

"TEST ANXIETY AND PREVIOUS EXAMINATION SCORES AS PREDICTORS OF SECONDARY SCHOOL STUDENTS' TENDENCY TO CHEAT IN CHEMISTRY EXAMINATIONS IN LAGOS STATE"

TEST ANXIETY AND PREVIOUS EXAMINATION SCORES AS PREDICTORS OF SECONDARY SCHOOL STUDENTS' TENDENCY TO CHEAT IN CHEMISTRY EXAMINATIONS IN LAGOS STATE

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Abstract: *This study examined test anxiety and previous examination scores as predictors of secondary school student's tendency to cheat in chemistry examinations. Three research questions guided the study. Three hypothesis were tested at 0.05 level of significance. The research design adopted in this study was multiple correlational research design. The study was carried out in senior secondary schools in Ojo Local Government Area in Lagos State Nigeria. Two instruments titled Test Anxiety Questionnaire (TAQ) and Students Tendency to Cheat Questionnaire (STCQ) were adapted and used for data collection. The instruments were validated by three experts. The internal consistency of the items in the TAQ and STCQ were determined using Cronbach alpha statistics with coefficients of .80 and .79 respectively. The population of the Study was 4024 senior secondary school two (SS2) students in the thirteen (13) secondary schools in Ojo Local Government Area in Lagos State Nigeria. Proportionate stratified random sampling technique was used and the sample size consisted of 2150 senior secondary two (SS2) Chemistry students. Multiple regression statistical analysis was used to analyze data. The result revealed that test anxiety was a significant predictor of Secondary school students tendency to cheat in examination ($\beta=0.35$, $p<0.001$). The results also indicated that both test anxiety and previous examination scores significantly predicted Secondary school students' tendency to cheat in chemistry examinations, with test anxiety playing a slightly stronger role. It was recommended among others that educators should receive professional development on identifying and addressing test anxiety and provide additional academic support to students who struggle with their academics.*

Keywords: Test Anxiety, Previous Examination Scores and Tendency to Cheat in Examination.

"TEST ANXIETY AND PREVIOUS EXAMINATION SCORES AS PREDICTORS OF SECONDARY SCHOOL STUDENTS' TENDENCY TO CHEAT IN CHEMISTRY EXAMINATIONS IN LAGOS STATE"**1. Introduction**

Test anxiety is a very serious issue that cannot be overlooked among students if a successful evaluation has to be achieved. If test anxiety is not properly and timely addressed, it can have many unprecedented, serious, and long-lasting consequences on students' ability to write examinations confidently by themselves. Test anxiety connotes any form of psychological manifestation in an examinee who is experiencing great distress before, during or after a test, exam or any other form of assessment to an extent that the level of anxiety leads to poor performance in the test or exam. Test anxiety captures a state of uneasiness or feeling of uncertainty regarding an oncoming or ongoing evaluation programme such as test or examination (Eremie and Ikpa, 2020). Eremie and Ikpa added that test anxiety comprises a person's cognitive reactions or internal dialogue regarding evaluative situations before, during or after evaluative tasks which centers on comparing self-performance to peers; consequences of failure; low levels of confidence in performance; feeling of unpreparedness for tests, as well as loss of self-worth. In other words, test anxiety could be cognitive (worry) or emotional (affective) in nature. Test anxiety occurs when tests are perceived as threat rather than prognostic, predictive and remedial measures (Nwosu, Odo, and Obioha, 2017). From pre-nursery, a child is exposed to examination to move to Kindergarten, and all through school, the most tensed period is examination period. To get a job, people have to be subjected to oral, written or practical or all examinations and some of these students may have elderly ones at home who have gone for one or two of such job examination without gaining employment. All these can make a student who is zealous and excited about school to be afraid of the unknown or develop examination phobia. According to Abbasi and Ghosh (2020), test anxiety can be a reflex involuntary reaction of a person that occurs during test preparation or during test taking which is elicited by the person's experience of testing situations. This reaction is oftentimes associated with deep concern about possible failure and its consequences. It can further be said to be a type of performance anxiety or a psychological dispensation of the learner or examinee in a situation where there is pressure to do very well in an examination or when good performance counts or amounts to a significant reward. Also in Abbasi and Ghosh (2020) observed that 10 to 40 percent of all students are severely affected by test anxiety. The percentage further increases in the case of the formal examination.

Examination scores (either high or low) are unavoidable part of the education system. This is because; examination scores are often referred to as the output value of the teaching and learning process. However, they may also be referred to as inputs. For instance, receiving a low score in chemistry in the middle of a session (second term) may positively or negatively affect a student's subsequent learning effort in the remainder of the school term. Previous examination scores connote a piece of numerical information that conveys the performance of the students on their previous examinations. It provides a valid academic report about the knowledge, ability, and effort of the student towards academic achievement in previous terminal examinations (Iqbal and Anjum, 2017).

Generally, examination has become the standard against which students' progress and the entire educational system progress is measured. However, the expected result may not be completely achieved if the examination is poorly conducted.

A poorly conducted examination can adversely affect the school, the students, the parents, the teachers, and the society at large. Poor conduct of examination is one thing and unacceptable examination behaviours of students is another. Some of the unacceptable examination behaviours in Nigeria include the use of reminders, impersonation, leakage of examination question papers, collusion among students, giraffe copying, and exchange of answer scripts in the examination hall, and the use of any unauthorized material inside the examination hall (Onyibe, 2017). Unfortunately for Nigeria, the success of her educational system towards realizing its noble objectives of utilizing education as the catalyst for national development has been greatly marred by these unacceptable examination behaviours listed, which can in one phrase be referred to as cheating in examination.

Cheating in examination is a pervasive global issue that undermines the integrity of educational systems, and in Nigeria, it has become a particularly widespread and entrenched problem that is affecting the validity and credibility of academic certifications. Cheating during testing introduces random errors to the test score which can reduce the reliability of the test scores and render them inaccurate and less meaningful (Ugodulunwa, 2020). Undoubtedly, cheating in examinations mars the validity and credibility of the result of

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the evaluation of the educational process. The Nigerian citizens, of recent, may no longer be regarding examination as a standard for the true measurement of students' academic achievement, or knowledge because cheating in examination is becoming a pandemic in the Nigerian education system. This may lead to students having wrong perception about examination in Nigerian schools where examination is no longer seen as a true test of knowledge but as war and fighting for the future.

Cheating in examination might become an alternative weapon for winning the war against poor academic performance and failure in examinations that may result to a delay or pause in students future career pursuit. Students' attitude towards examinations in Nigeria seems to have turned into a pandemic that is massively destroying the education system. Maybe because students tend to be more ready to cheat in examinations than to be independently confident to write the examination on their own. Woche, (2021) referred to tendency to cheat in examination as the likelihood of an examinee indulging in inappropriate behaviours in an examination with the aim of earning underserved grades. It is a menace that is threatening the survival of the educational system. In similar vein, Bichene and Ogba (2021) defined tendency to cheat in examination as the propensity of an examinee to use any illegal means before, during or after any examinations with the aim of obtaining good results.

Students with the tendency to cheat in examination employ various methods to compromise the examination process either in the examination hall alone, before, during and even after the examination. The intention of an examinee with the tendency to cheat is to gain an unfair and underserved advantage over their co-examinees. Thus, tendency to cheat in an examination could be a function of secondary school students' previous examination scores as well as their test anxiety.

In the academic domain, Chemistry as a subject is one of the most important subjects in the sciences whose examination scores can make or mar the future of a science student. On the one hand, receiving a low score in the subject chemistry might signal to the students that they need to study more and be more devoted to that particular subject if the low score was a result of a lack of commitment to the subject, sickness, or total absenteeism in one of the last examination. While on the other hand, it is also possible that having a low score in chemistry may discourage the students, and cause them to disengage from the subject or even drop science entirely or feel there is nothing they can do on their own to pass that subject by themselves especially when the students, to the best of their knowledge, have shown commitment to the subject but still could not pass it. The result from the analysis of the previous examination scores in Chemistry from the students' last academic session before this research will be taken and be used to find out if having low score or high scores will predict students' confidence level on writing the next examination on their own without cheating.

Given the adverse effects that cheating in examination has brought upon the Nigerian educational system already, it has become imperative to critically examine students' tendency to cheat by apparently looking at the several institutional and individual perceptual factors that can promote students' tendency to cheat in an examination. Students' perception toward cheating in an examination may indicate their tendency to cheat in an examination and may also promote or inhibit their constant involvement in it. Perhaps all the existing advocacy methods for eradicating cheating in examinations in Nigerian schools have been failing because they have not taken into consideration the perceptual factors that may promote or hinder cheating in an examination. Hence, knowing the nature of such predictors and developing appropriate strategies for controlling them will be an added advantage and a great improvement toward national and economic growth. Such predictors could be previous examination scores, test anxiety, attitude towards testing, examination preparation skills, study skills and teacher-related variables. This study will examine only how previous examination scores and test anxiety predict students' tendency to cheat in examinations.

Figure 1 below is a schematic representation of the conceptual framework of the study on test anxiety and previous examination scores as predictors of secondary school students' tendency to cheat in future chemistry examinations. Figure 1 clearly shows the contributions of test anxiety and previous examination scores to secondary school students' tendency to cheat in chemistry examinations. The paradigm of this segment is designed to show how the independent or predictor variables and the dependent or predicted variable which are of major concern in this study are connected to one another. The variables in this study are; Test Anxiety (TA), Previous Examination Scores (PES), they are the independent variables and Tendency to Cheat (TC) is the dependent variable. Possibly, the test anxiety scores and the previous examination scores singly or jointly could have positive or negative predictive values of the secondary

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school students' tendency to cheat in chemistry examinations. Figure 1 shows that the study aimed at ascertaining if test anxiety and previous examination scores individually predicted secondary school students' tendency to cheat in chemistry examinations. Furthermore, the figure ascertained joint prediction of secondary school students' tendency to cheat in chemistry examinations by their test anxiety and previous examination scores. The predictor or independent variables are; Test Anxiety (TA), and Previous Examination Scores (PES), while Tendency to Cheat (TC) is the predicted or dependent variable. The model above was developed by the researcher for better understanding of the three key variables in the study which are Test Anxiety, Previous Examination Scores and Tendency to Cheat.

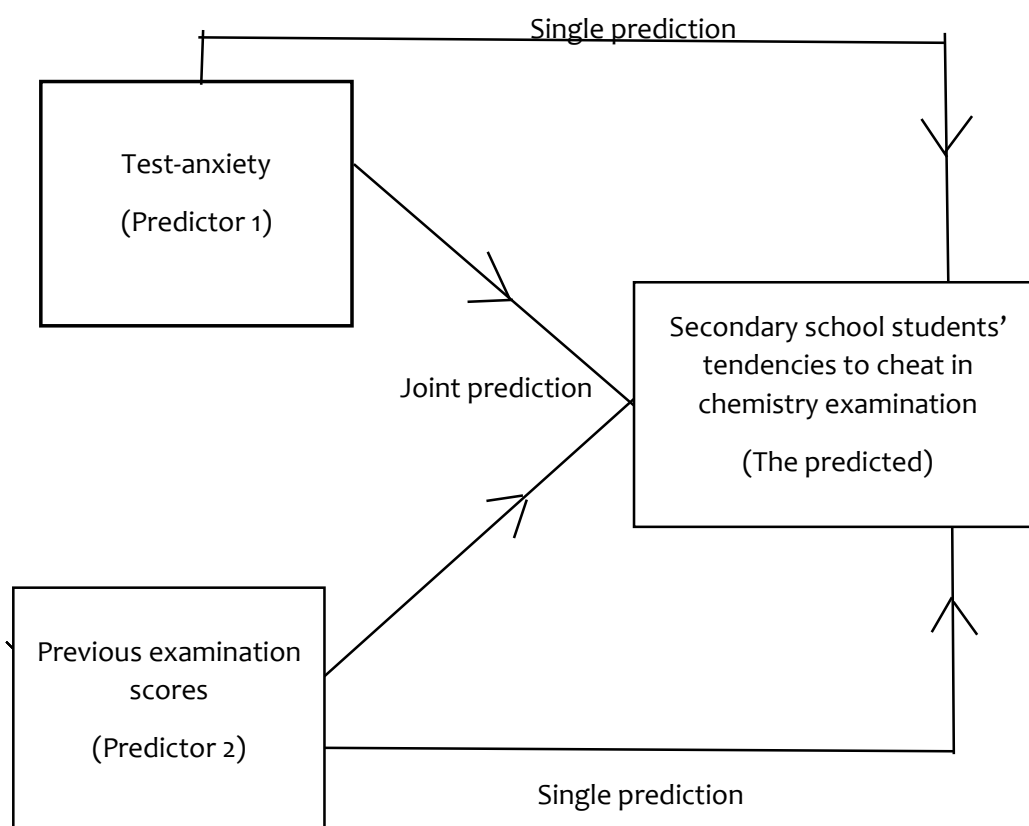


Figure 1: Schematic Representation of the Study Concepts

Statement of the Problem

It is rather undoubtable that some Nigerian citizens have lost hope that Cheating in examination can be eradicated from the Nigerian educational system. This is given the fact that despite prescribed punishments for examination malpractice, reports from the various examination bodies such as the West African Examination Council (WAEC) and National Examination Council (NECO) revealed unabated cases of examination malpractice nationwide for many years.

In recent times, in Lagos State specifically, cheating in examination is going even digital instead of reducing and young people have come up with new slangs used daily almost in every conversation like - "I cannot kill myself, who no like better thing". Could it be that they are beginning to consider cheating in examinations as an alternative means to academic success? If the students are beginning to consider cheating in examinations as an alternative means to academic success, then trying to stop examination malpractice without finding and addressing the factors that can make them want to cheat in examination may not work

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effectively. When students begin to have negative feelings about their self-efficacy and become more concerned about their previous performances, it can lead to more test anxiety. Test anxiety among students is becoming alarming. However, there are worries that previous examination scores and test anxiety are possible predictors of students' tendency to cheat in future examinations. Hence, this study examined how previous examination scores and test anxiety predict students' tendency to cheat in examinations.

Purpose of the Study

The purpose of this study is to investigate if test anxiety and previous examination scores of secondary school students can predict their tendency to cheat in future chemistry examinations in Lagos state. Specifically, this study intends to investigate:

1. The nature of the regression equation for predicting secondary school students' tendency to cheat in chemistry examination using test anxiety and previous examination scores as predictors.
2. the proportion of variation in secondary school students' tendency to cheat in chemistry examinations that is accounted for by the variations in their test anxiety scores and previous examination scores.

Research Questions

This research intends to provide answers to the following questions;

1. What is the nature of the regression equation for predicting secondary school students' tendency to cheat in chemistry examination using test anxiety and previous examination scores as predictors?
2. What proportion of variation in secondary school students' tendency to cheat in chemistry is accounted for by the variations in the Predictor variables?

Hypotheses

The following null hypotheses was tested at a 0.05 level of significance:

H₀₁: Test anxiety and previous examination scores do not significantly predict the secondary school students' tendency to cheat in examinations.

3. Method

The study used multiple correlational research design. Multiple correlational design is a research design which seeks to ascertain the relationship between one dependent variable and multiple independent variables (Tan, 2014). Multiple correlational design was considered suitable for this study because it enabled the researcher to determine the nature of prediction of tendency to cheat in a chemistry examination by the variables of students' test anxiety and previous examination scores.

The study was conducted in Ojo Local Government Area in Lagos State, Nigeria. Lagos State is located in the southwest of Nigeria. It is one of the 36 states of Nigeria with its capital in Ikeja. Lagos has 16 Local Government Areas including Ikeja. The nature of Lagos State as it relates to this study is that it was the former capital territory of Nigeria and it attracts large populace and engenders great struggle for survival. Lagos state has 3,053,034 senior secondary schools with estimated population of 256,544,254,771. Ojo Local Government Area of Lagos State has two international markets, six trade fair complex, five military cantonment, three universities, thirteen senior secondary schools with an estimated population of 838,900 and density of 3,300/km² (NPC, 2016) within Ojo area. The characteristics of this population in relation to this study is that they are lovers of education such that every child in this geographical area want to go to school and they are determined to get certificate at all cost to gain respect. This is evident in the popular slogans "if person wey get paper de talk, person wey no get go chill" meaning when an educated person is talking, the illiterate should keep quiet. Furthermore, the information provided by a sampled proportion of this populace helped the researcher to examine if test anxiety scores of the students and their observed previous examination scores can be used to predict their tendency to cheat in the next examination.

Hence, this study was purposively focused on Ojo Local Government Area in Lagos State because of high quest for certificate possession in the area and also to enable the researcher have a specific area to access and exercise full control of the data collection because Lagos state is very large with six (06)

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education districts and each district has a minimum of three (03) education zone. Only district five has four education zones controlled by independent Local Government Areas namely Ojo, Badagry, Amowo-Odofin and Ajeromi/Ifelodun. The choice of the area for the study was underscored by the consistent trend of cheating in examination in the state for three consecutive years, coupled with the digital nature of cheating in examination in the area.

The population of the study comprised 4,024 senior secondary two (SS2) chemistry students drawn from 13 schools (six private schools and seven public schools) in Ojo Local Government Area in Lagos State, Nigeria during the 2023/2024 academic session. Therefore the population size was 4,024. Though there are 15 private secondary schools and 20 public secondary schools in Ojo Local Government Area, the study's population was based on six private and seven public secondary schools respectively. The justification for choice of school population are:

- a. The school must have reached senior secondary two (SS2) level.
- b. The school must have science students who offer Chemistry at senior secondary two (SS2) level.
- c. The school must be a morning school not afternoon school.

The sample size consisted of 2,150 Senior Secondary School Two (SSS2) Chemistry Students from 2023/2024 academic session. The schools from which the sample was obtained are seven senior secondary schools (three private schools and four government schools) in Ojo Local Government Area in Lagos State, Nigeria. The schools were sampled through Proportionate stratified random Sampling technique. The stratification was based on school type (private versus public). Seven Schools were sampled and the total number of SS2 Chemistry students in the seven sampled schools gave rise to a sample size of 2,150 which constituted the sample for the study.

The instruments for data collection in this study were two questionnaires. The first is Test Anxiety Questionnaire (TAQ). It contains 20 items, each with four-response options. It was adapted from Spielberger (1980) Test Anxiety Inventory. It provides a total scale score with the range of 20-80 which measures individuals' proneness to anxiety in testing situations. The TAQ was developed in a way that the respondents should rate using a four-point rating scale of: Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D).

Another instrument "Students' Tendency to Cheat Questionnaire" (STCQ) was adapted from Muiyiwa *et al.* (2017). It is a rating scale made up of two sections; section "A" contains the instruction and students' personal information. Section "B" contains a tendency to cheat scale. The scale contains 30 items with valid and acceptable psychometric properties of cheating in an examination. STCQ was developed in a way that the respondents will check in their responses using a four-point rating scale of: Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D). The "Previous Examination Scores" of the chemistry students already exist and was collected through the various chemistry teachers.

The instruments were validated through expert review and pilot testing. The estimate of internal consistency for the two instruments was established using Cronbach Alpha reliability technique. This was done by administering the instruments to 30 SS2 students from a public secondary school in Ogun State which is outside the area of the main study. The internal consistency of the items in the TAQ and STCQ were determined using Cronbach alpha statistics. The reliability coefficients of 0.80 and 0.79 were obtained respectively for TAQ and STCQ. This is consistent with the postulation of Shrestha (2021) that the adequate threshold value for Cronbach alpha should be >0.70 .

A letter of introduction was presented to the principals of the sampled schools to gain approval to use their schools for the research. Dates were scheduled for the day of data collection in the sampled schools. The chemistry teachers in the sampled senior secondary schools served as research assistants. The researcher personally administered the TAQ and STCQ to the respondents in each school on the scheduled dates with the help of the research assistants. The researcher together with the research assistance collected the completed copies of the instruments from the respondents immediately after completion. The previous examination scores of the students was collected from the school examination and record unit through their chemistry teacher. The researcher proceeded to the other sampled schools on the respective scheduled dates for data collection and the data collection was completed within a space of two weeks. All data collected were meaningfully organized and made ready for data analysis.

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Multiple regression statistical analysis was used to analyze data. Multiple regression is the best statistical technique for estimating the relationship between two independent variables and one dependent variable as in this study. Multiple regression handles multiple predictor variables and allows more comprehensive understanding of the relationship between them. It also provides the coefficients for each of the predictor and quantifies the strength and direction of the predictors. More so multiple regression provides metrics like R^2 and F-Statistic, even residual analysis to evaluate model performance and model accuracy and the results are easy to interpret. Research Question 1 was answered using adjusted R^2 statistic. Research Question 2 was answered using standardized beta coefficients statistic. Research Question 3 was answered using multiple regression equation. Hypotheses 1 was tested using F-ratio. Hypotheses 2 and 3 were tested using t-test of significance of Beta coefficients (β) statistic. All the hypotheses were tested at alpha level of significance with the decision rule that the null hypothesis should be rejected if p-value is less than the alpha level of 0.05; otherwise the null hypothesis would not be rejected.

4. Results

Research Question 1: What is the nature of the regression equation for predicting secondary school students' tendency to cheat in chemistry examination using test anxiety and previous examination scores as predictors? This research question 3 was answered using multiple regression.

Table 1: Regression Coefficient for Predicting Secondary School Students' Tendency to Cheat Using Test Anxiety Scores and Previous Examination Scores (n= 2,150).

Predictor Variables	Regression Coefficient (β)	Standard Error	t-Value	p-Value
Test Anxiety Scores	0.25	0.03	7.21	
Previous Examination Scores	-0.12	0.02	-5.56	
Constant	2.15	0.15	14.23	<0.001

n= 2150, R-Squared = 0.23, F-Statistic= 143.21 ($P < 0.001$).

The regression equation is: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2$

Where:

Y = Tendency to cheat in chemistry examination (Dependent variable / the predicted)

X_1 = Test anxiety scores (predictor 1)

X_2 = Previous examination scores (predictor 2)

β_0 = constant

β_1 = Regression coefficient for predictor1

β_2 = Regression coefficient for predictor2

From Table 1 above, the nature of the regression equation for predicting secondary school students' tendency to cheat in chemistry examination using test anxiety and previous examination scores as predictors is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2$$

$$Y = 2.15 + 0.25X_1 + (-0.12) X_2$$

$$Ach = 2.15 + 0.25TAS + (-0.12) PES$$

This equation shows that for every one unit increase in test anxiety, the tendency to cheat increases by 0.25 units ($P < 0.001$) and for every one unit increase in previous examination scores, the tendency to cheat decreases by 0.12 units ($P < 0.001$).

Research Question 2: What proportion of variation in secondary school students' tendency to cheat in chemistry is accounted for by the variations in the predictor variables?

Table 2: Regression Analysis Model of Percentage of Variance in Secondary School Students' Tendency to Cheat in Examination Accounted for by the Variance in Test Anxiety and Previous Examination Scores (n= 2,150).

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Model	R	R ²	Adjusted R ²	% of Variance
TA	0.77	0.60	0.79	60%
PES	0.63	0.40	0.39	40%
TA&PES	0.89	0.80	0.79	80%

From the regression analysis in Table 2 above, R² represents the proportion of variance in the outcome variable explained by the predictors. Adjusted R² is a modified version of R that takes into account the number of predictors and the sample size. The regression analysis in Table 1 above showed that test anxiety (TA) alone accounted for 60% of the variation in tendency to cheat, while previous examination scores (PES) alone accounted for 40% of the variance in tendency to cheat. The combination of both predictor variables (TA & PES) explain 80% of the variance in tendency to cheat. The remaining 20% of the variance is unexplained by the model.

Hypotheses Testing:

The following null hypotheses was tested at α level of significance and the decision rule is, If p-value < α reject the null hypothesis.

HO₁: Test anxiety and previous examination scores do not significantly predict the secondary school students' tendency to cheat in examinations. . This hypothesis was tested using F-ratio.

Table 3: F-Test for Overall Significance of the Regression Model.

Model	SS	Df	MS	F-ratio	p-value	Decision
Regression	250.50	2	125.25	25.01	0.001	
Residual	1050.50	2147	0.49	-	0.000	
Total	1301.00	2149	-	-	0.001	Significant

Note: SS= Sum of Squares, df = Degree of Freedom, MS = Mean of Square. (0.001 < 0.05).

Table 3 shows that the regression model for predicting secondary school students' tendency to cheat in examinations was significant. The F-ratio (25.01) is significant at $p < 0.001$, which is less than the chosen alpha level of significance ($\alpha = 0.05$). Therefore, we reject the null hypothesis (HO₁) and conclude that test anxiety and previous examination scores significantly predicts secondary school students' tendency to cheat in examination.

Discussion:

Prediction of secondary school students' tendency to cheat in chemistry using a regression model.

The data analysis revealed that both test anxiety and previous examination scores were significant predictors of secondary school students' tendency to cheat in chemistry examinations. However, test anxiety was found to be a stronger predictor compared to previous examination scores. The regression model also revealed that increase in test anxiety will lead to increase in tendency to cheat in examination whereas increase in previous examination scores will lead to decrease in tendency to cheat in examinations. Comparing the results with existing literature such as Shu et al., (2022), Giluk et al., (2020), and Liu et al., (2019); the findings of this study support these previous research that have shown a relationship between test anxiety and cheating behaviour. However, the study adds to the literature by highlighting the importance of considering both test anxiety and previous examination scores in predicting cheating behaviour.

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The finding of this study showed that an increase in test anxiety in secondary school students' lead to an increase in the students' tendency to cheat in examinations while an increase in the students' previous examination scores lead to a decrease in their tendency to cheat in examinations. This result may have been obtained because students experiencing high test anxiety may feel overwhelmed, leading to depression and cheating in examination. Cheating in the examination can also serve as a maladaptive coping mechanism for managing test anxiety. Also students with test anxiety may doubt their abilities, increasing tendency to cheat in examination. However, students who performed very well feel confident in their abilities, reducing the need to cheat. Again students with good grades may experience less stress thereby reducing the likely hood of cheating in examinations. Also, high-achieving students are often motivated by intrinsic factors like personal satisfaction in gaining new knowledge rather than extrinsic factors like grades or pressure. This is in agreement with works of Shu et al., (2022) which explained that students with lower academic performance are more likely to engage in cheating behaviour. Also Giluk et al., (2020) maintained that poor grades and pressure to perform are significant predictors of cheating behavior. Hence secondary school students will have lower tendency to cheat when they have high scores in their previous examinations and are able to effectively manage their test anxiety levels. A possible explanation to the remaining 20% variance could be that other factors such as level of preparedness for the examination and students learning culture can contribute to tendency to cheat. Therefore these variables are recommended to be included in further studies.

Summary of Findings

From the analysis of data in this study, the following findings were deduced:

1. Test anxiety and previous examination scores together were significant predictors of secondary school students' tendency to cheat in chemistry examinations. However, test anxiety was found to be a stronger predictor compared to previous examination scores.
2. Students with high level of test anxiety are more likely to cheat in chemistry examinations. This is because the regression model revealed that increase in test anxiety will lead to increase in tendency to cheat in examination whereas increase in previous examination scores will lead to decrease in tendency to cheat in examinations.

Conclusion

In conclusion, this study revealed that test anxiety and previous examination scores are significant predictors of secondary school students' tendency to cheat in examinations but test anxiety was found to be a stronger predictor compared to previous examination scores. The findings suggest that students who experience high level of test anxiety and have a history of poor academic performance are more likely to cheat in future examinations. These results highlight the importance of addressing test anxiety and providing academic support to students who struggle in academics, in order to prevent academic dishonesty and promote a culture of integrity and true success in education.

Implications of the Findings

The study's findings will have implications for educators, policy makers, students and the school administrators.

The findings of the study will have meaningful implications for educators such that by considering both test anxiety and past exam scores as predictors of cheating behaviour, educators can identify at-risk students and provide additional support and resources to help them succeed academically. In addition the study developed a regression equation to estimate students' likelihood of cheating based on their test anxiety levels and previous exam scores. This mathematical tool can help policy makers proactively address and prevent cheating behaviors by targeting interventions towards students who may be more susceptible to academic dishonesty.

These findings underscore the importance of addressing test anxiety and promoting academic honesty in educational settings. By discovering and implementing strategies to reduce test anxiety and receiving support for students struggling with academic performance, the students can create a more positive mindset and supportive testing attitude that fosters integrity and ethical behaviour among students.

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Ultimately, by understanding the complex relationship between test anxieties, past exam scores, and cheating tendencies, school administrators can effectively intervene to prevent academic dishonesty and promote a culture of honesty and integrity in schools and by doing so, they will be able to uphold ethical standards and prevent cheating among secondary school students.

More so, the study's findings have important implications for teaching and learning practices, suggesting that:

Teachers should implement anxiety-reducing strategies in their teaching practices to help students manage their test anxiety.

Educators should consider the potential impact of high-stakes testing on students' tendency to cheat and explore alternative assessment methods that promote deeper learning and reduce stress. Schools should develop and implement evidence-based interventions aimed at promoting academic integrity and reducing cheating behaviour.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Test anxiety interventions, such as stress management and coping skills and training should be integrated into the secondary school curricula.
2. Additional academic support, such as tutoring and mentoring, should be provided to students who struggle with their academics.
3. Educators should prioritize creating a supportive learning environment that encourages honesty and integrity among the students.
4. Teachers should use a variety of assessment method to reduce the emphasis on high-stakes testing or one-shot examinations.

By addressing test anxiety and academic struggles and by implementing these recommendations, the education system can foster a culture of academic integrity, promote students' well-being and support students' success in chemistry and beyond.

Suggestions for Further Studies

Based on the findings of the study on test anxiety and previous examination scores as predictors of secondary school students' tendency to cheat in chemistry examinations:

1. Intervention study: Design an intervention study to evaluate the effectiveness of test anxiety interventions and academic support programs in reducing cheating behaviors.
2. Technology-based interventions: Develop and evaluate technology-based interventions (e.g., mobile apps, online resources) to support students with test anxiety and academic struggles.

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