



Mock Examination As Predictor Of Academic Performance In Agricultural Science In Ikot Ekpene Senatorial District Of Akwa Ibom State

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ABSTRACT

The study investigated mock examination as a predictor of academic performance of students in Agricultural Science in Ikot Ekpene Senatorial district of Akwa Ibom State during 2014/2015 academic session. Two research questions and their corresponding hypothesis were formulated to guide the study. The correlation research design was used for the study, with a sample of 400 students drawn non-proportional stratified random sampling technique. Validity and reliability of the instrument were not conducted since archival data were used for the study. The research questions were answered using simple regression coefficients, while ANOVA associated with simple linear regression was used to test the null hypothesis at 0.05 level of statistical confidence. The result of the study revealed that mock examination result significantly predicted Agricultural academic performance of urban and rural candidates in the West African Senior School Certificate Examination (WASSCE) in Ikot Ekpene Senatorial District. Based on the findings, it was recommended that adequate monitoring and supervision of mock examinations should be implemented at the senior secondary school level.

Keywords: Agricultural Science, Mock Examination, WASSCE, Ikot Ekpene, Academic Performance

INTRODUCTION

Globally, including Nigeria, there is a growing concern among educators and an unflinching debate on the factors that predict students' performance, especially in external examinations (Ramatlala & Nenty, 2014). Sequel to this, the critical issue for educators and stakeholders is therefore to understand the factors which predict their performance and develop strategies for optimizing these factors for students' overall success. As canvassed by scholars, such predictor will allow one to ascertain the extent to which performance on a test is related to later performance that the test is designed to predict and enhance the testing of a subject or group of subjects for certain construct in other to compare them with the results obtained at some point in future. This then allows the prediction of future behaviours beyond the immediate school environment (Kpolovie, 2010; Ramatlala & Nenty, 2014).

Generally, mock examinations are the examination set after the pattern or made to look exactly in content and cognitive requirement as the main examination (Madu & Ebere, 2016). It is an examination design to mimic, as closely as possible the examination day experience. In doing this, 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 (Adesoji, & Kemmi, 2011). Therefore, the mock examination is simulated as closely as possible to the targeted examination in terms of curriculum and syllabus. It is, therefore, an attempt to permit students planning to write a major examination to have similar experiences prior to the final examination.

As opined by Awodun, Olusola and Oyeniyi (2013), the mock examination was introduced as a penultimate examination at the secondary school level of education under the old education programme of

the 6-3-2-3 system. According to the authors, it was named "Mock Examination" because it is usually used to assess the likely performance of the student in the Senior Secondary Certificate Examination.

Mock is one of the internally groomed examinations, conducted by various state Ministries of Education at the instance of various secondary schools within their jurisdiction (Madu & Ebere, 2016). Ramatlala and Nenty (2012) asserted that the performance of students in Mock examinations is an important indicator or factor that may relate to the performance of a student in an external senior school certificate examination. This affirms Omirim and Ale (2008) notion that mock examination as trial examination is selective, predictive and diagnostic in nature; revealing how teachers' instructions have been mastered by student, prepares student for future examination; and determines those students that will succeed or fail in the senior secondary certificate examination, and finally developing strategies to correct any misconceptions or difficulties of students before the final examination. Therefore, the stronger the correlation between the mock examination and the external senior secondary school certificate examination, the higher the degree of predictive validity and vice versa.

Prediction of academic success has attracted the attention of many researchers. The research conducted by Awodun, et al (2013) on continuous assessment, mock results and gender as predictors of academic performance in Chemistry students in the West Africa Senior School Certificate Examination (WASSCE) and the National Examination Council Examination (NECO) showed that mock predicted the performance of male and female students. Madu and Ebere, (2016) and Omirim and Ale (2008) in separate findings on mock examination on Agricultural Science, English and Mathematics respectively showed that mock examination predicted Agricultural science, English and Mathematics in WASSCE. Similarly, Ramatlala and Nenty (2014) in their study of the prediction of mock examination in students' final performance obtained that location has no influence on the performance of students. While it is seen that modest attempt has been made in the investigation of students' mock examination and their prediction on final examinations, none has been conducted in Ikot Ekpene Senatorial Zone of Akwa-Ibom State to the best of these researchers' knowledge. It was against this background that the current study is being conducted

Statement of the Problem

The strength of the predictive validity of various examinations is a source of serious concern to educationists and educational policymakers. More so, the complexity regarding the predictive validity of some demographic variables such as gender and school location makes worrisome especially with the problem of poor infrastructure and students' learning differences. Generally, in Nigeria, lots of criticisms have trailed the predictability of mock examination result. These criticisms hinge on the fact that it is the various states' ministry of education that are saddled with the responsibility for the design, development and conduct of mock examination and their final output do not actually match the expected items students are expected to take. Furthermore, it has been seen as a waste of fund as most schools only pay lip service to mock examinations. To empirically investigate these claims and to contribute to the debate surrounding mock examination and its efficacy in students' performance, this study was further conducted.

Aim and Objectives of the Study

The aim of this study is to investigate mock examination result as a predictor of students' performance in the West African Senior School Certificate Examination (WASSCE) in Agricultural science in Ikot Ekpene Senatorial District of Akwa-Ibom State. In specific terms, the objectives of the study are:

1. To determine the extent to which mock examination predicts urban students' performance in Agricultural Science in WASSCE in Ikot Ekpene Senatorial District of Akwa-Ibom State.
2. To determine the extent to which mock examination predicts urban students' performance in Agricultural Science in WASSCE in Ikot Ekpene Senatorial District of Akwa-Ibom State.

Research Question

1. To what extent do mock examination results of students in urban schools predict their West African Senior School Certificate Examination (WASSCE) in Agricultural science in Ikot Ekpene Senatorial District of Akwa-Ibom State?

2. To what extent do mock examination results of students in urban schools predict their West African Senior School Certificate Examination (WASSCE) in Agricultural science in Ikot Ekpene Senatorial District of Akwa-Ibom State?

Hypothesis

- i. Mock examination of students in urban schools does not significantly predict their results in West African Senior School Certificate Examination results in Agricultural science in Ikot Ekpene Senatorial District of Akwa-Ibom State.
- ii. Mock examination of students in urban schools does not significantly predict their results in West African Senior School Certificate Examination results in Agricultural science in Ikot Ekpene Senatorial District of Akwa-Ibom State.

METHOD

The research design for this study was correlational design. The population comprised all the public senior secondary students in Ikot Ekpene Senatorial District that took Mock Examination and WASSCE in Agricultural Science in the 2014/2015 academic session. The district has 88 public secondary schools and a sample size of 400 students was used. Simple random sampling by balloting was used to draw five out of 10 local government areas in the district. Non-proportional stratified random sampling technique was used to draw four schools in each of the randomized local government areas. Convenience sampling was used to selecting 20 candidates from each of the sampled schools. No reliability and validity of the instrument, since the researcher used archival data. Simple linear regression was used to answer both research questions, while ANOVA associated with simple regression was used to test the hypothesis at 0.05 alpha level.

RESULTS

Research Question 1:

To what extent do mock examination results of students in urban schools predict their West African Senior School Certificate Examination (WASSCE) in Agricultural science in Ikot Ekpene Senatorial District of Akwa-Ibom State?

Hypothesis 1:

Mock examination of students in urban schools does not significantly predict their results in West African Senior School Certificate Examination results in Agricultural science in Ikot Ekpene Senatorial District of Akwa-Ibom State.

Table 1: Simple linear regression coefficient of mock examination on academic performance in Agricultural Science in WASSCE of urban school students

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.833	0.693	0.693	.66096

Table 2: Summary of ANOVA associated with simple linear regression on the prediction of mock examination on academic performance in Agricultural Science in urban schools.

Model	Sum of Square	Degree of freedom (df)	Mean square	F	sig
Regression	495.975	1	495.975	39.965	0.0005
Residual	2891.617	233	12.410		
Total	3387.591	234			

As shown in Table 1, an R-value of 0.833 was gotten with R²-value of 0.694 and adjusted R²-value of 0.693. This result, therefore, indicates that mock examination predicted about 69.3% of the academic performance in WASSCE Agricultural Science in urban schools in Ikot Ekpene Senatorial Zone of Akwa-Ibom State. The result of the ANOVA associated with simple regression as shown in Table 2 yielded an F-value of 39.965 at df of 1 and 233 with an associated p-value of 0.000 which was lesser than the chosen

alpha of 0.05. The null hypothesis was therefore rejected indicating that mock examination has a significant prediction on the Agricultural Science academic performance of urban students in Ikot Ekpene Senatorial Zone of Akwa-Ibom State.

Research Question 2:

To what extent do mock examination results of students in urban schools predict their West African Senior School Certificate Examination (WASSCE) in Agricultural science in Ikot Ekpene Senatorial District of Akwa-Ibom State?

Hypothesis 2:

Mock examination of students in urban schools does not significantly predict their results in West African Senior School Certificate Examination results in Agricultural science in Ikot Ekpene Senatorial District of Akwa-Ibom State.

Table 3: Linear regress on SSCE mock Examination results as a predictor of WSSCE rural results

Model	R	R square	Adjusted square	R Std error of estimate
1	0.827	0.683	0.682	0.68705

Table 4: Summary of Anova Associated with simple linear regression on the prediction of SSCE mock Examination results on WASSCE Rural schools

Model	Sum of square	Degree of freedom (df)	Mean square	F	sig
Regression	235.010	1	235.010	12.15	0.0005
Residual	3152.581	163	19.34		
Total	3087.673	164			

As shown in Table 2, an R-value of 0.827 was gotten with R²-value of 0.683 and adjusted R²-value of 0.682. This result, therefore, indicates that mock examination predicted about 68.2% of the academic performance in WASSCE Agricultural Science in rural schools in Ikot Ekpene Senatorial Zone of Akwa-Ibom State. The result of the ANOVA associated with simple regression as shown in Table 2 yielded an F-value of 19.34 at df of 1 and 163 with an associated p-value of 0.000 which was lesser than the chosen alpha of 0.05. The null hypothesis was therefore rejected indicating that mock examination has a significant prediction on the Agricultural Science academic performance of urban students in Ikot Ekpene Senatorial Zone of Akwa-Ibom State

DISCUSSION

The result of the study indicated that mock Examination significantly predicts the performance of urban and rural students in Agricultural Science in Ikot Ekpene Senatorial District of Akwa-Ibom State. The finding from this study is not surprising but expected because students who are exposed to mock examinations might be more inclined to study better and understand the strategies to adopt in answering examination questions. Furthermore, with mock examinations, students might better understand their areas of challenges and work to overcome them. Finally, the fact that mock examinations are drawn from the same syllabus as WASSCE examinations, this could increase the similarity between the items. However, the fact that mock examination does not totally predict students' performance is suggestive that other factors such as intelligence, learning style and teachers' effectiveness could be determinants of achievement in Agricultural Science. This is evident in the difference between urban and rural school students in the regression coefficient of the subject. The finding from this study is in alignment with that obtained by Awodun, et al (2013) and Omirim and Ale (2008).

CONCLUSION

The study revealed that there is a significant relationship between mock examination results and WASSCE. This might be attributed to the fact that mock Examination questions are developed and standardized by the individual states' Ministry of Education on the basis of the syllabus developed for WASSCE. It is, therefore, necessary for the teachers, and other stakeholders to put all machinery on gear for proper teaching and learning in order to help candidates prepare for not only mock examinations, but also external examinations including WASSCE.

RECOMMENDATIONS

On the basis of the result obtained, the following recommendations are hereby made

1. There should be periodic supervision and monitoring of setting of mock Examination in secondary schools.
2. Students whose performance in mock examinations is not encouraging should be given adequate assistance before going in for WASSCE.
3. Teachers should try as much as possible to complete Agricultural science syllabus and improve on the conduct of mock examination before students are made to take the final examinations.
4. Mock should be made compulsory for students intending to sit for WASSCE, as this can help in the identification and amelioration of difficult areas before the final examination.

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