UNIJERPS
Unizik Journal of Educational Research and Policy Studies VOL.6;
https://unijerps.org
2021 Impact Factor: 5.641; 2020 Impact Factor: 5.355. *January-June, 2021*
Indexing and Impact Factor URL: http://sjifactor.com/passport.php?id=21363

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PREDICTIVE VALIDITY OF JUNIOR SECONDARY CERTIFICATE EXAMINATION ON STUDENTS PERFORMANCE IN NECO SENIOR SECONDARY CERTIFICATE ENGLISH IN ANIOCHA SOUTH LGA OF DELTA STATE

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ABSTRACT

This study was designed to determine the predictive validity of Junior Secondary Certificate Examination on students performance in National Examination Council (NECO) Senior Secondary Certificate Examination in Aniocha South Local Government Area of Delta State. Two research and two hypotheses guided the study. Correlation research design was used for the study. The population was 13,273 students who sat for JSCE from 2013/2014 academic session and also sat for NECO SSCE by 2016/2017 in Aniocha South Local Government Area, Delta State. The study sample consisted of 1,327 JS3 students who sat for JSCE and also sat for NECO SSCE. Stratified random sampling and balloting techniques were used to determine the sample which was made up of 521 male and 499 female students. The instrument for data collection was from students JSCE results collected from Delta State Ministry of Education Asaba and NECO SSCE results collected from sample schools and inventory tagged data collection proforma (DCP) which was used to summarize the grades of students in Junior Secondary Certificate Examination (JSCE) and Senior Secondary Certificate Examination from various secondary schools in Aniocha South Local Government Area. The findings of the study showed that students JSCE results cannot predict the same students results in NECO SSCE. Also there is no significant relationship between the male and female students results in JSCE and NECO SSCE in Aniocha South Local Government Area of Delta State. Based on the findings, the researcher recommends that the Federal and State Ministries of Education should recruit measurement and evaluation experts whose sole duty will be to validate and standardize test items for each class, including graduating classes.

Introduction

The modes of selecting candidates for admission and certification in various programmes required constant re-examination. This is to ensure the credibility of each criterion. Also the issue of building a bright and self-reliant nation hinges on the education of the people. The major concern of every society is the best way to educate her citizenry to enable them become capable individuals who would be intellectually competent and efficient in the building of her national resources which is scarce. Tests are used in this regard to measure the quality of the educational outcome.

According to Anigbo (2014), test is one of the instruments for measurement in education. A test is an instrument comprising of questions, oral or written, to which a candidate is required to respond. There are different kinds of tests e.g. essay, true/false, supply/short answer, matching, multiple choice etc. These questions have predetermined correct preferred responses, which serve as parameters for judging (scoring) the testee (Anigbo, 2014).

The National Policy on Education (FRN 2013) recommends a two-tier secondary system, the Junior Secondary School (JSS) and the senior secondary school (SSS). The duration for each of the two levels is three years (FRN, 2013). According to Falaye and Afolabi (2015), the Junior Secondary Certificate Examination (JSCE) is a public examination in Nigeria conducted by each state of the federation through their respective Ministry of Education (MOE) for final year students of the JSS at the end of junior secondary schooling. While each state develops, administers, marks and awards grades and certificates to all public schools under its jurisdiction, the National Examination Council (NECO) is responsible for conducting the JSCE to all JSS III students of Federal Government Colleges and other private secondary schools that elect to take the NECO conducted examination. The National Examinations Council (NECO) is an examination body in Nigeria that conducts the Senior Secondary Certificate Examination (SSCE) and the General Certificate in Education (GCE) in June/July and November/December yearly, respectively.

The Senior Secondary Certificate Examination (SSCE), on the other hand is a national examination for year three students in all secondary schools in the country. It is being conducted and

administered by National Examination Council (NECO) also. Since the JSCE is meant to serve as the yardstick for admission into the senior secondary school (SSS), a student who is thereby admitted is assumed to possess the abilities and skills necessary to cope with the academic challenges of the SSS. However, it was common knowledge that performance in the SSCE has been low for quite a long time, despite the fact that these same students obtained acceptable grades in the JSCE, and were consequently admitted to SSS year one.

The acceptable grades which the students obtained touches on the validity of the JSCE as an adequate benchmark to judge students capacity to cope effectively with SSS work (Popham, 2002). Obodo (2014) defined validity of a test as the extent to which a test measures what it purports to measure. In Nigeria, achievement at any level of education is crowned with good academic records (Obioma and Salau, 2017). There are presently two versions of the senior secondary certificate examination. The one conducted by National Examination Council (NECO) and the one conducted by West African Examination Council (WAEC). The present study was focused on the senior secondary certificate examination conducted by NECO.

A situation where the criterion obtained at a future date is predicted by the result of the previous date is referred to as predictive validity. Predictive validity is concerned with how well a test can predict subsequent behaviour (Ebuoh, 2004).

According to Ali (2016), predictive validity tells how well a certain measure can predict future behaviour. In Nigeria, researchers have had divergent findings on the predictive validity of some examinations (Adeyemo 2010). In other developing countries, the index of academic performance varies from one country to another. In some states, performance in JSC examinations has been found, to be significantly related to the performance in SSC examinations (Adeyemo 2010, Jemilehin, 2002). However, some researchers have found no significant relationship between the performance in JSC examinations and performance in SSC examinations (Omonijo, 2016).

Also, gender has been identified as one of the factors influencing predictive validity of secondary school students in Nigeria (Eric, 2013). Gender has been generally regarded as the range of characteristics pertaining to, and

differentiating between masculinity and femininity.

Research Questions

Two research questions guided this study.

i) To what extent do JSCE English results in 2013/2014, predict students performance in English in NECO SSCE results 2016/2017?
ii) To what extent do JSCE English results in 2013/2014 predict male and female students performance in English in NECO SSCE results 2016/2017?

Research Hypotheses

H_{01}: There is no significant relationship between the mean scores of male and female students in JSCE and NECO senior school certificate examination (SSCE) in 2013/2014 and 2016/2017 respectively in Aniocha South Local Government Area of Delta State.

H_{02}: There is no significant relationship between the mean scores of male and female students in JSCE and NECO senior school certificate examination (SSCE) in 2013/2014 and 2016/2017 respectively in Aniocha South Local Government Area of Delta State.

Method

The research design used in this study was correlational research design. In general, a correlational study is a quantitative method of research in which there are two or more quantitative variables from the same group of participants, and one is trying to determine if there is a relationship between the two or more variables (Creswell, 2012). Any two quantitative variables from the same group of participants can be correlated.

The area of the study was Aniocha South Local Government Area of Delta State. The population of this study comprised all the 13,273 students in the public secondary schools in Aniocha South Local Government Area of Delta State who took part in JSCE from 2013/2014 academic session conducted by the State Ministry of Education and who also took part in NECO Senior School Certificate Examination (SSCE) from 2016/2017 academic session.

The sample size for this study consisted of 1,327 JS3 students who sat

for JSCE and also sat for SSCE. This sample consisted of 10% of the population. Systematic sampling technique was used. The instrument for data collection was students JSCE results collected from Delta State Ministry of Education/Examination and Standard, Asaba and NECO SSCE results collected from sampled schools. The collection of data for the study was personally done by the researcher. The data collected were analyzed using statistical package for social science (SPSS) version 17.0. Research questions were answered using correlation statistics to examine the relationship between junior school certificate examination grades of the students in English and their grades in NECO senior school certificate examination in English. Hypotheses were tested at 0.05 level of significance using test of significance of R.

Research Question 1

To what extent do JSCE English results in 2013/2014 predict male and female students' performance in English in NECO SSCE results 2016/2017?

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Table 1: Pearson r correlation coefficient of JSCE results in 2013/2014 with NECO SSCE results in English in 2016/2017 due to gender.

	SSCE	Male	Female	Decision
JSCE pearson correlation (r)	0.020			Very low extent
Sig (2-tailed)	0.769			NS
Sum of squares and cross products	926.805			
N	1,020	521	499	
Male pearson correlation (r)		0.031		Very low extent
Sig (2-tailed)		0.699		NS
Sum of squares and cross products Covariance		1038.4118 96.773		
N	1020	521	499	
Female pearson correlation (r)			0.017	Very low extent
Sig (2-tailed)			0.882	NS
Sum of square and cross products			899.006	
Covariance			10.344	
N	1,020	521	499	

Table 1 shows that the Pearson r for correlating JSCE English results in 2013/2014 with the same student results in NECO SSCE English results in 2016/2017 is 0.020. This is positively very low. Therefore, JSCE English results predict NECO SSCE results in English very poorly for male students, the value of r is 0.031 which is positively very low. Hence, JSCE English results for the period for male students predict NECO SSCE English results very poorly. For female students, r is 0.017 showing positively very low correlation. Consequently, JSCE English results for female students predict NECO SSCE results for the period very poorly.

Research Question 2

To what extent do JSCE English results in 2013/2014 predict male and female students performance in English in NECO SSCE results 2016/2017?

Table 2: Pearson r correlation coefficient of JSCE results in 2013/2014 with NECO SSCE results in English in 2016/2017 due to gender.

	SSCE	Male	Female	Decision
JSCE pearson correlation (r)	0.061			Very low extent
Sig (2-tailed)	0.593			NS
Sum of squares and cross products	13118.219			
Covariance	4259.348			
N	1,020	521	499	
Male pearson correlation (r)		0.067		Very low extent
Sig (2-tailed)		0.590		NS
Sum of squares and cross products Covariance		9482.911 932.817		
N	1,020	521	499	
Female pearson correlation (r)			0.057	Very low extent
Sig (2-tailed)			0.543	NS
Sum of square and cross products			899.629	
Covariance			100225	
N	1,020	521	499	

Table 2 shows that the Pearson for correlation JSCE English students' results in 2013/2014 with the same student's results in NECO SSCE English results in 2016/2017 is 0.061. This is positively very low correlation which shows that JSCE English results in 2013/2014 predict to a very low extent the same students NECO SSCE English results in 2016/2017.

For male students, the value of r is o.067 which is very low. Thus, JSCE English results for the 2014/2015 predict NECO SSCE results in English very poorly and to a very low extent. For female students is 0.057 which is positively very low. Consequently, the

JSCE English results for female students in 2013/2014 predict very poorly and to a positively very low extent the NECO SSCE English result in 2016/2017.

Discussion of Results

With reference to hypothesis 1, in table 1, the results showed that there is no significant relationship between male and female students' results in JSCE and NECO SSCE in English in 2013/2014 and 2016/2017 respectively in Aniocha South Local Government Area of Delta State. This shows that JSCE English results predict male and female results in NECO SSCE English very poorly. This finding agrees with the finding of Ugwuda and Okechukwu (2013) which found that there is a low positive but significant correlation between students' achievement in NECO JSCE and SSCE in Ebonyi and Enugu States. The result for Research question two in Table 2 showed a very low relationship (r=0.061) between JSCE English results in 2013/2014 and NECO SSCE English results in 2016/2017. This point to the fact that JSCE English in 2013/2014 do not predict the same students results in NECO SSCE English results in 2016/2017 or that the former predicts the later to a very low extent. This implies that students who score poorly in JSCE English can score very highly in NECO SSCE English and vice versa. Hence, JSCE English results are not good predictors of NECO SSCE English results. Indeed, it may not be wrong entirely if one says that JSCE English results do not predict, NECO SSCE English result based on r = 0.061. The results in table 2 further shows that male students had an r = 0.067 while their female counterparts obtained r = 0.057. These two indicate very low according to Obodo (2014).

Consequently, neither male or female students' results in JSCE English can be used to predict male or female students English results in NECO SSCE. This shows that students JSCE English result are not good predictors of the same students NECO SSCE English results.

Recommendations

Based on the findings of the study, the following recommendations are put forward:

1. The Federal and State Ministries of Education or their agencies should recruit measurement and evaluation or test experts whose sole duty will be to validate and standardize test items for each class including graduating classes.

2. The Federal government should make concerted efforts to set uniform examination in all subjects by handing over JSCE examinations to NECO or any other national examination body. This will give credence to uniformity of standards in JSCE.
3. The Federal and State Ministries of Education or their agencies should store their question items in banks for each subject and for each class where several question papers can be retrieved when needed.

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