Appraising the Performance of Secondary School Students on the WAEC and NECO SSCE from 2004 to 2006

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Abstract

This investigation examines the performance of secondary school students on WAEC and NECO SSCEs from 2004 to 2006. The researchers, having reason to doubt the parallel nature of the examinations conducted by WAEC and NECO, undertook a quantitative analysis of the performances of candidates in the SSCE in select subjects – Mathematics, English Language, Chemistry, Physics, Biology, Literature-in-English, Economics, Government, Agricultural Science, Food and Nutrition, and Geography, so as to establish their comparability. The research design was correlational. A sample of 1,233 participants was drawn from a population of 1,422,140 examination candidates using a purposive sampling technique. The instruments for data collection included the WAEC and NECO SSCE Result Forms. Eleven hypotheses were tested with the Pearson correlation technique set at 0.05 alpha level. Findings indicate a statistically significant positive relationship between candidates' performance on WAEC and NECO SSCEs in all the subjects.

Keywords: Evaluation, Performance, Students, WAEC, NECO, SSCE, Examinations, Nigeria

Reference to this paper should be made as follows:

INTRODUCTION

Education is the most veritable of instruments for social and political mobilization and the acquisition of important technical skills (Ololube, 2001a, b). For these reasons, a substantial share of the nation’s resources is invested in education. The performance of candidates on their graduating examinations after these investments has long been a matter of concern to many well-meaning individuals, institutions and organizations as well as to various levels of government. Performance in each subject of these examinations has implications for the overall result of excellent, good, fair or poor given to a student. Student academic performance on SSCEs constitutes the focus of this study.

The broad aims of secondary school education in Nigeria, as stated in the National Policy of Education (FME, 1982), are to prepare the individual child for (i) useful living in the society; and (ii) for higher education. In reality these aims are very often defeated as most secondary school graduates fail to adapt adequately to society and fail to succeed in post-secondary education, despite their possession of excellent or good certificates. For some time now, there has been increasingly vocal and widespread criticism of the examination system in Nigeria. School certificate examinations, which determine the placement of Nigerian students in higher learning and/or employment, are of particular concern. Post-secondary education institutions are overtly dissatisfied with the incompetence of many entrants who have gained admission into courses that they are not prepared for. The public likewise disparages the falling or fallen standard of education as evidenced by the lack of skills and personal integrity of many school leavers (Udor & Ubahakwe, 1979; Ololube, 2008b). Not surprisingly, the evaluation agencies that conduct the examinations are held liable by both universities/colleges and the public for education’s diminishing returns.

Evaluation is the passing of decision or judgment on a particular trait in accordance with a test which validly and reliably measures the presence of that trait (Kpolovie, 2002; Ololube, 2008a). Evaluation involves both quantitative and qualitative description of a pupil’s behaviour, and the passing of value judgment concerning the desirability of that behaviour (Harbor-Peters, 1991). Since evaluation remains indispensable in any academic programme, teaching and instructional duty are rendered incomplete or lacking until an evaluation of the outcome of instruction has been performed. Evaluation agencies, which also act as examining bodies, are tasked with maintaining a common standard in the development and administration of public examinations.

According to Nworgu (1992), evaluation agencies were set up to promote education, to co-ordinate educational programmes, and to control and monitor the quality of education in educational institutions, the essence of which is the organization of public examinations so as to provide uniform standards to all test takers, irrespective of the type or method of instruction they have received. Some of these examination bodies in Nigeria include the West African Examinations Council (WAEC), the National Examination Council (NECO), the Joint Admission and Matriculation Board (JAMB), and the National Business and Technical Examination Board (NABTEB). A closer look at the operations of these boards reveals that some of them perform similar functions. WAEC, NECO and NABTEB, for instance, all conduct secondary school graduate certification, although in the case of NABTEB, the examination is reserved for graduates of Nigerian Technical and Vocational Colleges.

The assemblage of subject examinations conducted by these examining bodies is known as the Senior Secondary School Certificate Examination (SSCE) and serves as an end-of-course evaluation for all secondary school graduates. The purpose of this examination is to ascertain to what degree students in a particular course have achieved the course or educational objectives (Offor, 2001). In view of the economic and social importance attached to senior secondary school certificates, and the opportunities for higher education for those who possess such certificates, the awarding of this certificate is one of the most important events in the Nigerian academic calendar. It thus goes without saying that much is expected from certificate examining and awarding bodies in terms of ensuring that the spirit and focus of the examinations is not misplaced.

The establishment of NECO, which was seen by many as an attempt to reduce the burden on WAEC and mitigate the burden of testing large number of candidates, unfortunately led to concerns by some that credibility issues would inevitably arise (Afemikhe, 2002). With two examining bodies, WAEC and NECO, conducting parallel SSCEs, students admitted to write either version of the SSCE should be assumed to possess similar academic strengths (those needed for undergraduate activities). In the recent past, however, some calls have been made for the cancellation of NECO for fear that the SSCE it administers is not as valid as that of the WAEC (Falaye & Afolabi, 2005). Critics submit that a large portion (40%) of candidates’ final outcome in each of the subject areas at the NECO Senior School Certificate Examination is made up of school-based teacher assessment scores. However, this assertion, if true, may not necessarily be detrimental to the credibility of NECO certification as the National Policy on Education has been quoted by Nworgu
(1992) as stating that educational assessment and evaluation is to be liberalized by basing such evaluation in whole or part on continuous assessment of the progress of the individual.

Having been given a similar mandate, to conduct the Senior School Certificate Examination it would seem unfair if the holders of either the WAEC or NECO certificate are discriminated against. However, in the not too distant past, some universities in Nigeria and abroad denied entrance to holders of NECO certificates based on speculations about their integrity. As a standardized test, the SSCE adheres to a uniform mode of test construction, administration, scoring and interpretation, and it should thus be expected that both WAEC and NECO test items pass through the same rigorous standardization procedures before they are administered to candidates. In this way, differences in performance should be exclusively the result of chance factors like the individuality and academic dedication of candidates.

If both WAEC and NECO are able to maintain high standards in the development and administration of Senior School Certificate Examinations, then performances in the examination should be good indicators of individuals’ standings with respect to any of the tested subject areas. How often, however, is this the case? It is possible, for instance, to identify candidates who scored an F9 on the WAEC SSCE and an A1 on the NECO SSCE in the same subject and in the same year, thus leaving observers to wonder if both SSCEs are in fact parallel?

Statement of the Problem

The researchers believe that the noble objectives of secondary education can only be achieved if there is an effective evaluation and assessment machinery. Consequently, this study focuses on comparing candidate performances on WAEC and NECO Senior School Certificate Examinations. This study has reason to doubt the comparability of WAEC and NECO SSCEs. One way of investigating the validity of such doubts is to determine the success of both the WAEC and NECO in maintaining the once high standards of the Senior School Certificate Examination. These standards can be assessed using one or more of the following criteria: i) coverage of course content; ii) coverage of educational objectives; iii) performance of candidates in the examination; iv) the examination as a good predictor of future performance; and v) the reliability of the test. The present study focuses on the performance of candidates in the examination.

Purpose of the Study

The purpose of this study is to determine the relationship between the performance of candidates on the WAEC and NECO SSCE in Mathematics, English Language, Chemistry, Physics, Biology, Literature-in-English, Economics, Government, Agricultural Science, Food and Nutrition, and Geography from 2004 to 2006.

Hypotheses

To guide this study, eleven null hypotheses were tested at a 0.05 level of significance:

1. That there is no statistically significant relationship between the candidates’ Mathematics performance in WAEC and NECO’s SSCE from 2004-2006.
2. That there is no statistically significant relationship between the candidates’ English Language performance in WAEC and NECO’s SSCE from 2004-2006.
3. That there is no statistically significant relationship between the candidates’ Chemistry performance in WAEC and NECO’s SSCE from 2004-2006.
4. That there is no statistically significant relationship between the candidates’ Physics performance in WAEC and NECO’s SSCE from 2004-2006.
5. That there is no statistically significant relationship between the candidates’ Biology performance in WAEC and NECO’s SSCE from 2004-2006.
6. That there is no statistically significant relationship between the candidates’ Literature-in-English performance in WAEC and NECO’s SSCE from 2004-2006.
7. That there is no statistically significant relationship between the candidates’ Economics performance in WAEC and NECO’s SSCE from 2004-2006.
8. That there is no statistically significant relationship between the candidates’ Government performance in WAEC and NECO’s SSCE from 2004-2006.
9. That there is no statistically significant relationship between the candidates’ Agricultural Science performance in WAEC and NECO’s SSCE from 2004-2006.
10. That there is no statistically significant relationship between the candidates’ Foods and Nutrition performance in WAEC and NECO’s SSCE from 2004-2006.
11. That there is no statistically significant relationship between the candidates’ Geography performance in WAEC and NECO’s SSCE from 2004-2006.

METHODOLOGY

This study adopted a correlational research design to determine the relationship between the performances of candidates in WAEC and NECO examinations (Ololube, 2009). The target population consisted of candidates of the Nigerian Senior Secondary School Certificate Examination conducted by both the West African Examination Council (WAEC) and its equivalent, the National Examination Council (NECO). The total population of test candidates in Nigeria between 2004 and 2006 was 1,422,140. The researcher obtained the scores of candidates that participated in the May/June Senior School Certificate Examinations from 2004 to 2006 using a purposive sampling technique. A purposive sampling technique was adopted in this study to allow for data accessibility, the perceived importance of peculiar characteristics of the sub-groups, and the comparability of the score of examinees who took both examinations concurrently. The sample size was in observance of the minimum sample size estimate in Taro Yamen’s formula. The sample size for this study was 1,233 candidates.

The instruments used in this study included WAEC and NECO Senior Secondary Certificate Examination Result Forms (WNSSCE-RF). Scores for WAEC and NECO SSCE candidates in the sample were collated and tabulated subject by subject to allow for proper analysis. Each candidate’s performance on both examinations was compiled on the relevant instrument for brevity, ease of understanding and comparison. The validity and reliability of the instrument was ascertained based on its relevance as an information gathering instrument in this context and its stability in consistently measuring what it purports to measure. Resource persons who subjected the instrument to validation in terms of clarity, relevance and appropriateness, found it adequate for this study’s purpose. In terms of scoring (measuring the relative performance of secondary school students on the WAEC and NECO SSCE), the highest score in both examinations, A1, was given the value 9, the second highest score B2 was given the value 8, B3 accorded 7, C4 accorded 6, C5 accorded 5, C6 accorded 4, D7 accorded 3, E8 accorded 2, and F9 accorded 1. The null hypotheses were tested at a 0.05 level of significance using the Pearson product moment correlation technique (r).

RESULTS

The results of the data analysis are presented below based on the study’s hypotheses.

Hypothesis One: There is no statistically significant relationship between the candidates’ Mathematics performance in WAEC and NECO’s SSCE from 2004 to 2006

Table 1: Summary of Pearson’s correlation of the relationship between the candidates’ Mathematics performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>1153</td>
<td>0.475</td>
<td>0.000</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows a positive relationship between candidates’ Mathematics performance on the WAEC and NECO SSCE. This relationship is of 0.000 significance at the chosen alpha level of 0.05. Since the value (0.000) at which r (0.475) is significant is less than 0.05, the null hypothesis is rejected. The alternate hypothesis of a statistically significant relationship between candidates’ Mathematics performance on the WAEC and NECO SSCE is accepted.

Hypothesis Two: There is no statistically significant relationship between the candidates’ English Language performance in WAEC and NECO’s SSCE from 2004 to 2006

Table 2: Summary of Pearson’s correlation of the relationship between the candidates’ English Language performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Language</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>1153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2 shows that the correlation coefficient (r) for candidates’ English Language performance on the WAEC and NECO SSCE is 0.512. This indicates a positive relationship. The correlation coefficient is 0.000 significant at the chosen 0.05 alpha level. Since the value at which r is significant (0.000) is less than 0.05, the null hypothesis is rejected.

**Hypothesis Three:** There is no statistically significant relationship between the candidates’ Chemistry performance in WAEC and NECO’s SSCE from 2004 to 2006

Table 3: Summary of Pearson’s correlation of the relationship between the candidates’ Chemistry performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Chemistry</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>703</td>
<td>0.293</td>
<td>0.000</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Table 3, the correlation coefficient for the relationship between candidates’ Chemistry performance on the WAEC and the NECO SSCE is 0.293. This indicates a positive relationship. The correlation coefficient is 0.000 significant at 0.05 alpha level. The null hypothesis is rejected and the alternate hypothesis, that of a statistically significant relationship between candidates’ Chemistry performance on the WAEC and NECO SSCE, is accepted.

**Hypothesis Four:** There is no statistically significant relationship between the candidates’ Physics performance in WAEC and NECO’s SSCE from 2004 to 2006

Table 4: Summary of Pearson’s correlation of the relationship between the candidates’ Physics performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Physics</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>698</td>
<td>0.330</td>
<td>0.000</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Table 4, there is a statistically significant positive relationship between candidates’ WAEC and NECO Chemistry performances. This is deduced as the correlation coefficient (r) is 0.330 and this is 0.000 significant at 0.05 alpha level. This warrants the rejection of the null hypothesis of no statistically significant relationship between candidates’ Physics performance on the WAEC and NECO SSCE between 2004 and 2006.

**Hypothesis Five:** There is no statistically significant relationship between the candidates’ Biology performance in WAEC and NECO’s SSCE from 2004 to 2006

Table 5: Summary of Pearson’s correlation of the relationship between the candidates’ Biology performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Biology</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>1153</td>
<td>0.475</td>
<td>0.000</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows the correlation coefficient (r) to be 0.475. The relationship between candidates’ Biology performance on the WAEC and NECO SSCE shows a statistically significant positive relationship as the correlation coefficient is 0.000 significant at 0.05 alpha level. The value (0.000) being less than 0.05 leads to the rejection of the null hypothesis of no significant relationship between candidates’ Biology performance on the WAEC and NECO SSCE and the acceptance of
Hypothesis Six: There is no statistically significant relationship between the candidates’ Literature-in-English performance in WAEC and NECO’s SSCE from 2004 to 2006.

Table 6: Summary of Pearson’s correlation of the relationship between the candidates’ Literature-in-English performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Literature-in-English</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>262</td>
<td>0.583</td>
<td>0.000</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

The correlation coefficient (r) in Table 6 is 0.583 for candidates’ Literature-in-English performance on the WAEC and NECO SSCE. This indicates a positive relationship that is 0.000 significant at 0.05 alpha level. Since the value at which (r) is significant (0.000) is less than the chosen alpha level of 0.05, the null hypothesis is rejected and the alternate hypothesis of a statistically significant relationship between candidates’ Literature-in-English performance on the WAEC and NECO SSCE is accepted.

Hypothesis Seven: There is no statistically significant relationship between the candidates’ Economics performances in WAEC and NECO’s SSCE from 2004 to 2006.

Table 7: Summary of Pearson’s correlation of the relationship between the candidates’ Economics performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Economics</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>941</td>
<td>0.531</td>
<td>.000</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Table 7 shows the correlation coefficient (r) as 0.531. This indicates a positive relationship between candidates’ Economics performances on the WAEC and NECO SSCE. Since the value at which (r) is significant is 0.000 and is less than the chosen alpha level of 0.05, the null hypothesis of no statistically significant relationship between candidates’ Economics performances on the WAEC and the NECO SSCE between 2004 and 2006 is rejected and the alternate of a statistically significant relationship between candidates’ Economics performance on both the WAEC and NECO SSCE is accepted.

Hypothesis Eight: There is no statistically significant relationship between the candidates’ Government performance in WAEC and NECO’s SSCE from 2004-2006.

Table 8: Summary of Pearson’s correlation of the relationship between the candidates’ Government performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Government</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>380</td>
<td>0.275</td>
<td>0.000</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8 shows the correlation coefficient (r) to be 0.275. This indicates a positive relationship between candidates’ Government performance on the WAEC and NECO SSCE. The relationship is 0.000 significant at the chosen alpha level of 0.05. Since the value (0.000) is less than the chosen alpha level of 0.05, the null hypothesis is rejected and the alternate of a statistically significant relationship between candidates’ Government performance on the WAEC and NECO SSCE from 2004 to 2006 is accepted.

Hypothesis Nine: There is no statistically significant relationship between the candidates’ Agriculture Science performance in WAEC and NECO’s SSCE from 2004-2006.
Table 9: Summary of Pearson’s correlation of the relationship between the candidates’ Agricultural Science performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Agricultural Science</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>587</td>
<td>0.423</td>
<td>0.000</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

In Table 9 the correlation coefficient (r) is 0.423. This shows a positive relationship between candidates’ Agricultural Science performance on the WAEC and NECO SSCE between 2004 and 2006. This relationship is 0.000 significant at the chosen alpha level of 0.05. Thus, since the value at which the relationship is significant (0.000) is less than the chosen alpha level of 0.05, the null hypothesis of no statistically significant relationship between candidates’ Agricultural Science performance on the WAEC and NECO SSCE is rejected.

**Hypothesis Ten:** There is no statistically significant relationship between the candidates’ Food and Nutrition performance in WAEC and NECO’s SSCE from 2004-2006

Table 10: Summary of Pearson’s correlation of the relationship between the candidates’ Food and Nutrition performance in WAEC’s and NECO’s SSCE

<table>
<thead>
<tr>
<th>Food and Nutrition</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>153</td>
<td>0.166</td>
<td>0.041</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
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</tbody>
</table>

Table 10 shows the correlation coefficient for the above null hypothesis to be 0.166. This indicates a positive relationship between candidates’ performance on the WAEC and NECO SSCE. The relationship is 0.041 significant at the chosen alpha level of 0.05. Since the value at which (r) is significant (0.041) is less than 0.05, the null hypothesis of no statistically significant relationship between candidates’ Food and Nutrition performance on the WAEC and NECO SSCE is rejected.

**Hypothesis Eleven:** There is no statistically significant relationship between the candidates’ Geography performance in WAEC and NECO’s SSCE from 2004-2006

Table 11: Summary of Pearson’s correlation of the relationship between the candidates’ Geography performance in WAEC and NECO’s SSCE

<table>
<thead>
<tr>
<th>Geography</th>
<th>N</th>
<th>r</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAEC</td>
<td>541</td>
<td>0.454</td>
<td>0.000</td>
</tr>
<tr>
<td>NECO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Table 11 the correlation coefficient for the relationship between candidates’ Geography performance on the WAEC and NECO SSCE between 2004 and 2006 is 0.454. This is 0.000 significant at the chosen alpha level of 0.05. Since the value at which (r) is significant (0.000) is less than the chosen alpha level of 0.05, the null hypothesis of no statistically significant relationship between candidates’ Geography performance on the WAEC and NECO SSCE is rejected. Thus there exists a statistically significant relationship between candidates Geography performance on the WAEC and NECO SSCE.

**DISCUSSIONS OF FINDINGS**

Based on the results of hypotheses one to eleven, this study can conclude that a statistically significant positive relationship exists between candidates’ performances on the WAEC and NECO SSCE in Mathematics, English Language, Chemistry, Physics, Biology, Literature-in-English, Economics, Government, Agricultural Science, Food and Nutrition and Geography.
Findings of hypothesis one indicated that there was a statistically significant positive relationship between candidates’ Mathematics performance on the WAEC SSCE and NECO SSCE between 2004 and 2006 at 0.05 alpha level. This positive relationship means that candidates who scored well on WAEC’s SSCE also did well on NECO’s SSCE. Those that performed averagely on WAEC’s SSCE, performed likewise on NECO’s SSCE and so on. The degree of association or linkage between WAEC’s Mathematics SSCE and NECO’s Mathematics SSCE from 2004 to 2006 was 0.475. The coefficient of alienation $\sqrt{1 - r^2}$ was found to be 0.89. The percentage of association ($r^2 \times 100$) was 21.62%. This value represents the magnitude of the relationship between candidates’ Mathematics performance on WAEC’s SSCE and their corresponding Mathematics performance on NECO’s SSCE.

Findings of hypothesis two showed a statistically significant positive relationship between candidates’ English Language performances on WAEC’s SSCE and NECO’s SSCE between 2004 and 2006. This positive relationship means that a candidate’s performance on WAEC’s English Language SSCE was reflective of their performance on the NECO English Language SSCE. The degree of association or linkage between WAEC’s English Language examination and NECO’s English Language examination between 2004 and 2006 was 0.512. The coefficient of alienation $\sqrt{1 - r^2}$ was found to be 0.87. The percentage of association ($r^2 \times 100$) was 23.81%. This value represents the magnitude of the relationship between candidate’s English Language performance on WAEC’s SSCE and their corresponding English Language performance on NECO’s SSCE.

The results related to hypothesis three show that there is a statistically significant positive relationship between candidates’ Chemistry performance on the WAEC and NECO SSCE between 2004 and 2006. This positive relationship means that candidates’ performances in Chemistry on the WAEC SSCE were comparable to their performances in Chemistry on the NECO SSCE. The degree of association or linkage between WAEC’s Chemistry SSCE and NECO’s Chemistry SSCE from 2004 to 2006 was 0.293. The coefficient of alienation was 0.95 and the percentage of association was 10.69%.

The findings of hypothesis four demonstrated a statistically significant positive relationship between candidates’ Physics performance on the WAEC SSCE and their Physics performance on the NECO SSCE between 2004 and 2006. This positive relationship means that a candidate’s performance in one was reflective of his/her performance in the other. The degree of association or linkage between WAEC’s Physics SSCE and NECO Physics SSCE from 2004 to 2006 was 0.330. The coefficient of alienation was 0.95 and the percentage of association was 10.43%.

Findings of the test of hypothesis five indicated a statistically significant positive relationship between candidates’ WAEC Biology SSCE performance and their NECO Biology SSCE performance between 2004 and 2006. The degree of association or linkage between WAEC’s Biology SSCE and NECO’s Biology SSCE was 0.567. The coefficient of alienation was 0.82 and the percentage of association was 32.41%. This latter value represents the magnitude of the relationship between candidates’ Biology performance on the WAEC SSCE and their corresponding Biology performance on the NECO SSCE.

Results of the test of hypothesis six revealed a positive relationship between candidates’ Literature-in-English performance on the WAEC and the NECO SSCE between 2004 and 2006. The r-value was found to be statistically significant at 0.05 alpha level. The positive relationship between candidates’ WAEC Literature-in-English SSCE performance and their NECO SSCE performance means that their performance on both examinations was comparable. Thus, candidates that performed well on the WAEC Literature-in-English SSCE also performed well in the same subject on the NECO SSCE. Those that performed poorly on the WAEC SSCE also performed poorly on the NECO SSCE.

The results of the test of hypothesis seven showed a statistically significant positive relationship between candidate’s Economics performance on the WAEC SSCE and on the NECO SSCE between 2004 and 2006. This positive relationship means that candidates’ Economics performance on NECO’s SSCE reflects their Economics performance on WAEC’s SSCE. The degree of association or linkage between WAEC’s Economics SSCE and NECO’s Economics SSCE from 2004 to 2006 was 0.531. The coefficient of alienation was 0.86 and the percentage of association was found to be 26.63%.

In testing hypothesis eight it was determined that a positive relationship existed between candidates’ Government performance on the WAEC SSCE and candidates’ Government performance on the NECO SSCE between 2004 and 2006. The r-value was deemed to be statistically significant at 0.05 alpha level. This positive relationship means that candidates’ performance on NECO’s Government SSCE reflected their performance on WAEC’s Government SSCE. The degree of association or linkage between WAEC’s and NECO’s Government SSCE from 2004 to 2006 was 0.275. The coefficient of alienation was 0.96 and the percentage of association was 7.18%. This value represents the magnitude of the relationship between candidates’ WAEC Government performance and their corresponding NECO Government performance.
The findings pertaining to hypothesis nine indicated a positive relationship between candidates’ Agricultural Science performance on WAEC’s SSCE and on NECO’s SSCE between 2004 and 2006. The r-value was found to be statistically significant at 0.05 alpha level. The degree of association or linkage between WAEC’s Agricultural Science SSCE and NECO’s Agricultural Science SSCE from 2004 to 2006 was found to be 0.423. The coefficient of alienation was 0.91 and the percentage of association was 16.48%.

The test of hypothesis ten showed a positive relationship between candidates’ Foods and Nutrition performance on WAEC’s SSCE and their performance on NECO’s SSCE between 2004 and 2006. The r-value was statistically significant at 0.05 alpha level. The degree of association or linkage between WAEC’s Foods and Nutrition SSCE and NECO’s Foods and Nutrition SSCE from 2004 to 2006 was 0.166. The coefficient of alienation was 0.99 and the percentage of association was found to be 2.79%.

Finally, the results of testing hypothesis eleven showed a positive relationship between candidates’ Geography performance on WAEC’s SSCE and their performance on NECO’s SSCE between 2004 and 2006. The r-value was statistically significant at 0.05 alpha level. The degree of association or linkage between WAEC’s Geography SSCE and NECO’s Geography SSCE from 2004 to 2006 was 0.454. The coefficient of alienation was 0.90 and the percentage of association was found to be 19.62 percent. This latter value represents the magnitude of the relationship between candidates’ Geography performance on WAEC’s SSCE and their corresponding Geography performance on NECO’s SSCE.

CONCLUSION

The underlying motivation for enacting this study was to determine whether a relationship existed between the performances of candidates on the WAEC and the NECO SSCE. A positive relationship or association between the examinations in the respective subjects would mean that those who performed well in a subject on one examination also performed well in the same subject on the other examination (conducted by the other examinations body). A positive relationship between the examinations was in fact found for all eleven subject areas. This implies that the examination standards of both examination bodies are comparable. The comparative associations noted between the WAEC and NECO SSCE Examination could, rightfully, be attributable to the fact that they have similarities in the structure and design of their examination, target population, duration of examination, method of grading, syllabus content and overall standardization of examinations. Any divergence from these findings, if it should arise, may be attributable to:

(a) Examination Schedules
WAEC and NECO examinations, both often spread over the course of a month, are sometimes scheduled with an interval of a month between (so, for example, the NECO Geography exam may be scheduled for one month after the WAEC Geography exam). This could allow for additional targeted preparation by exam candidates. The knowledge gained from the first test taken (usually the WAEC) could help in preparation for the latter NECO test and consequently influence the similarity of results found in this study.

(b) Subjective Scoring
A certain percentage of the final grading in both the WAEC and NECO SSC Examination comes from school-based assessment conducted by candidates’ respective schools and essay and practical tests are manually scored. Thus it is not possible to rule out some element of subjectivity in scoring.

(c) Examination Malpractice
Some candidates in a particular examination may have gained undue advantage over others. If the same group of candidates is denied this opportunity in their second examination then the results obtained may not be comparable.

RECOMMENDATIONS

On the basis of the findings of the study, the following recommendations are submitted:

The use of professional processes in test construction such as trial testing of test items, and the use of test and measurement experts in devising test items is likely not being followed by one or the other of the examination bodies. The adoption of a uniform procedure in pre-examination activities by both examination bodies would ensure a higher quality of test items generated for all examinations.

This improvement should be made to curtail extraneous variables that hamper performance in standardized exams, such as examination malpractice, as these may be the cause of discrepancies in candidates’ examination performance.
Teachers and school administrators should adequately prepare candidates equally for both examinations in contrast to the current practice whereby more attention and coaching is expended on the WAEC SSC Examinations than on the NECO Examination.

REFERENCES

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