Impact of institutional and individual factors on students' academic integrity

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ABSTRACT

The purpose of the study was to determine how specific institutional and individual variables determine the academic integrity of students in high schools. These factors are school location and type, religion, and course of study. In the extant research literature, these factors have not been given adequate attention with regards to their relationship with students' academic integrity in the same way that their interaction with academic achievement has been researched. The survey research design was used in the study. The authors did not manipulate or interfere in any way with the subjects, but they were allowed to respond freely to the Academic Integrity Measurement Instrument (AIMI), which is a standardized instrument. The sample consisted of 3142 males and 3708 female students in their final year of senior secondary school in Nigeria. Data was analyzed with an ANOVA. The findings revealed that students' academic integrity significantly varies based on school location and type, religion, and course of study. Each of these variables impacts students' academic integrity to the extent that preventive measures against academic dishonesty should consider these factors. The implications of the findings are that parents, school administrators, teachers, guidance counsellors, and examination bodies should collaborate to restore academic integrity in educational assessments, especially at the high school level, by beaming their searchlights on school locations, school type, and students' religions and courses of study as potential frameworks for preventing cheating in school examinations.

Keywords: *Academic integrity, Course of study, Public and private schools, Religion, School location.*

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Highlights of this paper

- There were significant differences in the academic integrity of students on the basis of their school location and type, religion, and course of study.
- The mean academic integrity score of students in rural and private schools was higher than that of students in urban and public schools.
- There were statistically significant differences in academic integrity between Christian and Muslim students.

1. INTRODUCTION

Examination malpractice is any act that does not conform with ethics of educational assessment practices. It is also called cheating in examinations or academic dishonesty. On the other hand, academic integrity is the capacity to uphold honesty, fairness, justice, and trustworthiness in school examinations (International Center for Academic Integrity, 2019). Academic integrity is the opposite of examination malpractice. Researchers have been seeking solutions to the menace of examination malpractices by examining factors that enhance academic integrity and check academic dishonesty. For instance, studies have identified specific personal and environmental factors that correlate with examination malpractices (McCabe & Trevino, 1997; Muthukamatchi, Veerachamy, & Chitradevi, 2021; Salleh, Alias, Hamid, & Yusoff, 2013). The personal variables identified in these previous studies included age and gender, while the environmental factors were peer influence and students' perceptions of the consequences of cheating. They concluded that the most significant factor that influenced cheating was disapproval by friends. Following McCabe and colleagues' studies in the 1990s and early 2000s, scholars have continued to study this intriguing phenomenon (academic dishonesty or examination malpractices), leading to the identification of various factors that aid its escalation. Among these factors are demographic or individual variables (Yu, Glanzer, Sriram, Johnson, & Moore, 2017), school-based or institutional conditions (Çelik & Razı, 2023; Marais, 2022) and the combination of individual, institutional, and other factors known as the "fraud triangle" (Holden, Norris, & Kuhlmeier, 2021). These studies established that examination malpractices are linked to the intra and inter-personal relationships of students, school policies and culture regarding examination malpractices, and the student's socioeconomic background. However, some other perspectives on these individual, institutional, and demographic variables have not been given adequate attention regarding their impact on academic integrity, such as school type and location, students' religion, and class. This study fills this gap.

This study is based on the premise that school location, school type, course of study, and religion may determine students' predisposition towards examination malpractices, thereby either enhancing or negating academic integrity tendencies. It was, therefore, hypothesized that these aforementioned variables may have a significant impact on the academic integrity of students in high schools in Nigeria. In this regard, the specific objective of the study is to determine if the geographical locations and types of schools, courses of study, and religion impact the academic integrity of high school students. The impact of these variables on the academic integrity of students has not been adequately researched in the same way that their impact on students' academic achievement has been done in previous studies (Abdulmumin, Abdullahi, & Ibrahim, 2020; Abuh & Okpanachi, 2022; Bassey & Iruoje, 2016; Oran, Can, Şenol, & Hadımlı, 2016). Therefore, the following research questions were constructed to provide direction for the study: Will students in urban schools have higher mean scores on academic integrity than their counterparts in rural schools? Does school location account for differences in the academic integrity mean scores of students? Will students in schools owned by government have lower academic integrity mean scores than students in schools owned by private individuals or organizations? Do students' academic integrity mean scores significantly vary based on public and private school categorization? How does religiosity impact students' academic integrity scores across Nigeria's three major religious groups (Christianity, Islam, and

Traditional) and the non-religious (neutral) group? Will students' academic integrity mean scores differ based on their course of study in high schools across Nigeria?

2. LITERATURE REVIEW

Given that conditions within a school or the lack of them either promote or inhibit examination malpractices, such as honor codes (McCabe, Trevino, & Butterfield, 1999) stringent institutional policy and practices against examination malpractices (Marais, 2022; Whitley & Keith-Spiegel, 2001) and teaching approaches (Morris, 2016) the likelihood that such conditions differ based on school type and location is yet to be thoroughly investigated. Schools in urban communities may be more likely to maintain conditions that promote academic integrity, such that their students will have a greater tendency to shun academic dishonesty, but research studies have not paid much attention to academic integrity from the perspective of the urban-rural school dichotomy. Instead, some studies have examined students' academic performance differences from the perspective of the geographical location of schools. For instance, Tayyaba (2012) found that rural students in the Balochistan province of Pakistan performed better than urban students in some subjects. They attributed these differences in the academic scores of students to individual and institutional factors such as students' home background, the quality of teachers, and the school environment, with the quality of teachers being the most significant and decisive factor. On the contrary, Manley (2018) found that the academic scores of students in Kentucky, USA, were not significantly different on the basis of the geographical location of their schools. However, McCabe and Trevino (1997) found that academic performance of rural students in the USA was lower than that of urban students in specific academic subjects such as mathematics, science, and reading. Therefore, the present study will examine academic integrity of students in Nigeria from the perspective of the geographical location and settings of their schools to determine if there are differences and proffer reasons for any variations identified, thereby extending the frontiers of knowledge in this regard since no previous research work has looked at academic integrity from this dimension. Additionally, academics have not yet made a sincere effort to compare academic integrity in public and private schools. A search through the literature threw up very few related reports, such as Batory and Batory (2016) who examined the perceptions of faculty staff in public and private universities on academic integrity. They concluded that academic staff in private schools were more concerned about the academic integrity of their students than their counterparts in public schools. There has been no severe research study comparing students' academic integrity tendencies in public versus private schools other than the narrative by Lento (2023) based on his personal experiences as a high school academic misconduct attorney advisor in the USA. Lento raised this fundamental question in his narrative: "Does the prevalence of academic misconduct differ from public to private schools?" Lento could not provide any research-based answer to the above question but only speculated that it is likely that students in private schools could have better academic integrity because they may "have stricter rules about academic misconduct or only enroll highly motivated students." Therefore, this study is necessary to determine if academic integrity of students varies on the basis of their school type (private versus public schools).

Regarding the impact of students' religion and course of study on their academic integrity, a few previous research studies have made useful findings in this direction. For instance, De Soto, Tajalli, Pino, and Smith (2018) found that academic integrity is not a function of students' religiosity. On the contrary, some other studies found that students' religiosity's influenced their academic integrity, such as Khotimah, Nadhirah, Fadhilah, and Herawati (2022) and Ridwan and Diantimala (2021). However, the present study compares religiosity impact across Nigeria's three major religious groups (Christianity, Islam, and Traditional) and the non-religious (neutral) group. There has not been a study of this type in Nigeria. Also, there have been very few previous studies on the impact of students'

courses or subjects of study on their academic integrity. Most of the extant literature on students' academic integrity focused on students from a particular subject or course area, such as Packalen and Rowbotham (2022) who considered students in a business programme; San Jose (2022) who studied 66 selected students and nine faculty members of an educational institution in the Philipines; and the widely acclaimed longitudinal study by McCabe (2020) which did not consider the course of study of the students. However, Eshet, Grinautsky, and Peled (2012) in a study of 1,574 student samples selected from institutions in the USA and Israel, found that the type of course a student is studying significantly impacts their academic dishonesty. More recently, Kokkinos, Antoniadou, and Voulgaridou (2023) reported that students in Sciences and Economics/Information and Communication Technology courses manifested higher degrees of academic dishonesty among university students in Greece. This type of study has not been carried out in Nigeria. Therefore, the present study is necessary to establish the impact of both students' religiosity and subjects of study on their academic integrity, especially in high schools, which has not received much attention in previous research studies in this field. Most previous studies on academic integrity focused on students in universities and colleges.

In the extant literature on academic integrity, the Theory of Planned Behaviour (TPB) is used to explain the relationship that could exist between institutional and individual variables and the target behaviour (examination malpractices or academic dishonesty). Though some authors, such as Madara, Namango, and Katana (2016) posited that given the complexity of the concept of academic dishonesty, a combination of theories rather than a single theory is most suitable for its explanation, TPB, which is an offshoot of Cognitive-Behavioural theories, is very relevant. TPB accounts for human behavior as a product of factors within an individual as well as other factors in the individual's environment. The interaction of individual and environmental variables (which includes institutional factors) produces dispositions towards the target behaviour (Ajzen, 1985, 1991; Sanders, 2022). In the process, an individual learns from peers, parents, siblings, teachers, and significant others based on prevalent and acceptable beliefs, attitudes, and behaviors that are common in the environment. Positive or negative reinforcements maintain behavior. Thus, these factors (beliefs, attitudes, behavior, and reinforcements) are expected to vary based on institutional and individual factors. Students will imbibe attitudes and beliefs that counter examination malpractices or otherwise, depending on whether individual and school policies and practices related to academic integrity are implemented. This study will address these concerns.

3. METHOD

3.1. Design, Population, and Sample

A survey research design was utilized in the study. The process involved applying the proportionate multistage sampling technique to select 3142 male and 3708 female students from a population of 723,175 males and 740,334 female final-year high school students in Nigeria in 2022.

Table 1. Sample size by geopolitical zone, state and gender.

Zone	State	Male	Female	Total
North-East	Adamawa	443	529	972
South-South	Edo	459	536	995
South-East	Anambra	457	531	988
North-Central	Kwara	438	521	959
South-West	Lagos	460	536	996
North-West	Katsina	435	540	990
FCT	Abuja	450	515	950
Total		3142	3708	6850

The stages considered in the sampling procedure are six geopolitical zones, 36 states, the Federal Capital Territory (FCT), and the gender of students. The sample distribution is presented in Table 1. All students who participated in the study gave their consent, and their school administrators also gave official permission for the students to fill out the questionnaire.

3.2. Instrument for Data Collection

The researchers used the Academic Integrity Measurement Instrument (AIMI) to collect data. AIMI is a reliable and validated instrument. Details of the procedures involved in the construction, validation, and standardization of AIMI are published in Ossai, Ethe, Edougha, and Okeh (2023). The instrument is very comprehensive and includes items that elicit responses from the students on their religion, course of study, school location (urban or rural), school type (public or private), parental educational levels, occupations, and academic integrity. The academic integrity section consists of 40 items, which cover six components on which students demonstrate the depth of their academic integrity. Items were constructed to cover the six attributes of behavior (study habits; examination anxiety; moral background; attitude towards examination malpractices; examination ethics; and previous experience with examination malpractices) because evidence from research literature shows that each of these behaviour constructs correlates with academic dishonesty (Abuh & Okpanachi, 2022).

3.3. Method of Data Analysis

Analysis of Variance (ANOVA) was used in the data analysis for the independent variables that were categorical and consisted of more than two groups. In contrast, an independent sample t-test was used for dichotomous independent variables such as school location and type. Moreover, the study involved the determination of variances or differences across groups and comparing means. Mean plots are produced to illustrate more clearly the difference between the groups. The data set satisfied the conditions of 'normal distribution' and being free from 'outliers.

4. FINDINGS

Data analysis and findings are presented in the order of the research questions starting with Tables 2 and 3.

Table 2. Mean score of students' academic integrity by school location.

Dependent variable	School location	N	Mean	Std. deviation	Std. error mean
Academic integrity	Urban	2960	108.76	16.593	0.305
	Rural	3890	110.21	15.325	0.246

Data in Table 2show that there is a difference in the mean academic integrity scores of urban and rural students, and Table 3 indicates that the difference in students' mean academic integrity scores is statistically significant. Independent samples T-test for differences in the academic integrity of students in urban and rural schools is significant at the 0.05 level of significance as presented in Table 3.

Table 3. Group statistics of urban and rural students' academic integrity.

Dependent variable		F	t	df	MD	SE	95% CI	
							Lower	Upper
Academic integrity	Equal variances assumed	19.74*	-3.74*	6848	-1.45	0.39	-2.21	-0.69
	Equal variances not assumed		-3.69*	6093	-1.45	0.39	-2.22	-0.68

Note: *p < 0.05.

Regarding public and private school student categorization, Table 4 shows that there is a difference in the mean score between private and public schools. Academic integrity scores of students in private schools (112.56) are higher than those of students in schools owned by the government (108.21).

Table 4. Mean score of academic integrity of students in public and private high schools.

Dependent variable	School type	N	Mean	S. D	Std. error mean
Academic integrity	Public	4666	108.21	15.92	0.233
	Private	2184	112.56	15.4	0.330

In Table 5, the T-test for independent samples of students in public and private schools confirms that the variance in the academic integrity mean scores of students in government (public) and private high schools is significant. Data in Table 5 shows that the academic integrity mean scores of students significantly differed based on the public and private schools dichotomies, and, as shown in Table 4, the mean academic integrity score of private school students was higher than that of public school students.

Table 5. Group statistics of public and private school students' academic integrity score.

Dependent variable		F	t	Df	M D	SE	95% CI	
							Lower	Upper
Academic integrity	Equal variances assumed	9.99*	-10.63*	6841	-4.35	0.41	-5.15	-3.546
	Equal variances not assumed	9.98	-10.76*	4380	-4.35	0.40	-5.14	-3.555

Note: *p < 0.05.

In order to determine if the academic integrity of students will vary according to their religion, a one-way ANOVA was used in the data analysis since religion which is a nominal variable, has four categories. The students indicated their religion in Section A of the AIMI from Christianity, Islam, Traditional, and the non-religious (neutral) group. Data presented in Tables 6 and 7 and the illustration in Figure 1 show the variance in academic integrity of the students across religious groups.

Table 6. Test of variance in students' academic integrity by religion.

Academic integrity	Sum of squares	df	Mean square	F	Sig.
Between groups	9097.10	3	3032.37	12.05*	0.000
Within groups	1722390.47	6846	251.59		
Total	1731487.57	6849			

Note: *p < 0.05.

Data in Tables 6 and 7 show that the students' academic integrity varies based on their religion. AIMI is configured such that the lowest score is 40, the highest is 160, and the midpoint or cut-off point between good and poor academic integrity is 100.

Therefore, it could be seen from the mean plot in Figure 1 that students in all four religious groups had a mean score above 100. However, the highest academic integrity scores were recorded among the Christian group, followed by Islam, then the neutral and the traditional.

Academic integrity scores of students significantly differed across the three religious groups (Table 7). There were statistically significant differences in academic integrity between Christian Muslim students.

Table 7. Post-hoc tests of multiple comparisons based on religion.

(I) Religion	(J) Religion	MD (I-J)	Std. error	Sig.	95% CI	
					Lower	Upper
Christianity	Islam	2.060*	0.387	0.000	1.06	3.06
	Traditional	5.418*	1.632	0.005	1.22	9.61
	Neutral	3.694	4.790	0.867	-8.61	16.00
Islam	Christianity	-2.060*	0.387	0.000	-3.06	-1.06
	Traditional	3.358	1.635	0.169	-0.84	7.56
	Neutral	1.634	4.791	0.986	-10.68	13.95
Traditional	Christianity	-5.418*	1.632	0.005	-9.61	-1.22
	Islam	-3.358	1.635	0.169	-7.56	0.84
	Neutral	-1.724	5.046	0.986	-14.69	11.24
Neutral	Christianity	-3.694	4.790	0.867	-16.00	8.61
	Islam	-1.634	4.791	0.986	-13.95	10.68
	Traditional	1.724	5.046	0.986	-11.24	14.69

Note: *. The mean difference is significant at the 0.05 level.

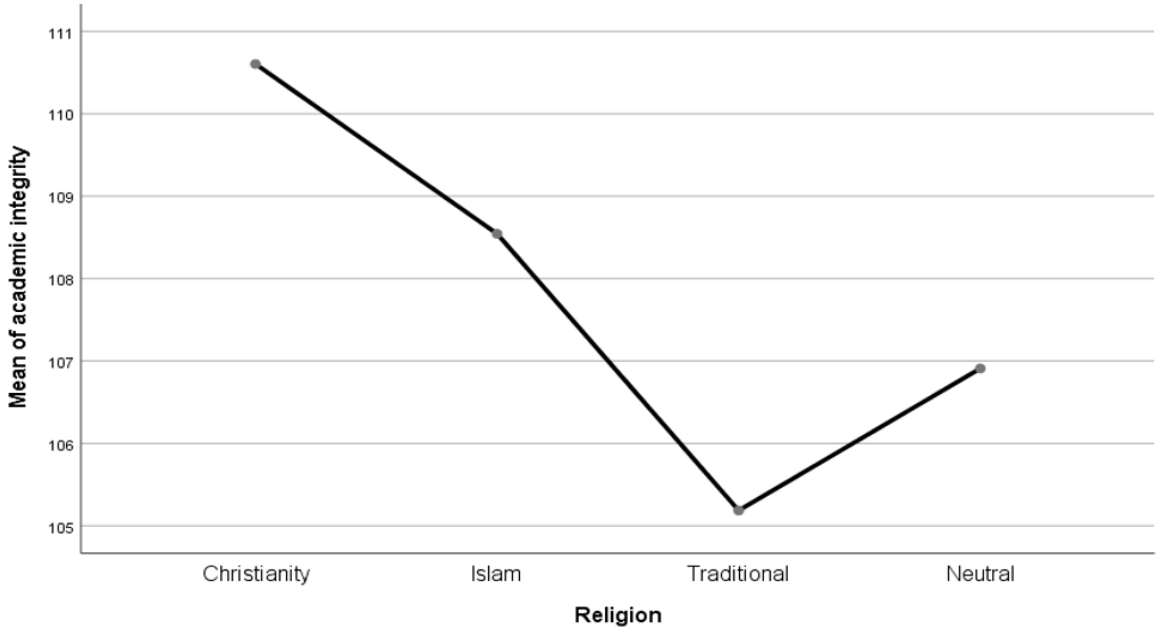

Figure 1. Mean plot of academic integrity and the students' religion.

Result of One-way ANOVA analysis of students' course, which had five categorical groups of independent variables (Science, Arts, Social Science, Technical, and Business), is presented in Tables 8 and 9 and Figure 2.

Table 8. Test of variance in students' academic integrity by course of study.

Academic integrity	Sum of squares	Df	Mean square	F	Sig.
Between groups	23172.88	4	5793.22	23.21*	0.000
Within groups	1708314.68	6845	249.57		
Total	1731487.57	6849			

Note: *p < .05.

Data in Table 8 shows that the academic integrity score of students varies by course of study. Furthermore, Table 9 shows how each course varies compared to the other courses. For instance, significant variations exist between the academic integrity scores of students studying sciences and those in arts, technical, and business courses. The same applies to students studying arts and others in science, social science, and technical courses, as well as between social science, arts, technical and business.

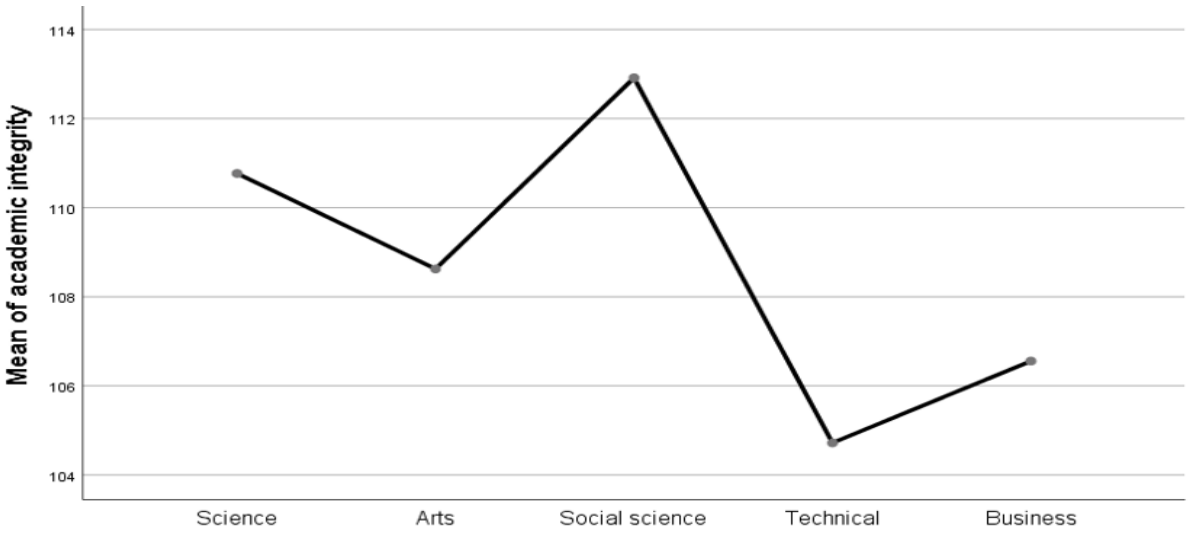

Figure 2. Mean plot of academic integrity scores based on students' course of study.

In Figure 2, all students in the five-course areas have average mean scores above the cut-off threshold of 100. However, social science, science, and arts students recorded the highest academic integrity scores in descending order. Moreover, there is a big gap between the three-course areas in the upper category (Social Science, Science, and Arts) and the two courses in the lower echelon (Technical and Business).

Table 9. Post-hoc tests of multiple comparisons based on course of study.

(I) Students course	(J) Students course	MD (I-J)	Std. error	Sig.	95% CI	
					Lower	Upper
Science	Arts	2.143*	0.422	0.000	0.99	3.29
	Social science	-2.146	0.904	0.123	-4.61	0.32
	Technical	6.049*	0.826	0.000	3.79	8.30
	Business	4.212*	0.945	0.000	1.63	6.79
Arts	Science	-2.143*	0.422	0.000	-3.29	-0.99
	Social science	-4.289*	0.922	0.000	-6.81	-1.77
	Technical	3.905*	0.846	0.000	1.60	6.21
	Business	2.068	0.962	0.200	-0.56	4.69
Social science	Science	2.146	0.904	0.123	-0.32	4.61
	Arts	4.289*	0.922	0.000	1.77	6.81
	Technical	8.195*	1.164	0.000	5.02	11.37
	Business	6.358*	1.251	0.000	2.94	9.77
Technical	Science	-6.049*	0.826	0.000	-8.30	-3.79
	Arts	-3.905*	0.846	0.000	-6.21	-1.60
	Social science	-8.195*	1.164	0.000	-11.37	-5.02
	Business	-1.837	1.196	0.539	-5.10	1.43
Business	Science	-4.212*	0.945	0.000	-6.79	-1.63
	Arts	-2.068	0.962	0.200	-4.69	0.56
	Social science	-6.358*	1.251	0.000	-9.77	-2.94
	Technical	1.837	1.196	0.539	-1.43	5.10

Note: * The mean difference is significant at the 0.05 level.

5. DISCUSSION

This study found a significant difference in the academic integrity of students based on the geographical location of their schools. The Academic Integrity Mean score of 108.76 and 110.21 for students in urban and rural schools, respectively, is statistically significant ($t = -3.74$, $p < .05$). As mentioned earlier in the 'Introduction' section of this article, there seems to be a dearth of previous studies comparing the academic integrity of students based on

the urban-rural school dichotomy; rather, most studies considered the 'academic performance' of students along this divide. The related literature search found just one (Patnayakuni & Suresh, 2022) that compared the academic dishonest behavior of students in India on the basis of their schools' geographical location. They found that 25% of rural students engaged in examination malpractices, compared to 28% of urban students in a sample of 152 students. Though their T-test analysis indicated that this difference was not significant, the higher percentage of students from urban schools that were involved in examination malpractices agrees with the findings of this study. Furthermore, Asiyai (2019) in her study of deviant behavior among high school students in Nigeria, which included 'examination malpractices, found that students in urban schools engaged more in deviant behavior than their counterparts in rural schools. Be that as it may, there are findings from some previous studies that the academic achievement scores of students in schools located in towns are better than those of students in villages (such as (Adeyeye, 2017; Farooq, Chaudhry, Shafiq, & Berhanu, 2011; Manley, 2018; Sumi, Jahan, Rahman, Seddeque, & Hossain, 2021)). However, Tayyaba (2012) found that rural students had better academic performance than those in township schools in at least three out of four subjects. Despite all the advantages that students in urban schools may have over those in rural schools, as documented by Sumi et al. (2021) which include higher parental educational levels and a better socioeconomic status that enables them to afford tutorial lessons for their children, it could be that students in village schools, being free from the hustle and bustle of the township, concentrate more on their studies. Moreover, students in village schools in Nigeria are exposed to the limited influences of social and electronic media; hence, they devote more time to studying than their urban counterparts. They may not also be aware of or empowered to employ digital devices to facilitate examination malpractices, which seems to be the point made by Hamblin (2019). Therefore, this finding from the present study has implications for the fight against examination malpractices if school administrators and other stakeholders in urban schools, such as teachers, counselors, and parents, should pay more attention to preventive measures against examination malpractices. Such preventive measures should target improvements in students' study habits, examination anxiety, ethics, moral reasoning, attitudes, and policies that promote academic honesty.

The second finding that the difference in academic integrity of students in government-owned (public) and individual-or organization-owned (private) schools is statistically significant gives credence to Lento (2023) suspicion that the likelihood of academic dishonesty could be lower in private schools because they may "have stricter rules about academic misconduct or only enroll highly motivated students." The present study found that the Mean Academic Integrity Score difference between students in government schools (108.21) and those in private schools (112.56) is significant ($t = -10.63$, $p < .05$). The result is consistent with the research of academics who examined students' academic achievement in public and private schools. For instance, Akinloye, Adu, and Adu (2015) studied the academic achievement in economics of private and public school students in Nigeria. They found better achievement by students in private schools than those in government (public) schools, due to factors associated with school location, teachers, and instructional materials. Good private schools in Nigeria may provide better quality learning environments and educational resources than public schools; hence, their students develop better study habits, suitable levels of examination anxiety, appropriate attitudes towards examination malpractices, and good examination ethics. These conditions may have also accounted for the report by Freshpage (2022) that more public schools (26) were involved in examination malpractices in the 2022 Senior School Certificate Examinations compared to private schools (24). However, Ogundare (2023) reported that private schools were the worst offenders in examination malpractices in Nigeria. Though there were no statistics or research to justify this claim, it could be inferred that many substandard private schools in the country aid and abet examination malpractices for their students because of the reasons reported by Ojo (2020). The reasons propounded by Ojo

(2020) for some private schools' involvement of their students in examination malpractices include the quest to attract a large number of students to their schools based on excellent results in certificate examinations; the desire to assist a large number of lazy students, which their very liberal admission policies thrust on them; blind competition for prestige based on best results in certificate examinations; and corrupt government examination monitoring agents who take bribes and compromise their duties. These reasons are also applicable to the public schools. Thus, some researchers have found no significant difference in the perception and involvement of public and private school students in examination malpractices and ethics (Anierobi, Unachukwu, & Nwogbo, 2015; Chikendu, 2022; Odidi, 2014) and reports abound that indicate both public and private school involvement in examination malpractices, such as Agwu et al. (2022) and Muchemwa and Dhliwayo (2017). It is pertinent for more proactive actions to curb examination malpractices in Nigerian schools in view of the ugly incident of "Miracle Examination Centers" (MECs), where students of both public and private schools go in droves to 'procure' excellent results in public examinations through unbridled examination malpractices. Agwu et al. (2022) provided a description the methods of operation of the MECs in which they identified parents, teachers, school administrators, and students as the "proximate" or direct facilitators of the MECs and the examination bodies or regulatory institutions as the "remote drivers" of the MECs because they failed to take actions to close down the MECs. This buttresses the need for the adoption of preventive strategies by all personnel in the educational system to fight the educational monster (examination malpractices).

Religious background and course of study of students have been found to impact their academic integrity significantly. The present study has shown that students' academic integrity varies based on religion and their course of study. Noteworthy is that students who belonged to Christianity and Islam reported higher academic integrity than the traditional and neutral groups. From Figure 1, the Academic Integrity Mean Score of the religious groups are Christianity (110.60), Islam (108.54), Traditional (105.19), and Neutral (106.91). This finding confirms the Saadah (2020) study, in which academic integrity and religiosity were significantly correlated. Also, Ridwan and Diantimala (2021) reported similar findings in their study among undergraduate students in Indonesia. Therefore, religion could be employed in reforming students' attitudes and tendencies for better academic integrity. Religious education (Christian and Islamic) is part of the curriculum in Nigerian high schools, and the traditional and religious-neutral students who are in the minority should be instructed through civic education, which is a compulsory subject for all high school students in Nigeria. Baskerville (2020) demonstrated that civic education in schools has a lot to offer in this regard. Students' course of study should also attract attention as an area that should be explored more deeply in academic research towards identifying factors that easily propel students towards academic fraud. In this study, it was found that students in the Technical and Business courses had lower Academic Integrity Mean Scores (104.72 and 106.56, respectively) compared to students offering Social Science, Science, and Arts (112.91, 110.77, and 108.62, respectively). Though there are few research studies on these variables, the few available, such as Eshet et al. (2012) and Kokkinos et al. (2023) agree that academic integrity varies based on students' courses. Particularly for students in business courses, some previous studies have shown that academic dishonesty has implications for future professional dishonest practices when they graduate and get employed in the world of work (Abdul Rahman, Hussein, & Mohamed, 2016; Iberahim, Hussein, Samat, Noordin, & Daud, 2013).

5.1. Implications and Suggestions

The implication of the findings is that since school location and type, religion, and course of study impact students' academic integrity, all stakeholders in education should consider these variables in formulating proactive strategies to fight examination malpractices in schools. School administrators and teachers should strive for

improvement in these constructs by their students. Efforts should be made by teachers of certain subjects or courses, such as technical and business, to find out why their students are more prone to engaging in academic dishonesty and take appropriate measures such as a change in method of teaching and the employment of more motivating instructional strategies to reverse the trend. The motivational approach suggested by Keller (2010) is one such strategy. This motivational approach requires teachers to link their subject content to the satisfaction of students' intrinsic and extrinsic needs. Students' attention will be captured if they perceive that what they are learning is relevant to the attainment of their life ambitions. Thus, they will be eager to acquire knowledge and skills inherent in the academic subjects or courses they are being taught. This scenario ultimately leads to their being more confident in themselves during examinations. They will prepare well for the examinations (improved study habits), which will reduce their examination anxiety and ultimately lead to their being motivated intrinsically to obey examination ethics and develop a negative attitude towards examination malpractices. Based on the findings of this study, the following suggestions or recommendations are made:

i. Administrators and counsellors of schools located in townships should exert efforts to dissuade their students from engaging with the numerous distracting factors that confront them, such as entertainment centers, social media, and advanced communication technologies.
ii. Administrators and teachers in public schools whose students do not enjoy the same quality of education and facilities available in standard private schools should also adopt such a proactive strategy to prepare their students thoroughly for improvement in the AIMI variables before they sit for certificate examinations.
iii. Parents and teachers should step up in the inculcation of morality in the students through religiosity and civic education.
iv. Examination bodies should incorporate academic integrity tests into examination question papers. The examination bodies could then calculate academic integrity quotient based on statistical analysis of the scores of the segment on academic achievement and the component on academic integrity.
v. Test of academic integrity could be administered shortly before the candidates take the academic achievement examination. Whichever option the examination bodies adopt, the idea is that the Academic Integrity Quotient (AIQ) of candidates for an examination should be measured, and the scores derived should be correlated or compared with academic achievement scores before final decisions are made on each candidate's results.

6. CONCLUSION

Students' school location and type, religion, and course of study have significant impacts on their academic integrity. Therefore, considerations should be given to these variables in efforts to curtail examination cheating behaviour in schools. Academic integrity as conceptualized in this study is based on students' predisposition towards preparation for examinations; attitude towards examination malpractices; moral reasoning; adherence to examination ethics; levels of examination anxiety; and past experience in incidents of examination malpractice. In this regard, proactive strategies against examination malpractices should be based on frameworks that include enhancement of students' activities on these variables as suggested by previous studies (for instance, (Abuh & Okpanachi, 2022; Bassey & Iruoje, 2016; Lambert, Hogan, & Barton, 2003; Oran et al., 2016)). It is a reality that undetected and unchecked academic dishonesty among students portends grave dangers for the future of nations and civilizations. Magaji (2019) put it very succinctly when he averred that academic dishonesty is one of the most plausible factors responsible for the vices plaguing Nigeria and other nations in the world. The authors strongly believe that measurement of a student's academic integrity quotient could be achieved through further development

of the instrument used to measure academic integrity in this study (AIMI) in the same way that it was possible to measure Intelligence Quotient (I.Q.) and Emotional Intelligence Quotient (EIQ).

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