Perceived Washback Effects of High-Stakes Test on the Teaching and Learning of Senior High School Economics

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Abstract:
This study investigated the perceived washback effects of high-stakes test, the West African Senior School Certificate Examination (WASSCE) on the teaching and learning of Economics. The study was a quantitative research which adopted the descriptive cross-sectional survey design. In all, 600 and 100 Senior High School (SHS) Economics students and teachers respectively, were sampled for the study. Data were collected through a 5-point Likert scale questionnaire ranging from strongly agree to strongly disagree. Inferential statistics (ANOVA and independent t-test) were used to analyse the data that were obtained. The findings of the study revealed that there was a statistically significant difference in the perceived washback effect of WASSCE on Economics students’ learning practices between SHS 1, SHS 2 and SHS 3 Economics students. Again, the study found a statistically significant difference in the perceived washback effect of WASSCE on Economics teachers’ classroom instructional practices between private and public SHS Economics teachers. Further, the study revealed that there was no statistically significant difference in the perceived washback effects of WASSCE on Economics students’ learning practices between private and public SHS Economics students. The study recommends that Heads of SHS institutions and Circuit Supervisors should pay particular attention to their supervisory roles, and ensure that teachers implement the entire broader content of the syllabus but not a selected few items.

Keywords: High-stakes test, washback effect, classroom instructional practices, economics, learning practices

1. Introduction

Tests are increasingly used throughout the educational system of most countries as a basis to make important score-based decisions about test takers. Testing has the tendency to induce consequences for the intended participants because it remains a way of differentiating between and among the individuals. However, tests have consequences for test takers because testing is not a neutral process (Safari, 2016; Stobart, 2003). In Ghana, pre-university institutions or schools (i.e. Primary or Basic, Senior High School levels) take Basic Education and West African Senior School Certificate Examinations respectively as external high-stakes examination which are conducted and moderated by institutions outside the context of the classroom. Examinations of this nature have consequences for the students, their teachers or schools (Agbeti, 2014; Amoako, 2018; Anamuah-Mensah, 2002; Anane, 2010). In Ghana, a high level of importance has been attached to high-stakes testing by teachers, students, parents and other stakeholders due to the diverse roles played by this examination (Anane, 2010). The role played by these examinations includes determining the effectiveness of teaching and learning in schools, as well as students’ future prospects (Heubert, 2000).

High-stakes testing has been described as standardised examination to which paramount importance is attached by schools and students because of its consequences (Smyth, Banks & Calvert, 2011). Heubert (2000) defines high-stake test as an assessment which is of importance in making decisions regarding students, teachers and the school as a whole. High-stakes examinations are used for ranking, grading, selection, certification and accountability (Heubert, 2000). For schools of this 21st century, high-stakes external testing appears to be a powerful force in shaping public opinion about the good standards and accountability of education (Amoako, 2019; Anane, 2015). In Ghana, WASSCE results determine candidates’ entry into tertiary institutions such as universities, technical universities and the colleges of education. The Examination body which is the West African Examination Council (WAEC), organises the high-stakes test on behalf of the government or Ministry of Education. This public examination is a standardised examination which candidates or students are expected to pass in at least six subjects including English Language, Mathematics and Science.

In Ghana, tests like the WASSCE are becoming more and more high-stakes, because such examinations are used for determining the quality of Senior High Schools, for school selection and placement into tertiary institutions and remedial classes respectively (Anane, 2010). Gradually, national assessments are being openly or secretly related to plans that guide school systems, administrators, teachers and students (Anane, 2007). The scores of students on national tests, for instance, are published in the daily newspapers and other news portals as a medium of ensuring accountability to the
public. In some cases, stakeholders such as opinion leaders suggest that students’ performance be used as a basis for determining rewards and sanctions for schools and their staff. The results are also used in deciding which Senior High School (SHS) is better, usually through the league systems (Ghana Education Service, 2004). The pressure and stress to perform on these tests in Ghana have become intense for students, teachers, head teachers and school systems (Anane, 2007). As a result of increased standards and demand for accountability, teachers and administrators began taking these tests and standards seriously (Grant, 2002). In the Ghanaian context, supervisory stakeholders of Senior High Schools assess the quality of the school system and teachers by the number of students who score six credits and above in the WASSCE. This further underscores the significance of WASSCE which is administered by an external examination body, WAECE. According to Linn (2001), high-stake test, sometimes known as standardised testing, now serves as the basis for holding schools, teachers, and students more accountable. Due to that, the degree of success of candidates in WASSCE is held in high esteem. Proprietors of private Senior High Schools attach promotions and increase in salary of teachers to the number of students who do well in the WASSCE because of the importance attached to students’ overall performance (Adesina, 2017).

The crucial nature of standardized tests is not unique to Ghana. In the United States for instance, the ‘No Child left Behind’ policy suggests the essential function standardized tests play in accessing funds by schools, and for teachers to retain their jobs (Dee & Jacob, 2011). Testing starts when the child is seven years of age in England; these tests are referred to as Standard Attainment Tasks 2 and Tests (SATs) (Gregory & Clarke, 2003). Students’ ability to achieve the objective of the National curriculum is the main aim of the SATs. The financing of a specific school maybe influenced by the results of SATs. Many of these examinations are high-stakes examinations for schools and students. Teachers frequently struggle to meet the demands of proprietors, the government and parents as a result of the critical nature of students’ success rate in the high-stakes examinations (Agbeti, 2014). In essence, teachers struggle to get their students perform well in the examinations, even going to the extent of helping students to engage in examination malpractices (Grant, 2002). On the other hand, students struggle to please their parents and guardians, and also struggle to meet the criteria for admission into tertiary institutions for fear of being mocked at as failures (Lin, 2010). Hence, this might influence teaching and learning as a whole. That is, “shaping both what is taught and how it is taught” and also altering the context in terms of what counts as valuable knowledge (Conway & Sloane, 2005, p. 48). Washback or backwash, also known as measurement-driven instruction (Cheng, 2005), is a concept used in general education showing the consequence of a test on teaching and learning, which remains a dominant phenomenon in education.

The literature on assessment points out that both critics and supporters accept that high-stakes test has a controlling effect on teaching and learning and thus has the ability to alter the way teachers teach (Anamah-Mensah Committee report, 2002; Chapman & Snyder, 2000; Firestone, 2004). The point of contention is the impact on teaching and learning of the unintended effects of this type of assessment. The opponents emphasise the unforeseen and sometimes undesirable effects of external assessment on teaching and learning. For their part, the proponents argue that the critical issue to deal with is how to minimise the adverse impact of high-stakes tests on teaching and learning (Firestone, 2004). The proponents’ concern is how to align the divergent aims of the curriculum and actual teaching and learning that occur at school under the influence of external examination (Wright, 2002).

A substantial number of washback studies have centred on the investigation of teachers and learners’ views of high-stakes tests as well as the washback effects of the tests on teaching and learning processes (e.g., Ferman, 2004; Glover, 2006; Gosa, 2004; Stoneman, 2006). Anane (2007) examined the effect of high-stakes testing on curriculum implementation and instruction in secondary schools in Ghana. His findings reveal that high-stakes testing has not resulted in improved quality of teaching and learning as teachers spend 28% of class time preparing students for tests. In the same vein, BECE as a high-stakes test drives curriculum implementation in Ghana, and puts the “national curriculum” and “teaching practices” at stake (Amoako, 2018). In other contexts, Cheng (1999) studied the workings of the washback phenomenon in Hong Kong secondary school teaching, and discovered that the high-stakes test had an impact on teaching in the examination class, as teachers realigned their teaching with the requirements of the examination. The activities they participated in during lessons were directly linked to what the students were expected to meet at examinations. Wright (2002) found an identical result in his study of the impact of a high-stakes test on teachers in an elementary school in California. He discovered that the high-stakes examination was driving the instructional objectives of the teachers.

Generally, washback has been perceived as being either negative (harmful) or positive (beneficial). High-stake tests have been used as a catalyst for change (Pearson, 1988) in order to encourage beneficial washback and curricular innovation (Alderson & Wall, 1993; Cheng, 2005; Qi, 2004), although its ramifications on teaching and learning may be negative (Shohamy, 2004). As a result, contemporary studies of washback in education focus on the impact of high stakes tests on educational stakeholders, especially when the examinations undergo alterations, in aspects such as learning practices, teaching techniques, syllabus and behaviours towards tests (Qi, 2004; Saif, 2006; Tsagari, 2009). Empirical studies have revealed a variety of results with regards to the impact of tests on diverse facets of instructional practices: some tests may have greater effects on some domains of teaching and learning than others (Cheng, 2005). However, it has been argued that washback is a multifaceted phenomenon (Alderson & Wall, 1993; Choi, 2008), and should not be considered as a spontaneous consequence of examinations (Bailey 1999; Spratt, 2005). The literature seems to suggest that some intervening variables outside the examinations per se may contribute to the determination or exclusion of the amount and kind of washback effect. Some of these variables relate to the features of teachers and students, and the context (Spratt, 2005). These varied results may suggest that each high-stake test needs suitable research to identify its own washback. Similarly, other studies have confirmed that high-stakes examinations may, from the outset, affect some stakeholders’ views and behaviours, and thus, may be able to alter the practices of teachers in the classroom and the
content of teaching (Cheng, 2005; Shohamy, 2007). Besides, this modification in the how (methodology) and the what (content) is often superficial rather than substantial, and may occur in the form of teaching and not in its substance (Cheng, 2005; Qi, 2004).

With regard to differences in the perceived washback effect of high-stakes tests between groups of students, few studies of washback effect of high-stakes test on learning practices have been conducted in recent years. In Ghana, Anim (2019) investigated the difference between SHS 1, SHS 2 and SHS 3 students in terms of the washback effect of WASSCE on their learning practices. The descriptive survey design was employed for this study. The findings of the study revealed that there was no statistically significant difference of washback effects of WASSCE among SHS 1 SHS 2 and SHS 3 students. On the other hand, Cho (2010) surveyed 391 high school students across three different school years. The results of the study showed a variety of differences between students across the three school years. For instance, first and second year students focused on textbooks highlighting reading and listening, including content outside of the KCSAT while third year students concentrated on KCSAT learning materials.

There is a contradiction between the findings of Cho (2010) and those of Anim (2019). For instance, Anim opined that there was no difference of washback effects between SHS 1, 2 and 3 students but Cho found that there was a difference in washback effects between students across the three school years, hence it is imperative to further investigate whether there is any significant difference of perceived washback effects between SHS 1, 2 and 3 students. The difference in washback effect between the two studies could be due to the context of the study and also the kind of high-stakes test that was investigated.

With respect to washback effects of high-stakes test on teachers' classroom instructional practice between groups of teachers, Ghorbani (2008), for instance, studied the washback effect of the Iranian University Entrance Examination (UEE) on curriculum planning and instruction of high school language instructors. The findings of the study revealed that the UEE had a significant influence on “what to teach” but not the “how to teach” of Iranian high school teachers. In addition, his findings further revealed that almost all the teachers, irrespective of their gender, teaching experience, educational background, the type of school, and the school location, perceived the negative effects of the UEE. By implication, the result showed that there was no statistically significant difference between the teachers about the effect of the UEE with regards to the school type in which they were studying.

Nhokma, Zivanal and Zirima (2017) conducted a study to ascertain whether there was a difference in teachers' views on examination preparation between urban and peri-urban schools in Zimbabwe. The findings of their study revealed that both school locations did not consider the learning approaches of students in teachers' teaching. Also, the results showed that urban school teachers focused on past examination questions after they had completed teaching the contents in the syllabuses. This was not the same case with the peri-urban teachers who hardly found ample time to concentrate on past examination questions as it was difficult to even complete their syllabuses on time.

Conversely, Chou (2017) examined the impact of English tests on teachers and teaching in Taiwan. The drive of this study was to explore the effect of a newly-introduced listening test on the teaching of English at Senior High School level. Out of the twenty teachers, ten teachers were selected from each of the private and public SHS respectively. The study used twenty (20) English teachers from ten (10) senior high schools in Taiwan. The results of the study revealed that the test had both positive and negative impacts on the teachers from both public and private Senior High Schools. Washback effects of high-stakes test are mediated by a variety of variables that may be slightly different from context to context. The climate of a school is one of the moderating factors (Watanabe, 2000). According to Read and Hayes (2003), school type and location can affect the allocation of time to various activities. This suggests that one of the reasons for the degree of washback effect may be attributed to a number of school context variables. In this study, school type (public or private) which is presumed to be closely related to the WASSCE washback effect was studied. In addition, the context of learning may affect the washback effect of the test (Cho, 2010).

In the quest to find out how different contexts may be affected by washback, Cho (2010) investigated the washback effect of the College Scholastic Abilities Test (CSAT) on high school students' language learning. The findings of the study showed that different contexts of learning may be affected by the washback of the KCSAT (i.e. the public school and the private school). Further findings revealed that students in their first and second years of study reported a wider variety of English content outside of the test in their public school classes; they reported that the content at private schools across all years concentrated specifically on the KCSAT. However, there was no conclusion on the difference in washback effects of the test on students’ learning practices between public and private school students. Consequently, there is the need for further research to find out the differences in the washback effect of high-stakes test on students’ learning practices between public and private school students.

In another insightful study in Iran, Ghorbani and Neissari (2015) undertook a descriptive survey study on the washback effects of the Iranian concours on Senior High School students' EFL learning activities. The study focused on the school type and location presumed to be closely linked to the washback effect of the nationwide Iranian University Entrance Examination (UEE). Based on a quantitative research design, a questionnaire was used to elicit responses from 120 participants. The findings of the study showed that the students perceived the negative effect of the UEE on their learning practices. Additionally, the results of the study revealed that there was no statistically significant difference between the perceived effect of the UEE for the public-school students (M = 4.61, SD = 0.70) and the perceived effect for the private school students (M = 4.85, SD = 0.93; t (111) = -1.28, p > .05). The findings of the study imply that virtually all students equally perceived the effect of the UEE on their learning practices irrespective of the type of school they attended. The discovery of washback effect of high-stakes test on teaching and learning in the 21st century can be traced to several researchers (Alderson & Hamp-Lyons, 1996; Cheng, 1999; Ghorbani & Neissari, 2015; Green 2007; Onaiba, 2013). In Iran,
Moradi (2019) studied the washback effects of final examinations at Payame Noor University (PNU) on teaching and learning. The results of the study showed that the English examination had washback effect on teaching and learning, and this washback effect was more positive than negative. Also, Chou (2019) explored the effect of high-stakes examination on teaching and learning. The study collected data through the use of questionnaire and interview schedule from 311 Junior High School students and 12 teachers in Taiwan. In the study, a mixed method approach was used and the results revealed that the test influenced learning more than teaching. Contrary to the findings of Moradi, the study was not specific in respect of whether the washback effect was completely positive or negative.

In the Ghanaian context, Anane (2010) investigated the influence of accountability pressures on Science, English and Mathematics teachers’ classroom practices. The findings of the study revealed that the high-stakes test (SSSCE) gradually shapes the content of the curriculum from broad curriculum to test-focused teaching. Similarly, Amoako (2018) looked at the perceived effects of BECE on curriculum implementation on teaching and learning of English, Mathematics and Science in the Kwahu-South District. The results of the study showed that, in Ghana, the high-stakes test (BECE) drives curriculum implementation. Owusu(2019) studied the washback effects of BECE/WASSCE on teaching and learning of English language among 4 JHS’s and 8 SHS’s with 374 students and 24 teachers in the Central Region of Ghana. A mixed method approach was used. It was found that teachers and their students did not give the required attention to language skills or areas that were not covered in the BECE/WASSCE. Owusu therefore concluded that BECE/WASSCE English language test exerted a negative washback effect on the students. However, it appears most of these researchers failed to consider whether there is any significant difference in the washback effects of high-stakes test on teachers’ classroom instructional practices between private and public SHS teachers. Again, it appears most of the studies on washback effects of high-stakes test have used small samples and mixed methods. Also, it looks as if studies on washback effect focused on the physical sciences and the Language- related subjects. It seems little has been done in the area of the Social Sciences to find out the washback effects of high-stakes tests on teaching and learning at the Senior High School level. This has therefore created a research gap, part of which this study intends to fill by investigating the perceived washback effects of high-stakes test on teaching and learning of Economics.

1.1. Purpose of the Study

The overarching thrust of this study was to investigate the perceived washback effects of high-stakes test on teaching and learning of Economics in the senior high schools of the Kumasi Metropolis. However, in specific terms, the study sought to:

- Determine whether there is any significant difference in the perceived washback effects of WASSCE on Economics students’ learning practices between SHS 1, SHS 2 and SHS 3 Economics students.
- Find out whether there is any significant difference in the perceived washback effects of WASSCE on Economics teachers’ classroom instructional practice between private and public SHS Economics teachers.
- Ascertain whether there is any statistically significant difference in the perceived washback effects of WASSCE on Economics students’ learning practices between public and private SHS Economics students.

1.2. Research Hypotheses

The study tested the following hypotheses:

- $H_0$: There is no statistically significant difference in the perceived washback effect of WASSCE on Economics students’ learning practices between SHS 1, SHS 2 and SHS 3 Economics students.
- $H_0$: There is no statistically significant difference in the perceived washback effect of WASSCE on Economics teachers’ classroom instructional practice between private and public SHS Economics teachers.
- $H_0$: There is no statistically significant difference in the perceived washback effects of WASSCE on Economics students’ learning practices between public and private SHS Economics students.

2. Research Methods

2.1. Research Design

The study used the cross-sectional survey design which was employed to investigate the perceived washback effect of high-stakes test on the teaching and learning of Economics. The choice of this method was informed by the opinion of Creswell (2014) that cross-sectional survey design offers a quantitative or numerical overview of the trends, perceptions or views of a population by examining a sample of that population. In addition, Osuala (2001) asserts that cross-sectional survey is suitable in circumstances where the researcher is not interested in manipulating the variables involved in the study but rather wants to study the situation as it exists on the ground. Also, Chalmers (2004) and Ponterrot to (2005) are of the view that cross-sectional survey design offers researchers the capability to find explanations on certain facets of social phenomena, such as the viewpoints and behaviours of the respondents. Cross-sectional survey design is useful for collecting factual information, data on attitudes and desires, views and guesses, perceptions, habits and experiences – both past and present (Aldridge & Levine, 2001; Dillman, Smyth & Christian, 2014).

2.2. Population

The population for this study consisted of all Senior High School (SHS) Economics teachers and students at public and private Senior High Schools in the Kumasi Metropolis. In all, there are 67 senior high schools in the Kumasi Metropolis (GES, 2019) of which 26 are public schools while the remaining 41 are private schools. The total number of Economics
teachers in the Metropolis was 335, with the public school teachers numbering 130 and private teachers 205. The total number of Economics students in the Metropolis was 9045, out of which 3510 were from the public and 5535 from the private schools. In all, a total of 9380 participants formed the target population for the study.

2.3. Sample and Sampling Procedures

The multi-stage sampling technique was used to select the size of the sample. The sampling was carried out at three stages. Firstly, the stratified sampling technique was used to place the Senior High Schools in the Kumasi Metropolis into two strata: Public and Private SHS’s. The stratification variable that was used is the school type within the Metropolis. Secondly, the simple random sampling technique was used in selecting 20 (10 public and 10 private) senior high schools randomly selected from the sixty seven (67) Senior High Schools in the Metropolis to constitute the sample. A list of the schools in the Metropolis was collected from the Kumasi Metropolitan Education Office. The names of the schools were coded so as to avoid bias in the sampling process. The codes were written on pieces of paper and put in a container. The slips of paper were picked one after the other without the selector looking into the pool. Once a name was selected, it was recorded and put back before a new one was picked; the container was vigorously shaken to resuffle the folded pieces of paper. Another name was picked, recorded and put back. This was done continually until the required number of 20 schools from the list of schools was selected.

The proportionate sampling technique was used to select 600 Economics students. This sampling was based on the Krejcie and Morgan (1970) sample size determination table. This sampling technique was used to address the difficulty the researchers encountered with stratified samples of equal size. In each school, 10% of the number of students from each form was sampled. Thus, 10% of the number of students from SHS 1, SHS 2 and SHS 3 was selected respectively. Also, the simple random sampling technique, specifically, the lottery method was used to select the sample unit in each form. This was done by obtaining the class list from the class teachers in the selected schools. The names of the students in Form 1 were written on pieces of paper and placed in a basket. Afterwards, they were picked and put back into the basket. A name that was picked for the second time was not recorded. The process continued till the sample size for the students in Form 1 was reached. The same procedure was carried out for the students in Forms 2 and 3. The researcher also employed the census method to select 100 teachers from the twenty schools. This technique was used due to the relatively small number of Economics teachers in each school, so there was no need to sample. The choice of the census method was therefore informed by the recommendation of Farooq (2013), that when the elements in a given population are relatively small, the entire elements could be used instead of sampling them. Again, the census method was employed because a large sample gives better judgment over smaller ones provided such large samples are available and accessible (Gall, Gall & Borg, 2007). The technique helped the researcher to involve every Economics teacher identified in the twenty schools.

2.4. Data Collection Instrument

The high-stakes test survey questionnaire developed by Hope, Brockmeier, Lutfi and Sermon (2006) was adapted as the data collection instrument. Cohen et al (2018) argue that questionnaires are commonly used and are valuable instruments for gathering survey information, providing organised numerical data and can be administered without the presence of the researcher. Additionally, the questionnaire was used for the study because it was suitable for survey work and also provided sufficient time for respondents to provide well thought-out answers (Kothari, 2004). Two sets of questionnaires were developed: one set was responded to by Economics teachers and the other set by Economics students. The questionnaire was developed to conform to distilled literature relevant to this study. The questionnaire comprised a five-point Likert scale item of strongly agree to strongly disagree. Respondents were required to respond by ticking the appropriate level regarding statements on the Likert scale. The teachers’ questionnaire consisted of three sections whilst the students’ questionnaire was made up of two sections. The items on both questionnaires were designed based on the hypothesis guiding the study. In all, the teachers’ questionnaire had 46 items and that of the students had 23 items. The questionnaires were pretested in four senior high schools in the Cape Coast Metropolis to test the reliability of the instruments. The schools were selected because they take part in the WASSCE; also, the teachers and students had similar characteristics with respect to the sampled schools for the actual study.

2.5. Data Collection Procedure

The researchers recruited five (5) research assistants for the exercise. They were given a detailed briefing on all aspects of the instrument, as well as research ethics. Each research assistant was assigned to four (4) schools. A photocopy of the letter of introduction from the Department of Business and Social Sciences Education (DoBSSE) was given to each research assistant. The research assistants personally visited all the sampled schools and administered the instrument. Students were given about twenty (20) to thirty (30) minutes to respond to the items in the questionnaire. Teachers on the other hand, were given a week to fill in their responses. After collecting the filled questionnaire, the researcher reviewed each completed instrument for absolute completeness.

2.6. Techniques of Data Analysis

Data collected were encoded and refined with the aid of SPSS (version 26). An inferential statistics was used to analyse the data to provide the needed results. Research Hypothesis One was analysed using One-Way Analysis of Variance (ANOVA). Research Hypothesis Two and Three were analysed using the independent sample t-test.
3. Presentation of Results

3.1. Research Hypothesis One

- \( H_0 \): There is no statistically significant difference in the perceived washback effect of WASSCE on Economics students' learning practices between SHS 1, SHS 2 and SHS 3 Economics students.
- \( H_1 \): There is statistically significant difference in the perceived washback effect of WASSCE on Economics students' learning practices between SHS 1, SHS 2 and SHS 3 Economics students.

Table 1 presents a summary of the findings in relation to the hypothesis that there is no statistically significant difference in the perceived washback effect of WASSCE on Economics students’ learning practices between SHS 1, SHS 2 and SHS 3 Economics students.

| Sum of Squares | Df | Mean Square | F      | Sig. |
|---------------|----|------------|--------|------|
| Between Groups| 2.180 | 2          | 1.090  | 9.964 | .000* |
| Within Groups | 65.323 | 597        | .109   |       |      |
| Total         | 93.343 | 599        |        |      |      |

*Significance Level .05 

Source: Field Survey, 2020

The findings from Table 1 indicate that there is a statistically significant difference in the perceived washback effect of WASSCE on Economics students’ learning practices between SHS 1, SHS 2 and SHS 3 Economics students (\( F = 9.964; \text{df} = 2, 597; \text{sig} < .05 \)). This implies that the ‘Forms of Economics students’ affect their perceived washback effects of WASSCE on learning practices. The results suggest that students from SHS 1, 2 and 3 perceive the effect of WASSCE on their learning practices differently. A post-hoc analysis was performed to find out where the differences in the perceived washback effects are. Table 2 presents a summary of the post-hoc analysis in terms of the difference in the perceived washback effect of WASSCE on learning practices based on forms of students.

| (I) Form | (J) Form | Mean Difference (I-J) | Std. Error | Sig. |
|----------|----------|-----------------------|------------|------|
| Tukey    | Form one | Form two              | -.07972*   | .03308 | .043* |
| HSD      | Form three| Form one              | .07792*    | .03308 | .043* |
|          | Form three| Form three            | .14750*    | .03308 | .000* |
|          | Form one  | Form two              | -.06778    | .03308 | .102  |
|          | Form two  | Form three            | .14750*    | .03308 | .000* |

*Significance level .05 

Source: Field survey, 2020

From Table 2, the post hoc test of Turkey’s HSD suggests that there is a significant difference between students in Forms One and Forms Two. Also, those students in form three have a different perception on the washback effect as compared to those in form two. The difference is significant. However, the difference between those in Formstone and Form Three is not significant.

3.2. Research Hypothesis Two

- \( H_0 \): There is no statistically significant difference in the perceived washback effect of WASSCE on Economics teachers’ classroom instructional practices between private and public Economics teachers.
- \( H_1 \): There is statistically significant difference in the perceived washback effect of WASSCE on Economics teachers’ classroom instructional practices between private and public Economics teachers.

Table 3 presents a summary of the findings in terms of the hypothesis.

| School Proprietorship | M  | SD | t    | df | P   |
|-----------------------|----|----|------|----|-----|
| Private               | 1.95 | .23 | -2.390 | 98 | .021 |
| Public                | 2.20 | .40 |       |    |     |

*Significance level .05 

Source: Field survey, 2020

From Table 3, it can be observed that there is a difference in the mean values for the private and public teachers, with the mean of the public teachers exceeding that of the private teachers by 0.25. However, an independent t-test was used to test whether the difference in the mean values was statistically significant. First, the Levene’s test for equality of variances showed that the variances for the two groups were equal (\( F = 5.495, .021 < .05 \)) and so equal variance test was
used. The mean value of public teachers’ perception of washback effect (M = 2.20, SD = .40) is significantly higher (t = -2.390, df = 98, .021 < .05) than that of the private schools Economics teachers (M = 1.95, SD = .23). This suggests that public and private school Economics teachers held different perceptions about the effect of WASSCE on their classroom instructional practices.

3.3. Research Hypothesis Three

- H0: There is no statistically significant difference in the perceived washback effect of WASSCE on Economics students’ learning practices between public and private school Economics students.
- H1: There is statistically significant difference in the perceived washback effect of WASSCE on Economics students’ learning practices between public and private Economics students.

Table 4 presents a summary of the results in terms of the hypothesis that there is no statistically significant difference in the perceived washback effects of WASSCE on Economics students’ learning practices between public and private SHS Economics students.

| School Proprietorship | M    | SD | t   | df  | P  |
|-----------------------|------|----|-----|-----|----|
| Public                | 2.72 | .31| 1.570| 598 | .930|
| Private               | 2.73 | .36|      |     |    |

*Table 4: Differences in the Perceived Washback Effects of WASSCE on Economics Students’ Learning Practices between Public and Private SHS Economics Students*

From Table 4, the results reveal that there is a difference in terms of the mean values for the public and private school students with the mean of the private students exceeding that of the public students by 0.01. However, to test whether the difference in the mean values was statistically significant, an independent t-test was used. First, the Levene’s test for equality of variances indicated that the variances for the two groups were equal (F = 5.378, .930 > .05), and therefore a test for equal variances was used. The mean score of private school Economics students’ perception of washback effect (M = 2.73, SD = .36) is not significantly higher (t = .088, df = 598, .930 > .05) than that of the public-school Economics students (M = 2.72, SD = .31). Therefore, the null hypothesis is sustained. It can, therefore, be concluded that both public and private school students have the same perception about the washback effect of WASSCE on students learning practices.

4. Discussion of Results

Research Hypothesis One sought to find out whether there was any statistically significant difference in the perceived washback effects of WASSCE on Economics students’ learning practices between SHS 1, SHS 2 and SHS 3. The results of the study revealed that there was a statistically significant difference in the perceived washback effects of WASSCE on Economics students’ learning practices between SHS 1, SHS 2 and SHS 3. This implies that the forms or class in which the Economics students find themselves’ affect their perceived washback effect of WASSCE on learning practices. The finding does not seem to support the claims of Anim (2019) that there is no significant difference in washback effects of WASSCE among SHS 1, SHS 2 and SHS 3 students. However, the finding of this current study corroborates that of Cho (2010) who opines that there are a variety of differences between students across the three school years. He asserts that first- and second-year classes concentrate on textbooks, reading and listening, including content outside of the KCSAT, and third year students mostly use KCSAT-specific resources. The difference in the perceived washback effect of WASSCE on Economics students’ learning practices between SHS 1, SHS 2 and SHS 3 could be due to the fact that SHS 3 students are preparing to write the WASSCE and also SHS 1 students are yet to write any economics examination that is related to WASSCE.

The implication of this result is that as students’ progress, they get closer to writing their final examination and they have to alter their learning practices in order to absorb more content and prepare fully for the examination. For instance, an SHS 1 student in the first semester has more than two years to prepare for the WASSCE and might not have covered enough content which would demand a quick-fix learning practice as compared to an SHS 3 Economics student who has gotten few months to write his or her examination and might have even covered enough content.

Hypothesis Two was meant to ascertain whether there was any statistically significant difference in the perceived washback effect of WASSCE on Economics teachers’ classroom instructional practices between private and public SHS Economics teachers. The findings of this study showed that there was a statistically significant difference in the perceived washback effect of WASSCE on Economics teachers’ classroom instructional practices between private and public SHS Economics teachers. This result suggests that Economics teachers, based on school proprietorship, perceived the negative washback effect of WASSCE on their classroom instructional practices differently. This finding provides support for the assertions of Nkoma, Zivanai and Zirima (2017) that there are differences in the way in which teachers are influenced by tests based on the school type. The finding further confirms the opinion of Watanabe (2000) who emphasized that the school atmosphere is one of the mediating factors of washback effect. However, this finding is at variance with that of Chou (2017) who found that the test had impact on teachers from both public and private schools. Also, the results of the study contradict that of Ghorbani (2008) who indicated that teachers, regardless of the type of school, perceive the negative effects of the examination (UEE).
The difference in the perceived washback effect of WASSCE on Economics teachers' classroom instructional practices between private and public SHS Economics teachers might be attributed to differences in the teaching contexts. Also, the difference can be linked to the fact that supervision and monitoring in private schools is different from that of public schools. In addition, increase in enrolment in private schools is associated with the performance of students in WASSCE especially in the era of free SHS where the public schools employ little or no effort in attracting students, private schools need to convince parents that their students will perform well at the end of the academic year therefore the need to enrol them in their schools.

The third research hypothesis was designed to determine whether there was any statistically significant difference in the perceived washback effects of WASSCE on Economics students' learning practices between public and private SHS Economics students. Results of this study therefore showed that there was no statistically significant difference in the perceived washback effects of WASSCE on Economics students' learning practices between public and private SHS Economics students. Results of this study suggest that almost all students, regardless of the type of school they attended, were equally conscious of the washback effect of WASSCE on their learning practices, similarly. The finding of this current study validates that of Ghorbani and Neissari (2015) who discovered that there was no statistically significant difference between students' views of the effect of the UEE with regards to the type of school they were studying in. Conversely, the result of the study is inconsistent with that of Read and Hayes's (2003), and Cho (2010) who claim that one of the reasons for the degree of washback effect can be attributed to different contexts of learning or various school background variables (such as school type). This finding seems to suggest that WASSCE exerts its influence on students' learning practices regardless of the school proprietorship. The reason is that students' progress is related to their performance in WASSCE, hence irrespective of their school, they would want to pass the WASSCE Economics examination.

5. Conclusion

The study was meant to investigate the perceived washback effect of high-stakes tests on the teaching and learning of Economics. The result of the study showed that there was a statistically significant difference in the perceived washback effects of WASSCE on Economics students' learning practices between SHS 1, SHS 2 and SHS 3 Economics students. It can be concluded that one of the mediating factors responsible for the perceived washback on students' learning practices is the "Form or Level of student". In addition, the finding of the study revealed that there was statistically significant difference in the perceived washback effect of WASSCE on Economics teachers' classroom instructional practices between private and public SHS Economics teachers. This implies that one of the explanations for the perceived washback effect of WASSCE on teachers' classroom instructional practices is school type or proprietorship. Lastly, the finding of the study revealed that there was no statistically significant difference in perceived washback effect of WASSCE on Economics students' learning practices between public and private SHS Economics students. Hence, irrespective of the school proprietorship in which the students studied, they perceived the washback effect of WASSCE on their learning practices similarly.

6. Recommendations

In the field of educational assessment and evaluation, measurement experts and researchers must play an active role in engaging stakeholders on testing issues. For instance, WAEC should be made aware that washback of a high-stakes test does not only affect Form 3 students but also Forms 1 and 2 students, hence there should be an alternative way of testing in order to promote positive washback effect. Also, Heads of SHS institutions should monitor and supervise the classroom instructional practices of teachers in order to promote positive washback effect.

7. References

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