

# **Public Examinations and its Influence on the Botswana Educational System: Views of Undergraduate Education Students at the University of Botswana**

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## **ABSTRACT**

This is an exploratory survey study aimed at finding out the views of University Undergraduate Education Students (UES) of the influence of public examinations on the Botswana educational system. A questionnaire was developed, validated and administered to a total number of two hundred (200) Undergraduate Education Students at the University of Botswana, out of which one hundred and eighty six (186) responded expressing their views about the influence of public examinations on the Botswana educational system. The responses collected were analysed using descriptive statistics and one sample population t-test. The t-value was set at  $t=2.5$ , p-value at 0.05 alpha level. All items with p-values less than 0.05 were considered to be statistically significant; that is, these items have a significant influence either (positive or negative) on the Botswana educational system. All the items that were statistically insignificant were considered as not having any influence on the Botswana educational system. The findings of this research study indicated that the surveyed UES viewed the influence of public examinations on the Botswana educational system as having both positive and negative influences on students, teachers, school administrators and policy makers.

**Keywords:** Public examinations, Botswana educational system, Undergraduate Education Students.

## **INTRODUCTION**

In any educational system, especially in Africa, public examinations are seen as a requirement and are normally designed to provide a basis for decisions about the performance of individual students. These decisions include roles as gatekeepers guarding entry to schools, selection of students during the course of their careers and a platform for evaluation of students when leaving school. All these have very important implications for chances in life, general achievement or attainment in schools and achievement levels. The continued existence and central importance of public examinations in Africa can therefore be attributed to the fact that they serve a number of important functions in the educational system.

According to Molnar (2003), there are six purposes for which public examinations are designed: for selection of candidates who are found suitable for whatever purposes the examination is designed; offering of certificates after candidates have duly completed specified educational programmes; controlling the school curriculum and the way it is delivered, motivating schools to have clear goals; sense of purpose and direction and provide bases for giving of incentives and rewards; and monitoring educational standards and reporting the extent to which schools are effective. In some advanced countries, e.g the United States of America, public examinations are called high stakes testing and they are tests mandated by NCLB (No

Child Left Behind Act 2001) with important consequences such as promotion to the next grade or graduation from high school.

Within the Botswana educational system, there are three major public examinations administered to students, the (PSLE) (at the end of primary schooling system), (JCE) after three years in the junior secondary school and the (BGSCE) at the end of senior secondary school. The role of public examinations within the Botswana educational system is for selecting students during the course of their careers and providing an evaluation of students when leaving the school system. This type of evaluation has important implications for students' further education and career paths. The achievement testing examinations for the PSLE and JCE are administered for the purpose of selection to form one and form three respectively. The BGSCE examination is administered for the school leavers at the end of senior secondary school education, and students' results are used for admissions to tertiary institutions in Botswana.

### **STATEMENT OF THE PROBLEM**

Public examinations are supposed to make a lot of influence on the educational system in any country, according to the supposed various functions or roles they should play in the school system. However, it seems public examinations are criticised as having little effect on the educational system. Some researchers on high-stakes testing like Koretz, Linn, Dunbar & Shepard (1991) suggested that high-stakes testing can be a driving force behind fundamental change within schools. Other studies like Stecher, Barron, Chun, & Ross (2000) have found out that high-stakes tests limit the scope of classroom instruction and student learning in undesirable ways. In many countries, especially in Africa, the public examinations at the end of the lower and secondary school stages have been severely criticized. Public examinations are seen to have distorted the basic objectives of education since performance of students are viewed in form of high grades or marks which has become the major goals for students, teachers and schools. In some countries, students who fail to pass the public examination get demotivated and become unemployed school leavers or school dropouts. In like manner, parents and the community, associate children's progress in school only with their success in cognitive learning which depend on their passing the public examinations. It seems that the importance of an all-round and balanced education of children has not been fully understood and accepted by society. Even in the cognitive assessment of students, there is too heavy dependence on only one type of assessment, which is the public examination.

It is generally believed that in any educational system, public examinations should always serve the needs of teaching and learning in schools. But in recent years many researchers, policy makers, and stakeholders in education have been concerned about the influence of public examinations on teaching and learning outcomes. At this stage in the development of Botswana, there is the need for public examinations to be used as tools for improving the educational system; and not only for certification or selection purposes to the next higher level of education. This study is aimed at finding out the views of undergraduate education students on the positive and negative influences of public examinations within the Botswana educational system. It would be necessary for the Botswana educational system to be fully aware of all positive

influences of public examinations on the teaching and learning outcomes and also try to remove or minimise any negative influences of public examinations within the educational system.

### **Research questions.**

- (i) What are the views of undergraduate education students regarding the positive influence of public examinations on the educational system?
- (ii) What are the views of undergraduate education students regarding the negative influence of public examinations on the educational system?

## **REVIEW OF LITERATURE**

Madaus and Clarke (1999) examined the impacts of high-stakes examinations on teaching and learning of minority students in the US, and found out that high-stakes tests did not contribute positively to both teaching and learning. They contended that teachers were likely to use past examination papers to train students to pass the tests and that these past examination effectively define the curriculum. They also found little evidence that the high-stakes tests motivated students. In particular, they reported that the tests could lead to an increase in high school dropout rates.

Johnston and McClune (2000) found that due to high-stakes examinations, teachers focused on syllabus content and train their students on how to pass tests, thereby using teaching methods that are not useful for every students' learning. Harlen and Crick (2003) and some other studies (Kohn, 2000; Koretz, 1988; Linn, 2000) found that an increase in test scores might be due to teachers' and students' greater familiarity with the tests rather than an increase in learning.

Some studies reviewed by Dochy and McDowell (1997) focused on a view of "assessment as a tool for learning". They mentioned that teachers teach to the test because education is mainly assessment-driven. They added, 'our view is that assessing high-order skills by means of authentic assessments will lead to the teaching of such high-order knowledge and skills' (p. 290).

Morrison and Tang's (2002) study considered teachers' views of testing. They concluded that tests and examinations were demotivating and did not guarantee long-term learning; many teachers did not necessarily resent the amount and kind of testing, indeed most saw tests and examinations as advantageous rather than as disadvantageous; ...teachers and students relied on tests and examinations to ensure learning, particularly of book knowledge; the need to pass examinations and tests drove students' learning and teachers' teaching; tests and examinations were strong partners to didactic, textbook-driven methods, drill, rote learning and memorisation, superficial learning, student passivity and spoon-feeding. (pp. 312-313)

A questionnaire was administered by Shepard and Dougherty (1991) to teachers in 100 primary level schools in districts with high-stakes tests. They found that 52.6% of teachers reported that they felt great pressure from the district administration or board of education to raise test scores. Half of the teachers reported that they gave less emphasis to subjects which were not tested. 51.5% of teachers mentioned that every four or more weeks they gave students worksheets that reviewed the content they expected to be on the test while 60.4% of teachers agreed that

standardized test results were helpful in identifying student strengths and weaknesses.

A survey of research that considered the effects of high-stakes testing on classroom practices in the USA by Stecher (2002) reported both positive and negative potential effects on teaching methods and on students. The positive potential effects on students were that high-stakes testing provides students with better information about their own knowledge and skills, motivates students to work harder in school, sends clearer signals to students about what to study, and rewards students' efforts. The negative potential effects on students were that tests might discourage them from trying, make students more competitive, and influence students not to do higher grades and school assessments (p. 86). Some of the mentioned potential effects on teachers were that tests may motivate teachers to work harder, help them to diagnose student difficulties, encourage teachers to focus more on specific test subjects rather than on curriculum standards, and guide teachers to participate in inappropriate test preparation.

Nolen, Haladyna, and Haas (1992) also reported that many teachers engaged in inappropriate or unethical testing procedures because of pressure to produce high test scores with their students. In surveying teachers' views about the state-required test in Michigan U.S.A., Urdan and Paris (1994) found that many Michigan teachers were frustrated by external pressures to "teach to the test" and angry that the tests were used to evaluate teachers' effectiveness. Hoffman, Assaf, Pennington, and Paris (2001) found that teachers in Texas U.S.A, felt coerced to teach skills relevant to the TAAS (Texas Assessment of Academic Skills) to the exclusion of other subjects.

## METHODOLOGY

This exploratory survey study was aimed at finding out the views of undergraduate education students on the influence of public examinations on the Botswana educational system. Data for this study were collected from University of Botswana undergraduate education students. Two hundred (200) undergraduate year two education students were selected for this study, out of which one hundred and eighty six (186) responded to the questionnaire voluntarily, and all responses were treated confidentially.

### **Instrument for the study**

The instrument for collecting data (questionnaire) was constructed, developed and modified using representative sampling of studies regarding intended and unintended consequences of high stakes testing by the following authors: Amrein & Berliner (2002); Barksdale-Ladd & Thomas (2000); Clarke, Shore, Rhoades, Abrams, Miao & Li (2003); Clotfelter & Ladd (1996); Elmore (2004); Furhman (2004); Herman (2004); Jones & Egley (2004); Jones, Jones & Hargrove (2003); Paris & Urdan (2000); Pedulla. Abrams, Madaus, Russell, Ramos & Miao (2003). Thirty two questions were developed for this study and these questions were pilot tested on ten (10) Undergraduate Education Students (UES) who were not used for the data collection processes. At the end of the pilot testing, the instrument was adjusted and validated before presenting it to the UES. Four response options were provided in the instrument as follows: *strongly disagree*, *disagree*, *agree* and *strongly agree*. The UES were requested to react to each of the statements by choosing the level to which they agreed or disagreed with the items. The agreement scale had four options ranging from 'strongly disagree' to 'strongly agree'. A

Cronbach alpha analysis of the reliability of the instrument in measuring the variables gave a value of 0.804. The data was collected by two research assistants and the researcher.

### Presentation, Analysis and Interpretation of the results

#### Data analysis

Descriptive statistics in terms of mean, standard deviation and percentages were used to analyse the responses of UES on the influence of public examinations on the Botswana educational system and the responses were also tested for significance by using one sample population t-test. The t-value was set at  $t=2.5$ , p-value at 0.05 alpha level. All items with p-values less than 0.05 were considered to be statistically significant; that is these items have significant influence on the Botswana educational system which could either be positive or negative influence. All the items that were statistically not significant were considered not to have any influence on the educational system.

**Table 1: The views of UES regarding the influence of public examinations on the Botswana Educational system.**

The influence of public examinations on the Botswana educational are as follows:	SD	D	A	SA	Mean	Standard deviation	T-test values	Level of significance
1. Provide students with better information about their own knowledge and skills.	20 10.8%	22 11.8%	101 54.3%	43 23.1%	2.89	.88	6.170	.000
2. Motivate students to work harder in their various schools	6 3.2%	26 14.9%	99 53.2%	55 29.6%	3.09	.75	10.786	.000
3. Send clearer signals to students about what to study	22 11.8%	64 34.4%	78 41.9%	22 11.8%	2.54	.85	.603	.548
4. Help students associate personal effort with rewards	12 6.5%	40 21.5%	91 48.9%	43 23.1%	2.89	.83	6.331	.000
5. Measure how well students have learned content and skills associated with the country's standards.	19 10.2%	45 24.2%	72 38.7%	50 26.9%	2.82	.95	4.656	.000
6. Frustrate students and discourage them from trying.	8 4.3%	32 17.0%	75 40.3%	71 38.2%	3.12	.84	-10.063	.000
7.Places undo pressure on students.	14 7.5%	65 34.9%	82 44.1%	25 13.4%	2.63	.81	-2.265	.025
8.Cause students to devalue grades and school assessments.	42 22.6%	63 33.9%	50 26.9%	31 16.6%	2.38	1.01	-1.666	.097
9.Support better diagnosis of individual student needs.	15 8.1%	77 41.4%	75 40.3%	19 10.2%	2.53	.79	.466	.642
10.Help teachers identify areas of strength and weakness in their curriculum.	19 10.2%	31 16.7%	86 46.2%	50 26.9%	2.89	.92	5.927	.000
11.Help teachers identify content not mastered by students and redirect instruction.	19 10.2%	49 26.3%	79 42.5%	39 21.0%	2.74	.91	3.645	.000
12.Motivate teachers to work harder and to focus on improved teaching.	21 11.3%	42 22.6%	80 43.0%	43 23.1%	2.78	.93	4.100	.000
13.Narrowed the curriculum.	14 7.5%	69 37.1%	75 40.3%	28 15.1%	2.37	.83	-2.121	.035
14.Lead teachers to align instruction with standards.	15 8.1%	45 24.2%	114 61.3%	12 6.4%	2.66	.72	3.059	.003

15. Encourage teachers to participate in professional development to improve instruction.	28 15.1%	73 39.2%	66 35.5%	19 10.2%	2.93	.79	7.470	.000
16. Encourage teachers to focus more on specific test content than on curriculum standards.	18 9.7%	66 35.5%	74 39.7%	28 15.1%	2.82	.87	-1.438	.152
17. Lead teachers to engage in inappropriate test preparation.	8 4.3%	48 25.8%	75 40.3%	55 29.6%	2.95	.85	-7.222	.000
18. Devalue teachers' sense of professional worth.	19 10.2%	48 25.8%	71 38.2%	48 25.8%	2.79	.94	-4.280	.000
19. Entice teachers to cheat when preparing or administering tests.	10 5.4%	42 22.6%	59 31.7%	75 40.3%	3.09	.89	-8.994	.000
20. Cause administrators to examine school policies related to curriculum and instruction.	14 7.5%	37 19.9%	116 62.4%	19 10.2%	2.67	.76	3.085	.002
21. Help administrators judge the quality of their programs.	10 5.4%	24 12.9%	120 64.5%	32 17.2%	2.94	.72	8.278	.000
22. Lead administrators to change school policies to improve curriculum or instruction.	15 8.1%	45 24.2%	109 58.6%	17 9.1%	2.69	.75	3.424	.001
23. Help administrators make better resource allocation decisions, e.g., provide professional development.	13 7.0%	29 15.6%	85 45.7%	59 31.7%	2.91	.81	6.878	.000
24. Lead administrators to enact policies to increase test scores but not necessarily increase learning.	13 7.0%	59 31.7%	75 40.3%	39 21.0%	2.75	.87	-3.981	.000
25. Cause administrators to reallocate resources to tested subjects at the expense of other subjects.	13 7.0%	41 22.0%	101 54.3%	31 16.7%	2.81	.79	-5.255	.000
26. Lead administrators to waste resources on test preparation.	8 4.3%	35 18.8%	83 44.6%	60 32.3%	3.05	.83	-9.042	.000
27. Distract administrators from other school needs and problems.	20 10.8%	54 29.0%	73 39.2%	39 21.0%	2.70	.92	-3.027	.003
28. Help policymakers to judge the effectiveness of educational policies.	6 3.2%	38 20.4%	95 51.1%	47 25.3%	2.98	.77	8.599	.000
29. Improve policymakers' ability to monitor school system performance.	11 5.9%	37 19.9%	91 48.9%	47 25.3%	2.94	.83	7.162	.000
30. Foster better allocation of state educational resources.	17 9.1%	40 21.5%	98 52.7%	31 16.7%	2.77	.84	4.389	.000
31. Provide misleading information that leads policymakers to suboptimum decisions.	12 6.5%	40 21.5%	83 44.6%	51 27.4%	2.93	.86	-6.789	.000
32. Foster a "blame the victims" spirit among policymakers.	20 10.8%	59 31.7%	63 33.9	44 23.6%	2.70	.95	-2.935	.004

### Discussion of findings

The findings of this research study indicated that the surveyed UES viewed that public examinations have an influence on the Botswana educational system. The influence of public examinations on the Botswana educational system was viewed as having both positive and negative influence on students, teachers, school administrators and policy makers.

#### Research question one

1. What are the views of undergraduate education students regarding the positive influence of public examinations on the educational system?

Table 2 below, displays of the views of UES on the positive influence of public examinations on the students, teachers, administrators and policy makers within the Botswana educational system.

**Table 2: *The views of UES on the positive influence of public examinations on the students, teachers, administrators and policy makers within the Botswana educational system.***

The positive influence of public examinations on the Botswana educational are as follows:	Mean	Standard deviation
<b>STUDENTS</b>		
• Provide students with better information about their own knowledge and skills.	2.89	.88
• Motivate students to work harder in their various schools	3.09	.75
• Help students associate personal effort with rewards	2.89	.83
• Measure how well students have learned content and skills associated with the country's standards.	2.82	.95
<b>TEACHERS</b>		
• Help teachers identify areas of strength and weakness in their curriculum	2.89	.92
• Help teachers identify content not mastered by students and redirect instruction	2.74	.91
• Motivate teachers to work harder and to focus on improved teaching	2.78	.93
• Lead teachers to align instruction with standards	2.66	.72
• Encourage teachers to participate in professional development to improve instruction	2.93	.79
<b>ADMINISTRATORS</b>		
• Cause administrators to examine school policies related to curriculum and instruction	2.67	.76
• Help administrators judge the quality of their programs	2.94	.72
• Lead administrators to change school policies to improve curriculum or instruction	2.69	.75
• Help administrators make better resource allocation decisions, e.g., provide professional development	2.91	.81
<b>POLICYMAKERS</b>		
• Help policymakers to judge the effectiveness of educational policies	2.98	.77
• Improve policymakers' ability to monitor school system performance	2.94	.83
• Foster better allocation of state educational resources	2.77	.84

### Research question two

2. What are the views of undergraduate education students regarding the negative influence of public examinations on the educational system?

UES viewed public examinations as also having negative influence on the students, teachers, administrators and policy makers within the Botswana educational system in the following areas:

**Table 3: *The views of UES on the negative influence of public examinations on the students, teachers, administrators and policy makers within the Botswana educational system.***

The negative influence of public examinations on the Botswana educational are as follows:	Mean	Standard deviation
<b>STUDENTS</b>		
• Frustrate students and discourage them from trying	3.12	.84
• Places undo pressure on students.	2.63	.81
<b>TEACHERS</b>		
• .Narrowed the curriculum	2.37	.83
• Lead teachers to engage in inappropriate test preparation	2.95	.85
• Devalue teachers' sense of professional worth	2.79	.94
• Entice teachers to cheat when preparing or administering tests	3.09	.89
<b>ADMINISTRATORS</b>		
• Lead administrators to enact policies to increase test scores but not necessarily increase learning	2.75	.87
• Cause administrators to reallocate resources to tested subjects at the expense of other subjects	2.81	.79
• Lead administrators to waste resources on test preparation	3.05	.83

• Distract administrators from other school needs and problems	2.70	.92
<b>POLICYMAKERS</b>		
• Provide misleading information that leads policymakers to suboptimum decisions.	2.93	.86
• Foster a “blame the victims” spirit among policymakers	2.70	.95

The results from this study are consistent with findings of previous research on the impact of public examination or high stake testing on the educational system by McNeil (2000) and Smith (1991), who stressed that public examinations or high stake testing could be a driving force in the educational system or force behind fundamental change within schools. However some other studies also found that public examinations or high stakes testing limit the scope of classroom instruction and student learning in undesirable ways (Stecher & Barron, 1999; Stecher, Barron, Chun & Ross, 2000).

UES also viewed public examinations as having no influence on the students and teachers in the following areas:

- Public examinations do not have influence on sending clearer signals to students about what to study;
- Public examinations do not have influence in causing students to devalue grades and school assessments;
- Public examinations do not have influence in supporting better diagnosis of individual student needs;
- Public examinations do not have influence in encouraging teachers to focus more on specific test content than on curriculum standards.

### Conclusions of findings

In Africa, public examinations have played and still play a major role in the educational system. They have served many purposes, the most important of which is selecting students for successive levels in the educational system. The main goal of public examination is to promote changes in the educational system, which includes changes in school practice in terms of encouraging teachers to teach more effectively and to motivate students to work harder in order to succeed academically. Despite the functions of public examinations, there have been many criticisms about their quality and influence on the educational system. According to Amin Rehmani (2003), public examination system can play a significant role in improving the quality of education when its purposes are not only accreditation for the purpose of accountability, selection and promotion but also for enhancement of teaching and learning. It has been argued that this can be achieved through the combination of both formative and summative assessment.

In conclusion, it is hoped that public examination would not become a burden and fearsome activity but a means to promote learning which is one of the major objectives of schooling leading to improved quality of education. From this study, it can be concluded that public examinations have both positive and negative influences on the students, teachers, school administrators and policy makers in the Botswana educational system. Public examinations can be a driving force in the Botswana educational system or limit the scope of classroom instructional procedures and student learning outcomes. This study provides students, teachers, administrators in schools and policy makers with views on the influence of public examinations on the educational system in Botswana. The results of this study would also provide enlightenment to different stakeholders within the Botswana educational system on how to uphold the positive influences of public examinations on the educational system, and how to



minimize or remove the negative influences of public examinations for effective teaching and learning outcomes.

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