

A comparative analysis of higher education entrance examination: A case study of Chinese Gaokao and Nigeria WASSCE/UTME

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ABSTRACT

This study compared students and lecturers perspective of university entrance examination using the Chinese Gaokao and Nigeria WAEC/UTME education system as a case study. Five objectives with five research questions were generated for this study and a descriptive survey research design of the ex-post facto type were used to answer the research questions. Both qualitative and quantitative methods will be used during the course of this study. Purposive sampling technique was used to select University of Ibadan in Nigeria and Beijing Normal University in China. A sample of 122 students and 27 lecturers in China and 100 students and 20 lecturers in Nigeria were used for the study. Descriptive statistics of frequency counts and simple percentage were used for the analysis of data. The findings from the study show that students' perspective of Gaokao in China is extremely tense and nervous which is the major cause of failing the examination. The findings also revealed that lecturers' perspective of Gaokao in China is that there should be another screening exercise for students after passing Gaokao. The findings equally indicated that students' perspective of WAEC/UTME is that score obtained from UTME examination should be used for admission for more than one year. Nigeria lecturers' perspective on WAEC/UTME is that the presence of Post-UTME screening exercise for students after passing UTME still remains the best. Similarly, the findings indicated that students and lecturers perspective of Gaokao and WAEC/UTME as university entrance examination in China and Nigeria respectively is that both examinations were tough and not easy to pass. While UTME requires PUTME before admission into Nigerian universities, Gaokao does not require additional exam before admission into Chinese universities. The study ended with recommending that Chinese government should embark on programmes that will reorient Chinese students on all examinations especially Gaokao. Students should see examinations as a test of knowledge and not a do or die affair to make them less nervous and reduce high rate of psychological disorder/disease. Nigerian government should allow scores obtained in the UTME to be used for admission for more than one year. This will reduce the high rate of students enrolling for the examination every year. Students and lecturers will also believe that UTME examination is not a mere extortion from the populace.

Keywords: Chinese, Nigeria, higher education system, Chinese Gaokao, Nigeria WAEC/UTME, lecturers and students perspective.

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INTRODUCTION

Background to the study

Each country has a selective approach for admitting student into higher institution. These approaches vary

from one country to another. Gaokao, the high test examination, is an achievement based test and national higher education entrance examination in the People's Republic of China. It is also known as National

Matriculation Examination (NME) or National College Entrance Examination (NCEE). In this examination, candidates are required to sit for three compulsory subjects which are Chinese, Mathematics and one foreign language. This foreign language could be English, Japanese, Russian or French. There are other six standard subjects which are three sciences (Physics, Chemistry and Biology) and three humanities (History, Geography and Political Education). Candidates' course will determine which of the category to choose from.

Rationale for comparing China and Nigeria higher education entrance examination and its relevance

Globalization is leading to a greater mobility of students not only going from one country to another but also from one continent to another, and each continent's higher education (HE) is benefiting from the recruitment in this mobility of students. There is therefore need for HE admission officers, tutors, staff and students to be fully aware of the qualifications that may be offered by applicants from other countries. Both China and Nigeria has a high population of higher education student as in Asian, China is the highest populous nation and in Africa, Nigeria is largest in population. In this regards, it is assume that both nation will share similar challenges involve in higher education entrance examination. However, as result of globalization, China/Africa cooperation and student mobility from Nigeria to China, this paper will help to serve as background information of both countries higher education system. Moreover, the political maps in Asian and Africa are constantly changing and this is affecting the educational systems and qualifications offered by potential applicants from one country to another (UCAS, 2015). It is based on this premise that the study arm at comparing China and Nigeria entrance examination system. Table 1 attempts to compare China and Nigeria entrance examinations system that they both practice in accepting students for admission within and outside the two countries. Table 1 provides evaluation of students and their qualifications, grading system and distribution of grades, educational system together with an insight into the requirements within each country.

Statement of the problem

Over several decades, demand for university education across the world has enormously increased. The reason for this increase could be linked to how university education provides quality education, preparing students in relevant knowledge and skills required by the labour market. The standard of this university education could be affected by the quality of students given admission into the university which in turn depends on mode of

university entrance examination or admission. Despite huge success and sometimes very high score in higher entrance examination, there is still poor performance of students admitted into the different courses in the universities. This has become a source of worry to stakeholders of university education. The predictive power of entrance examination has been frequently reviewed since it remains the only selection process for admission into the universities. In spite of some progress in teaching, research and community services, it is observed that there is still dearth of studies on higher entrance examination. Hence, the researcher sees that it is necessary to do a comparative study of students and lecturers perspective of university entrance examination using the case of Gaokao and WAEC/UTME in China and Nigeria education system.

Objective of the study

The main objective of this study is to compare students and lecturers perspective of university entrance examination using Gaokao and WAEC/UTME in China and Nigeria education system as a case study. The study specifically sought to investigate the following objectives:

- (i) Students' perspective of Gaokao as university entrance examination in China education system.
- (ii) Lecturers' perspective of Gaokao as university entrance examination in China education system.
- (iii) Students' perspective of WAEC/UTME as university entrance examination in Nigeria education system.
- (iv) Lecturers' perspective of WAEC/UTME as university entrance examination in Nigeria education system.
- (v) Comparison between students and lecturers perspective of Gaokao and WAEC/UTME in China and Nigeria.

Research questions

The following research questions were answered during the course of the study:

- (i) What is the students' perspective of Gaokao as university entrance examination in China education system?
- (ii) What is the lecturers' perspective of Gaokao as university entrance examination in China education system?
- (iii) What is the students' perspective of WAEC/UTME as university entrance examination in Nigeria education system?
- (iv) What is the lecturers' perspective of WAEC/UTME as university entrance examination in Nigeria education system?
- (v) What are the similarities and differences between

Table 1. China and Nigeria higher education entrance examination system.

| CHINA | NIGERIA | | | | | | | | | | | | | | |
|--|--|-------------|---------------|-------------|-------------|-------------|-------------|--------|--------|--|--|-------------|-------------|--------|--------|
| <p>Evaluation</p> <p>Senior High School Entrance Examination (Chuzhong Huikao). This is considered to be between the standard of General Certificate of Secondary Education (GCSE) and General Certificate of Education Advance Level (GCE A Level) in the British education system. Students with high grades could be considered for admission to foundation level programmes.</p> <p>Vocational Secondary School Diploma (Zhixiao) is compared to BTEC First Diploma or National Vocational Qualification (NVQ) Level 2.</p> <p>University entrance examination (Gaokao) is considered to be between AS and A2 level standard. It is generally considered more advanced than the Senior High School Examination. Those students with high grades could be considered for admission to foundation level programme.</p> | <p>Evaluation</p> <p>Senior School Certificate Education (SSCE) or West African Senior School Certificate Examination (WASSCE). This is regarded as below General Certificate of Education Advance Level (GCE A Level) in the British education system. Students with high grades could be considered for admission to bridging programme</p> | | | | | | | | | | | | | | |
| <p>Grading system</p> <p>University Entrance Examination includes three core subjects, each of which is marked out of 150 points, and a comprehensive subject (which can be art or science) with 300 points maximum, adding up to a total score of 750 for the examination.</p> <p><u>Senior High School Examination</u></p> <p>Nine subjects are taken and graded from A to D</p> <p>A 80 to 100 B 70 to 79 C 60 to 69 D Fail</p> | <p>Grading system</p> <p>Unified Tertiary Matriculation Examination (UTME) is the university entrance examination with 4 subjects that include English language (compulsory subject for all candidates) and a total score of 400</p> <table border="0"> <thead> <tr> <th style="text-align: left;"><u>SSCE</u></th> <th style="text-align: left;"><u>WASSCE</u></th> </tr> </thead> <tbody> <tr> <td>1 Excellent</td> <td>1 Excellent</td> </tr> <tr> <td>2 Very good</td> <td>2 Very good</td> </tr> <tr> <td>3 Good</td> <td>3 Good</td> </tr> <tr> <td>4 to 6 Credit or Minimum Acceptable Pass</td> <td>4 to 6 Credit or Minimum Acceptable Pass</td> </tr> <tr> <td>7 to 8 Pass</td> <td>7 to 8 Pass</td> </tr> <tr> <td>9 Fail</td> <td>9 Fail</td> </tr> </tbody> </table> | <u>SSCE</u> | <u>WASSCE</u> | 1 Excellent | 1 Excellent | 2 Very good | 2 Very good | 3 Good | 3 Good | 4 to 6 Credit or Minimum Acceptable Pass | 4 to 6 Credit or Minimum Acceptable Pass | 7 to 8 Pass | 7 to 8 Pass | 9 Fail | 9 Fail |
| <u>SSCE</u> | <u>WASSCE</u> | | | | | | | | | | | | | | |
| 1 Excellent | 1 Excellent | | | | | | | | | | | | | | |
| 2 Very good | 2 Very good | | | | | | | | | | | | | | |
| 3 Good | 3 Good | | | | | | | | | | | | | | |
| 4 to 6 Credit or Minimum Acceptable Pass | 4 to 6 Credit or Minimum Acceptable Pass | | | | | | | | | | | | | | |
| 7 to 8 Pass | 7 to 8 Pass | | | | | | | | | | | | | | |
| 9 Fail | 9 Fail | | | | | | | | | | | | | | |
| <p>Education system</p> <p>Primary and secondary education in China comprises three stages: 6 years of primary school, 3 years of junior middle school and 3 years of senior middle school. Primary and junior middle school education commences at age 6 and it is compulsory. Students must pass the local organized entrance examination to progress from junior middle school. It is the entrance examination results that are used to stream students into a general academic route or a technical and vocational route.</p> <p>The technical and vocational school offers the Vocational Secondary School Diploma which includes general knowledge, basic technology and a subject specialism. Senior Secondary School offer the Senior High School Entrance Examination, which is usually taken in five or six subjects. As it is taken across the country, though it is organized on a provincial basis yet curricula and standards could vary.</p> | <p>Education system</p> <p>Primary and secondary education in Nigeria also comprises three stages: 6 years of primary education is followed by 3 years of junior secondary school then 3 years of senior secondary school. Senior secondary education is evaluated by continuous assessment during the 3 years and last year would be evaluated by national examination conducted by the West African Examinations Council (WAEC) or the Nigerian Examinations Council (NECO). This will lead to the award of the West African Senior Secondary School Certificate (WASSCE) or the Senior School Certificate Examinations (SSCE), which replaced the old system of ordinary level and advanced level in 1989. In the initial primary education years, instruction is mostly in the medium of a local language, henceforth, English language is mainly used.</p> | | | | | | | | | | | | | | |
| <p>Access to higher education</p> <p>Graduation from Senior Secondary School is required before sitting for the University Entrance Examination. In the year 2001, the system abolished upper age limit of 25. The University Entrance Examination format can vary between provinces, but it is taken nationwide.</p> | <p>Access to higher education</p> <p>Credits in 5 relevant subjects in WASSCE or NECO for not more than 2 sittings are necessary but not sufficient for degree course that is not less than 4 years. The next condition after WASSCE or NECO is Unified Tertiary Matriculation Examination (UTME) organised by national examination body:</p> | | | | | | | | | | | | | | |

Table 1. Continues.

| | |
|---|--|
| <p>There are 3 compulsory subjects which are Chinese, Mathematics and one foreign language from English, German or Spanish, Japanese, French and Russian. Besides, students need to take a test on a comprehensive subject which is basically a combination of 3 courses for science and arts route students. While arts route students take Politics, Geography and History, science route students go for Biology, Chemistry and Physics.</p> <p>Local governments according to their existing policies often organize specific examination arrangement. Higher education is structured into 4 years bachelor's programmes (Xueshi), 2 to 3 years master's programmes (Shuoshi) and 3 to 5 years doctorates (Boshi)</p> | <p>Joint Admissions and Matriculation Board (JAMB) and Post-Unified Tertiary Matriculation Examination (PUTME) organised by various universities.</p> <p>A score of 200 from total score of 400 in the UTME is expected in most universities before taking part in the PUTME. Both UTME and PUTME are the entrance examinations needed for admission selection in universities.</p> <p>Candidate must record success in WASSCE/NECO, UTME and PUTME before securing admission. University candidates are offered admission based on the average scores of Unified Tertiary Matriculation Examination (UTME) and Post-Unified Tertiary Matriculation Examination (PUTME) according to department and faculty cut-off marks.</p> |
|---|--|

Source: UCAS (2015).

students' and lecturers' perspective of Gaokao and WAEC/UTME in China and Nigeria?

Significance of the study

The study should provide empirical findings from students' and lecturers' perspective of university entrance examination using Gaokao and WAEC/UTME in China and Nigeria education system as it appears there are no similar studies on this topic.

This research work will provide clear and up-to-date information that allows international students to be assessed fairly, promote an understanding of the value of their qualifications, and give higher education providers (HEPs) the ability to make a fair and realistic offers to international students.

The findings of this study will expatiate on the similarities and differences between university entrance examination in both Gaokao and WAEC/UTME within China and Nigeria education system.

The study could also be of benefit to students and lecturers not only in China and Nigeria but also in the world at large by presenting the yardstick in universities entrance examination in both China and Nigeria education system. This will be of benefit to other countries in case of accepting students for higher education from these two countries.

It is also assumed that the findings of this study could guide stakeholders (administrators of the universities, policy makers and researchers) not only in China and Nigeria but also across the continents at large.

The findings of this study should be of great benefit to university and other institutions in both China and Nigeria on how to improve on universities entrance examination.

Finally, findings of this study would be presented to the general public through presentations and international publications in reputable journals.

Scope of the study

Geographically, the scope of this study will be limited to China and Nigeria education system. Conceptually, the scope of this study will concentrate on students and lecturers perspective of university entrance examination in China and Nigeria education system. The study therefore examined students' and lecturers' perspective of university entrance examination using Gaokao and WAEC/UTME in China and Nigeria education system as a case study.

LITERATURE REVIEW

The second chapter focuses on review of literature on students' and lecturers' perspective of university entrance examination in China and Nigeria education system.

University entrance examination In China education system: Gaokao

Before 1952, social background, academic qualification from school and family reputation played a vital role in the admission to higher education. After 1952, China set up the National University Entrance Examination which was abolished during the Great Cultural Revolution. By the year 1977, the Ministry of Education restore the National University Entrance Examination. Everyone less than 35 years of age had the opportunity to enter university after passing the required examination. The core subjects of university entrance examination were Mathematics, Chemistry, Chinese, Physics, Politics, English, History and Geography. Presently, China has 3 mandatory subjects (Mathematics, Chinese and English) with 1 extra subject for high school students to take in the National University Entrance Examination (Kurian, 1998).

The education system in China has not ignored higher entrance examination; the country has been carrying out several reforms on higher entrance examination. China's reform on higher entrance examination aims at achieving scientific selection of talents and professionals, maintaining social justice and promoting healthy development of students. Among the objectives of the reform is to gradually form an examination and enrolment system that conforms to macro management by the government and implementation by professional organisations, respects independent enrolment policies by colleges and universities in accordance with the law of the land and provide students with manifold study choices, comprehensive evaluation, multilevel test and diversified admission (Jiao Gao, 2012). Presently, China's reform on higher entrance examination span through the following four reforms and promotions:

- (i) Reforming the content and form of the higher entrance examination through the promotion of multilevel tests.
- (ii) Reforming the examination evaluation system through promotion of comprehensive evaluation measures.
- (iii) Reforming the admission model through fostering diversified forms of admission.
- (iv) Reforming the higher entrance examination management system through the support of Sunshine Project.

Generally, China will continue to abide by the higher entrance examination system in line with the reality and rules of the education system, in order to constantly improve the content and measures of the examination and the methods of enrolment and proceed with reforms in active and controlled manner (Jiao Gao, 2012).

Nigeria education system

Nigeria is a country of rich ethno cultural diversity with more than 350 distinct ethnic group and more than 500 indigenous languages with an estimated population of over 170 million. The Nigeria education sector has the advantage of ample constitutional provisions and legislative support for the three tiers of government which are the Federal, State and Local government together with all other stakeholders to participate in the delivery of education at all levels. The constitution of the Federal Republic of Nigeria specifies the direction of national policy towards ensuring equal and adequate educational opportunities at all levels of education and the provision of compulsory, free and universal primary education together with free university education and free literacy programme provided they are all practicable.

It is the constitution that also provides the basic framework for the Federal, State and Local government in participating in the management and provision of education. Paragraphs 27 to 30 of part II in the second

schedule of the constitution put education in the Concurrent List in which both the Federal and State governments participate. The provision and maintenance of primary, adult and vocational education is listed in paragraph 2(a) of the Fourth Schedule as one of the functions that Local governments can perform.

The Nigeria education system is structured in the following four stages:

Early Child Care and Development aged 0 to 4 years.
 Basic Education aged 5 to 15 years. It encompasses Pre-Primary which is for 1 year, Primary Education which is for 6 years and Junior Secondary Education which is for 3 years.
 Post-Basic Education which is 3 years for both Senior Secondary Schools and Technical Colleges.
 Tertiary Education provided in Colleges of Education, Polytechnics and the Universities (National Policy on Education, 2013).

University entrance examination: Nigeria WAEC/UTME

University entrance examination could be viewed as the process where students are examined and given admission to study in the university based on scores obtained in the examination. The reason for this university entrance examination might be because of the skills that are needed for successful undergraduate course. Applicants with these required skills are more than the available space in the universities. Thus, university entrance examinations are conducted in order to select candidates with the required skills to various departments in order to cope with the challenges of undergraduate courses. Anastasi (1988) contributed to the issue of university entrance examinations by distinguishing between selection and screening. Screening is used when candidates are examined in a consecutive manner during the early stage of examinations while selection is used when candidates are examined in a consecutive manner during final intensive stage of examinations. Screening could also be used in rapid rough selection processes.

University entrance examination or mode of admitting potential undergraduate students into Nigerian universities is Unified Tertiary Matriculation Examination (UTME) which is organised at the national level by the Joint Admissions and Matriculation Board (JAMB). A score of at least 200 from total score of 400 in the UTME is expected in most universities before taking part in the Post-Unified Tertiary Matriculation Examination (PUTME) which is organised by various universities. Both UTME and PUTME are the entrance examinations required for admission into Nigerian universities. Another reason for the PUTME is for the candidates' choice universities to select eligible ones who will not find it difficult to cope in

the university.

Nigeria being colonised by Britain used General Certificate of Education (GCE) Advanced-Level that was organised by the University of Cambridge and University of London as university entrance examination till the establishment of West African Examination Council (WAEC) in 1951. WAEC conducts the West African Senior School Certificate Examination (WASSCE) known as Ordinary Level Certificate (O' Level) which is the university prerequisite entrance examination in West African Countries (Ghana, Nigeria, Sierra Leone, Gambia and Liberia). WASSCE is also a prerequisite to sitting for UTME and PUTME in Nigeria.

After the establishment of WAEC in 1951, each university in Nigeria conducted individual entrance examinations for admission of candidates who had the O' Level certificate into the university till the year 1978. Among the problems during this period are varying standards of the different entrance examinations into the universities and multiple admissions. Harbor-Peter (1999) observed that there were vacant and unfilled spaces in some universities because of multiple admissions.

Afemikhe (2008) noted that there was lack of coordination in the admission system into universities. Omodara (2010) observed educational imbalance by disparity of educational opportunities between the regions in which the universities were sited and differing admission standards by different universities. Umo and Ezeudu (2007) also stated numerous irregularities in the matriculation examination which were conducted by various universities. There is therefore need for the stakeholders in the education sector to have a uniform central board that would control university entrance examination. This led to the establishment of the JAMB in 1976 and the first JAMB University Matriculation Examination (UME) was achievement-based test held in May 1978.

The establishment of JAMB was signed into law through Decree No.2 of 1978 by the then Federal Military Government of Nigeria, as an agency of the Federal Government and an examining body. Among the reasons for establishing JAMB are:

- (i) Reducing irregularities in West African Examinations Council's (WAEC) examination;
- (ii) Avoiding multiple admission by the decentralized admission policy which denied others the opportunity;
- (iii) Ensuring comparability of standards across universities based on minimum standards requirements; and
- (iv) Streamlining and co-ordinating admission practice in Nigeria.

JAMB periods between 1978 to 1992 had acceptable students' results for university admission as credit level in at least five relevant subjects from Senior School Certificate Examination (SSCE) conducted by the West

African Examinations Council (WAEC) which should be obtained at not more than two sittings. In 1992, JAMB listed National Business Certificate and National Technical Certificate conducted by the National Business and Technical Examinations Board (NABTEB) as a prerequisite for admission into the universities, polytechnics and colleges of education.

Before the year 1999, the conduct of SSCE had been the exclusive preserve of WAEC, at April 1999 National Examinations Council (NECO) was created to take part in conducting Senior School Certificate Examination (SSCE) (JAMB, 2007). Success in NECO, NABTEB, SSCE and WAEC alone is not sufficient condition but only a necessary condition for admission; a pass in university entrance examination UME now UTME conducted by JAMB is also required (Agu, 2006). Since the year 2006, a pass in the UTME conducted by JAMB is not sufficient for entry university but only a necessary condition for admission; a pass in PUTME conducted by various universities is also required for admission into university.

As time went on, examination malpractices like impersonation and others became order of the day in the University Matriculation Examination (UME) organised by JAMB examination (JAMB, 2007). Ejinkonye (2004) confirmed high level of examination malpractices in the JAMB examination by presenting cases of alteration of candidates' grades in the JAMB office by JAMB officials. There was also massive cheating that was achieved by JAMB official in some JAMB centres. Candidates then preferred sitting for JAMB examination in some locations simply because of the ease of high scores. During this period examination malpractices became order of the day as parents, teachers, supervisors, examiners collaborated with students during and after JAMB examination, in order to obtain unmerited high scores (Ejinkonye, 2004).

A major reason for further screening Post-University Matriculation Examination (PUME) is lack of confidence in the validity of high scores paraded by many candidates in JAMB examination (Owie, 2007). Owie (2007) further found out that to a very large extent PUME has assisted universities in the screening and selection of admission process. Owie (2007) again presented cordial relationships between parents/guardians and university admission officers in the admission of candidates as one of the major critics of the PUME screening exercise. In spite of this and other criticism, the Federal Executive Council (FEC) endorsed that universities in Nigeria should conduct the (PUME) screening exercise on 16th November, 2005 in Abuja (Ebiri, 2006).

University Matriculation Examination (UME) was later merged with Monotechnics, Polytechnics and Colleges of Education (MPCE) and became Unified Tertiary Matriculation Examination (UTME) in the year 2010 (Ursula, 2012). Also PUME was replaced with Post-Unified Tertiary Matriculation Examination (PUTME). The

examination body believed that the merger will not only reduce pressure on the board but also bridge the discrimination between universities and polytechnics/colleges of education.

In the year 2014 JAMB brought in computer-based testing (CBT). At the first year of CBT candidates were given options to choose either the CBT or paper and pencil based testing (PPBT). In the year 2015, JAMB made (CBT) compulsory for all candidates. In order to reduce if not eradicate examination malpractice in JAMB examination the body did not allow registration for the examination through any available cyber cafes, JAMB limited registration for the examination to accredited and limited centres not from any internet points in the year 2016.

Required scores in both UTME and PUTME constitute an important part in higher entrance examination in the Nigeria. Candidates would be admitted based on the aggregate/average performance of UTME and PUTME in relation to university departmental cut off point.

Theoretical framework

This study focused on comparative analysis of students and lecturers perspective on university entrance examination using Gaokao in China education system and Waec/Utme in Nigeria education system as a case study (Figure 1). From a theoretical perspective, the theory that impels this study is the classical test theory (CTT). The CTT was developed since early twentieth century. The theory was conceptualised on three main ideas: that error in measurement is real, that the real error is a random variable and lastly is how to index this error (Traub, 1997). Traub (1997) further stated that the assumption of CTT is that each candidate has a true score (T) which is obtained when there was no error in measurement. Candidate true score is then defined as expected number minus correct score. It is a pity that most examiners do not observe candidate's true score but only an observed score (X). It is then assumed that observed score equal true score plus some error. Succinctly,

$$X = T + E \text{ (Observed score = True score + Error)}$$

CTT is therefore the observed score which is equal to the true score plus the error score. It focused on three variables: (X), (T) and (E). Omorogiuwa (2009) perceived variation in the observed score as the amount of random error change. Random error component approaches zero while the observed score approaches the true score, with negative effect of random error on both true and observed scores (Omorogiuwa, 2009). The true score (X) shows the ability of the examinee. One of the problems of CTT is that it assumes all items to be equal. Among the advantages of CTT according to (Hambleton and Jones,

1993) are easy to apply in many testing situations (relatively weak theoretical assumption), according to Fan (1998) CTT considers a pool of examinees with examination of their success rate.

When the true score explains all of the variance of observed score then the test is perfect, such scenario can be used for university entrance examination. If the true score explains none of the variance of the observed score then the test is totally useless, in that scenario it cannot be used for university entrance examination.

METHODOLOGY

This chapter concentrates on adopted research method of the study. It will also reveal research design, population of the study, sample and sampling strategy, research instrument and analytical strategy that will be used in the study.

Research design

The research design that was used for this study is descriptive survey research design of the ex-post facto type. Descriptive survey research design was considered appropriate for this study because it provides the strategy for describing and obtaining existing conditions in the study without any manipulation from the researcher. This is so because it is based on events that occurred in the past. Both qualitative and quantitative methods were used during the course of this study.

Population of the study

The targeted population of this study consisted of students and lecturers in University of Ibadan in Nigeria and Beijing Normal University in China.

Sample and sampling strategy

Purposive sampling technique was used to select University of Ibadan in Nigeria and Beijing Normal University in China while snowball sampling approach was used to select one hundred (100) students and twenty (20) lecturers from each university. The choice of snowball sampling is based on the nature of the study. Respondents are likely to know others who share the characteristics that make them eligible for inclusion in the study. Snowball sampling is quite suitable to use for this study because respondents are closely connected (e.g. sharing similar interests, involvement in the same groups that are relevant to the project at hand). This sampling method involves primary data sources nominating another potential primary data sources to be used in the

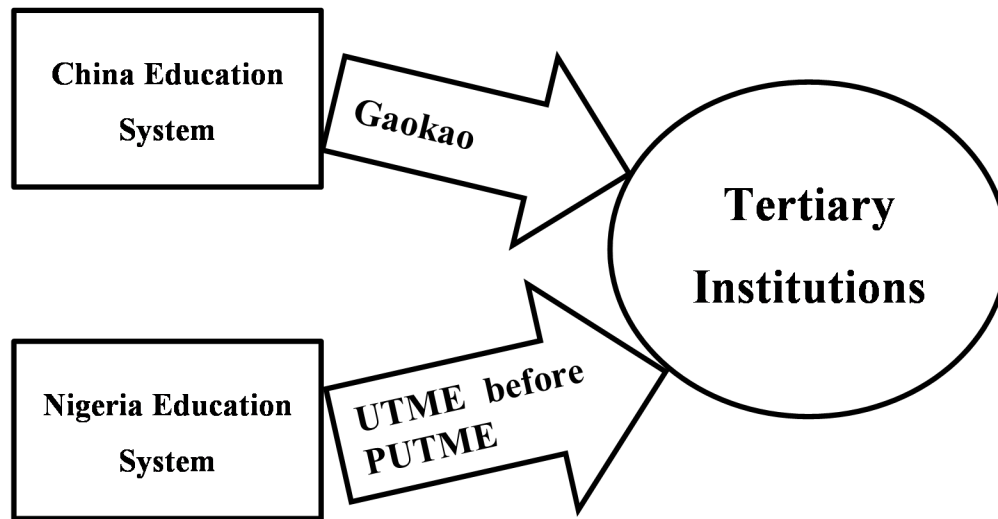


Figure 1. Theoretical framework. Source: Author (2018).

research. In other words, snowball sampling method is based on referrals from initial subjects to generate additional subjects. This enabled the research to administer the questionnaire on available students and lecturers in the university. A total of two hundred and twenty two students (222) and forty seven (47) lecturers were chosen from both countries; China and Nigeria.

Research instrument

The study made use of a combination of quantitative (questionnaires) and qualitative (interview) as the major tools for data collection for this study. The quantitative data were collected through the use of questionnaires while the qualitative data were collected through the use of interview questions. The questionnaire for data collection was titled: A comparative analysis of higher education entrance examination: A case study of Chinese Gaokao and Nigeria Waec/Utme. The questionnaire was divided into two sections. The first section concentrated on the demographic data of the respondents. The second section focuses on the research questions of the study. Items in the questionnaire were rated on 5-point Likert scale type rated Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), Strongly Disagree (SD).

The qualitative data (interview questions) gathered needed data for the study. Unstructured in-depth interviews and observation were instruments used for gathering qualitative data for the study. These methods were judged adequate because they helped provide in depth information, knowledge and special insight into the topic examined. The qualitative data were collected through In-depth Interview (IDI) and observations. Chinese data were collected online. And both methods of data collection was directed to students' and lecturers in

China and Nigeria.

Analytical strategy

Descriptive statistics of frequency counts, simple percentage and chart were used to present perspectives of both students and lecturers on university entrance examination in China and Nigeria Education System.

DATA ANALYSIS AND PRESENTATION OF RESULT

The fourth chapter will centre on analysis of data and presentation of results. It also presents and discusses the findings of this study. Analysis of results was done in line with the research objectives and questions that were generated earlier in the study. The demographic variables of the respondents are presented before the analysis which answers the research questions of the study.

Demographic variables of the respondents

Table 2 shows the sex distribution of both students and lecturers in China. The results show that 37 (30.33) of the respondents were male students, 85 (69.67) of the respondents were females students, while 11 (40.74) of the respondents were male lecturers, 16 (59.26) of the respondents were females lecturers.

Table 3 shows the sex distribution of both students and lecturers in Nigeria. The results show that 42 (42.0) of the respondents were male students, 58 (58.0) of the respondents were females students, while 14 (70.0) of the respondents were male lecturers, 6 (30.0) of the respondents were females lecturers.

Table 2. Sex distribution of respondents in China.

| Sex | Students | | Lecturers | |
|--------|-----------|------------|-----------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| Male | 37 | 30.33 | 11 | 40.74 |
| Female | 85 | 69.67 | 16 | 59.26 |
| Total | 122 | 100.00 | 27 | 100.00 |

Table 3. Sex distribution of respondents in Nigeria.

| Sex | Students | | Lecturers | |
|--------|-----------|------------|-----------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| Male | 42 | 42.0 | 14 | 70.0 |
| Female | 58 | 58.0 | 6 | 30.0 |
| Total | 100 | 100.0 | 20 | 100.0 |

Table 4 shows the marital status distribution of both students and lecturers in China. The results show that 119 (97.54) of the respondents were single students, 2 (1.64) of the respondents were married students, 1 (0.82) of the respondents was widowed students, while 13 (48.15) of the respondents were single lecturers, 12 (44.44) of the respondents were married lecturers, 2 (7.41) of the respondents were divorced lecturers.

Table 5 shows the marital status distribution of both students and lecturers in Nigeria. The results show that 75 (75.0) of the respondents were single students, 25 (25.0) of the respondents were married students, while 20 (100.0) of the respondents were married lecturers.

Table 6 shows the age distribution of both students and lecturers in China. The results show that 86 (70.49) of the respondents were students who were less than 20 years of age, 33 (27.05) of the respondents were students who were within the age range of 21 to 29 years, 2 (1.64) of the respondents were students who were within the age range of 30 to 39 years, 1 (0.82) of the respondents was student who was within the age range of 40 to 49 years, while 16 (59.26) of the respondents were lecturers who were less than 40 years of age, 8 (29.63) of the respondents were lecturers who were within the age range of 41 to 49 years, 3 (11.11) of the respondents were lecturers who were within the age range of 50 to 59 years.

Table 7 shows the age distribution of both students and lecturers in Nigeria. The results indicate that 23 (23.0) of the respondents were students who were less than 20 years of age, 67 (67.0) of the respondents were students who were within the age range of 21 to 29 years, while 6 (30.0) of the respondents were lecturers who were less than 40 years of age, 8 (40.0) of the respondents were lecturers who were within the age range of 41 to 49 years, 6 (30.0) of the respondents were lecturers who were within the age range of 50 to 59 years.

Table 8 shows the rank distribution of lecturers in

China. The results indicate that 3 (11.11) of the respondents were in the rank of professor, 11 (40.74) of the respondents were in the rank of associate professor, 13 (48.15) of the respondents were in the rank of lecturer.

Table 9 shows the rank distribution of lecturers in Nigeria. The results show that 8 (40.0) of the respondents were in the rank of senior lecturer, 6 (30.0) of the respondents were in the rank of lecturer I, 6 (30.0) of the respondents were in the rank of lecturer II.

Table 10 shows the academic experience distribution of lecturers in China. The results indicate that 10 (37.04) of the respondents had been in academics for less than 5 year, 9 (33.33) of the respondents had been in academics within the range of 6 to 10 years, 4 (14.81) of the respondents had been in academics within the range of 11 to 15 years, 3 (11.11) of the respondents had been in academic within the range of 16 to 20 years, 1 (3.7) of the respondents had been in academics for more than 20 years.

Table 11 shows the academic experience distribution of lecturers in Nigeria. The results indicate that 6 (30.0) of the respondents had been in academics for less than 5 year, 8 (40.0) of the respondents had been in academic within the age of 6 to 10 years, 6 (30.0) of the respondents had been in academics within the range of 11 to 15 years.

Analysis of research questions

Research question 1: What is the students' perspective of Gaokao as university entrance examination in China education system?

Table 12 reveals students' perspective of Gaokao as university entrance examination in China education system. The table shows that 80 (65.6) of the respondents agreed that passing Gaokao examination

Table 4. Marital status distribution of respondents in China.

| Marital status | Students | | Lecturers | |
|----------------|-----------|------------|-----------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| Single | 119 | 97.54 | 13 | 48.15 |
| Married | 2 | 1.64 | 12 | 44.44 |
| Divorced | - | -. | 2 | 7.41 |
| Widowed | 1 | 0.82 | - | -. |
| Total | 122 | 100.00 | 27 | 100.00 |

Table 5. Marital status distribution of respondents in Nigeria.

| Marital status | Students | | Lecturers | |
|----------------|-----------|------------|-----------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| Single | 75 | 75.0 | - | -. |
| Married | 25 | 25.0 | 20 | 100.0 |
| Total | 100 | 100.0 | 20 | 100.0 |

Table 6. Age distribution of respondents in China.

| Age | Students | | Age | Lecturers | |
|--------------------|-----------|------------|--------------------|-----------|------------|
| | Frequency | Percentage | | Frequency | Percentage |
| Less than 20 years | 86 | 70.49 | Less than 40 Years | 16 | 59.26 |
| 21 to 29 years | 33 | 27.05 | 41 to 49 Years | 8 | 29.63 |
| 30 to 39 years | 2 | 1.64 | 50 to 59 Years | 3 | 11.11 |
| 40 to 49 years | 1 | 0.82 | 60 to 69 Years | - | -. |
| Total | 122 | 100.00 | Total | 27 | 100.00 |

Table 7. Age distribution of respondents in Nigeria.

| Age | Students | | Age | Lecturers | |
|--------------------|-----------|------------|--------------------|-----------|------------|
| | Frequency | Percentage | | Frequency | Percentage |
| Less than 20 years | 23 | 23.0 | Less than 40 years | 6 | 30.0 |
| 21 to 29 years | 67 | 67.0 | 41 to 49 years | 8 | 40.0 |
| 30 to 39 years | - | -. | 50 to 59 years | 6 | 30.0 |
| Total | 100 | 100.0 | Total | 20 | 100.0 |

Table 8. Rank distribution of respondents in China.

| Rank | Lecturers | |
|---------------------|-----------|------------|
| | Frequency | Percentage |
| Professor | 3 | 11.11 |
| Associate Professor | 11 | 40.74 |
| Lecturer | 13 | 48.15 |
| Total | 27 | 100.00 |

Table 9. Rank distribution of respondents in Nigeria.

| Rank | Lecturers | |
|-----------------|-----------|------------|
| | Frequency | Percentage |
| Senior Lecturer | 8 | 40.0 |
| Lecturer I | 6 | 30.0 |
| Lecturer II | 6 | 30.0 |
| Total | 20 | 100.0 |

was a do or die affair for students, 80 (65.6) of the respondents agreed that Gaokao examination was extremely tense and nervous for students, 58 (47.6) of

the respondents agreed that Gaokao examination should not have absolute right to university entrance examination, 38 (25.4) of the respondents agreed that the

Table 10. Academic experience distribution of respondents in China.

| Rank | Lecturers | |
|--------------------|-----------|------------|
| | Frequency | Percentage |
| less than 5 years | 10 | 37.04 |
| 6 to 10 years | 9 | 33.33 |
| 11 to 15 years | 4 | 14.81 |
| 16 to 20 years | 3 | 11.11 |
| 20 years and above | 1 | 3.7 |
| Total | 27 | 100.00 |

Table 11. Academic experience distribution of respondents in Nigeria.

| Rank | Lecturers | |
|-------------------|-----------|------------|
| | Frequency | Percentage |
| Less than 5 years | 6 | 30.0 |
| 6 to 10 years | 8 | 40.0 |
| 11 to 15 years | 6 | 30.0 |
| Total | 20 | 100.0 |

Table 12. Students' perspective of Gaokao.

| S/N | Statements | SA | A | N | D | SD |
|-----|--|-----------|-----------|-----------|-----------|----------|
| 1 | Passing Gaokao examination is a do or die affair for students | 26 (21.3) | 54 (44.3) | 23 (18.9) | 14 (11.5) | 5 (4.1) |
| 2 | Gaokao examination is extremely tense and nervous for students | 36 (29.5) | 44 (36.1) | 25 (20.5) | 17 (13.9) | - (-.) |
| 3 | Gaokao examination should not have absolute right to university entrance examination | 19 (15.6) | 39 (32.0) | 41 (33.6) | 18 (14.8) | 5 (4.1) |
| 4 | The standard of Gaokao is too high for entrance examination into universities in China | 9 (7.4) | 22 (18.0) | 32 (26.2) | 48 (39.3) | 11 (9.0) |
| 5 | There should be another screening exercise for students after passing Gaokao | 17 (13.9) | 50 (41.0) | 36 (29.5) | 16 (13.1) | 3 (2.5) |

Table 13. Lecturers' perspective of Gaokao.

| S/N | Statements | SA | A | N | D | SD |
|-----|---|----------|-----------|----------|----------|----------|
| 1 | General knowledge, handiwork, skills and ability of students are tested in Gaokao examination. | 2 (21.3) | 9 (33.3) | 4 (14.8) | 9 (33.3) | 3 (11.1) |
| 2 | Gaokao examination should not have absolute right to university entrance examination | 5 (18.5) | 8 (29.6) | 8 (29.6) | 3 (11.1) | 3 (11.1) |
| 3 | Individual university should play more roles than Gaokao examination in university entrance examination | 7 (25.9) | 8 (29.6) | 5 (18.5) | 5 (18.5) | 2 (21.3) |
| 4 | There should be another screening exercise for students after passing Gaokao | 4 (14.8) | 15 (55.6) | 4 (14.8) | 4 (14.8) | - (-.) |
| 5 | High score in Gaokao does not determine the performance during undergraduate | 5 (18.5) | 12 (44.4) | 8 (29.6) | 1 (3.7) | 1 (3.7) |

Table 14. Students' perspective of WAEC/UTME.

| S/N | Statements | SA | A | N | D | SD |
|-----|---|-----------|-----------|-----------|-----------|-----------|
| 1 | The standard of UTME is too high for entrance examination into universities in Nigeria | 10 (10.0) | 62 (62.0) | 10 (10.0) | 18 (18.0) | - (-.) |
| 2 | The presence of Post-UTME screening exercise for students after passing UTME is the best. | - (-.) | 80 (80.0) | - (-.) | 10 (10.0) | 10 (10.0) |
| 3 | High score in Post-UTME does not determine the performance during undergraduate | 10 (10.0) | 72 (72.0) | - (-.) | 18 (18.0) | - (-.) |
| 4 | Half of the overall score in Post-UTME should be acceptable for admission into university | - (-.) | 80 (80.0) | - (-.) | 10 (10.0) | 10 (10.0) |
| 5 | Score obtained from UTME examination should be used for admission for more than one year | 72 (10.0) | 18 (18.0) | - (-.) | 10 (10.0) | - (-.) |

Table 15. Lecturers' perspective of WAEC/UTME.

| S/N | Statements | SA | A | N | D | SD |
|-----|---|-----------|-----------|--------|-----------|----------|
| 1 | The standard of UTME is too high for entrance examination into universities in Nigeria | 6 (30.0) | - (-.) | - (-.) | 14 (70.0) | - (-.) |
| 2 | The presence of Post-UTME screening exercise for students after passing UTME is the best. | 14 (70.0) | 6 (30.0) | - (-.) | - (-.) | - (-.) |
| 3 | High score in Post-UTME does not determine the performance during undergraduate | - (-.) | 8 (40.0) | - (-.) | 6 (30.0) | 6 (30.0) |
| 4 | The grading score of Post-UTME is ambiguous | - (-.) | 6 (30.0) | - (-.) | 14 (70.0) | - (-.) |
| 5 | Half of the overall score in Post-UTME should be acceptable for admission into university | - (-.) | 14 (70.0) | - (-.) | 6 (30.0) | - (-.) |

standard of Gaokao was too high for entrance examination into universities in China, 67 (54.9) of the respondents agreed that there should be another screening exercise for students after passing Gaokao. Based on the result from table 12, students' perspective of Gaokao as university entrance examination in China education system is that the examination is extremely tense and nervous which is the major cause of failing the examination. This eventually leads to suicide mission of some students in the region.

Research question 2: What are the lecturers' perspective of Gaokao as university entrance examination in China education system?

Table 13 reveals lecturers' perspective of Gaokao as university entrance examination in China education system. The table shows that 11 (54.6) of the respondents agreed that general knowledge, handiwork, skills and ability of students were tested in Gaokao examination, 13 (48.1) of the respondents agreed that Gaokao examination should not have absolute right to university entrance examination, 15 (55.5) of the respondents agreed that individual university should play more roles than Gaokao examination in university entrance examination, 19 (70.4) of the respondents agreed that there should be another screening exercise for students after passing Gaokao, 17 (62.9) of the respondents agreed that high score in Gaokao did not determine the performance during undergraduate. Based on the result from table 4.2.2, lecturers' perspective of Gaokao as university entrance examination in China education system is that there should be another screening exercise for students after passing Gaokao. This will take care of high number of students who are seeking admission into the university

Research question 3: What is the students' perspective of WAEC/UTME as university entrance examination in Nigeria education system?

Table 14 reveals students' perspective of WAEC/UTME as university entrance examination in Nigeria education

system. The table shows that 72 (72.0) of the respondents agreed that the standard of UTME was too high for entrance examination into universities in Nigeria, 80 (80.0) of the respondents agreed that the presence of Post-UTME screening exercise for students after passing UTME was the best, 82 (82.0) of the respondents agreed that high score in Post-UTME did not determine the performance during undergraduate, 80 (80.0) of the respondents agreed that half of the overall score in Post-UTME should be acceptable for admission into university, 90 (90.0) of the respondents agreed that score obtained from UTME examination should be used for admission for more than one year. Based on the result from table 4.2.3, students' perspective of Waec/Utme as university entrance examination in Nigeria education system is that score obtained from UTME examination should be used for admission for more than one year. This could be as a result of the case of WAEC or WASSCE which students do not need to retake after passing the exam.

Research question 4: What is the lecturers' perspective of WAEC/UTME as university entrance examination in Nigeria education system?

Table 15 reveals lecturers' perspective of WAEC/UTME as university entrance examination in Nigeria education system. The table shows that 6 (30.0) of the respondents agreed that the standard of UTME was too high for entrance examination into universities in Nigeria, 20 (100.0) of the respondents agreed that the presence of Post-UTME screening exercise for students after passing UTME was the best, 8 (40.0) of the respondents agreed that high score in Post-UTME did not determine the performance during undergraduate, 6 (30.0) of the respondents agreed that the grading score of Post-UTME was ambiguous, 14 (70.0) of the respondents agreed that half of the overall score in Post-UTME should be acceptable for admission into university. Based on the result from table 154 lecturers' perspective of Waec/Utme as university entrance examination in Nigeria education system is that the presence of Post-UTME screening exercise for students after passing UTME was the best. The reason for this could be high examination

malpractice in the UTME.

Comparison of lecturers' perspective of Gaokao and WAEC/UTME

Lecturers' perspective of WAEC/UTME as university entrance examination in Nigeria education system was that the presence of Post-UTME screening exercise for students after passing UTME was the best. This is in agreement with the lecturers' perspective of Gaokao as university entrance examination in China education system that there should be another screening exercise for students after passing Gaokao.

All the lecturers disagreed with the statement that the numbers of subjects in UTME examination in Nigeria education system are too much for students, while 8 (29.6) disagreed that subjects in Gaokao examination in China education system are too much for students.

14 (70.0) of the lecturers in Nigeria education system agreed that half of the overall score in Post-UTME should be acceptable for admission into university, while 14 (51.8) of the lecturers in China education system agreed that half of the overall score in Gaokao should be acceptable for admission into university.

Research question 5: What are the similarities and differences between students' and lecturers' perspective of Gaokao and WAEC/UTME in China and Nigeria?

Below are responses in answering research question five:

Question: What is your view about Gaokao examination as universities entrance examination?

I think it is unreasonable to decide which university to enter only by relying on a college entrance examination. The examinee is influenced by many factors such as psychology, test paper difficulty, environment and so on. The grade of the examinee in the examination room is not necessarily the true level of the examinee. The college entrance examination should be a comprehensive quality test.

Gaokao is one of the most important examinations of my life. As so many people say, it can decide our destiny. Only when you are admitted into a famous and excellent university you can be closer to a bright future. And it is a chance for some students from poor families to change their life. Although there are so many shortcomings of Gaokao, it is an unforgettable experience for one to participate in Gaokao. After it, you would learn how to concentrate on one thing and you would know the importance of hardworking and perseverance.

Because it is a policy in China's so we have no choice since it is the only way for students to gain admission into the university.

The college entrance examination is the entrance examination of the University. The college entrance examination results determine what school you will read. I think the college entrance examination is the only way for those rural children to succeed. In secondary school, you have to work hard to get a good result in the college entrance examination.

Below are few responses from Nigerian respondents during interview:

Most Nigerian respondents believe that UTME is not sufficient as university entrance examination, but the addition of PUTME which is conducted independently by various universities should also be considered. They believed that there should be a different test after the UTME examination.

Students and lecturers perspective of Gaokao and WAEC/UTME as university entrance examination in China and Nigeria respectively is that both examinations were tough and not easy to pass. While UTME requires PUTME before admission into Nigerian universities, Gaokao does not require additional examination before admission into Chinese universities.

Students and lecturers perspective of Gaokao and WAEC/UTME as university entrance examination in China and Nigeria respectively is that both examinations made students nervous and anxious which lead to failure in both examinations but failure in Gaokao can go to the extreme of psychological disorder/disease.

Both examinations had benchmarks for entering universities. These benchmarks seemed high in the students' perspective but not high in the lecturers' perspective. The benchmark in Gaokao allows students to enter universities in China while the benchmark in WAEC/UTME only qualified students to take another examination in the chosen universities in Nigeria.

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter concludes the study by suggesting recommendations in line with the research objectives and questions of the study.

Summary

This study compared students and lecturers perspective of university entrance examination using Gaokao and WAEC/UTME in China and Nigeria education system as a case study. This study reviewed literature relevant to university entrance examination in China and Nigeria education system. The study also concentrated on adopted research method of the study. A sample of 122 (one hundred and twenty-two) students and 27 (twenty-

seven) lecturers in China and 100 (one hundred) students and 20 (twenty) lecturers in Nigeria were used for the study. Five objectives with five research questions were generated for this study. Descriptive statistics of frequency counts, simple percentage were used.

The findings from the study showed that students' perspective of Gaokao as university entrance examination in China education system is that the examination is extremely tense and nervous which is the major cause of failing the examination.

The findings also revealed that lecturers' perspective of Gaokao as university entrance examination in China education system is that there should be another screening exercise for students after passing Gaokao.

The findings equally indicated that students' perspective of WAEC/UTME as university entrance examination in Nigeria education system is that score obtained from UTME examination should be used for admission for more than one year.

The findings again showed lecturers' perspective of WAEC/UTME as university entrance examination in Nigeria education system is that the presence of Post-UTME screening exercise for students after passing UTME was the best.

Lastly the findings indicated that students and lecturers perspective of Gaokao and WAEC/UTME as university entrance examination in China and Nigeria respectively is that both examinations were tough and not easy to pass. While UTME requires PUTME before admission into Nigerian universities, Gaokao does not require additional examination before admission into Chinese universities.

Conclusion

Based on the findings of the study, the following conclusions can be drawn.

Students in China universities regarded Gaokao as to be extremely tense and nervous and this is not only the major cause of failing the examination but also leads to high rate of psychological disease among students.

Lecturers in China universities regarded Gaokao not being sufficient as university entrance examination and wish for another screening exercise for students after passing Gaokao.

Students in Nigeria universities wished that the scores obtained in the UTME examination should be used for admission for more than one year.

Lecturers in Nigeria universities were contented with the presence of Post-UTME screening exercise by individual universities for students after passing UTME examination before gaining admission to universities in the country.

Students and lecturers in China and Nigeria perceived Gaokao and WAEC/UTME respectively to be tough and not easy to pass. UTME required PUTME before admission into Nigerian universities while Gaokao did not require additional exam before admission into Chinese

universities.

Recommendations

Based on the findings and conclusion drawn from this study, the following recommendations were made:

Chinese government should embark on programmes that will reorient Chinese students on all examinations especially Gaokao. Students should see examination as a test of knowledge and not a do or die affair. This will make them to be less nervous and reduce high rate of psychological disorder/disease.

Chinese government should embark on reforming university entrance examination Gaokao. This reform is long overdue because of the long existence of Gaokao examination. When examination has been in existence for decades, there is tendency to have examination malpractice.

Nigerian government should allow scores obtained in the UTME to be used for admission for more than one year. This will reduce the high rate of students enrolling for the examination every year. Students and lecturers will also believe that UTME examination is not mere extortion from the populace.

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