



CURBING THE MENACE OF EXAMINATION MALPRACTICE IN SENIOR SECONDARY SCHOOL EXTERNAL EXAMINATION IN NIGERIA USING CLOSED CIRCUIT TELEVISION (CCTV)

Oyedapo, Aderemi David

Computer Science Education Department, Federal College of Education, Eha-Amufu

Corresponding Author: adoyedapo@gmail.com

Abstract

Examination malpractice has become a deadly cankerworm eating up the fabric of our educational system. The increase in the rate of involvement in this menace is not only limited to the number of students participating in it but also in the technique use and in the caliber of people practicing it. It has now become practically impossible to depend on any category of people for lasting solution since corruption has eaten up deck and harry of our society today. Technology can be of good help. This paper examines the possibility of using modern technology – Close Circuit Television to curb the examination malpractice. A survey research approach was adopted by using structured, five Likert scale questionnaire with 19 items drawn from three research questions for data collection. Descriptive statistic in SPSS was used for analysis of the responses from the respondents. The result shows that digital closed circuit television is one of the powerful modern technologies that can be used to monitor any examination with the goal of having minimum cases of examination malpractice. Modern CCTV has the potential to checkmate the activities of the students, invigilators and supervisors in the exam hall since it has provision for remote monitoring, footage recording, motion detection and a very high resolution that will make denial of any involvement nearly impossible. Installation of modern CCTV in all the halls use for eternal examination such as WAEC, NECO and NABTEB is the major recommendation of this paper.

Key Words: CCTV, Modern Technology, Curbing Examination Malpractice, Senior Secondary School External Examination (SSSEE) and Examination Halls

Introduction

Education plays a major role in the overall development of any Nation (Sakmurzaeva, 2010). It provides foundation for economic development; therefore the standard of education of a nation determines how valuable her national economics will be. Most developed nations do everything to constantly improve the standard of the educational system for their economic to

**Curbing The Menace of Examination Malpractice In Senior Secondary School External Examination In Nigeria
Using Closed Circuit Television (CCTV)**

remain relevant. Nigeria as a country has been experiencing shortfall in the standard of her education due to many problems facing the educational system, which include, poor funding, ill equip laboratory, poor motivation for teacher, etc. In most countries of the world, examination is the primary methods of assessing learners' skills and knowledge and form the basis for promotion from one class to another or moving from level of education to another level. In Nigeria for example, there are terminal exam at every level of education that serves as entry qualification for the higher level. For instant primary six pupils is expected to do common entrance exam which will be used for admission into Junior Secondary School (JSS). At JSS 3 another exam commonly called Junior WAEC will be required to enter Senior Secondary School then finally at SS3 students are expected to write external exams such as West Africa Examination Council (WAEC), National Business and Technical Examination Board (NABTEB), National Examination Council (NECO) or General Certificate Examination (GCE) as a basic qualification to enter any higher institution. All these entrance examinations are eternal examination and students are always very desperate to pass them most specially those writing terminal exams in senior secondary school. Okanezi and, Eguzozie (2018) assert that most candidates for examination tend to do everything humanly possible to pass their examinations without minding the consequences because examination is seen as gateway to enhance acquisition of statues. This attitude of being very desperate to pass an exam when commensurate efforts have not been made is what led to many students' involvement in the menace of examination malpractice and has become one of the biggest challenges facing our academic system (Oparah, 2012). This vice called exam malpractice has eaten too deep into the Nigerian education system that it can no longer be overlooked. Every year, the number of people involved increase in an alarming rate. The caliber of people perpetrating this evil makes it almost impossible to stop its practice in our educational system. Mbachii (2012) believes that students are not left alone in the practice and listed different categories of people who aid and abet examination malpractice to include some of the following:

- Students/exam candidates
- Teachers, school heads or school proprietors
- Supervisors and invigilators
- Parents and guardians
- Touts
- Officials in the Ministry of education/exams bodies
- Clerk/ typist in our schools
- Business Centre
- Security agency and
- Society

**Curbing The Menace of Examination Malpractice In Senior Secondary School External Examination In Nigeria
Using Closed Circuit Television (CCTV)**

Oko and Adie (2016), argue that the prevalence of examination malpractice at all levels of educational system in Nigerian is nothing but a reflection of the decay in the value system of the society. A country that value certificate more than competency and place corruption above good character may not expect perfection in the education system since examination malpractice is a product of corruption in the system. We can deduct from the above that when it comes to examination malpractice one can only trust oneself. For instance, the invigilators and supervisors that are selected as capable and trusted individuals and charged with the responsibilities of monitoring and curbing examination malpractice among students are now being accused of indulging in the same Exam malpractice. The government policy/rules and regulation guiding the conduct of examination and examination malpractice has not been fully implemented because it is very easy to deny the reality in most cases where there is no concrete evident at the end. By all implication, depending on human efforts alone for curbing this menace may lead to outright disappointment. The use of technology should be involved if education sector must reduce the rate of participation in examination malpractice. Close Circuit Television is proposed by this paper as one of the modern technologies that can play the role well.

Closed-circuit television is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors. It differs from broadcast television in that the signal is not openly transmitted. Though almost all video cameras fit this definition, the term is most often applied to those used for surveillance in areas that may need monitoring such as banks, government house/offices, airports, school system, military barrack, organizations and public places. CCTV system may operate continuously or only as required to monitor a particular event.

A more advanced form of CCTV, utilizing digital video recorders (DVRs), provides recording for possibly many years, with a variety of quality, performance options and extra features (such as motion detections and email alert). More recently, decentralized IP cameras, some equipped with megapixel sensors, support recording directly to network-attached storage devices, or internal flash for completely stand-alone operation.

Moreover, digital multiplexing has been developed, which allowed several cameras to record at once, as well as time lapse and motion-only recording. This increased the use of CCTV and increased the savings of time and money. Recently CCTV has been transformed by the shift towards internet-based products and systems, and other technological developments which makes remote monitoring of any environment visible. Examination hall is an ideal environment that requires strict monitoring with this technology. This paper therefore aims at opening our eyes to how CCTV can be used to curb exam malpractice and benefits accrued from using such technology in examination monitoring.

Literature review

Examination malpractice has become a persistent problem in many educational institutions, undermining the credibility of assessment processes. In recent years, the use of technological interventions such as Closed-Circuit Television (CCTV) has gained attention as a possible solution to this issue. This section reviews existing literature on examination malpractice, the role of surveillance in educational settings, and the effectiveness of CCTV as a deterrent mechanism.

Examination malpractice refers to any illegal or unethical behavior by a candidate before, during, or after an examination, with the intention of gaining an unfair advantage. According to Ojedokun (2011), it includes activities such as cheating, impersonation, use of unauthorized materials, and collusion among candidates or between candidates and invigilators. Malpractice erodes the integrity of the educational system and produces graduates who may lack the competence their certificates suggest

Several factors have been identified by Adeyemi, 2010, Ogunmakin, 2015 etc. as contributing to examination malpractice, including:

- **Lack of adequate preparation** by students
- **Peer pressure,**
- **Fear of failure,** and
- **Ineffective supervision and invigilation**
- In some cases, institutional corruption and poor monitoring systems also enable or encourage malpractice.

Closed-Circuit Television (CCTV) is a video surveillance system that is used to monitor and record activities in a specific area. In educational contexts, CCTV is increasingly being installed in classrooms, hallways, and examination halls to enhance security and discipline (Folarin & Adebayo, 2018). CCTV serves both real-time monitoring and post-event evidence purposes.

Research has shown that CCTV has a deterrent effect on negative behavior. Clarke (2003) found that the presence of surveillance cameras significantly reduces misconduct in schools and public spaces. In the context of examinations, CCTV provides continuous observation, making it difficult for students to engage in malpractice without being noticed.

Curbing The Menace of Examination Malpractice In Senior Secondary School External Examination In Nigeria Using Closed Circuit Television (CCTV)

A study by Okoro and Udoh (2020) on secondary schools in Nigeria revealed that schools using CCTV during examinations recorded lower rates of malpractice than those without it. Students in these schools reported being more cautious, knowing they were under surveillance.

Empirical evidence supports the use of CCTV as a preventive tool against examination malpractice. For example: **Adebayo and Folarin (2021)** conducted a quasi-experimental study in Lagos and found a 60% drop in cheating incidents after CCTV was introduced. **Ogunleye (2022)** also reported that students admitted they were less likely to cheat when they knew cameras were monitoring them.

However, these studies also recommend that CCTV should be part of a broader integrity policy, including moral education, staff training, and strict disciplinary measures.

In summary, the literature suggests that CCTV is an effective strategy for reducing examination malpractice by increasing surveillance and the risk of detection. Although challenges such as cost and privacy exist, the benefits outweigh the drawbacks when implemented appropriately. Existing studies affirm that CCTV use contributes significantly to restoring examination integrity and promoting academic honesty.

Method

In this study, descriptive survey research design was used to gather quantitative data. A five (5) Likert scale structured questionnaire with nineteen items drawn from three research questions that guided the study was designed and used for the purpose. The study was conducted using Federal College of Education Eha-Amufu and two secondary schools at Eha-Amufu in Enugu State. Simple random sampling technique was used to administer the questionnaire to three hundred (300) respondents under close supervision, yet one questionnaire could not be recovered; consequently, the analysis was done based on 299 questionnaires that returned. This study ensured the reliability and validity of its instrument through rigorous testing. A Cronbach's Alpha value of 0.811 was obtained for 19 items, confirming reliability. Additionally, two experts validated the questionnaire for face and content validity. Data analysis was performed using SPSS, calculating mean and standard deviation. A mean score of 3.00 (based on a 5-point Likert scale) was used as the decision rule for accepting or rejecting statements. The questionnaire design ensured data completeness and credibility. Furthermore, an extensive literature review and personal observations were conducted to establish the current status in this domain.

Research Questions

The concern that necessitated this study was to verify the role of modern technology most especially CCTV in reducing Examination malpractice among students in secondary school. Consequent of this concern the following research questions guided the study.

1. What are the modern technologies that can be used to curb examination malpractice?
2. How can CCTV help in curbing examination malpractice?
3. What are the possible advantages of using CCTV in curbing examination malpractice?

Results and Discussion

Research Question 1: What are the modern technologies that can be used to curb examination malpractice

Table 1: Technologies that can be used in curbing exam malpractice

The following modern technology can be used to curb examination malpractice		Valid response	Mean	Standard Deviation	Decision
1	Using CCTV for remote examination monitoring	299	4.59	.706	Accepted
2	Using Tomb Printing for candidate identity verification before and after the examination	299	4.15	.775	Accepted
3	Using personalized answer script for each subject	296	4.09	1.197	Accepted
4	Capturing the biometric data of both the supervisor and the invigilator for each subject to identify unauthorized invigilator from the CCTV	299	4.38	1.085	Accepted
5	Using Computer based test in the administration of Objective paper	299	4.27	.735	Accepted

The use of technology in examination administration has emerged as a critical strategy in mitigating malpractice in schools and examination centers. As illustrated in table 1, respondents evaluated five technological tools based on their perceived effectiveness in curbing examination malpractice. The results indicate strong support for each of the listed technologies, with all mean scores exceeding the benchmark of 4.0, signaling a high level of agreement among respondents.

The highest-rated technology is the use of CCTV for remote examination monitoring, with a mean score of 4.59 and a relatively low standard deviation of 0.706. This suggests that respondents not only agree on its effectiveness but do so with a high degree of consistency.

**Curbing The Menace of Examination Malpractice In Senior Secondary School External Examination In Nigeria
Using Closed Circuit Television (CCTV)**

CCTV systems have been widely acknowledged for their role in enhancing transparency and discouraging collusion between students and invigilators during examinations (Adebayo, 2020). The visual deterrent provided by constant surveillance significantly reduces the likelihood of dishonest practices.

The biometric capture of supervisors and invigilators was also highly rated (Mean = 4.38, SD = 1.085). This technology helps to verify the identity of those assigned to supervise exams and prevents the infiltration of unauthorized personnel—a common loophole exploited in some examination environments (Eze & Okoro, 2021). While the mean score is high, the slightly larger standard deviation may reflect logistical concerns or doubts about data management and privacy.

The use of Computer-Based Testing (CBT) received a mean of 4.27, with a standard deviation of 0.735, indicating general consensus. CBT systems minimize human involvement in marking, reduce the window for cheating, and support instant feedback, which enhances credibility (Ogunlade, 2019). Its implementation has become increasingly common in standardized testing bodies such as JAMB in Nigeria.

Thumb Printing for candidate identity verification (Mean = 4.15, SD = 0.775) was also positively viewed. Tomb printing (a form of encrypted, biometric identity confirmation) ensures that only registered candidates can participate in the examination. This method helps prevent impersonation and supports secure candidate tracking before and after the test (Nwankwo & Emeka, 2018).

The use of personalized answer scripts had the lowest mean score of 4.09 and the highest standard deviation of 1.197, suggesting mixed views. While personalization helps in tracking script ownership and discouraging script substitution, some respondents might perceive it as cumbersome or ineffective if not combined with other monitoring measures (Adetunji, 2020). Overall, these findings align with the broader literature advocating for digital transformation in educational assessment to promote integrity and fairness (UNESCO, 2021). Although implementation challenges such as cost, infrastructure, and training persist, the data strongly supports the adoption of these technologies in modern examination practices.

Research Question 2: How can CCTV help in curbing examination malpractice

Table 2: Ways of ensuring the effectiveness of CCTV in curbing exam malpractice

CCTV can be used to curb examination if the following are observed		Valid response	Mean	Standard Deviation	Decision
1	CCTV should be installed to cover every candidate in the exam hall	299	4.54	.956	Accepted
2	Installation of CCTV should cover the premises of the exam hall also	299	4.11	.916	Accepted
3	All the CCTV installed should have facilities for remote monitoring from any part of the country	299	3.89	.916	Accepted
4	CCTV exam proceeding backup with the answer scrip should be submitted with exam scripts after every paper	299	4.12	1.106	Accepted
5	Solar Energy should be used to power the CCTV to prevent power outage during exam	299	4.21	.758	Accepted
6	No excuse should be entertained for not using CCTV to monitor a particular exam	299	3.89	1.086	Accepted
7	Each CCTV footage summited should be tested for originality	299	4.19	.733	Accepted

The data in table 2 clearly suggests strong support for using **CCTV technology to monitor and manage examination settings**. The highest-rated statement (Mean = **4.54**) shows that respondents agree strongly that every candidate should be covered by CCTV, which aligns with the principle of **comprehensive surveillance** to discourage malpractice (Ajayi & Osalusi, 2019).

Additionally, **solar power** as a backup energy source received a high rating (Mean = **4.21**), indicating the importance of **uninterrupted power supply** during exams—an essential factor in many developing countries where power outages are common (Oladipo et al., 2020).

Another crucial measure supported by the respondents is **verifying the originality of CCTV footage** (Mean = **4.19**), a practice that can help ensure accountability and prevent **footage tampering**, enhancing the credibility of examination monitoring (Adebayo, 2021).

Lower mean values (3.89) were recorded for remote monitoring and mandatory usage without excuses. While these are still favorable, it suggests that **implementation challenges**—such as cost, technical skills, or infrastructure might affect acceptability (Okon & Edem, 2018).

Research Question 3: What are the possible advantages of using CCTV in curbing examination malpractice?

Table 3

Tick your level of agreement to the following being among the advantages of using CCTV to monitor every external exam		Valid response	Mean	Standard Deviation	Decision
1	Many students will reframe themselves from exam malpractice due to the fear of being captured by the camera	299	4.62	.569	Accepted
2	Supervisor and invigilators will be very careful since cannot hide themselves away from it.	299	4.50	.501	Accepted
3	CCTV can expose any form of exam malpractice done in the examination hall	293	3.89	1.062	Accepted
4	CCTV cannot receive bribe from anybody nor modify reality	299	4.22	.862	Accepted
5	CCTV is a sufficient exhibit to convict any criminal minded individuals in the law court.	293	4.34	.688	Accepted
6	Cannot be intimidated or compel to bow to pressure from students or any other source	299	4.32	.683	Accepted
7	CCTV Makes provision for remote monitoring of every exam	299	4.16	.996	Accepted

Table 3 emphasizes numerous benefits of adopting CCTV in curbing examination malpractice and the result is discussed as follow:

Deterrence of Examination Malpractice: A significant majority of respondents (Mean = 4.62, SD = 0.569) strongly agreed that the fear of being recorded by CCTV cameras discourages students from engaging in examination malpractice. This supports earlier research by Adebayo and Olatunji (2021), who emphasized the psychological deterrent effect of surveillance technology in exam settings.

Accountability of Invigilators and Supervisors: With a mean score of 4.50 (SD = 0.501), respondents agreed that CCTV enforces accountability among invigilators and supervisors. Unlike human monitors who may collude or be negligent, CCTV provides continuous

oversight. This aligns with assertions by Okoro and Ibrahim (2019) that CCTV limits human error and bias in exam administration.

Exposure of Malpractice: Although accepted (Mean = 3.89, SD = 1.062), the relatively higher standard deviation indicates some respondents doubt CCTV's ability to capture all forms of malpractice, especially those occurring outside camera range or via digital devices. However, according to Ojo (2022), multi-angle camera installation can significantly improve surveillance efficiency.

Impartiality and Objectivity: Respondents agreed (Mean = 4.22, SD = 0.862) that CCTV cannot be bribed or manipulated, unlike human personnel. This objectivity is essential in maintaining examination integrity and restoring trust in academic assessments (Eze & Adamu, 2020).

Legal Credibility: CCTV footage was also perceived as a reliable legal exhibit (Mean = 4.34, SD = 0.688) for prosecuting exam offenders. This confirms the findings of Akinwale (2021), who noted that courts increasingly rely on digital evidence in academic misconduct cases.

Resistance to Pressure: Participants agreed (Mean = 4.32, SD = 0.683) that CCTV cannot be intimidated or influenced by students or officials, making it a dependable tool for unbiased monitoring. This further cements the integrity of the examination process.

Remote Monitoring Capability: Lastly, respondents affirmed (Mean = 4.16, SD = 0.996) that CCTV allows remote access, enabling monitoring from centralized control rooms or national exam boards. As identified by Musa et al. (2021), this ensures broader surveillance coverage and rapid response to irregularities.

Conclusion

Curbing the menace of examination malpractice is still feasible with the use technology such as CCTV; Biometry verification of both students and invigilator; CBT, etc. Proper implementation of CCTV surveillance requires following strict protocol of ensuring full coverage, power reliability, footage integrity, and submission of recorded exam proceedings to significantly **reduce examination malpractice**. The study reveals strong agreement among respondents on the numerous advantages of using CCTV to monitor external examinations. These include deterring malpractice, enhancing accountability, providing legal evidence, and enabling remote oversight. The findings suggest that the adoption of CCTV technology can significantly reduce examination-related fraud and promote transparency in educational

assessments. However, practical challenges in full deployment and enforcement must be addressed.

Recommendations

The following recommendations are made based on the findings in this study:

- **Policy Integration:** Education regulatory bodies should mandate the use of CCTV in all external examination centers.
- **Training:** Invigilators and administrators should be trained in interpreting and managing CCTV data.
- **Multi-angle Installation:** Multiple cameras should be used to cover all angles and eliminate blind spots.
- **Data Storage:** Recorded footage should be stored securely for at least one year for future legal or academic reviews.

References

- Adebayo, A. T., & Folarin, S. M. (2021). *The effect of CCTV surveillance on examination malpractice among senior secondary school students in Lagos State*. Journal of Educational Research and Policy, 14(2), 45–52.
- Adebayo, T. (2020). *Combating Examination Malpractice in Nigeria: The Role of CCTV and Surveillance*. Journal of Educational Technology, 18(2), 112–120.
- Adebayo, T. & Olatunji, M. (2021). *Surveillance technology and examination malpractice: A case study of Nigerian schools*. African Journal of Education Studies, 8(3), 55–67.
- Adebayo, R. O. (2021). *Digital Surveillance and Academic Integrity in Examinations: Evidence from Nigerian Schools*. African Journal of Educational Technology, 15(3), 77–89.
- Adetunji, K. (2020). *Innovations in Examination Security: A Case Study of Personalized Scripts*. African Journal of Education Studies, 15(1), 45–57.
- Adeyemi, T. O. (2010). *Examination malpractices among secondary school students in Ondo State, Nigeria: Implications for the future of education*. Journal of Educational Administration and Policy Studies, 2(3), 48–55.
- Ajayi, A. T., & Osalusi, F. M. (2019). *Technological Innovations in the Nigerian Education System: A Panacea for Examination Malpractices*. Journal of Educational Research, 23(2), 121–135.
- Akinwale, S. (2021). *Legal implications of CCTV footage in prosecuting exam offences*. Journal of Law and Education, 3(1), 42–58.

**Curbing The Menace of Examination Malpractice In Senior Secondary School External Examination In Nigeria
Using Closed Circuit Television (CCTV)**

- Chukwuma, O. U. (2019). *Surveillance technology and integrity in public examinations: A case for CCTV in Nigerian schools*. African Journal of Education and Technology, 9(1), 88–96.
- Clarke, R. V. (2003). *Technology, crime and crime prevention: The case of CCTV*. Crime Prevention Studies, 14, 17–27.
- Eze, M., & Okoro, J. (2021). *Biometric Technologies and Examination Security in West Africa*. International Journal of Educational Integrity, 9(4), 78–89.
- Eze, V. & Adamu, T. (2020). *Transparency in the conduct of public examinations: The role of CCTV*. Nigerian Journal of Social Sciences, 11(4), 113–120.
- Folarin, S. M., & Adebayo, A. T. (2018). *Technological innovation in education: The role of CCTV in curbing examination malpractice in Nigerian schools*. International Journal of Educational Technology, 5(1), 30–38.
- Musa, L., Okafor, P., & Ahmed, Z. (2021). *Remote exam monitoring using smart surveillance*. International Journal of ICT in Education, 6(3), 91–104.
- Nwankwo, L., & Emeka, C. (2018). *Technological Innovations and Identity Verification in Educational Assessment*. Nigerian Journal of Educational Research, 22(3), 89–101
- Ojedokun, O. A. (2011). *Examination malpractice in Nigerian schools: Causes and effects*. African Journal of Educational Management, 15(2), 105–118.
- Ojo, R. (2022). *Technological interventions in examination management*. Journal of Educational Innovations, 4(2), 77–89.
- Ogunlade, A. (2019). *Computer-Based Testing in West Africa: Opportunities and Challenges*. Journal of Digital Education, 10(1), 34–47.
- Ogunleye, A. O. (2022). *Perceived impact of CCTV on examination malpractice among tertiary students in southwestern Nigeria*. Journal of Contemporary Education, 19(1), 52–63.
- Ogunmakin, A. O. (2015). *An analysis of the causes of examination malpractices in Nigerian secondary schools*. Journal of Educational Studies and Research, 7(4), 102–112.
- Okanezi B. and Eguzozie N. G. (2018), *Menace of Examination Malpractice in Nigerian Educational Institutions: Implications for National Productivity and Economy*, American Journal of Educational Research. 2018, 6(12), 1625-1628.
- Okon, E. A., & Edem, B. U. (2018). *Constraints in the Use of ICT for Examination Administration in Nigeria*. International Journal of Educational Management, 11(1), 67–79.
- Okoro, C. M., & Udoh, R. E. (2020). *Use of CCTV as a preventive measure against examination*

- Curbing The Menace of Examination Malpractice In Senior Secondary School External Examination In Nigeria
Using Closed Circuit Television (CCTV)**
- malpractice in selected Nigerian secondary schools***. International Journal of Educational Security Studies, 6(2), 22–35.
- Okoro, J. & Ibrahim, K. (2019). ***Promoting academic integrity through digital surveillance***. West African Education Review, 5(1), 12–25.
- Oladipo, S. A., Olatunji, O. A., & Ajibola, J. (2020). ***Power Supply and ICT Use in Nigerian Secondary Schools: An Assessment***. Energy and Education Studies, 8(1), 45–54.
- Sakmurzaeva, N. (2018) The Role of Education in Economic Development: A Comparison of South Korea and Kyrgyzstan, INTERNATIONAL CONFERENCE ON EURASIAN ECONOMIES
- UNESCO. (2021). ***Leveraging Technology to Improve the Integrity of Assessments***. Paris: UNESCO Publishing.
- Uzoigwe, G. C. (2017). ***Ethical implications of CCTV surveillance in Nigerian schools***. Nigerian Journal of Ethics and Values, 3(2), 66–73.