpha values indicate that both teachers' commitment constructs and the physical facilities' condition are adequate, reliable, or enough for the study. These findings align with Oso and Onen (2013) that a coefficient of 0.60 and above means the instrument is adequately reliable.

A descriptive analysis (mean and standard deviation), Pearson correlation, and one-sample t-test analysis were used. The state of the academic facilities and the level of commitment of the teachers in the public senior high schools were assessed using the mean and standard deviation. Again, the Pearson correlation was utilised to determine the intensity and direction of the relationship between academic facility conditions on teacher commitment to work, and a one-sample t-test was further performed to assess the significant correlation between the two variables. Moreover, in this study, the condition of the facilities and the teachers' commitment was assessed using a decision rule based on mean and standard deviation. For the facilities, a mean range of (3.6-4.0) was categorized as "Excellent," (3.0-3.4) as "Good," (2.0-2.4) as "Average," and (1.0-1.4) as "Poor." A standard deviation greater than 1 indicated that the data was widely spread away from the mean, while a standard deviation of ≤ 1 indicated that the data was clustered tightly around the mean. Similarly, for the teachers' commitment, a mean range of 4.00-5.00 was considered "High," 2.50-3.50 as "Average," and 1.50-2.50 as "Low." The standard deviation was used in the same way as with the facilities assessment to determine the spread of data from the mean. The use of mean and standard deviation is known to allow for a more precise and objective evaluation of the facilities and teachers' commitment to the study. Finally, the association was tested at a 0.05 alpha level of significance.

FINDINGS

In accordance with the research questions, the major findings of the study are presented in this part. Additionally, the results are shown in tables and statistics with explanations for each research question.

Research question 1: What is the condition of the available academic facilities and teachers' commitment level in the public senior high schools in the Cape Coast Metropolis?

Descriptive statistics (Mean and Standard deviation) were computed to determine the condition of academic facilities condition and teachers' commitment level.

Table 1: Descriptive statistics analysis to determine the available academic facilities’ condition and teachers’ commitment level

Academic Facilities	N	Mean	Standard Deviation
Classrooms	11	3.18	.751
Main libraries	11	3.18	.405
Main science laboratories	11	3.18	.874
Main ICT centres	11	3.00	.632
Overall		3.13	.070
Teachers’ commitment dimensions	N	Mean	Standard deviation
Affective Commitment	225	3.60	1.00
Continuance Commitment	225	3.51	1.00
Normative commitment	225	3.70	.90
Overall		3.61	.96

Source: Field data (2023)

The results from Table 1 reflect the mean, standard deviation, and general state of the academic facilities. As seen in the table, the classrooms (M=3.18, SD=.75); Main libraries (M= 3.18, SD=.45); Main science laboratories (M= 3.18, SD=.87); and Main ICT centres (M=3.00, SD= .63) with all indicating good condition. From the Table, the Main science laboratories obtained the highest mean and standard deviation scores (M=3.18, SD=.87), followed by Classrooms (M=3.18, SD=.75), Main libraries (M= 3.18, SD= .45), and Main ICT centres (M=3.00, SD= .632) obtained the lowest mean ad standard deviation scores. From Table, the overall mean and standard deviation scores (M=3.13, SD=.70) obtained by all four (4) academic facilities dimensions indicate good condition. Again, from Table 1, it is seen that affective commitment dimension (M=3.60, SD=1.00), continuance commitment (M=3.51, SD=1.00), and normative commitment (M=3.70, SD=.90). The findings from the Table show that affective commitment obtained the highest mean and standard deviation scores (M=3.60, SD=1.00) whilst continuance commitment (M=3.51, SD=1.00) obtained the lowest mean and standard deviation scores. In addition, the mean and standard deviation scores obtained by the three (3) dimensions of teachers’ commitment represent a high level of commitment. In a nutshell, the total (M= 3.61, SD=.96) of the analysed data indicates that teachers in Cape Coast public senior high schools are highly committed to their profession.

Research Question 2: What is the influence of academic facilities’ conditions on teachers’ commitment to work?

Table 2: Pearson Correlation analysis for academic facilities condition and teachers’ commitment

Variables		Teachers’ Commitment
Academic facilities condition	R	.601**
	S	.000
	N	225

**Correlation is significant at the 0.05 level (2-tailed).

Source: Field data (2023)

Table 2 is a Pearson analysis table to determine the strength and direction of the association between the independent variable “academic facilities condition” and the outcome variable “teachers’ commitment”. It emerged from the Pearson analysis of the research question that there was ($r=.601$, $p<0.05$) indicating a strong, positive significant influence on teachers’ commitment. The significance value of .000 indicates that teachers’ commitment is positively influenced by good academic facilities. This finding indicates that in cases where academic facilities provided are in good condition, they bear a direct positive influence on teachers’ commitment to their work. However, when the facilities provided are in a poor state, it affects the performance level of teachers in the classroom. Hence, the students will stand to suffer as the teachers will not be motivated to provide them with adequate academic activities. In essence, teachers feel reluctant to work at their maximum when academic facilities are inadequate as well as in poor condition. Good academic facilities condition is significant to the effective and efficient educational programme and teachers’ commitment to work.

Hypothesis

H_0 : There is no significant association between academic facilities condition and teachers’ commitment to work

H_1 : There is a significant association between academic facilities condition and teachers’ commitment to work

Table 3: One-sample t-test analysis to determine if there is a significant association between academic facilities condition and teachers’ commitment

Variables	Test Value = 4					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Academic Facilities Condition	41.205	224	.000	2.542	2.42	2.66
Teachers’ Commitment	30.019	224	.000	3.271	3.06	3.49

Source: Field data (2023)

Again, Table 3, showing the one-sample t-test analysis was further computed to determine if there is a significant association between good academic facilities condition and teachers’ commitment to work after the Pearson analysis. For the first variable, “Academic facilities Condition,” the t-value is 41.205 with 224 degrees of freedom. The p-value (the “Sig. (2-tailed)” column) is .000, which is less than the significance level of .05, indicating that the null hypothesis will be rejected. The mean difference between the sample mean and the test value is 2.542, indicating that the sample mean is significantly different from the test value. The 95% confidence interval of the difference (the “95% Confidence Interval of the Difference” column) is between 2.42 and 2.66. For the second variable, “Teachers’ Commitment,” the t-value is 30.019 with 224 degrees of freedom. The p-value is also .000, which is less than the significance level of .05. Again, the mean difference between the sample mean and the test value is 3.271, indicating that the sample mean is significantly different from the test value. The 95% confidence interval of the difference is between and 3.49. In summary, the null hypothesis is rejected for both variables because there is a substantial difference between the sample mean and the test value for both variables. These findings disproved the

null hypothesis, which claimed there was no connection between the state of academic facilities and teachers' commitment to their jobs. Based on the findings, there is a considerable correlation between the conditions of academic facilities and teachers' commitment to their jobs.

DISCUSSION

The study investigated the relationship between academic facilities conditions and teachers' commitment within public senior high schools in the Cape Coast Metropolis. The finding revealed that there was a strong positive significant relationship between physical facilities conditions and commitment among public senior high school teachers in the Cape Coast Metropolis. The findings of the current enquiry resonate with Mutai's (2016) study findings, which argue that good academic facilities condition has a positive strong relationship with teachers' commitment to their careers and schools. Similarly, Murungi (2017) also maintains that when academic facilities are in good condition, the teachers exhibit a high level of commitment and, in the end, improve both students' academics and school success. On the contrary, Sam-Kalagbor and Ezeala (2021), agrees that though good academic facilities condition substantially impact teachers' commitment to their work that alone is not enough. Thus, further investigation needs to be done in other areas to help improve the conditions of teachers in the education system to ensure a high retention rate. This finding implies although good academic facilities are not enough to sustain teachers' commitment to their work, however, poor academic facilities conditions or outdated teaching and learning facilities are neither good since they can harm teachers' performance or commitment.

Again, the result aligns with Warmbier's (2018) study, titled: "Factors that Contribute to Private School Enrollment: School Culture and Teachers' Commitment" which indicates that academic facilities in good state influence teachers' commitment. Teacher's belief that excellent or good academic facilities conditions play a very crucial role in their commitment level to public senior high schools as claimed by Kundu et al. (2020) and this condition also help determines whether the teachers will adopt and put in much effort to make teaching effective (Khan's (2019), however, poor condition of the facilities will lead to a low level of commitment among teachers which in turn brings about negative impact on their performance. Moreover, the finding is consistent with the findings of Da?l? and Gençdal's (2019) study that examines the relationship between academic facilities' conditions and teachers' commitment which employed a quantitative correlational survey design. The findings show a significant link between academic facilities and teachers' commitment. In addition, the authors' study reveals that teachers' commitment to the organisation grows when academic facilities are in good working order. Appropriate facilities support employees' high commitment to fulfil their responsibilities and meet organisational goals, allowing employees to keep favourable relationships with the institution and their membership for extended periods.

The finding from the hypothesis aligns with Akomolafe and Adesua's (2016) study in Nigeria. The study reveals that good academic facilities play a significant role in enhancing teachers' commitment levels in schools, whilst inadequacy and poor academic facilities condition contribute to the low performance of teachers in their workplace. This explained that teachers' commitment to their work greatly defines their esteem when there is good physical facilities condition provided by educational stakeholders such as educational planners and the Ministry of Education available in public senior high schools. Again, when they are committed, it is known to improve their self-actualization in the service. Additionally, the teachers' overall commitment level is greatly explained by the satisfaction they derived from having good academic facilities condition (Mutai, 2016).

Finally, the study concludes that James Coleman's (1966), production function model of education and Von Bertalanffy's (1968), system theory were ideal for the study. The theories argued that when the right resources are provided and allowed to go through "black box" production, it helped in achieving the desired outcome in an organisation. This implies when academic facilities conditions are available or provided by

Educational planners, it will positively help achieve the desired outcome (commitment) of teachers' which in the long run has a significant impact on their performance, students' academic performance, and improve the standard of Education.

CONCLUSION AND RECOMMENDATION

This study sheds light on the role that academic facilities conditions play in shaping teachers' commitment to work in public senior high schools within the Cape Coast Metropolis. While exceptional headteachers' leadership styles and the active support of old students' associations have traditionally been highlighted as contributing factors to the success of high level of commitment among teachers in public senior high schools, this research has emphasized the significance of providing good academic facilities condition for enhancing teachers' commitment. The findings from this study indicate that there is a strong and positive association between good academic facilities conditions and teachers' commitment to their profession in public senior high schools. Given the crucial role of teachers' commitment to the development of educational programs and the overall efficiency of public senior high schools in the Cape Coast Metropolis, the authorities must take action to improve the condition of academic facilities in these public senior high schools. To achieve this, the following recommendations are proposed:

Educational planners must advocate for the allocation of a substantial portion of the government's annual budget to improve the state of academic facilities in public senior high schools in Cape Coast Metropolis because adequate funding will enable schools to upgrade and maintain their facilities regularly, creating an environment conducive to effective teaching and learning. Again, to complement government efforts, exploring partnerships with private organizations and alumni associations can be beneficial. Encouraging these stakeholders to contribute to the improvement of academic facilities will augment the available resources and foster a sense of ownership and responsibility within the school community. Finally, regular assessment and monitoring of the academic facilities' condition should be conducted to identify areas that require attention. By addressing issues promptly, potential problems can be mitigated, and the quality of Education will be improved.

IMPLICATION

This study demonstrated a relationship between academic facilities conditions and teachers' commitment to work in the public senior high schools in the Cape Coast Metropolis. Given that a strong positive significant statistical relationship was found between academic facilities conditions and teachers' commitment, investigating this further using a larger and involving the private senior high schools population is warranted. This may provide greater insight into the question of whether teachers in private senior high schools' commitment are also influenced by good physical facilities condition which ultimately impacts quality education. Though measuring these variables using the quantitative method provided a representation of the relationship, future investigation of the relationship between these two variables using either qualitative or mixed methods is encouraged since it may uncover particularly interesting valuable findings to sharpen and improve the understanding of the relationship between the two variables. Again, apart from the above investing in continuous professional development for teachers is vital. Training programs and workshops that focus on enhancing teaching methodologies and classroom management can further boost teachers' commitment and effectiveness to improve quality Education.

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REFERENCES

1. Akomolafe, C. O., & Adesua, V. O. (2016). The effect of physical facilities on students' motivation and academic performance of senior secondary schools, in South-West Nigeria. *Journal of Education and Practice*, 7(4), 38-4.
2. Altun, M. (2017). The effects of teacher commitment on student achievement: A case study in Iraq. *International Journal of Business and Education Academic Research*, 7(11), 417-426.
3. Ani, E.B. (2017). Limits of education reform. Stanford University and Centre for economic studies. David Mckay Company Inc., New York, 182-184
4. Ankomah, Y. A., Koomson, J. A., Bosu, R. S., & Oduro, G. K. (2005). A Review on the Concept of Quality in Education: Perspectives from Ghana. Bristol: EdQual RPC.
5. Azis, N., Mahmud, R., & Muda, R. (2019). Student's academic performance in a financial reporting course using a framework-based teaching approach
6. Babatope, B. A. (2010). Problems of facilities in south-west Nigerian Universities and the way forward. *International Journal of Educational Administration and Policy Studies*, 2(2), 039-043
7. Berg, J. K., & Cornell, D. (2016). Authoritative school climate, aggression toward teachers, and teacher distress in middle school. *School psychology quarterly*, 31(1), 122
8. Bertalanffy, L. V. (1968). General systems theory is an integrating factor in contemporary science. *Akten des XIV. Internationalen Kongresses für Philosophie*, 2 (1), pp 335-340.
9. Biney, G. A. (2020). Effect of reward on the performance of teachers in some selected senior high schools in the Ga West Municipality (Doctoral dissertation, University of Cape Coast).
10. Bozkus, K. (2014). School as a social system. Retrieved from: <https://www.researchgate.net/publication/266082312>
11. Da?l?, A., & Gençdal, G. (2019). The relationship between physical conditions of school facilities and perception of teacher commitment. *World Journal of Education* 9(2) 166-
12. Dare, A. L. (2005). Indicators of quality. A paper presented at the National Consultative Workshop on Educational Quality Implementation in Low Income Countries. Ghana.
13. Ekpoh, U. I. (2018). School plant maintenance culture and utilisation
14. Eliasu, A. (2019). The microstructural and mechanical integrity of 3D printed 316L stainless steel.
15. Erdogan, E., & Cavli, E. (2019). Investigation of Organisational Commitment Levels of Physical Education and Classroom Teachers. *Universal Journal of Educational Research*, 7(1), 259-265.
16. Harri, M. (2019). Analisis Pengaruh Kepuasan Kerja, Iklim Organisasi Commitment Organisasi Terhadap Efektivitas Organisasi: Organisational Citisanship Behavior (Ocb) Sebagai Mediasi. *Jurnal Manajemen Bisnis Krisnadwipayana*, 7(1).
17. Issah, E., Abubakari, A. R., & Wuptiga, J. (2016). State of academic facilities and its influence on teachers' jobs in Tamale Polytechnic. *African Journal of Business Management*, 10(2) 24-31. https://education.scu.ac.ir/article_15288.html
18. Khan, H. I. (2013). An investigation of two universities' postgraduate students and their teachers' perceptions of policy and practice of English medium of instruction (EMI) in Pakistani universities (Doctoral dissertation, University of Glasgow).
19. Khan, N. (2019). The Effects of the workplace climate on Teachers' Commitment. *Journal of Education and Educational Development* 6(2), 327-342.
20. Kibuthu, P. G. (2016). Influence of planning of physical Facilities on the provision of a quality learning environment in secondary schools in Narok North Sub-County, Kenya (Doctoral dissertation, Egerton University).
21. Kiptum, J. K. (2018). Influence of school physical environment on teachers' satisfaction in selected public primary schools in Elgeyo Marakwet County, Kenya (Doctoral dissertation, PhD Thesis, Department of Education, Kenyatta University, Kenya).
22. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.

23. Kundu, A., Bej, T., & Dey, K. N. (2020). An empirical study on the correlation between teacher efficacy and ICT infrastructure. *The International Journal of Information and Learning Technology*, 37(4), 213-238.
24. Lawanson, O. A., & Gede, N. T. (2011). Provision and management of physical facilities for the implementation of the UBE program. *Journal of Educational and Social Research*, 1(4), 47-47.
25. Morgan, K. (1970). Sample size determination using Krejcie and Morgan table. *Kenya Projects Organization (KENPRO)*, 38, 607-610.
26. Murungi, G. (2017). Influence of School-Based Factors on Performance of Children with Disabilities in Kenya Certificate of Primary Education in Public Primary Schools in Igembe South District, Meru County Kenya (Doctoral dissertation, University of Nairobi).
27. Murungi, G. (2017). Influence of school-based factors on the performance of children with disabilities in Kenya certificate of primary education in public primary schools in Igembe South District, Meru County Kenya (Doctoral dissertation, University of Nairobi).
28. Mutai, C. L., Ngumi, A. M., & Chepchier, E. (2016). Factors affecting community participation in the development of Early Childhood Development centres.
29. Naseem, B. Y., Nawas, A., Khan, H., Khan, F., & Khan, I. (2013). Determining the demographic impacts on the organisational commitment of academicians in the H.E.I.s of D.C.s like Pakistan. *European Journal of Sustainable Development*, 2(2), 117-117.
30. Neuman, D. (2011). *Learning in information-rich environments: I-LEARN and the construction of knowledge in the 21st century*. New York, Dordrecht, Heidelberg, London: Springer
31. Nor-Aishah, H., Ahmad, N. H., & Thurasamy, R. (2020). Entrepreneurial leadership and sustainable performance of manufacturing SMEs in Malaysia: The contingent role of entrepreneurial bricolage. *Sustainability*, 12(8), 3100.
32. Nwaogu, E. J. (2019). *The world educational crisis: A system analysis*. New York. Oxford University Press, London: Toronto, 119-123
33. Nyangoya, E. A., Wachianga, W., & Makori, O.C. (2020). Physical facilities as predictors of academic achievement of learners with physical impairments in Kenya. *International Journal of Education and Research*, 8(11)
34. Ojuok, J. O., Gogo, J. O., & Olel, M. A. (2020). Influence of physical facilities on academic performance in constituency development fund (CDF) built secondary schools in Rachuonyo South Sub-County, Kenya. *African Educational Research Journal*, 8(3), 462-471.
35. Ojuok, J. O., Gogo, J. O., & Olel, M. A. (2020). Influence of Physical Facilities on Academic Performance in Constituency Development Fund (CDF) Built Secondary Schools in Rachuonyo South Sub-County, Kenya. *African Educational Research Journal*, 8(3), 462-471.
36. Oso, W. Y., & Onen, D. (2009). *A general guide to writing research proposal and report*. Nairobi: Jomo Kenyatta Foundation
37. Otchere, S. N., Afari, J. B., & Kudawe, C. (2019). Examining the relationship between school facilities and the learning environment: A case study of Oda senior high school.
38. Peretomode, V. F., & Bello, S. O. (2018). Analysis of teachers' commitment and dimensions of organisational commitment in Edo State public secondary schools. *Journal of Educational and Social Research*, 8(3), 87-87.
39. Ranganathan, P., & Aggarwal, R. (2018). Study designs: Part 1—An overview and classification. *Perspectives in clinical research*, 9(4), 184.
40. Sam-Kalagbor, V. O., & Ezeala, I. L. (2021). Dynamics of the organisational reward system and teaching staff morale in public senior secondary schools in Imo State, Nigeria. *European Journal of Education Studies*, 8(2), pp. 28-30
41. Shanks, N. H., & Dore, A. (2017). Management and motivation. In Manzoor Quratul- Ain. Impact of employee motivation on organisational effectiveness. *European Journal of Business and Management*, 3(3) 2222-2839
42. Sowah, R. (2017). The influence of leadership styles on teachers' commitment in primary schools in the Adentan Municipality, Ghana (Doctoral dissertation, University of Cape Coast).

43. Top, M., Akdere, M., & Tarcan, M. (2015). Examining transformational leadership, job satisfaction, organizational commitment and organizational trust in Turkish hospitals: public servants versus private sector employees. *The International Journal of Human Resource Management*, 26(9), 1259-1282.
44. UNESCO (2004). *EFA global monitoring report 2005: Education for all – The quality imperative*. Paris: Author.
45. Warmbier, D. (2018). *A Correlational Study of Factors That Contribute to Private School Enrollment: School Culture and Physical Facilities* (Doctoral dissertation, Concordia University (Oregon)).
46. Amakyi, M., & Ampah-Mensah, A. (2016). Dilemma of Access and Provision of Quality Basic Education in Central Region, Ghana. *Journal of Education and Practice*, 7(11), 61-65.