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A Survey of Examination Malpractice in The West African Senior School Certificate Examination (WASSCE) in The Central Region of Ghana

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ABSTRACT

Purpose: The purpose of the study was to examine examination malpractice in the West African Senior School Certificate Examination (WASSCE) in the Central Region of Ghana. Specifically, the study sought to examine the prevalence of malpractice in the WASSCE and which people were involved in the malpractice.

Methods and Materials: A descriptive survey with quantitative methods of data collection was used for the study. The target population for students and teachers was 5500 and 500, respectively. Purposive and random sampling techniques were used to select 408 students and 138 teachers for the study. Researchers-designed questionnaires were used as the instrument for data collection. Descriptive statistics (frequencies, percentages, means and standard deviations) were used for the data analysis.

Findings: It was found that teachers perceived the prevalence of examination malpractice to be high whilst students perceived it to be low. The study showed that the people who are predominately involved in examination malpractice in WASSCE are students followed by teachers and invigilators.

Conclusions: It is recommended that external invigilators and supervisors other than teachers should be employed during May/June WASSCE and that WAEC should privatize the security of the examination papers so that the company would be held responsible for any leakage.

Keywords: *Examination malpractice, West African Senior School Certificate Examination (WASSCE), prevalence.*

1. Introduction

Examination malpractice is not a new phenomenon; it has been a recurring problem in many educational institutions worldwide, particularly in West Africa. Various studies have examined the factors contributing to examination malpractice and the people involved, with numerous recommendations for mitigating its occurrence (Nwosu et al., 2020). For instance, Adamu, Cobbinah, and Alhassan (2021) highlight the influence of socio-economic factors, peer pressure, and institutional lapses as significant contributors to examination malpractice among senior high school students in the Takoradi Metropolis of Ghana. Their findings underscore the need for a multifaceted approach to address the issue, which involves collaboration between students, educators, and policymakers. Additionally, peer influence and the desire for academic success without adequate preparation are noted as primary reasons why students engage in malpractice (Adamu et al., 2021).

The prevalence of examination malpractice has been well-documented in studies across different regions of Ghana and Nigeria. Adzrolo et al. (2021) conducted a comprehensive study in senior high schools and found that examination malpractice is widespread due to systemic issues, such as inadequate supervision, teacher involvement, and lack of disciplinary actions (Adzrolo et al., 2021). These findings echo earlier research by Okorodudu (2013), who noted that socio-economic status and peer pressure significantly influence students' attitudes toward examination malpractice in Nigeria. Okorodudu's study highlights that students from lower socio-economic backgrounds are more likely to engage in malpractice due to the pressure to succeed academically and secure future opportunities, which they perceive as limited by their financial and social status (Okorodudu, 2013).

In addition to socio-economic factors, the role of discipline in curbing examination malpractice has also been explored. Adzrolo et al. (2021) argue that a lack of strict disciplinary measures and the involvement of teachers in some cases exacerbate the problem (Adzrolo et al., 2021). This is corroborated by the findings of Olatunbosun and Eunice (2012), who investigated the factors that predispose secondary school teachers to engage in or facilitate examination malpractice. They found that inadequate remuneration, large class sizes, and excessive workloads push some teachers to collude with students during exams. This complicity not only undermines the examination process but also signals to students that cheating is an

acceptable practice within the school environment (Olatunbosun & Eunice, 2012).

Several factors contribute to the high incidence of examination malpractice, as noted in numerous studies. These factors range from student-related to systemic issues within the education system. Ampofo (2021) identifies poor preparation, fear of failure, and the pressure to achieve academic success as key drivers of examination malpractice among junior high school students in New Edubiase, Ghana. Ampofo argues that many students resort to cheating because they feel unprepared for examinations due to ineffective teaching methods, lack of learning resources, and personal challenges such as family responsibilities or health issues (Ampofo, 2021). This resonates with findings by Okafor (2021), who identified similar causes of examination malpractice among secondary school students in Nigeria, including fear of failure, peer influence, and the high stakes attached to passing crucial exams like the WASSCE (Okafor, 2021).

The systemic issues within the examination process also play a significant role. According to Gyamfi et al. (2022), the failure of examination bodies to maintain the security and confidentiality of exam papers has been a major contributor to the problem. The authors emphasize that some students and school officials have found ways to gain access to exam papers before the scheduled dates, thereby compromising the integrity of the examination (Gyamfi et al., 2022). This situation is worsened by the involvement of invigilators and supervisors, who sometimes facilitate cheating by turning a blind eye or actively participating in the malpractice. Gyamfi et al. (2022) advocate for stricter measures to ensure that exam papers are handled securely and that those responsible for breaches are held accountable (Gyamfi et al., 2022).

The consequences of examination malpractice are far-reaching and affect not only the students involved but also the entire education system and society at large. Okafor (2021) discusses the long-term effects of examination malpractice, particularly in Nigeria, where it undermines the credibility of the educational system. Students who engage in malpractice often graduate with limited knowledge and skills, which affects their ability to perform effectively in the workforce. This not only reduces the quality of the labor market but also diminishes the country's overall productivity and development potential (Okafor, 2021).

Moreover, the culture of cheating that is perpetuated through examination malpractice fosters an environment of dishonesty and unethical behavior among students. Dadzie

and Annan-Brew (2023) argue that the normalization of cheating during examinations instills a mindset of taking shortcuts to achieve success, which can carry over into other aspects of life, including professional and personal endeavors. They assert that combating examination malpractice requires instilling a sense of integrity and accountability in students from a young age, which can be achieved through value-based education and consistent reinforcement of ethical behavior in schools (Dadzie & Annan-Brew, 2023).

Given the multifaceted nature of examination malpractice, addressing the issue requires a holistic approach that involves all stakeholders, including students, teachers, parents, and policymakers. Muhammad and Hayyo (2023) suggest that the introduction of computer-based testing (CBT) could help reduce examination malpractice by minimizing opportunities for cheating. They argue that CBT systems offer greater security and efficiency in the administration of exams, as well as real-time monitoring of students during examinations. However, the success of such systems depends on the availability of technological infrastructure and the training of both students and educators to adapt to the new mode of assessment (Muhammad & Hayyo, 2023).

Another strategy that has been proposed is the involvement of external invigilators and the privatization of exam security, as recommended by Dadzie and Annan-Brew (2023). These measures would ensure that those directly involved in the preparation and administration of the exams, such as teachers and school administrators, do not have undue influence over the process. Additionally, creating awareness among students about the consequences of examination malpractice and promoting a culture of integrity through school-wide campaigns could help reduce the incidence of cheating (Dadzie & Annan-Brew, 2023).

Teachers play a pivotal role in either preventing or facilitating examination malpractice (Babanejad et al., 2020; Gugapriya, 2024; Marsden et al., 2005; Mazer & Hunt, 2012; Moeck, 2002; Razaghi et al., 2023; Shomalizadeh & Barkhordari Ahmadaabad, 2022). According to Olatunbosun and Eunice (2012), teachers who are underpaid or overworked may be more inclined to engage in unethical behavior during examinations. Addressing this issue requires improving teachers' working conditions, providing adequate remuneration, and reducing class sizes to manageable levels (Olatunbosun & Eunice, 2012). Furthermore, parents also have a role to play in curbing examination malpractice. Gyamfi et al. (2022) highlight

cases where parents purchase exam papers for their children or encourage them to cheat in order to secure good grades. This underscores the need for greater parental involvement in students' academic preparation and ethical development (Gyamfi et al., 2022).

Examination malpractice in the WASSCE remains a significant challenge in the Central Region of Ghana, as it is in many other parts of West Africa. The factors contributing to this issue are multifaceted, ranging from socio-economic pressures to systemic lapses in the examination process. This study aimed to examine examination malpractice in the West African Senior School Certificate Examination (WASSCE) in the Central Region of Ghana. Specifically, the study sought to examine the prevalence of malpractice in the WASSCE and which people were involved in the malpractice.

2. Methods and Materials

2.1. Study Design and Participants

The study examined the prevalence of malpractices in WASSCE and which people were involved in the malpractices. The research design chosen was the descriptive survey with quantitative methods of data collection. A descriptive research involves collection of data in order to test hypotheses or answer questions concerning the current state of the subject of the study. It describes and reports the way things are (Leedy & Ormrod, 2006). It provides a more accurate picture of events and seeks to explain people's perception and behaviour on the basis of the data that was gathered at a particular point in time.

The target population for the study all the 2009 senior high school final year students in the 25 senior high schools in the Central Region of Ghana that were involved in examination malpractices (based on WAEC records, from 2006 to 2008). The core subject teachers, namely Mathematics, English and Science were also targeted. These subjects were selected for the study because they were compulsory at WASSCE and also served as prerequisites to enter any of the accredited post-secondary institutions in the country. The targeted population for students and teachers was 5500 and 500, respectively.

The purposive sampling method was used in selecting the schools, while simple random sampling procedure was used to select the participants for the study. With purposive sampling, sample elements judged to be typical, or representative, are chosen from the population (Ary, Jacobs & Razavieh, 1990). Amedahe (2005) explained that in

purposive sampling, the researcher hand-picks the cases or elements judged to be typical or representative from the population. Those selected are believed to have enough knowledge about the issue under study. Thus, schools that were involved in examination malpractices from 2006 to 2008 during May/June WASSCE in the Central Region of Ghana were identified and selected to participate in the study. According to the available statistics at the WAEC (2008 & 2009), 25 schools were cumulatively involved in examination malpractices between 2006 and 2008 in the Central Region.

2.2. Data Collection

The data was collected using questionnaires. The questionnaires were developed for both teachers and students to elicit the needed information. Each set of questionnaires was in three sections. Background information (Section A), prevalence rate of examination malpractices (Section B) and people mostly involved in examination malpractices in senior high schools (Section C).

The questionnaires were administered to both students and teachers with relevant instructions on how to respond to the statements. The researchers administered the questionnaires themselves to respondents in the selected

schools on different occasions. The questionnaire for students was distributed to them after it was explained to them. Most of the questionnaires were collected the same day after the students had responded to them. They were allowed one hour to respond the questions. Few students, however, were granted permission to respond to the questionnaire later since they were to attend to an elective class. The questionnaire for teachers was left with the selected teachers and they were collected after in two weeks.

2.3. Data Analysis

Descriptive statistics (frequencies, percentages, means and standard deviations) were used for the data analysis.

3. Findings and Results

3.1. Research Question 1: What is the prevalence rate of examination malpractices?

This question sought to enquire from teachers and students about the prevalence rate of examination malpractices. The responses were dichotomously scored as 'Yes' and 'No'. Table 1 and Table 2 present the results of the data analysis.

Table 1

Distribution of Results of whether Respondents Witnessed or Heard Students Engaged in Examination Malpractices

Items	Response	Teachers		Students	
		Freq	%	Freq	%
Witnessed students engage in examination malpractices?	Yes	97	70.3	235	57.6
	No	41	29.7	173	42.4
Heard of report(s) on examination malpractices in the school?	Yes	118	85.5	219	53.7
	No	20	14.5	189	46.3
Heard of report on examination malpractices in any other school in Central Region?	Yes	125	90.6	161	39.5
	No	13	9.4	247	60.5

From Table 1, greater proportion of teachers, (70.3%) and students, (57.6%) admitted that they had witnessed students engage in examination malpractices. The results showed that 29.7% of the teachers and 42.4% of the students indicated they had never witnessed any form of examination malpractice. The respondents were asked whether they had heard of any report on examination malpractices either in their respective schools or any other school in the Central Region. More than 85% of the teachers had heard report from the school and any other school. In the case of students, 46.3% of them had not heard any report in the school, while

60.5% of them had not heard of report(s) on examination malpractices from any other school.

The results in Table 2 revealed the mean score distribution of respondents (both teachers and students) as regards prevalence rate of examination malpractices. The items were assessed ranging from once (1), twice (2), three times (3) and always (4). Using a cut-off point of 2.5 (median mark), a mean above 2.5 represents high prevalence rate and a mean less than 2.5 represents low prevalence rate, while a mean of 2.5 represents moderate prevalence rate.

Table 2

Distribution of Results of how Teachers and Students Perceived Prevalence Rate of Examination Malpractices

Prevalence	Teachers		Students	
	\bar{x}	SD	\bar{x}	SD
1. Prevalence level of examination malpractices in the school	2.53	1.31	1.86	1.3
2. Prevalence level of examination malpractices in Central Region	2.63	1.36	2.32	1.41

Results from Table 2 depict that whereas teachers perceived prevalence rate of examination malpractices to be high, students perceived it to be low. The perception of students is not surprising since most of them had expressed their ignorance about the occurrence or report of examination malpractices in their schools or any other school.

3.2. Research Question 2: Which people are mostly involved in examination malpractices in senior high schools?

This research question sought to find out those who are mostly involved in examination malpractices. Table 3 shows ranking of the frequencies and corresponding percentage distributions of respondents' (both teachers and students) perception (in descending order), as regards people that are mostly involved in examination malpractices. These have been arranged not according to the highest frequency or percentage, but in a rank-order that respondents placed them.

Table 3

Distribution of Results of People Mostly Involved in Examination Malpractices as Perceived by Teacher and Student Respondents

Indicators	Wt. Mean	Qualitative Interpretation
1. Seem to spend hours on my phone.	2.90	Sometimes
2. Spend more than 2 hours chatting with friends.	2.47	Sometimes
3. Spend more than 2 hours watching videos.	2.46	Sometimes
4. Socialize too much at work.	2.65	Sometimes
5. Spend more than 2 hours attending meetings.	2.85	Sometimes
Composite	2.67	Sometimes

Table 3 shows that both teachers and students followed the same rank-order. The respondents ranked students, teachers and invigilators as first, second and third respectively. These were followed by supervisors and parents. WAEC officials were placed last on the list.

An interaction with some of the respondents revealed (apart from what has been indicated in the literature) how they were involved in examination malpractices. It was stated that some students managed to enter the examination hall with their mobile phones on 'silent' mode and texted the questions to their friends who were yet to report for the day's paper. These friends solved the questions quickly and made sure they reported at the examination centre within the 30 minutes after the commencement of the paper. They then circulated the answers in the examination hall without being detected by the invigilators.

It was also indicated (in addition to what is in the literature) that students after receiving the 'live' questions in advance from an unknown source, shared the questions among themselves and approached the subject teachers as individuals for solution. In this case, the teacher solved the questions not knowing what was on ground.

It was also mentioned that some invigilators got involved in examination malpractices by serving as 'errand boys' for candidates. They transferred answers from one student to another, either orally or on written papers. Most of the examination supervisors were the heads of the schools who instructed the security men to keep the school gate shut and all visitors were received at the administration block of the school before they were allowed to the school premises. This prevented culprits to be caught 'red-handed' by the external supervisors who paid visits to the examination centres.

Parents were mostly involved by buying the 'live' questions and sent in the form of parcels to their wards. In some cases, parents/guardians gave money to their wards to purchase the questions themselves. Finally, it was alleged that some WAEC officials leaked the questions since they were directly in charge of the questions.

4. Discussion and Conclusion

The results of this study offer significant insights into the issue of examination malpractice in the Central Region of Ghana, particularly in the context of the West African Senior School Certificate Examination (WASSCE). The findings highlight several key themes, including the high prevalence of malpractice, the actors involved, and the perceptions of students and teachers regarding the severity of the issue. The discussion will interpret these findings, linking them to the broader literature on examination malpractice and exploring potential implications for educational policy and practice.

The first key finding of this study is the high prevalence of examination malpractice as perceived by both students and teachers. A significant proportion of the teachers (70.3%) and students (57.6%) reported witnessing malpractice during examinations, while even more teachers (85.5%) and students (53.7%) had heard reports of such incidents within their schools. These results align with previous studies that have documented the widespread nature of examination malpractice in Ghana and other parts of West Africa. Adamu, Cobbinah, and Alhassan (2021) reported similar findings in the Takoradi Metropolis of Ghana, where a combination of socio-economic pressures, institutional lapses, and peer influence contributed to the high rates of examination malpractice. These systemic issues, which were also identified in this study, suggest that examination malpractice is not an isolated occurrence but rather part of a broader cultural problem within the education system (Adamu et al., 2021).

One of the most significant aspects of the findings is the difference in perceptions between students and teachers regarding the prevalence of examination malpractice. While teachers generally perceived the rate of malpractice to be higher, students were less likely to acknowledge its prevalence. This disparity can be attributed to a number of factors. For one, teachers are more likely to be aware of instances of cheating, as they are responsible for monitoring exams and are privy to internal reports of malpractice. On the other hand, students may be more reluctant to admit the frequency of malpractice, either because of personal

involvement or peer pressure, which discourages them from openly acknowledging the problem. This aligns with the findings of Adzrolo et al. (2021), who observed that students often downplay their involvement in examination malpractice due to the fear of disciplinary action or stigmatization (Adzrolo et al., 2021).

Another noteworthy finding is the identification of the key actors involved in examination malpractice. The study revealed that students were the primary culprits, followed by teachers and invigilators, with WAEC officials ranking last. This ranking is consistent with previous research, which has consistently highlighted the central role of students in engaging in malpractice, often driven by poor preparation, fear of failure, and the high stakes associated with exams (Ampofo, 2021; Okafor, 2021). However, the involvement of teachers and invigilators in facilitating malpractice is particularly concerning, as it suggests a breakdown in the integrity of the examination process. Olatunbosun and Eunice (2012) found similar results in Edo State, Nigeria, where teachers were implicated in aiding students during exams, often as a result of poor remuneration or excessive workloads (Olatunbosun & Eunice, 2012). The fact that teachers, who are supposed to uphold the ethical standards of the education system, are sometimes complicit in malpractice points to the need for systemic reforms, including better teacher training and compensation, to address this issue.

The role of external actors, such as parents and WAEC officials, in perpetuating examination malpractice was also highlighted in the study. While parents were found to be involved in purchasing exam questions for their children or encouraging them to cheat, WAEC officials were less frequently implicated. This finding aligns with Gyamfi et al. (2022), who noted that although examination bodies like WAEC are responsible for maintaining the integrity of exams, there have been instances of corruption and question leakage within these institutions (Gyamfi et al., 2022). However, the lower ranking of WAEC officials in this study suggests that while they may play a role in facilitating malpractice, the problem is more deeply rooted within the schools themselves, where students, teachers, and invigilators operate. This underscores the need for stricter oversight and accountability measures within schools, as well as reforms to improve the security of examination papers during transportation and storage.

The study also examined the prevalence of different types of examination malpractice. One of the most common methods reported was the use of mobile phones to

communicate with individuals outside the examination hall, a finding that echoes earlier research by Okafor (2021), who found that technology has increasingly been used as a tool for cheating. The proliferation of mobile phones and other digital devices presents new challenges for examination bodies, as traditional monitoring methods may no longer be sufficient to detect cheating (Okafor, 2021). Muhammad and Hayyo (2023) have suggested that the adoption of computer-based testing (CBT) systems could be a solution to this problem, as CBT systems offer greater security and can be monitored more effectively in real-time. However, the implementation of such systems requires significant investment in technological infrastructure, which may not be feasible in many regions (Muhammad & Hayyo, 2023).

The findings also indicate that examination malpractice is not confined to students alone; invigilators and supervisors play a crucial role in facilitating cheating. The study found that some invigilators act as "errand boys" for candidates, transferring answers between students or helping them cheat in other ways. This finding is consistent with the work of Dadzie and Annan-Brew (2023), who identified teacher complicity as a major barrier to efforts aimed at curbing examination malpractice. The involvement of invigilators and supervisors, who are tasked with maintaining the integrity of the examination process, represents a serious threat to the credibility of the WASSCE and similar high-stakes exams. Addressing this issue requires a comprehensive review of the hiring and training processes for invigilators, as well as stricter penalties for those found to be involved in malpractice (Dadzie & Annan-Brew, 2023).

While this study provides valuable insights into the prevalence and causes of examination malpractice in the Central Region of Ghana, it is not without its limitations. First, the study relied on self-reported data from students and teachers, which may have introduced bias. Students, in particular, may have been reluctant to admit their involvement in malpractice, leading to underreporting. Additionally, the study was conducted in a specific region, and the findings may not be generalizable to other regions or countries with different socio-economic and educational contexts. Furthermore, the study focused primarily on quantitative data, which limits the depth of understanding of the motivations and experiences of those involved in examination malpractice. A mixed-methods approach that incorporates qualitative data could provide a more nuanced understanding of the issue.

Future research should aim to address the limitations of this study by incorporating a broader range of regions and educational settings. Comparative studies that examine examination malpractice across different regions of Ghana or other West African countries could provide a more comprehensive picture of the issue. Additionally, future research could benefit from exploring the role of technological interventions, such as computer-based testing (CBT), in reducing malpractice. Longitudinal studies that track the effectiveness of various anti-malpractice strategies over time would also be valuable in assessing the impact of policy changes and reforms. Finally, more qualitative research, including interviews with students, teachers, and invigilators, could offer deeper insights into the personal motivations and systemic factors driving examination malpractice.

To effectively address examination malpractice, several practical steps can be taken. First, educational authorities should invest in more robust security measures for the handling and transportation of examination papers. This could include the use of encrypted digital systems for the distribution of exam questions, as well as stricter penalties for individuals found to be involved in malpractice. Second, schools should implement comprehensive training programs for teachers and invigilators, emphasizing the ethical standards expected of them during examinations. Improving teacher compensation and working conditions may also reduce the likelihood of their involvement in malpractice. Lastly, raising awareness among students about the long-term consequences of cheating, and promoting a culture of integrity within schools, could help reduce the incidence of malpractice. Regular workshops and seminars on academic honesty, as well as campaigns to encourage students to take pride in their own work, could foster a more ethical examination environment.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

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