



ASSESSMENT SCORE POLLUTION AS CATALYST OF POOR QUALITY OF STUDENTS' PERFORMANCE

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Abstract:

The present learners' dissatisfaction with their assessment scores in terms of their use, inferences, and educational improvements has urged many facilitators and examiners to train and prepare examinees to complete their assessments. The demand to raise assessment scores has resulted in conditions and practices that pollute and contaminate the reliability and validity of assessment scores. This study, therefore, seeks to examine the factors perceived as contributors to assessment score pollution. The study employed a descriptive survey to gather data and analyzed using means and standard deviations. A sample size of 248 teachers who had access to an Android device and internet connectivity were purposefully selected for this study. The results confirmed that factors related to assessment preparation, assessment administration, and external factors (parents and community) were the primary causes of assessment score pollution in the district. The researchers recommended that the District Education Service directorates should organize in-service training for teachers on testing procedures. Parents and the community should also be educated on the consequences of test pollution through parents' association meetings and seminars by the district education office. Authentic and differentiated assessments were also recommended to replace the current standardized assessment practices.

Keywords: assessment, scores, performances, reliability, validity

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1. Introduction

It is possible to observe students' learning-influencing traits and behaviours using a variety of methods. Instructors have the opportunity to assess students' problem-solving abilities, listen to their comments or queries to identify areas of weakness, and then modify their lessons appropriately. They can also identify potential misunderstandings and offer clarification. According to Anane (2015), teachers make sure students understand the material by checking their work after class. Based on the results, he can decide whether to move on to the next subject, revise his approach, incorporate more visual aids, review previously covered material, or slow down. This process is called an assessment. It addresses every possible method for collecting information about students. Given the structure of certain evaluation methods, such as formative assessment, it is evident that instructors dedicate some of their instructional time to activities connected to assessment. It follows that it is fundamental to the course material. Akaranga and Ongong (2013) state that assessment serves as proof of instruction.

Testing is one of the main tools for assessment. The educational process relies on tests. Depending on its intended application, assessment can serve many purposes. The use of assessment has been categorised by educational testing experts into two main groups: formative and summative. Summative assessment includes activities like selection and engagement, whereas formative assessment involves activities like using assessment scores to adjust a teaching method. Since their inception, assessments have served as the primary tool for both higher education admissions and employment placement across all sectors. Ntumi, Agbenyo and Bulala (2022) indicated that in Ghana and globally, research findings claim that results from the assessment are gradually taking over as a gauge for measuring the performance of institutions. For example, according to Etsey (2005), standardised test scores in Ghana determine teacher transfers, school ratings, student promotions and graduations, and scholarship distributions. The primary audiences for assessment results were listed by Haladyana, Nolen, and Haas (1991) as follows: educators, researchers, assessment writers, educational labs, universities, school boards, administrators, language supervisors, parents, journalists, and the general public. Traditional uses of standardised test scores in Ghana have given way to a growing interest in these results as a proxy for both quality and accountability (Tamakloe *et al.*, 2005). As previously said, the stakes of standardised testing are always rising due to the prevalence of assessment results as decision-making tools.

There is growing pressure on both students and educators to do better on standardised tests as their significance grows (Haladyna, 2016). Anane (2015) states that the final exams for senior high schools in West Africa, such as the Basic Education Certificate Examination (BECE) and the West African Senior Schools Certificate Examination (WASSCE), are becoming more important. The former determines a school's quality, while the latter determines whether students will be placed in remedial or tertiary education. The high-stakes nature of standardised testing causes anxiety among teachers, students and parents as major decisions affecting them and the curriculum are taken with the use of test scores from standardized tests.

Concerned about the potential negative effects of high-stakes testing on students' academic performance, experts have voiced their opposition to the practice. These effects include, but are not limited to, a danger to the validity of test scores, as well as perverse (Ryan, 2004) and dishonest educational practices (Jones & Hargrove, Nichols & Berliner, as cited in Anane, 2015). It is worth noting, as Dreisbach and Keogh (2012) point out, that many educators feel pressured to ensure that their students achieve high test scores, and as a result, many educators and test administrators advise and assist students in maximizing their performance on standardized exams. Some educators are concerned that high-stakes testing may encourage dishonest study habits and improper pedagogical techniques, like exam cheating. This may lead to a decline in self-confidence and a reduction in the breadth of the curriculum covered in school (Anane, 2015). Even though some think testing is good for education, Anane (2008) noted that the validity and efficacy of most tests are in dispute. This is particularly true of the exams administered by the West African Examination Council to students in junior and senior high school, which are the focus of heated controversy. He went on to say that while there may not have been many studies on the topic, current public outcry begs the question of whether higher test scores reflect better learning. Testing has taken centre stage in society's relentless pursuit of better schools and higher-achieving kids. related to (Anane 2015; Akaranga & Ongong, 2013).

The importance of high test scores as a measure of academic success has grown in modern society, Anane added. So, there is a lot of expectation that schools, particularly those that have a high concentration of students who are not meeting expectations, will improve their test scores to demonstrate academic progress. Various techniques have emerged that taint test scores, which are used for important national decisions such as teacher transfers, school ratings, student promotions, graduation, and scholarship awards. These issues are so pervasive that instead of fostering meaningful learning, the majority of educators focus on preparing students to pass exams.

The field of testing specialists' education has recently paid a lot of attention to the problem of test score misuse and misinterpretation. In practical explanation, when assessment scores increase, most people, including parents and politicians, are satisfied and create an impression as though they have perfectly implemented policies well. On the contrary, this impression is premature and does not represent actual learning (Chapman & Snyder, 2019). When using test scores for assessment, judgment, or policy enactment, users should be careful not to misuse or misinterpret the results. Principals of senior high schools and other concerned educators across the nation have cast doubt on the validity of the BECE, arguing that students' performance on the test has little bearing on their future academic progress (Mereku, 2000).

2. Literature Review

Too frequently, policy discussions focus on just one side of the testing effects coin, and there is more rhetoric than hard-core evidence regarding the consequences of assessment (Bachman *et al.*, 2013). Elite Ghanaians believe that students get through school without

demonstrating any abilities that would be valuable in the job or how society would like them to behave (Ntumi *et al.*, 2022). These views appear to be common, particularly when a test is considered as an effort to ascertain how a person would perform in a series of real-life scenarios (Bachman *et al.*, 2013).

It is important to remember that many schools have put a lot of pressure on students to do well on standardized exams and that this has led some educators to intentionally lead students astray to boost their test scores (Dreisbacha & Keogh, 2012). According to the literature, some situations and practices have emerged as a result of the pressure to increase test scores, and these practices and conditions dirty and taint the conclusions drawn from these scores (Akaranga & Ongong, 2013). This kind of data shows that standardized achievement tests have been more popular, which has increased the pressure on students to do well on them and, in turn, test score pollution. Because of the contamination, many of the applications of test scores are called into question, and the veracity of the results is compromised (Genshaft & Kirwin, 2018)

Gyimah (2012) explained that research in the area of general education has proven that testing affects how lessons are taught and students are evaluated. Across the world, test scores are used by both students and teachers to evaluate the quality and responsibility of schools (Haladyna, 2016). Teachers, therefore, focus largely on preparing students for standardised tests rather than teaching meaningful content. This is mostly attributed to the pressure from policymakers, employers and parents on teachers to raise test scores. Teaching students test writing skills during test preparation has become the norm in our schools.

In the present climate of dissatisfaction with public education, where standardized achievement test scores have been utilized as the operational definition of educational success, Chalak and Tavakoli (2010) elucidated the relationship between increasing test scores and educational improvement. Many educators and testing organizations have felt pressured to help students maximize their test scores in response to concerns about test abuse and overuse, the importance of these scores in determining future educational opportunities, and the correlation between high test scores and actual academic progress (Ntumi *et al.*, 2022). There is a danger to the validity of the conclusions drawn from test scores due to the practices and conditions that have arisen as a result of the pressure to raise test scores (Filson & Brown, 2018). The teacher's involvement in preparing students for standardized tests, the testing atmosphere or circumstances, and extracurricular activities and parents all play a part in how well kids do on the exams (NCME, 2014). For example, many teachers use a variety of strategies to guarantee that their students achieve the best possible scores on their assessments. According to Akaranga and Ongong (2013), experts in the area of assessment have weighed the benefits and drawbacks of different test-prep approaches in their publications.

It has been suggested by various authors that various elements can influence test scores.

These factors include test anxiety, lack of self-confidence, inhibitions, stress, exhaustion, focus, interest, environment, school policies, administration, location, and the examiner effect (Haladyna *et al.*, 2018). They added that all of these things are unique to the test itself, and they skew the results and any conclusions drawn from them. There

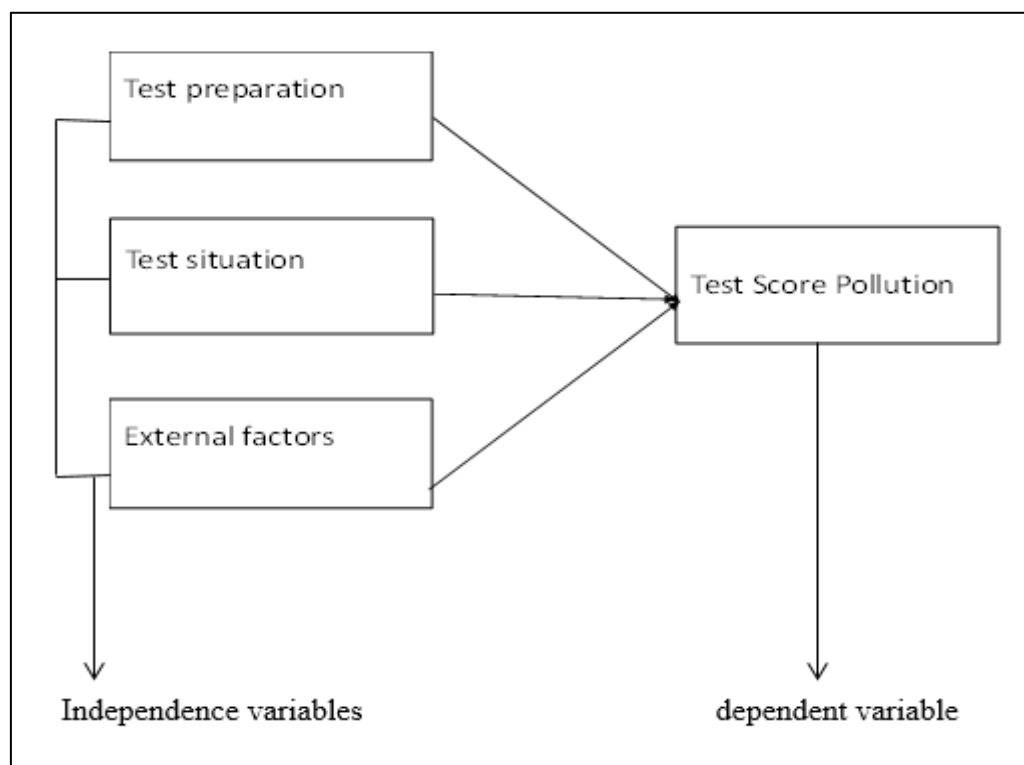
is a correlation between the public's ease of access to test scores and the pressure on schools to use measures that artificially inflate test scores, a phenomenon known as "test score pollution" (Mereku, 2000).

According to Ntumi *et al.* (2022), three main factors can skew test scores:

- 1) Test prep techniques (preparing students for an assessment).
- 2) Situational factors (assessment administration or testing conditions).
- 3) Outside forces (family and society).

The researchers built the following concept to investigate how these factors impact test score pollution based on the premise above.

3. Conceptual Framework



4. Objectives

The study sought to:

- 1) Investigate the role that test preparation strategies (getting students ready for an exam) play in the contamination of test scores.
- 2) Determine how situational factors (assessment administration or testing conditions) contribute to assessment score pollution).
- 3) Determine how external factors (Parents and Community) contribute to assessment score pollution.

5. Methodology

This research used a quantitative strategy based on a descriptive survey. The study's target population included 677 teachers in Saboba district. A sample size of 248 teachers who had access to an Android device and internet connectivity were purposefully selected for this study. This is because the questionnaire was created digitally on a Google form. This research made use of a questionnaire created by Ntumi *et al.* (2022) that had a correlation value of .823 and a reliability coefficient of .783. The Saboba North circuit served as a trial run for this modified instrument, ensuring its validity and dependability. For part A (Assessment-prep methods), the instrument's Cronbach's alpha came out to be 0.765. Section C (Outside forces) had a Cronbach's alpha of .786, whereas Section B (Assessment administration situation) had a value of .711. The overall Cronbach's alpha obtained for the instrument is .871.

Respondents received questionnaires in the form of Google Forms. The purpose of the study and how to complete the questionnaire were explained to the participants. Confidentiality and anonymity were taken into account in the present study, along with all other ethical considerations. The data-gathering period did not exceed four weeks. Every research question was examined using means and standard deviations. Items marked as positive received scores of 4, 3, 2, and 1 for the Strongly Agree, Agree, Disagree, and Strongly Disagree options, respectively. Negative responses, on the other hand, were scaled in inverse proportion.

6. Results and Discussion

6.1 How Test-prep Methods Contribute to Assessment Score Pollution

Table 1: Test-prep methods (n=248)

Test-prep methods	Mean	Std. D
I spend a lot of time getting my students ready for the WAEC exams.	3.45	.595
I base my lesson plans on what's in the BECE.	3.45	.589
I teach them how to take the test well.	3.28	.624
I don't register students who are intellectually weak.	2.76	.892
I provide them with past WAEC exams so they can practise.	3.34	.526
Most teachers adjust their lessons to align with what's in the BECE.	3.20	.627
I push them to do well on the test.	3.58	.539
I ask parents and other teachers to do their part to motivate my students.	3.47	.544
Parents and community members help instructors improve BECE scores in any way feasible.	3.07	.682
Means of means/SD	3.28	.624

Source: Field survey

From the results in Table 1, the means of means and standard of (M=3.28, SD= .624) showed that teachers are major contributors to test score pollution. The practices of teachers at the time they prepare students for standardized assessment, as shown in Table 1, indicate that the teachers' target is to increase test scores. The findings here reaffirm

NCME, (2014) assertion that teacher's involvement in preparing students for standardized tests plays a part in how well kids do on the exams.

6.2 How Assessment Administration contribute to Assessment Score Pollution

Table 2: Results on Assessment administration situation (n=248)

Situational factors (test administration situation)	Mean	Std. D
Exam anxiety is something I see in my pupils.	3.21	.658
I try to encourage them to give it their all when they take tests.	3.49	.551
For my kids to do well on tests, I focus on helping them develop a healthy sense of self-worth.	3.40	.588
I often tell my pupils not to worry too much before tests.	3.21	.614
On many occasions, I have caught pupils using foreign materials on tests.	2.85	.801
On occasion, my students will inform me that other students in the exam room have copied from their friends.	2.82	.738
Means of means/SD	3.16	.658

Source: Field survey.

From the results in Table 2, the means of means and standard deviation of (M=3.16, SD=.658) showed that assessment administration factors, thus test administration situation, influence test scores. The findings agree with Haladyna *et al.* (2018) arguments that factors such as test anxiety, lack of self-confidence, inhibitions, stress, exhaustion, focus, interest, environment, school policies, administration, location, and the examiner effect impact students' assessment scores in standardised testing. It also agrees with Ntumi *et al.* (2022) as one factor contributing to test score pollution.

6.3 How Outside Forces (Family and Society) Contribute to Assessment Score Pollution

Table 3: Results on Outside Forces (family and society) (n=248)

Outside forces (family and society)	Mean	Std. D
At PTA meetings, parents talk about the BECE results.	3.24	.669
When the time for BECE is not approaching, parents often convince teachers to provide additional lessons for their children.	2.86	.788
As the day of BECE approaches, parents advocate for their children's instructors to schedule more lessons.	3.10	.711
Some parents push for teachers to have their children work on WAEC sample questions.	3.03	.665
Most parents hold teachers responsible for their children's failures.	3.31	.658
Teachers are under a lot of pressure from parents to help their pupils do well on BECE, and that pressure is primarily based on their views.	3.15	.705
If a student's BECE score goes up, some parents will give the teacher a bonus.	2.87	.802
Enquiries about possible exam question leaking are common among parents.	2.68	.784
From time to time, worried parents may wonder if their children can purchase test questions.	2.57	.837

For their children's exams, some parents even purchase questions.	2.73	.845
The community is continuously monitoring how well BECE students are doing.	3.32	.608
Means of means / SD	2.98	.733

Source: Field survey.

From the output in Table 3, the means of means and standard deviation of ($M=2.98$, $SD=.733$) showed that external forces, thus family and societal pressure, influence test scores. The pressure from parents and the community on schools to perform influences the pressure on these schools to inflate test scores. These parents just want to see their kids perform in a test at all costs. This finding agrees with NCME, (2014) assertion that family and societal pressure play a part in how well kids perform on the exams. The finding above confirms the assertion of Ntumi *et al.* (2022) that the pressure from family and society on schools to perform has resulted in school administrators making all efforts, both ethical and unethical, to increase test scores.

7. Conclusions

Centered on the research findings, the under-listed conclusions were made;

To begin with, as was already mentioned, there are certain practices that teachers engage in while getting students ready for standardised tests, and these practices impact test scores. This is in line with study outcomes that constantly show that teachers' testing practices in the classroom are not optimal. On the other hand, teachers are held accountable for the poor practices that impact assessment scores because assessment scores are used to measure the quality and improvement of education.

Again, some assessment administration factors also pollute assessment scores. Assessment scores are polluted at the time students are writing the assessment. This happens as a result of some faulty administrative practices. Last but not least, schools are under pressure from parents and the community to raise test performance. Regardless of the ethical or immoral implications, it is safe to assume that parents just want their children to do well in school.

7.1 Recommendations

In light of everything that the study has found, we propose the following changes.

First, in the shortest possible time, the government should think about looking into the educational system's use of test scores to gauge progress in education. This puts too much pressure on teachers to raise test scores at the expense of providing students with meaningful lessons. Again, the district offices of the Ghana Education Service (GES) should team up with educational institutions like universities to offer instructors relevant in-service training and programs on testing procedures. This will aid in avoiding the scenario where instructors devote an excessive amount of class time to external test preparation at the expense of real learning. For future interventions, the government can again think about adopting other assessment techniques such as Authentic Assessment where student Assessment is more of a creativity but not memorization of facts.

Differentiated assessment, which is currently being discussed by test experts, can also be considered to replace the standardized Assessment procedure. This should, however, be preceded by Differentiated learning.

Once again, the country's examination standards should be enforced by WAEC. WAEC and the government should consider sensitizing parents and the community on the adverse effects of assessment score pollution through workshops, symposiums, and media announcements. By doing this, parents and the community will collaborate with the government and WAEC to minimize assessment score pollution.

Finally, Parents and the community should be educated on the consequences of test pollution through parent association meetings and seminars by the district education offices. Parents should be given education on the need for their wards to be given meaningful learning but not higher grades.

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