

Ethical Considerations in High-Stakes Academic Assessments: Insights from the Nigerian Educational System

E.O., Oladunmoye (PhD),¹ Leah Oyeyemi Oyedele (PhD),² M.T., Sa'ad (PhD),³ Faith Nakalema (PhD),⁴

1Department of Applied Psychology, Kampala International University, Kampala, Uganda.

Correspondence Email: oladunmoyetomenoch@gmail.com, <https://orcid.org/0000-0002-2721-2391>

2Department of Applied Psychology,

Email: droyeyemioyedele@gmail.com, <https://orcid.org/0009-0006-7875-5173>

3Department of Applied Psychology, Kampala International University

Email: saadtaj2000@gmail.com, <https://orcid.org/0009-0007-5758-6670>

4Department of Applied Psychology, Kampala International University, Uganda.

Email: faith.nakalema@kiu.ac.ug, <https://orcid.org/0000-0002-2209-0890>

Abstract: Nigeria's youthful population, with a significant portion under 30, presents both challenges and opportunities for national development. High-stakes exams such as the West African Examinations Council (WAEC) and National Examinations Council (NECO) tests are crucial in shaping educational and career trajectories. However, the ethical and social implications of these standardized assessments warrant critical analysis. This study examines key concerns, including cultural bias, where test content may disadvantage candidates from Nigeria's diverse ethnic and socioeconomic backgrounds. The exams, often developed with urban and Westernized contexts in mind, may fail to reflect the experiences and knowledge of students from rural areas or different cultural settings, leading to an unfair representation of their abilities. Additionally, test anxiety is a prevalent issue, disproportionately affecting students from under-resourced communities who may lack access to adequate preparation or psychological support. This can skew performance outcomes, placing additional stress on students already facing systemic educational inequalities. The study also explores disparities in access to test preparation resources, such as private tutoring or quality schooling, which often benefit wealthier, urban students, thus reinforcing social inequities. Moreover, examination malpractice and score manipulation further undermine the meritocratic intent of these assessments, calling into question the fairness and integrity of the results. By analyzing these challenges, the study proposes recommendations for culturally sensitive test designs, better support for anxious students, improved access to learning resources, and stronger anti-malpractice measures. These reforms aim to promote a fairer, more inclusive educational system that supports meritocratic advancement and social inclusion for Nigeria's youth.

Keywords: High-stakes Testing, Cultural bias, Test anxiety, Access disparity, Score manipulation, WAEC, NECO.

Introduction

In Nigeria, a nation with a youthful population and a rapidly growing middle class, social mobility and economic empowerment are critical aspects of the national development agenda. According to the United Nations Population Fund (UNFPA), Nigeria has the largest youth population in Africa, with an estimated 64% of its citizens under the age of 35 (UN Population Fund, 2023). This youth bulge presents a significant opportunity for economic growth, but also necessitates the creation of ample opportunities for education and employment (Mabiso, & Benfica, 2019). High-stakes testing, such as the West African Examinations Council (WAEC) administered Senior School Certificate Examination (SSCE) or the National Examinations Council (NECO) administered Basic Education Certificate Examination (BECE), plays a pivotal role in educational selection and career pathways in Nigeria (Onebunne, 2023). However, the effectiveness of these examinations in achieving equitable outcomes is under scrutiny.

Education is widely recognised as a pathway to social advancement in Nigeria. Sennuga et al. (2023) have demonstrated that individuals in Nigeria who have completed secondary education tend to earn nearly twice as much as those who have not received any formal education. However, access to quality education remains a challenge, with net enrolment rates at the secondary level hovering around 53% (Olabiyi, 2018). In this context, high-stakes testing has emerged as a central mechanism for selecting students for higher education opportunities and graduates for competitive jobs (Ukachukwu, 2018). The allure of these tests lies in their potential to standardize selection processes and reduce bias, particularly in a country like Nigeria with a large (over 200 million people) and diverse population (Ukachukwu, 2018). Standardization achieved through high-stakes testing offers a seemingly objective method for comparing candidates from different educational backgrounds and socioeconomic circumstances. Ideally, these tests assess core knowledge or skills required for success in a particular academic program or job role, offering a level playing field for all test-takers (Popham, 2001).

However, the effectiveness of high-stakes testing in reducing bias is a complex issue. While it may eliminate subjectivity in scoring compared to traditional methods like essays or interviews (Popham, 2001), concerns remain about cultural bias within the test content itself (Nwafor, 2021). Standardized tests are often developed based on the dominant culture or educational system within a country

(Li, et al., 2018). This can disadvantage students from minority groups, which in Nigeria's case constitute a significant portion of the population. According to Eneh (2024) an estimated 60% of Nigerians belong to minority ethnic or religious groups. A test heavily influenced by the dominant culture's language, references, or educational experiences could unfairly penalize these students. For instance, a verbal reasoning test that relies on proverbs specific to the Yoruba culture could disadvantage students from minority ethnicities in the South-South region, where languages like Ijaw or Kalabari are more prevalent (Durodola, 2013).

Furthermore, research suggests that high-stakes testing can exacerbate existing social inequalities. Students from higher socioeconomic backgrounds often have greater access to test preparation resources, tutoring, and practice tests. According to Ogunode et al. (2022), 72% of students in private secondary schools (often associated with higher socioeconomic status) reported access to test prep resources, compared to only 28% of students in public schools. This advantage can lead to a significant performance gap on high-stakes tests. Studies in the United States have shown a correlation between socioeconomic status and performance on standardized tests, with students from wealthier families scoring consistently higher (Pearman, 2022). This pattern is likely to be replicated in the Nigerian context, potentially perpetuating a cycle of disadvantage where students from wealthier families are more likely to succeed in high-stakes tests and gain access to better educational or employment opportunities, further widening the social gap.

Psychometric tests, designed to assess cognitive abilities, personality traits, or job-specific skills through standardized methods, offer a seemingly objective solution for evaluating a large pool of candidates (Nwafor, 2021). The allure of these tests lies in their potential to increase efficiency and reduce bias in selection processes (Popham, 2001). In terms of efficiency, traditional methods of evaluating candidates, such as interviews or reviewing resumes, can be time-consuming and subjective. While psychometric tests offer a standardized and efficient way to assess a large number of candidates on the same criteria, allowing for quicker comparisons and decision-making (Li, et al., 2018). However, in the context of reduce bias, psychometric tests are designed to minimize subjectivity and unconscious bias that can creep into human evaluations. By using standardized scoring procedures and focusing on pre-determined criteria, these tests aim to create a level playing field for all candidates, regardless of factors like gender, race, or socioeconomic background (Ryan et al., 2021). However, it is important to acknowledge that the effectiveness of psychometric tests in achieving these goals is not without debate, as will be discussed later in the paper (Nwafor, 2021). This study explores the ethical considerations surrounding the use of psychometric tests in high-stakes scenarios within the Nigerian context. It will showcase four key areas of concern: cultural bias, test anxiety, access disparities, and the potential for score manipulation. While, it propose recommendations for promoting fairer and more equitable testing practices.

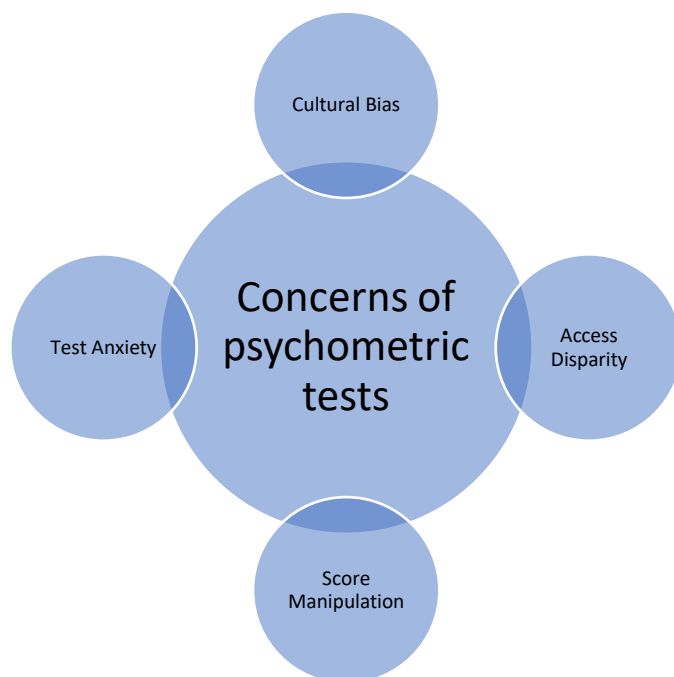


Fig. 1: Ethical considerations surrounding the use of psychometric tests

Cultural Bias

Psychometric tests, while seemingly objective, can be susceptible to cultural bias when applied in contexts outside of their original development. This is especially pertinent in Nigeria, a country known for its rich cultural diversity, consisting of over 250 ethnic groups and more than 500 indigenous languages (Adewuyi et al., 2024). Psychometric tools are frequently standardized in Western

contexts, where language, societal norms, and behavioral expectations differ significantly from non-Western settings. When these tests are imported into Nigeria without adaptation or revalidation, they may not accurately measure the constructs they are designed to assess. For instance, biases in language, content, and cultural references embedded in the test items can inadvertently favour candidates familiar with Western ideals, while disadvantaging those from diverse ethnic or socioeconomic backgrounds (Nwafor, 2021).

Moreover, the cultural bias inherent in these tests extends beyond language. The social and economic realities of test-takers in Nigeria may also differ markedly from the assumptions underlying many psychometric assessments. Many of these tests often neglect the contextual factors such as communal living, extended family structures, and informal education systems that are prevalent in various Nigerian communities (Ali, et al., 2023). As a result, psychometric outcomes may misrepresent an individual's actual ability or aptitude, especially if they belong to historically marginalized or underrepresented groups. In light of these disparities, there is a growing need for locally adapted and culturally sensitive assessment tools to ensure fairness in testing across Nigeria's multifaceted population (Adewuyi et al., 2024). However, cultural bias manifests in various ways within the Nigerian context; which includes language bias, content bias, and cultural assumption:

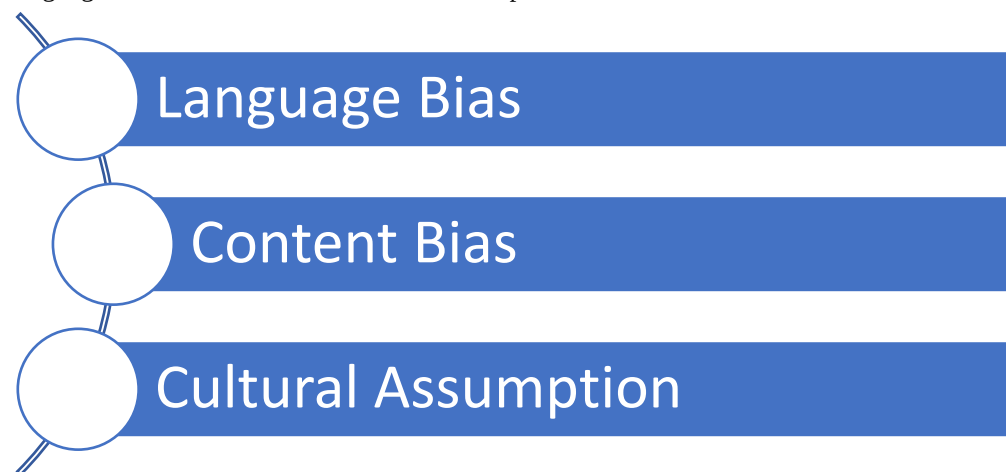


Fig. 2: Cultural Biases in Psychometric Testing

Language Bias: Psychometric tests often use complex vocabulary or sentence structures that may be unfamiliar to individuals with limited exposure to standardized English. In Nigeria, this issue is particularly pronounced, as an estimated 40% of the population primarily speaks a Nigerian language at home (Ugwu et al., 2019). These individuals may struggle to comprehend test instructions or items presented in English, leading to lower test performance unrelated to the actual constructs being measured. This language barrier can unfairly disadvantage candidates from rural areas or lower socioeconomic backgrounds, where access to English-language education may be limited (Mbada, et al., 2015).

Content Bias: Test content may also reflect cultural references and historical knowledge specific to Western societies, which can further disadvantage non-Western test-takers. For example, a question requiring knowledge of Shakespearean plays or historical events from a Eurocentric perspective could unfairly assess a Nigerian candidate whose educational background focused more on local history, literature, or oral traditions (Ekoh, 2012; Lozano-Ruiz, et al., 2021). Such questions assume familiarity with Western culture and education systems, thereby marginalizing individuals from different cultural and educational backgrounds. This content bias undermines the validity of the test results when used in multicultural contexts like Nigeria (Abdulkareem, 2023).

Cultural Assumptions: Another issue with many psychometric tests is the embedding of hidden cultural assumptions. Tests designed in Western contexts may favour values such as assertiveness, independence, and self-expression, which are aligned with individualistic cultures. However, these values can disadvantage individuals from collectivistic cultures, where interdependence, social cohesion, and respect for authority figures are emphasized (Rajkumar, 2021). Such as, a personality test that rates assertiveness as a desirable trait could penalize candidates from cultures that prioritize humility, deference to elders, or the harmony of the group over individual assertiveness. In many African societies, including Nigeria, interpersonal relations and group harmony are often given higher priority than individual achievement, making such cultural assumptions problematic in accurately assessing an individual's personality traits or capabilities (Lozano-Ruiz, et al., 2021).

Consequences of Cultural Bias

Cultural bias within psychometric tests poses a significant threat to fair selection processes in Nigeria's diverse landscape with respect to underrepresentation and perpetuation of inequalities.

Culturally biased tests can lead to the underrepresentation of qualified candidates from diverse backgrounds. Imagine a medical school entrance exam heavily weighted towards scientific knowledge from a Western perspective. This could disadvantage students

from minority ethnicities whose educational background might have placed a stronger emphasis on traditional healing practices. Studies in the United States have shown a persistent racial gap on standardized tests, with Black and Hispanic students scoring lower than their White counterparts (Pearman, 2022). A similar pattern could emerge in Nigeria, potentially limiting access to educational and employment opportunities for minority groups who score poorly due to cultural bias in the tests, not a lack of ability. With Nigeria having over 250 ethnic groups and 500 indigenous languages (Adewuyi, et al., 2024), a culturally biased test designed for a dominant culture could significantly disadvantage these diverse populations.

More importantly, a biased tests can exacerbate existing social inequalities. Tests that favour students from privileged backgrounds who have access to resources like test prep courses or tutors further disadvantage those from lower socioeconomic backgrounds (Balogun, 2023). This creates an uneven playing field, where students from wealthier families are more likely to succeed on culturally biased tests and gain access to better educational or employment opportunities, widening the social gap.

Addressing Cultural Bias

While psychometric testing offers a seemingly objective solution, cultural bias can significantly disadvantage candidates in Nigeria's diverse context. To ensure fairer selection processes, a multi-pronged approach is necessary.

Culturally Sensitive Test Development

The ideal solution lies in developing or adapting psychometric tests specifically tailored to the Nigerian context. This requires collaboration between test developers, educators, and cultural experts to ensure the language used is accessible to a broad population (Burke, 2017). Test content should reflect Nigerian realities, incorporating situations, references, and historical events relevant to the country's educational curriculum and cultural background. This reduces the risk of alienating candidates from diverse ethnic or socioeconomic backgrounds who may not possess familiarity with Western-centric cultural assumptions embedded within traditional tests.

Pilot Testing and Validation

Even the most carefully designed tests can harbor unintended biases. Pilot testing with diverse populations from across Nigeria's ethnic and socioeconomic spectrum is crucial (Van de Vijver & Tanzer, 2007). This allows researchers to identify test items or language that disproportionately disadvantage certain groups. Data from pilot tests can then be used to refine the test content and ensure it accurately reflects the abilities and knowledge required for success, regardless of cultural background.

Multiple Measures

Over-reliance on a single test can magnify the impact of cultural bias. A more holistic approach utilizes a combination of assessment methods beyond psychometric tests (Popham, 2001). Interviews allow candidates to showcase their communication skills and explain their thought processes. Portfolios can demonstrate practical abilities and prior accomplishments. Simulations can assess job-specific skills in a realistic setting. By using a variety of assessment methods, selection committees gain a more comprehensive picture of a candidate's potential, reducing the influence of any single test potentially skewed by cultural bias.

Test Anxiety

The high stakes associated with standardized testing in Nigeria can create a breeding ground for test anxiety, a significant psychological factor that can negatively impact test-takers' performance (Denwigwe, et al., 2020). Characterized by intense worry, apprehension, and physiological arousal, test anxiety can manifest in various ways, potentially hindering a candidate's ability to showcase their true potential. Similarly, it triggers a cascade of physical reactions, including increased heart rate, sweating, and shortness of breath (Moore, et al., 2020). These physiological responses can be distracting and impede cognitive function, making it difficult for test-takers to concentrate and recall information effectively. Imagine a student facing a crucial university entrance exam experiencing a racing heart and difficulty breathing. Their ability to focus on complex test questions and retrieve learned material would likely be compromised.

More importantly, anxiety can also negatively impact cognitive processes essential for successful test-taking. Working memory, the brain's capacity to hold and manipulate information for short-term use, can become overloaded (Eysenck, 2013). This hinders the ability to analyze test questions, formulate responses, and apply knowledge effectively. Additionally, test anxiety can impair problem-solving skills and critical thinking abilities, crucial for success on many standardized tests. Candidates might ruminate about potential failure, leading to feelings of helplessness and decreased motivation. This negative self-belief system can create a self-fulfilling prophecy, where anxiety itself hinders performance, confirming the candidate's worst fears. However, the consequences of test anxiety are far-reaching. Otherwise qualified individuals who struggle under pressure may score poorly on standardized tests, hindering their access to educational opportunities or desired careers. This creates an uneven playing field, where those less susceptible to test anxiety have an advantage, potentially perpetuating educational inequalities in Nigeria's competitive educational landscape.

Access Disparities

The effectiveness of high-stakes testing in Nigeria is further challenged by stark disparities in access to quality education and resources. Students from low-income backgrounds often enter testing situations at a significant disadvantage, hindering their ability to perform well and potentially exacerbating existing educational inequalities (Balogun, 2023). Access disparity can be assessed on three grounds limited resources, quality of education and socio-economic factors.

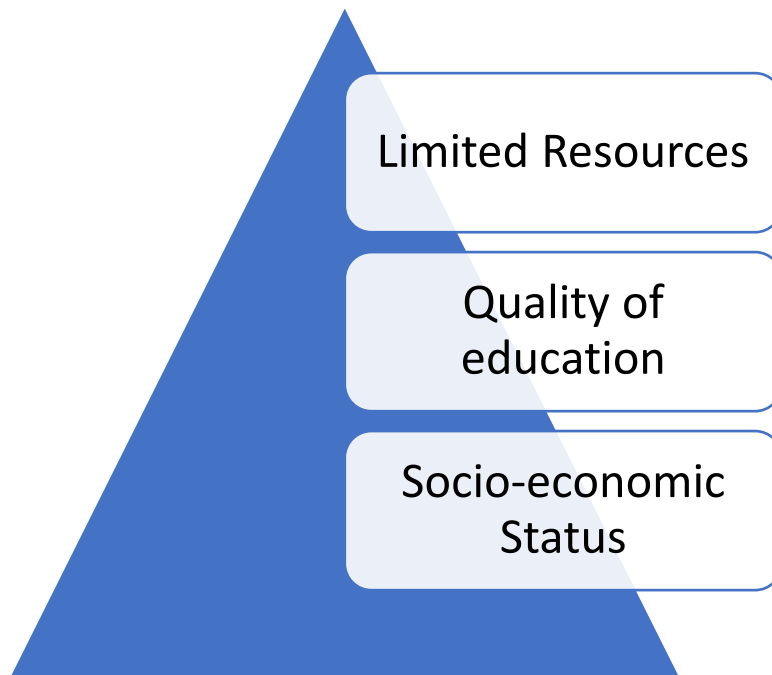


Fig. 3: Access disparity bias in high-stakes testing

High-stakes testing often places a premium on test preparation resources like guidebooks, online practice tests, or private tutoring (Umaru, at al., 2022). Students from low-income families may not have access to these resources, hindering their ability to familiarize themselves with test formats, practice answering test questions, and develop effective test-taking strategies. Imagine a student from a rural village with limited internet access and few educational resources compared to a student from a wealthy family who has access to a plethora of test prep materials and private tutoring. The disparity in resources creates a significant gap in their preparedness for the high-stakes tests.

The quality of primary and secondary education varies considerably across Nigeria, with under-resourced schools in disadvantaged communities often struggling to provide a strong academic foundation (Fadokun, 2024). Students from these schools may have significant gaps in their knowledge base compared to their counterparts in well-funded institutions. This knowledge gap can translate into lower test scores on standardized tests, further disadvantaging students from low-income backgrounds in the selection process.

Socioeconomic factors beyond access to resources can also play a role. Students from low-income families might face additional challenges like inadequate nutrition, overcrowded living conditions, or a lack of a quiet study environment, all of which can negatively impact their ability to focus on academics and prepare effectively for high-stakes tests (Umaru, at al., 2022). These factors create an uneven playing field where success on standardized tests becomes less about academic ability and more about a student's socioeconomic background.

Score Manipulation

The immense pressure associated with high-stakes testing in Nigeria can create a breeding ground for unethical behaviour, jeopardizing the entire testing system. The desire for good scores can lead students to engage in various forms of test cheating, such as copying answers, using unauthorized materials, or colluding with others (Shishakly, 2023). Technological advancements further exacerbate the issue, with the rise of sophisticated cheating methods like miniature cameras or sharing answers through online platforms. These practices not only undermine the validity of the test results but also create a culture of dishonesty that can have negative consequences beyond the testing environment. In some cases, individuals might resort to fabricating educational credentials like diplomas or certificates to gain an unfair advantage in job applications or educational opportunities (Agwu, et al., 2022). The ease of obtaining fake documents online or through unscrupulous vendors further fuels this practice, eroding trust in the authenticity of academic qualifications.

Perhaps the most damaging form of score manipulation is corruption within testing institutions themselves. Unethical practices like leaking test questions, altering scores for a fee, or biased grading can significantly compromise the integrity of the entire system (Animasahun, et al., 2014). These actions not only create an unfair advantage for a select few but also erode public trust in the testing process, potentially discouraging qualified candidates from participating.

Consequences of Score Manipulation

The consequences of score manipulation are far-reaching and detrimental to Nigerian society.

When the public perceives the testing system as susceptible to cheating or manipulation, it loses its credibility. This discourages honest and qualified candidates from participating and undermines the intended purpose of high-stakes testing. Score manipulation creates an unfair advantage for those who exploit the system, hindering the selection of truly deserving candidates. This perpetuates social inequalities and limits opportunities for those who rely on legitimate means to achieve success. If employers or educational institutions doubt the authenticity of test scores or qualifications, the value of these credentials diminishes. This can have a cascading effect, impacting the quality of the workforce and educational institutions in Nigeria.

Mitigating Measures

To combat score manipulation, a multi-pronged approach is necessary, such as implementing stricter security protocols during testing, utilizing secure technology, and employing robust anti-cheating software can deter cheating attempts (Shishakly, et al., 2023). Regular audits of testing procedures, investigating allegations of misconduct, and holding those involved in corruption accountable are crucial steps to maintain the integrity of the system (Animasahun, et al., 2014). Educational institutions and testing bodies can play a role in promoting academic integrity and ethical behaviour throughout the educational journey. This includes fostering a culture of honesty and highlighting the long-term consequences of cheating.

Recommendations

High-stakes testing in Nigeria presents both opportunities and challenges. While it offers a seemingly objective method for selection, cultural bias, test anxiety, access disparities, and score manipulation can significantly undermine its fairness and effectiveness. To ensure a more equitable testing system that truly reflects merit and potential, several key recommendations can be implemented:

Develop or adapt psychometric tests specific to the Nigerian context. This requires collaboration between test developers, educators, and cultural experts to ensure the language used is accessible and the content reflects the realities of Nigerian education and society.

Pilot testing with diverse populations from across Nigeria's ethnic and socioeconomic spectrum is crucial to identify and address potential cultural biases within the test content (Van de Vijver & Tanzer, 2007).

Implement strategies to manage test anxiety. This could include offering workshops on relaxation techniques, providing pre-test counseling, or creating a more supportive testing environment (Denwigwe, et al., 2020).

Invest in initiatives aimed at providing equal access to quality education across all socioeconomic backgrounds. This includes improving educational infrastructure, reducing class sizes, and providing additional support for students from disadvantaged communities (Fadokun, 2024).

Facilitate equitable access to resources such as preparatory materials, practice tests, and potentially even technology-based learning platforms for students in underserved areas (Popham, 2001).

Implement robust security measures to deter cheating. This could involve stricter test administration procedures, utilizing secure printing and delivery methods, and employing anti-cheating software during testing (Shishakly, et al., 2023).

Increase vigilance by testing institutions. Regular audits of testing procedures, investigating allegations of misconduct, and holding those involved in corruption accountable are crucial steps to maintain public trust in the system (Animasahun, et al., 2014).

Over-reliance on a single test can magnify the impact of cultural bias and access disparities. A more holistic approach that utilizes a combination of assessment methods, such as interviews, portfolios, or simulations, can provide a more well-rounded picture of a candidate's abilities (Popham, 2001).

Conclusion

High-stakes testing remains a significant force shaping educational and employment landscapes in Nigeria. While it offers a standardized selection process, ethical concerns regarding cultural bias, test anxiety, access disparities, and score manipulation demand immediate attention. Addressing these challenges through the proposed recommendations, such as culturally sensitive test development, equitable access to resources, and a multi-measure approach, can pave the way for a fairer testing system. Ultimately, a more equitable system fosters meritocracy and unlocks genuine opportunities for all Nigerians, empowering the nation's youth to reach their full potential and contribute to a thriving society.

References

- Abdulkareem, Z. O. (2023). Digital Divide and its Impact on the Performance of Students taking high-stake Computer-based University Entrance Examination in Nigeria. Url: <http://stax.strath.ac.uk/downloads/pv63g083m>
- Adewuyi, E. O., Akosile, W., Olutuase, V., Philip, A. A., Olaleru, R., Adewuyi, M. I., ... & Khanal, V. (2024). Caesarean section and associated factors in Nigeria: assessing inequalities between rural and urban areas—insights from the Nigeria Demographic and Health Survey 2018. *BMC Pregnancy and Childbirth*, 24. Url: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11325716/>
- Agwu, P., Orjiakor, C. T., Odii, A., Onalu, C., Nzeadibe, C., Roy, P., & Okoye, U. (2022). “Miracle Examination Centres” as hubs for malpractices in Senior Secondary School Certificate Examination in Nigeria: A Systematic Review. *International Journal of Educational Development*, 88, 102538. Url: <https://www.sciencedirect.com/science/article/pii/S0738059321001917>
- Ali, S., Adamu, A. A., Hassan, A. B., Dominic, E., Dada, O., & Abdullahi, A. (2023). Hausa translation, cross-cultural adaptation, and assessment of psychometric properties of the Stroke Self-Efficacy Questionnaire. *Physiotherapy Theory and Practice*, 39(1), 174-181. Url: <https://www.tandfonline.com/doi/abs/10.1080/09593985.2021.2001884>
- Animasahun, R. A., & Ogunniran, J. O. (2014). Correlates of Examination Malpractice among Secondary School Students in Oyo State, Nigeria. *International journal of Educational administration and Policy studies*, 6(9), 181-189. Url: <https://files.eric.ed.gov/fulltext/EJ1075857.pdf>
- Balogun, J. A. (2023). *Reimagining Nigeria's Educational System: Improving Academic Performance Through High Stakes Standardized Testing*. Taylor & Francis.
- Burke, E. (2017). Big Data and Predictive Analytics: Opportunity or Threat to the Future of Tests and Testing. *Psychometric Testing: Critical Perspectives*, 43-63. Url: <https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119183020.ch4>
- Denwigwe, C. P., & Jacks, S. C. (2020). Academic test anxiety and mathematics performance of senior secondary school students in model secondary school Maitama, Abuja, Nigeria. *European Journal of Scientific Research*, 156(4), 429-438. Url: https://www.academia.edu/download/74674450/Academic_Test_Anxiety_and_Mathematics_Performance_of_Senior.pdf
- Durodola, O. T. A. (2013). *The rising popularity of Pidgin English radio stations in Nigeria: An audience study of Wazobia FM, Lagos* (Doctoral dissertation, Rhodes University). Url: <https://core.ac.uk/download/pdf/145054517.pdf>
- Ekoh, I. (2012). *High-stakes standardized testing in Nigeria and the erosion of a critical African worldview* (Doctoral dissertation, University of Toronto). Url: https://central.bac-lac.gc.ca/.item?id=MR91986&op=pdf&app=Library&oclc_number=1019495862
- Eneh, C. (2024). *A Case for the Negotiation of Agency by Disenfranchised Subjects in Contemporary Nigerian Literature* (Master's thesis, Illinois State University).
- Eysenck, M. W. (2013). *Anxiety: The cognitive perspective*. Psychology Press.
- Fadokun, J. B. (2024). Implementation Of Education 2030 Agenda For Sustainable Development In Nigeria. *International Journal of Education, Library and Information Communication Technology*, 2(1).
- Li, C., Kruger, L. J., Beneville, M., Kimble, E., & Krishnan, K. (2018). The Unintended Consequences of High-Stakes Testing on English-Language Learners: Implications for the Practice of School Psychology. In *School Psychology Forum* (Vol. 12, No. 3).
- Lozano-Ruiz, A., Fasfous, A. F., Ibanez-Casas, I., Cruz-Quintana, F., Perez-Garcia, M., & Pérez-Marfil, M. N. (2021). Cultural bias in intelligence assessment using a culture-free test in Moroccan children. *Archives of Clinical Neuropsychology*, 36(8), 1502-1510.
- Mabiso, A., & Benfica, R. (2019). The Narrative on Rural Youth and Economic Opportunities in Africa: Facts, Myths, and Gaps.
- Mbada, C. E., Adeogun, G. A., Ogunlana, M. O., Adedoyin, R. A., Akinsulore, A., Awotidebe, T. O., & Olaoye, O. A. (2015). Translation, cross-cultural adaptation and psychometric evaluation of yoruba version of the short-form 36 health survey. *Health and quality of life outcomes*, 13, 1-12.
- Moore, K. A., & Buchwald, P. (Eds.). (2020). *Stress and anxiety. Theory, practice and measurement*. Logos Verlag Berlin GmbH.
- Nwafor, D. O. (2021). *Using Psychological Assessment Models in the Selection of Priests and Religious Applicants in the Southeast Nigerian Context*. The Chicago School of Professional Psychology.

- Ogunode, N. J., Johnson, A. G., & Olatunde-Aiyedun, T. G. (2022). Education crisis in Nigeria and way forward. In *Kresna Social Science and Humanities Research Proceedings of the International Conference on Sustainable Development: Problems, Analysis and Prospects* (pp. 33-47).
- Olabiya, K. A. (2018). Validating the effectiveness of demographic dividend transmission mechanisms on economic growth in Nigeria. *Ife Social Sciences Review*, 26(1), 1-12.
- Onebunne, J. I. (2023). Quadripartite examinations for mere maiden admission into Nigerian tertiary institutions: questioning the multiplicands. *Nnadiabube Journal of Education in Africa*, 8(3).
- Pearman, F. A. (2022). Collective racial bias and the Black-White test score gap. *Race and Social Problems*, 14(4), 283-292.
- Popham, W. J. (2001). The truth about testing: An educator's call to action. Alexandria, VA: ASCD.
- Rajkumar, R. P. (2021). The relationship between measures of individualism and collectivism and the impact of COVID-19 across nations. *Public Health in Practice*, 2, 100143.
- Ryan, A. M., Bradburn, J., Bhatia, S., Beals, E., Boyce, A. S., Martin, N., & Conway, J. (2021). In the eye of the beholder: Considering culture in assessing the social desirability of personality. *Journal of Applied Psychology*, 106(3), 452.
- Sennuga, S. O., Bamidele, J., Chinwuba, M. A., & Orire, R. (2023). Exploring the Relationship Between Education and Poverty Reduction in Nigeria: A Critical Review. *International Journal of Education and Evaluation*, 9(9), 45-63.
- Shishakly, R., Natumanya, D., & Len, K. E. (2023). *Embracing Online Education*. AJPO Journals USA LLC.
- Ugwu, E. O., & Ogunremi, P. O. (2019). Nigeria and the Sustainable Development Goals: Why the indigenous languages count. *European Scientific Journal*, 15(5), 52-68.
- Ukachukwu, A. (2018). Understanding the intersection of culture, religion and gender on diversity management: a qualitative study of Nigerian hotels.
- Umaru, N. A., Adamu, S. T., Bello, M. M., & Jolaoso, A. B. (2022). Review of selected features of hausa vernacular architecture, case study of Dakali and Zaure in Jos, Plateau State, Nigeria. *ARTEKS: Jurnal Teknik Arsitektur*, 7(3), 421-432.
- United Nations Population Fund website (2023). Retrieved May 10, 2024, from <https://nigeria.unfpa.org/en/publications/united-nations-population-fund-country-programme-document-nigeria>