

PREDICTIVE VALIDITY OF TECHNICAL DRAWING MOCK EXAMINATION SCORES ON SCHOOL OF SCIENCE STUDENTS' WASSCE EXAMINATION SCORES

Kesahan Ramalan Markah Peperiksaan Percubaan Lukisan Teknikal Terhadap Markah Peperiksaan Wassce Pelajar Sekolah Sains

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Abstract

The study examined the predictive validity of mock examination scores on WASSCE examinations performance in Oyo State Schools of Science Technical drawing. Three hypotheses guided the study. Correlation and ex-post facto research designs using purposive sampling technique were used for the study. 137 final year students participated in the study. Mock and 2019-2021 May/June WASSCE examination computerized result sheets by WASSCE council were collected from the schools under study. The null hypotheses were tested at .05 level of significance using linear regression statistics. Result obtained indicated that students' performance in mock examinations for the years 2019, 2020 and 2021 significantly predicts the students' performance in WASSCE for each respective year. Premised on these, it was recommended among others that State Ministry of Education device means of encouraging students and teachers through the school administrators to see the contributions of mock examination as relevant and important tool for preparing them for success in WASSCE examination.

Keywords: Mock Scores; School of Science; Students' Performance; Technical Drawing; and WASSCE Examination

Abstrak

Kajian ini meneliti kesahihan ramalan markah peperiksaan percubaan terhadap prestasi peperiksaan WASSCE dalam mata pelajaran Lukisan Teknikal di Sekolah Sains Negeri Oyo. Tiga hipotesis menjadi panduan kajian ini. Reka bentuk penyelidikan korelasi dan ex-post facto menggunakan teknik persampelan bertujuan telah digunakan dalam kajian ini. Seramai 137 pelajar tahun akhir telah mengambil bahagian dalam kajian ini. Keputusan peperiksaan percubaan dan keputusan peperiksaan WASSCE Mei/Jun 2019-2021 yang telah dikomputerkan oleh majlis WASSCE telah dikumpulkan dari sekolah-sekolah yang dikaji. Hipotesis nol diuji pada aras signifikan .05 menggunakan statistik regresi linear. Keputusan yang diperolehi menunjukkan bahawa prestasi pelajar dalam peperiksaan percubaan bagi tahun 2019, 2020 dan 2021 secara signifikan meramalkan prestasi pelajar dalam WASSCE bagi setiap tahun tersebut. Berdasarkan dapatan ini, antara cadangan yang dikemukakan ialah agar Kementerian Pendidikan Negeri merangka cara untuk menggalakkan pelajar dan guru melalui pentadbir sekolah supaya melihat sumbangan peperiksaan percubaan sebagai alat yang relevan

dan penting dalam mempersiapkan mereka untuk kejayaan dalam peperiksaan WASSCE.

Kata kunci: *Markah Peperiksaan Percubaan; Sekolah Sains; Prestasi pelajar; Lukisan Teknikal; Peperiksaan WASSCE*

1.0 INTRODUCTION

The quest for better performance by the final year senior secondary school students in West African Senior Secondary School Certificate Examination (WASSCE) has always been the priority of both teachers and students in Nigerian secondary schools. In recent times, a great deal of attention has been paid by the teachers, students and other educational stakeholders to the issue of whether mock examination results could be seen as an indicator that may relate to the performance of students in their external examination results (Galle, Ezinwanne & Adamma, 2022).

West African Examinations Council (WAEC) is an examination agency established by law to conduct exit examination in 5-English-speaking countries of West Africa that is, Ghana, Nigeria, Sierra Leone, Liberia, Niger and Gambia among other responsibilities and award certificate comparable to those of equivalent examining authorities internationally (Anyanwu, 2023; Sadiq, Ocheido, Meseko, Olofinniyi, Agada, & Ochai, 2020). Sadiq et al, (2020) further explained that WAEC is saddled with the responsibilities of conducting West African School Certificate (WASC) Examination; General Certificate in Education (GCE) Ordinary Level; General Certificate in Education (GCE) Advanced Level; National Common Entrance Examination for Federal Government Colleges among others.

In Nigeria, the examinations prepared by WAEC such that subjects are assembled and questions are prepared to cover the topics in the curriculum. In this case, secondary school teachers do not set questions for the examinations. The fact that WAEC result or its equivalent constitutes one of the main requirements for entrance into tertiary institutions such as Universities, Polytechnics and Colleges of Education among others (Sadiq et al, 2020) makes it relevant and important basis for all secondary schools students. Mock examination on the other hand could be regarded as a formative assessments criterion. It is done few months before the WASSCE examination as part of continuous assessment and used as a measure or a predictor of students' performance.

Mock examination is seen as a better opportunity that often affords both teachers and students the unique opportunity to determine their level of preparedness and readiness for their final year external examination that is, WASSCE examination. Galle, Ezinwanne and Adamma (2022), further revealed that the results of this examination avails each student the opportunities to know his worth, readiness and level of further preparation needed in order to make up for the needful. Teacher on his own part would be saddled with harnessing all possible assistance to ensure students' better performance.

Madu and Ebere (2016) describe mock examinations as the examination set after the pattern or made to look exactly in content and cognitive requirement as the main examination. In most cases, it is designed to mimic, as closely as possible the final examination day experience (Madu and Ebere, 2016). It is an examination that gives students a good idea of what to expect, and useful practice in time management. In this case, it could be regarded as a learning activity to help students gain familiarity with the question format and the overall WASSCE examination experience.

Consequent upon these, it is structured with approximately the same topic areas in terms of weight as well as the level of difficulty as would the main examination

(Amadioha and Uko, 2019). Amadioha and Uko therefore, put it that this examination is simulated as closely as possible to the targeted examination in terms of curriculum and syllabus. Hence, concluded that the examination attempt to permit students planning to write a major examination to have similar experiences prior to the final examination.

2.0 LITERATURE REVIEW

2.1 The Need for Mock Examination for Preparing Students for WASSCE Examination

The interest and deep involvement of teachers, students and the school as a whole in conducting mock examination for students might be attributed to the fact that, it is seen as an exams that avail both students and teachers the opportunity to spot areas for improvement as it highlights some areas that really need more work (Amadioha and Uko, 2019; and Dotado-Maderazo and Ercia, 2017). The information can be used to make necessary instructional adjustments such as re-teaching, trying alternative instructional approaches or offering more opportunities for practice ahead of actual examination day. In short, strategic programs can be planned in a bid to improve or monitor student's performance and get them prepared for the final examination (Galle, Kwoku & Ebini, 2023).

Galle, Kwoku and Ebini (2023) describe the scores obtained in mock exams as predicted scores which is important to students because it is seen as an indicator of what the student might likely obtained in the actual final exams. That is more reason why Andalai, Digolo and Kamande (2014) further explain that mock examination to some students who are hard-working can be a boost to their confidence and to students who are not hard-working, can be a useful wake-up call. On this note, the values of mock examinations are as important such that it could not be neglected (Galle, Ezinwanne & Adamma, 2022) especially in schools of science.

2.2 The Need for Technical Drawing in the School of Science

The study and survival of technical drawing at senior secondary students' level of Nigerian education system should not be left to chance. This is so because, secondary schools students, are the future engineers, technologists, technicians who will later work in the industry. Most states in Nigeria created school of science which is the equivalent of secondary school based on this premised. Consequently, it is believed that those students who attended the school would later enter into science and technology related trades, occupations or disciplines and may eventually lead them to set up their own workshop or become an industrialist.

Consequent upon the importance and the aforementioned relevance and roles of technical drawing in the field of science, engineering and technology, technical drawing in schools of science should not be underscoring. Most students are expected to be encouraged to develop interest owing to the benefits, relevance and roles of technical drawing in their various prospective science, engineering and technological future careers. In Oyo State, the Ministry of Education has made it mandatory for all the students in the state schools of science to acquire technical drawing knowledge and skills at the entry level in preparation for tertiary institutions and dynamic world of work by making TD compulsory during their SSI class.

The inclusion of technical drawing in the secondary education curriculum in Nigeria affirmed the importance of the subject as a course of study to the survival and growth of industries especially in a bid to have a pool of skilled manpower available to serve these in industries in Nigeria. These students are the potential future

employees of most companies and industries in Nigeria and such the study of technical drawing should not be left to chance especially in school of science.

2.3 Concept of Technical Drawing

Hassan and Maizam (2017) describe technical drawing as a graphical means of communication which is internationally understood. It involves the use of certain procedures and tools to combine either straight or curve lines together in order to produce the image of an object. By so doing, the graphical representation of objects and structures of an object can be described accurately and clearly by means of pictures, drawings, graphs and symbols (Abdulwahab and Usman, 2014). It takes special knowledge and skills to be able to represent complex technical ideas with sufficient precision for a product and the parts that are easily interchanged. In science and technology, technical drawing is a graphical representation of ideas, objects, products or their components and their specification (Laguador, 2014). For that reason, it serves as a graphic model or representation of a real object or ideas (Laguador, 2014).

Communication by drawing or pictures is called graphic communication. Hassan and Maizam (2017) explain that engineers or technicians often explains how a machine works by means of drawing, which is a special type of graphic communication called technical drawing. This might have prompted the reason why Abdulwahab and Usman (2014), Chedi (2015), and Hassan and Maizam (2017) often referred to technical drawing as a graphical language from which trained personnel such as architects, engineers, designers, technologists, technicians, draftsmen, operators, industry workers, repairmen, craftsmen and artisans among others visualised objects.

Chedi, (2015) further explains that technical drawing provides necessary information about the shape, size, surface quality, material and manufacturing process among others concerning the object. For that reason, it has become a tool used by engineers and industrial designers to design a product, solve a problem, or produce a product. Even though, drawing may take many forms, the graphic method of communication is universal. The implication is that the drawings prepared in one country may be utilised in any other country irrespective of the language spoken. Hence, it is often referred to as universal language of technology since people all over the world use technical drawing to explain how things work. The official term used to describe this universal language in Nigerian technical colleges is Building/Engineering Essence of Technical Drawing as a Vocational Subject in Nigerian Secondary Schools

Technical drawing as a school subject in Nigerian Secondary school is aimed at imparting on students: ability to read and prepare drawings that serve as a graphic model or representation of a real object or ideas; make free - hand sketching of objects; power to imagine, analyse and communicate; and capacity to understand other subjects (Venkata-Reddy, 2008). It is hoped that a student who successfully completed this course can use drawings to communicate technical information with engineers, designers, draft persons and other professionals; becomes aware of how industry communicates technical information; and would learn the principle of accuracy and clarity in presenting the information necessary to produce products (Venkata-Reddy, 2008).

In general, Technical drawing helps students to understand a means of transmission of accurate information from designers to those who develop the objects that are described by drawing. Therefore, the course enables students to be motivated for further studies pertinent to drawing. More importantly, ability to draw clearly, descriptively and read as well as interpret same drawing effectively is a binding pre-requisite for all technical people in any technology profession (Hassan

and Maizam, 2017). For this reason, within the technical and engineering education fields, the importance of technical drawing as an essential basic skill for all those concerned with technology is enormous and as such, the study of this course of study should not be left to chance in Nigerian school of science.

Meanwhile, empirical evidences from Wordu (2019), Onoselease and Ejodamen, (2018), Hassan and Maizam (2017), and Medupin, et al. (2015) have identified and expressed concern on Technical drawing as one of the technical subjects in which the students' achievement has been found to be continually poor. Chief examiners' report for 2018, 2019 and 2020 equally reported declining in students' performance when compare to previous year and some topics where students' weaknesses were glaringly exhibited were identified for each year (WAEC, 2021).

Arikpo, Obia, Usani, and David (2018) while explaining the danger attributable to students' academic failure stated that: parents would be grossly disappointed and lead to waste of their resources; it leads to frustration, high dropout rate, time wastage, poor skills development and inappropriate behaviour on the part of students; and may lead to failure of the curriculum to achieve the lofty purposes for studying technical drawing in secondary schools. Consequently, poor performance of the students in Technical drawing needs to be halted in a bid to prevent these calamities. On this note, it becomes a critical issue for educators and other stakeholders to understand the factors which predict students' performance and develop strategies for optimizing these factors for students' overall success (Amadioha, and Uko, 2019).

2.4 Values of Mock Examination in Preparing Students for Final WASSCE Examination

Students enrolled for WASSCE Technical drawing annually, but each year students achieve poorly in the examination and this is not encouraging. Meanwhile, Galle, Kwoku and Ebin (2023) explain that mock examination is usually used to assess the likely performance of the students in a future final external examination such as WAEC and NECO among others and as such described it as penultimate examination. This was further corroborated by Amadioha, and Uko (2019) and Galle, Ezinwanne and Adamma (2022) when they asserted that the performance of students in mock examinations is an important indicator or factor that may relate to the performance of students in a future external examination. The implication is that prediction of a future examination result as applicable to WASSCE could be made on the basis of the results of an earlier examination such as mock examination.

Results of numerous studies all over the world have indicated that the relationship between mock and the actual exams have been variously reported by researchers. Among few studies who had attempted to capture the impact of mock examination on the actual final examination include: researches conducted by Galle, Kwoku & Ebin (2023) on correlation between mock scores and students' performance in NECO English Language; Galle, Ezinwanne and Adamma (2022) on mock scores as predictor of students' performances in NECO mathematics; and Amadioha and Uko (2019) on mock examination as a predictor of academic performance of students in Agricultural Science. The findings of the three studies discovered that mock examination significantly predicted the performance of students. More so, Boke (2015) investigated the use of mock examination as a predictor of Kenya Certificate of Secondary Education (KCSE) performance and the findings of this study revealed that there was a significant relationship between mock scores and KCSE scores among students in the particular years of study.

Quite remarkably, performances of students are better during their annual Technical Drawing mock examinations in most Nigerian Secondary Schools. If the students truly performed well during mock examinations, then, the beliefs grounded on the assumption that success in students' performance during mock examinations

could be a good indicator of success in students' performance during WASSCE examinations. As this gap continues to widen over time, the stakeholder's unhappiness is becoming more prominent. To them, it is questionable whether or not there is a relationship between mock examinations and WASSCE examinations in technical drawing. On this note, there is need to investigate whether students' performance in mock examinations might have accounted for students' better performance in WASSCE examination. Therefore, the main focus of this study can be hypothesized as:

- a) Ho1: Students' performance in their 2019 Technical Drawing mock examination does not significantly predict their performance in WASSCE examination
- b) Ho2: Students' performance in their 2020 Technical Drawing mock examination does not significantly predict their performance in WASSCE examination
- c) Ho3: Students' performance in their 2021 Technical Drawing mock examination does not significantly predict their performance in WASSCE examination

3.0 METHODS

3.1 Design of the Study

E-post facto design was employed to investigate the relationship that exists between the students' performance in their mock examination (predictor variables) and performance in their WASSCE examination (criterion variable). In ex post facto design, the researcher identifies events that have already occurred or conditions that are already present and then collect data to investigate a possible relationship between these factors and subsequent characteristics or behaviours (Rahman, 20...). It is a kind of design in which the researcher predicts the possible causes behind an effect that has already occurred (Rahman, ...). No treatment and manipulation of independent variable is required. It involves the collection of data from records and as such considered appropriate for the study. Ex post facto design is considered suitable for the study as it provides an alternative means for the researcher to investigate the extent to which the mock examination scores predicts students' performance in WASSCE examination.

3.2 Population, Sample and Sampling Techniques

Population for the study consisted of all Technical Drawing final year students who sat for 2019, 2020 and 2021 WASSCE Technical drawing in School of Science, Oyo State, Nigeria. There are six school of science in Oyo State. Two schools were purposively selected out of six Schools of Science in the State. The two schools have stable teachers who have not being disturbed by annual postings to other schools of science by the State Ministry of Education; with more than seven years of teaching experience in technical drawing; and the students have easy access to purchase of drawing instruments and materials for supporting their study. The sample size for the study consisted of 137 final year students who sat for 2019 (57 students), 2020 (46 students) and 2021 (52 students) technical drawing examinations from the schools selected for the study.

3.3 Instrument for Data Collection, Data Collection and Data Analysis

Mock examination scores measuring instrument (MESMI) for scoring points for mock examination performance and WASSCE examination scores measuring instrument

(WASSCEESMI) for scoring points for WASSCE examination results were the two main instruments used for data collection. The researchers made personal contact with the selected schools of science and collected the 2019 - 2021 technical drawing mock examination results and May/June WASSCE computerized result sheets send to the school. The relationship between raw scores of Mock examination results, and WASSCE results were determined using linear regression. The interpretation and scoring were computed based on the Nigerian Universities mode of admission scoring points as follows: $A_1 = 8$, $B_2 = 7$, $B_3 = 6$, $C_4 = 5$, $C_5 = 4$, $C_6 = 3$, $P_7 = 2$, $P_8 = 1$, $F_9 = 0$. Candidates whose results were not released, or those who absent for each examination were interpreted as zero.

4.0 RESULTS AND DISCUSSIONS

Table 1: Simple Linear Regression Coefficient of Students' Performance in Technical Drawing Mock and WASSCE Examinations in 2019

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.793a	.773	.779	1.35177

a. Predictors: (Constant), Mock_Exams

Table 2: Summary of ANOVA for Simple Linear Regression on the Prediction of Students' Performance in Technical Drawing Mock and WASSCE Examinations in 2019

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	527.804	1	527.804	288.847	.000b
Residual	310.637	55	1.827		
Total	838.442	56			

a. Dependent Variable: WASSCE_Exams

b. Predictors: (Constant), Mock_Exams

Table 1 shows that the results of linear regression analysis yielded a regression co-efficient of $R = 0.793$. With this value, it implies that MOCK 2019 results predict WASSCE 2019 results 79.3 times for every 100 studies. More so, the co-efficient of determination R square is 0.773. Therefore, about 77.30% of the variation in the WASSCE 2019 results is explained by MOCK 2019 results. Hence, 2019 MOCK results was a predictor of WASSCE 2019 results. The result of the ANOVA in Table 2 further indicated an F-value of 288.847 at df of 1 and 55 with p-value of 0.000. This is lesser than the chosen alpha of 0.05 and as such, the null hypothesis was not accepted. Hence, students' performance in Technical Drawing mock examination has a significant prediction on their performance in WASSCE examination in 2019.

Table 3: Simple Linear Regression Coefficient of Students' Performance in Technical Drawing Mock and WASSCE Examinations in 2020

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.876a	.757	.755	1.61556

a. Predictors: (Constant), Mock_Exams_2



Table 4: Summary of ANOVA for Simple Linear Regression on the Prediction of Students' Performance in Technical Drawing Mock and WASSCE Examinations in 2020

ANOVAa					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	576.934	1	576.934	221.044	.000b
Residual	686.440	44	2.610		
Total	1263.374	45			

- a. Dependent Variable: WASSCE_Exams_2
 b. Predictors: (Constant), Mock_Exams_2

Table 3 unveils that the results of linear regression analysis yielded a regression co-efficient of $R = 0.876$. With this value, it implies that MOCK results in 2020 predicted 2020 WASSCE results 87.6 times for every 100 studies. More so, the co-efficient of determination R square is 0.757; therefore, about 75.70% of the variation in the WASSCE results is explained by MOCK results in 2020. Hence, the MOCK result was a predictor of WASSCE result in 2020. It was further supported by the result of the ANOVA in Table 4 that indicated an F-value of 221.044 at df of 1 and 44 with p-value of 0.000. This is lesser than the chosen alpha of 0.05 and as such, the null hypothesis was not accepted. Consequently, students' performance in Technical Drawing mock examination has a significant prediction on their performance in WASSCE examination in 2020.

Table 5: Simple Linear Regression Coefficient of Students' Performance in Technical Drawing Mock and WASSCE Examinations in 2021

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.894a	.781	.780	13.58029

- a. Predictors: (Constant), Mock_Exams_3

Table 6: Summary of ANOVA for Simple Linear Regression on the Prediction of Students' Performance in Technical Drawing Mock and WASSCE Examinations in 2021

ANOVAa					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	48109.225	1	48109.225	260.862	.000b
Residual	51823.220	50	184.424		
Total	99932.445	51			

- a. Dependent Variable: Mock_Exams_3
 b. Predictors: (Constant), WASSCE_Exams_3

Table 5 shows that the results of linear regression analysis yielded a regression co-efficient of $R = 0.894$. With this value, it implies that MOCK results in 2021 predict 2021 WASSCE results 89.4 times for every 100 studies. More so, the co-efficient of determination R square is 0.781; therefore, about 78.10% of the variation in the WASSCE results is explained by MOCK results in 2021. Hence, MOCK results were a predictor of WASSCE results in 2021. The result of the ANOVA shown in Table 6 further indicated an F-value of 260.862 at df of 1 and 50 with p-value of 0.000. This is lesser than the chosen alpha of 0.05 and as such, the null hypothesis was not accepted. Therefore, students' performance in Technical Drawing mock examination has a significant prediction on their performance in WASSCE examination in 2021.

5.0 DISCUSSIONS

The result of the study revealed that students' performance in mock examinations for the years 2019, 2020 and 2021 significantly predict the students' performance in WASSCE in 2019, 2020 and 2021 respectively. It was further revealed in the study that the total variance of 77.30% (2019), 75.70% (2020) and 78.10% (2021) in Technical Drawing WASSCE examination results is accounted for by their respective mock examination. The results indicated that performance of Technical drawing students in WASSCE depends largely on mock examination. The result of the study was in agreement with other previous studies by Amadioha and Uko (2019) who discovered that mock Examination significantly predicts the performance of urban and rural students in Agricultural Science in Ikot Ekpene Senatorial District of Akwa-Ibom State; Dotado-Maderazo and Ercia (2017) in a five-year study further discovered that mock board written proficiency examination and the theoretical phase of the Dentist licensure examination had a highly significant relationship in the outcome of the dentist board examinations. Such findings may indicate that mock examination can be a good diagnostic tool to identify the students' strength and weakness before taking the actual examination.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The study concludes that students' performance in Technical drawing mock examination has a significant prediction on their performance in WASSCE examination for each of the three years under study. By so doing, a strong link is established between mock and the actual WASSCE examinations. This further affirms that administration of mock examination better prepares WASSCE candidates for the examination because students who are exposed to mock examinations might be more inclined to study better and understand the strategies to adopt in answering questions; and better understand their areas of challenges and work to overcome them. It is, therefore, becomes imperative for the teachers, and other stakeholders to put all machinery on gear for proper teaching and learning in order to ensure candidates are prepared adequately for mock examinations as a valid tool capable of exerting positive influence on students' performance in WASSCE examinations.

6.2 Recommendations

The following were recommended based on the findings of the study:

- a) The State Ministry of Education through the school administrators should device means of encouraging students and teachers to see the contribution of mock examination as relevant and important tool for preparing them for success in WASSCE examination. This would to a far extent enable them commit more efforts and energies in preparedness for mock examination which would in turn help them to succeed in WASSCE examination.
- b) Students whose performance in mock examinations is not encouraging should be given adequate assistance before the actual WASSCE examination.
- c) Mock examination should be made compulsory for all intending WASSCE candidates in a bid to help them identify and ameliorate difficult areas before the examination.

- d) The state government should through the State Ministry of Education organise seminars for teachers for the purpose of improving the mode and conduct of mock examination annually in preparation for WASSCE examination.

7.0 LIMITATION OF THE STUDY

The results of the study provide valuable insights into the connections between Mock examination scores and WASSCE examination scores among school of science students but may be somewhat limited as a result of the small population used for the study. The study was confined to school of science in Ibadan Metropolis thus limiting the generalizability of its finding to other context. As such, the findings of the study should be interpreted with caution and the significance of the study should not be undermined.

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9.0 AUTHORS' CONTRIBUTIONS

Abd-El-Aziz thought of the study, conceptualized and drafted the work, collected, analysed the data, wrote and refined the entire report. Raji and Wahab were the members of the team who administered and retrieved the questionnaires for data collection supervised by Abd-El-Aziz. All the authors contributed to finance the publication of the article.

10.0 DECLARATION OF CONFLICTING INTERESTS

The author(s) declare no potential conflict of interests with respect to research, authorship, and/or publication of this article.

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12.0 REFERENCES

Abdulwahab, S. and Usman, A. (2014). Competencies Required by Technical Drawing Teachers in Technical Colleges. *Journal of Research & Method in Education (IOSR-JRME)*, 4(2) 32-37. Retrieved 7th January, 2020 from <https://pdfs.semanticscholar.org/691c/2444d35fc80d1f1b107482213225e43a1884.pdf>

- Amadioha, A. and Uko, B. E. (2019). Mock Examination as Predictor of Academic Performance in Agricultural Science in IkotEkpene Senatorial District of Akwalbom State. *International Journal of Innovative Social & Science Education Research*, 7(2), 49-53. SEAH PUBLICATIONS. Retrieved 26th May, 2020 from <https://seahipaj.org/journals-ci/june-2019/IJISSER/full/IJISSER-J-5-2019.pdf>
- Andalai, H. O., Digolo, O. and Kamande, M. (2014). Reliability of Mock Examinations for Prediction of the Kenya Certificate of Secondary Examination (KCSE) Results. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 4(1), 28-36. Retrieved 2nd May, 2020 from https://pdfs.semanticscholar.org/0484/26f32a2bf0d63e3abd2358f0f6f5e9ae0860.pdf?_ga=2.261157581.1539605170.1598637361-1290316976.1598637361
- Anyanwu, J. (2023). Public Examinations in Nigeria: Challenges and Prospects in the 21st Century. *Global Academic Journal of Humanities and Social Sciences*, 5(1), 10-15. <https://www.gajr.com>
- Arikpo, S. V., Obia, E. A., Usani, U. O. and David E. A. (2018). Reflecting on the Critical Nexus of School Location and Class Size in Repositioning Technical Colleges for Life Long Learning in a Depressed Economy. *International Journal of Education Development*, Vol. 21(1), 109 – 118
- Boke, D. M. (2015). An Investigation into the Use of Mock Examination as a Predictor of KCSE Performance in Kiswahili in Rongo District: Kenya. A Research Thesis Submitted to the School of Education in Partial Fulfilment of the requirement for the Award of the Degree of Master of Philosophy in Curriculum, Instruction and Educational Media. MOI University. Eldoret. Retrieved 23rd January, 2020 from <http://41.89.160.13:8080/xmlui/bitstream/handle/123456789/654/LIBRARY%20CORRECTED%20THESIS%202.pdf?sequence=1&isAllowed=y>
- Chedi, J. M. (2015). Technical Drawing/ Graphics Skills Acquisition for Teaching and Learning and Challenges in Technology Education. *ATBU, Journal of Science, Technology & Education (JOSTE)*; Vol. 3 (3), 128 – 133. Retrieved 23rd January, 2020 from http://www.atbuftejoste.com/index.php/joste/article/view/187/pdf_132
- Dotado-Maderazo, J. U. and Ercia, V. J. P. (2017). Correlates in the Mock Board Examination and Theoretical Phase of the Dentist Board Licensure Examination in one Private Academic Institution in the Philippines. *Asia Pacific Journal of Multidisciplinary Research*, 5(1), 57 -64. Retrieved 12th March, 2020 from <http://www.apjmr.com/wp-content/uploads/2016/12/APJMR-2017.5.1.08.pdf>
- Federal Ministry of Education (2004). National Policy of Education. Lagos Federal Government Press.
- Federal Republic of Nigeria (2013). National Policy on Education 6th Edition. Nigerian Educational Research and Development Council.
- Galle, S. A., Ezinwanne, O. S. & Adamma, E. C. (2022). Mock Scores as Predictor of Students' Performances in NECO Mathematics in Federal Capital Territory, Abuja, Nigeria. *Timbolu-African Academics International Journal of Science, Research and Technology*, 11(9): 33 – 46. <https://www.humminbirdpubng.com,...PDFTIJSRAT..>
- Galle, S. A., kwoku, S. S., & Ebini, K. A. A. (2023). Correlation between Mock Scores and Students Performance in National Examination Council English Language in Plateau State, Nigeria. *International Journal of Social Science, Research and Anthropology*, 13(6): 43 – 52. https://www.researchgate.net/publication/371567329_OERRELATION_BETWEEN MOCK SCORS AND STUDENTS...

- Goetsch, D. L., Chalk, W. S., Nelson, J. A. and Rickman, R. L. (2010). Technical drawing and engineering communication (six edition). New York: Delmar Cengage Learning Publishers.
- Hassan, B. and Maizam, A. (2017). The Imperatives of Technical Drawing Skills in Teaching TVET Subjects: The Case of Nigeria. *Journal of Education and Practice*, 8(23), 133-135. Retrieved 12th March, 2020 from: <https://www.iiste.org/Journals/index.php/JEP/article/view/38332>
- Laguador, J. M. (2014). Selected Personal Factors as Determinants of Final Grades in Technical Drawing 2, 3(4), 101–114. Retrieved 26thMay, 2020 from doi: 10.6007/IJARPED/v3-i4/1179
- Madu, A. and Ebere, C. (2016). Predictive Validity of Mock Senior School Certificate Examination on NECO Senior Secondary School Certificate Examination Scores in Agricultural Science in Abia State. *International Journal of Current Research and Academic Review*, 4(2), 237-257. Retrieved 26thMay, 2020 from <http://www.ijcrar.com/42016/Madu,%20Aldophus%20and%20Ebere,%20Collins2.pdf>
- Medupin, R.O., Abubakre, O.K., Adebayo, S.A., Enock, O.I. and Sulayman, F.A. (2015). Students' Academic Performance in Engineering Drawing in Nigerian Polytechnics: A Case Study of the Federal Polytechnic, Bida, Nigeria. *Journal of Multidisciplinary Engineering Science and Technology (JMEST)*, 2(2), 99 – 106. Retrieved 26thMay, 2020 from: <http://www.jmest.org/wp-content/uploads/JMESTN42350458.pdf>
- Mohammed, V. O. (2021). Students' and Teachers' Perspectives on the Learning of School Science in Lagos, Nigeria. Thesis submitted for the Doctor of Philosophy UCL Institute of Education. https://discovery.ucl.ac.uk/id/eprint/10122148/7/Mohammed_10122148_Thesis_sig_removed.pdf
- Omirim, M. S. & Ale, V. M. (2008). Predictive validity of English and Mathematics mock Examination Results of Senior Secondary School Students' Performance in WASCE in Ekiti-State, Nigeria. *Pakistan Journal of Social Sciences*, 5(2), 139-141. Retrieved 3rd June, 2020 from <https://medwelljournals.com/abstract/?doi=pjssci.2008.139.141>
- Onosele, A. G. and Ejodamen, I. F. (2018). Factors Militating against the Teaching and Learning of Technical Drawing in Technical Education in Public Nigerian Universities. *International Journal of New Technology and Research (IJNTR)*, 4(2), 67-72. Retrieved 12th March, 2020 from <https://www.neliti.com/publications/263135/factors-militating-against-the-teaching-and-learning-of-technical-drawing-in-tec>
- Rahman, J. (nd). Experimental, Quasi-Experimental and Ex Post Facto Designs. Research Seminar Chapter 09, CS7123 Research Methods, Department of Computer Science, University of Texas. <https://www.cs.utsa.edu>.
- Sadiq, H. A., Ocheido, S., Meseko, S. A., Olofinniyi, O. E., Agada, E. J. and Ochai, J. (2020). Analysis of West African Examination Council and National Examination Council Performance of Senior Secondary School Students Opting Universities Admission in North Central Nigeria. *International Journal of Humanities and Social Science Invention (IJHSSI)*, 9(12), 49-55. <https://www.researchgate.net/publication/382267693>
- Venkata-Reddy, K. (2008). Textbook of Engineering Drawing: Second Edition. BS Publications. Retrieved 22nd February, 2017 from https://doc.lagout.org/science/0_Computer%20Science/9_Others/Textbook%20of%20Engineering%20Drawing.pdf

- WAEC (2021). Technical Drawing Welcome to e-Learning Online. Retrieved from <https://www.waeconline.org.ng/e-learning/technical/Tdomain.html>
- Wordu, H. (2019). Identification of Topics of Difficulty in the Technical Drawing Curriculum by Electrical and Electronics Students in the Technical Colleges in Rivers State, Nigeria. *International Journal of Research in Engineering, Science and Management (IJRESM)*, 2(8): 192 – 196. Retrieved from www.ijresm.com/Vol.2_2019/Vol2_Iss8_August2019/IJRESM-V2_18_53.pdf...

