



# **Washback Effects of High-Stakes Test: Perspectives of Economics Teachers and Students**

**Francis Arthur <sup>a\*</sup> and Peter Anti Partey <sup>a</sup>**

<sup>a</sup> *Department of Business and Social Sciences Education, Faculty of Humanities and Social Sciences Education, College of Education Studies, University of Cape Coast, Cape Coast, Ghana.*

## **Authors' contributions**

*The manuscript was extracted from the author FA's Master's thesis. However, the author PAP helped in refining the research methods section of the manuscript.*

## **Article Information**

DOI: 10.9734/AJESS/2023/v40i1866

## **Open Peer Review History:**

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/96720>

**Original Research Article**

**Received: 08/12/2022**

**Accepted: 14/02/2023**

**Published: 24/02/2023**

## **ABSTRACT**

This study examined the washback effects of the high-stakes test (WASSCE) on the teaching and learning of economics. Specifically, the study examined the perceived washback effects of WASSCE on economics teachers' classroom instructional practices, implementation of the Economics syllabus, and students' learning practices in Ghana. The study adopted a descriptive survey design. Ultimately, 600 and 100 SHS Economics students and teachers were selected for the study, respectively. Data were collected through a 5-point Likert scale questionnaire ranging from strongly agree to strongly disagree. Descriptive (mean and standard deviation) statistics were used to analyse the data that were obtained. The findings of the study revealed that the WASSCE Economics examination had negative washback effects on classroom instructional practices, implementation of the Economics syllabus, and students' learning practices. The study recommends that Ghana Education Service and heads of institutions should provide appropriate in-service training to SHS teachers on testing practices and their effects to avoid the situation of teachers spending their instructional periods, preparing students for tests.

\*Corresponding author: Email: [a.francis1608@gmail.com](mailto:a.francis1608@gmail.com);

*Keywords: Washback effect; instructional practices; learning practices; high-stakes test.*

## 1. INTRODUCTION

Teaching and learning are indistinguishably linked to examination. According to a sixteenth Protestant German teacher, Philip Melancthon, “no academic exercise can be more useful than that of examination. It whets the desire for learning, it enhances the solicitude of the study while it animates the attention to whatever is taught” [1]. This assertion shows the known information about the impact of assessment on student learning. Nevertheless, this is only an incomplete look at the effects of assessment on education. Ferman [2] believes that assessment not only affects learning, but also affects teaching, textbooks and even the entire education system. It is evident from this assertion that assessment has been a part of education for centuries, and it is difficult now to imagine an educational system without it. Due to the nature of the washback effect, it is essential to investigate it for every high-stakes test which will be used to evaluate teaching and learning at various secondary and tertiary institutions. In this post-modern world, assessment permeates all learning activities in schools to promote classroom teaching and learning [3].

Proponents of external assessment believe that when it is used to pressure teachers to improve student learning, it can be used to change teaching as needed [4,5]. Opponents of this idea point to the detrimental effects of external assessment on learning, which they believe outweighs any benefits. They believe that the negative impact is not limited to the cognitive domain, but also extends to sociological issues related to power, social class, race, and equality of opportunity [6-8]. It is on this same claim that the Anamuah-Mensah Committee report [9] asserted that “it is recognised that the type of assessment employed by the system dictates the type of pedagogy used by teachers” and as a result, the committee strongly advocated that this system of assessment should be scrapped off.

High-stakes tests are tests that use students' scores to determine admission, promotion, placement, or graduation, while low-stakes tests do not consider these important decisions [5]. In addition, Hughes [10] believes that high-stakes assessments are used to make important educational decisions for students, teachers, schools, or school districts. In the same vein, Qi [11] defines a high-stakes test more accurately as a test whose results are regarded by students,

teachers, administrators, parents, or the public as the basis for making important decisions that directly affect students. High-stakes tests are often used not only to check successful results, but also to encourage expected teaching and learning changes [12].

Again, High-stakes tests or grades are defined as tests that students must pass to graduate from high school, participate in educational programs, go to college, receive scholarships, or obtain proficiency on an application [13,14]. In addition, this term is also used for tests which have highly significant results for test-takers and which cause them to have great concern and anxiety [15]. The effect of a high-stakes test is seen in a backward direction and because tests often end in a lesson, it influences teachers, students, and parents' attitudes, actions, and enthusiasm [16].

There seems to be a consensus among educators that washback is described as having an effect, whether positive or negative, intended or not, that are induced on teaching and learning as a result of administering examinations [17-21]. Washback is an intentional or unintentional impact on certain facets of the classroom instructional process through a high-stakes test [22]. Kilickaya [23] opines that any assessment made, whether formative or summative, or teacher-made and nation-wide, affects students as well as teachers. Therefore, any effect, positive or negative, intended or unintended, associated with the WASSCE examination, is deemed to be a washback for this study.

Hoque [24] examined the washback of the public examination in the Bangladesh higher secondary level for teaching and learning English as a foreign language. The results of the study showed that teaching and learning are negative for the public review. In addition, the washback of the examination affected the choice of teachers' materials, teaching techniques, teaching tasks and activities and their perceptions on the examination, teaching strategies and learning results. Hoque results are consistent with the findings of Watanabe [25], who opined that tests influence how teachers teach and make them adopt test-like teaching methods.

Moreover, in their qualitative study, Salehi et al. [26] examined the nature and existence of washback effects of Entrance Examination of the Universities (EEOU) and its role in promoting

beneficial washback. The study's findings showed that the examination had negative washback effects on teaching. Furthermore, in their study on the washback effect of the Iranian undergraduate programme entrance examination on high school instructors' classroom behaviour, Salehi and Yunus [27] suggest that the UEE negatively influences English teachers to teach the content and format of the examination. The finding of Salehi and Yunus is in tandem with that of Pan [28] who asserts that the examination affects teaching and learning, as teachers concentrate more on the tested items.

Likewise, Aftab et al. [29] investigated the washback effects of the Pakistani intermediate English examination. The results of the study revealed strong negative washback effects from the examinations on teaching methodology, content, and learning. Their findings are in harmony with those of Read and Hayes [30]. However, in the study of Hayes and Read [31], the washback effect varies between teachers in their respective schools.

Bunti [32] also examined the washback effects of the Ethiopian General Secondary Education Certificate English Examination (EGSECEE) on English language teachers' pedagogical practices. The results of the study revealed that EGSECEE exerted a harmful impact on the teachers' teaching methods, contents of teaching, classroom test contents, and testing techniques. Likewise, Ramezaney [33] investigated the Iranian UEE impact on high school EFL teachers' curricular planning and instruction techniques and concluded that there was a strong overt washback effect of UEE on teachers' curricular planning and instruction.

Onaiba [34] studied the washback effects of a revised EFL examination on teachers' instructional practices, materials, and curriculum. The findings of the study showed that the examination exerted washback effects on teachers' instructional practices. However, the findings were not conclusive, in the sense that it did not indicate whether the washback effect was positive or negative. Moreover, Soomro and Shah [35] examined the effects of washback on high school English teachers. The results of the study revealed that the examination affected the English teacher's instructional method and teachers teach only topics that are to be tested in the examination. Similarly, Hatipoglu [36] found that the university entrance examination negatively affected and directed how English was learned and taught in Turkey. Conversely, Cholis

and Rizqi [37] asserted that a high-stakes test had a positive washback on senior high school English teachers' attitudes and their teaching methods.

A similar study was conducted by Saglam [38] who looked at the washback effects of high-stakes English language proficiency tests in tertiary education in Turkey. The findings indicated that the test had both positive and negative effects on teaching. Although Saglam reported that the test exerted both positive and negative effects on teaching, the findings were inconclusive and might not be generalizable to other contexts. In Australia, Cranley [39] investigated the impact of high-stakes tests on the teaching and learning of mathematics. The study found that the high-stakes test had a significant effect on the teaching and learning of mathematics. Additionally, the findings revealed that teachers altered their pedagogies due to the test requirements. However, the findings of the study failed to indicate whether the impact of the test was negative or positive.

A high-stakes test can affect the syllabus or curriculum and learning [40]. The syllabus or curriculum is modified according to high-stakes test results; hence, it leads to the narrowing of contents in the syllabus [36, 40-42]. In this current study, the syllabus refers to the content used to deliver instruction. In Spain, Amengual-Pizarro [43] explored the washback effect of a high-stakes English test on the teaching of English in Spanish upper secondary schools. The results revealed that the content and activities were adapted and geared in the direction of the test. This is in line with the results of a previous study by Amengual Pizarro [44] that found that teachers seemed to spend most of their class time practising the skills featured in the examination and neglecting untested skills.

Additionally, Ghorbani [45] investigated the washback effect of the University Entrance Examination on language teachers' curriculum planning and instruction. The findings of his study showed that UEE strongly affects "what of teaching" but not "how of teaching" in Iranian EFL teachers. However, it is not always the case that high-stakes tests have deleterious effects on the curriculum. Yeh's [46] study found that the high-stakes testing programme in Texas had a positive effect on the curriculum. This finding suggests that the theoretical position of a negative effect on curriculum may not be applicable in all high-stakes situations as mediating factors account for the effect high-

stakes assessments have on teaching and learning [47].

Anane [48] also investigated the use of Senior Secondary School Certificate Examination (SSSCE) results on teachers' instructional methods and curriculum being implemented in Ghanaian schools. The study found that the overemphasis on the WAEC examination gradually shapes the content from a broad curriculum to examination-focused teaching (narrowed curriculum). Teachers tend to sideline topics on their teaching agenda because they are not included in the examination [49]. In another study, Boit et al. [50] examined the influence of examinations on the stated curriculum goals. The results of the study showed that the examinations had a negative effect on curriculum implementation. Moreover, the examinations made teachers selective in the content to be taught.

Wall [51] points out that the washback impact on curriculum and teaching materials can happen when teachers and students pay more attention to certain parts of the teaching syllabus at the expense of other parts because they believe these will be emphasised in the test. Wall's statement was based on findings from previous washback studies, which have explicitly shown that teachers, for instance, design their teaching materials and content around tests, called curriculum alignment [5, 52-55].

In addition, Onaiba [34] studied the washback effect of a revised EFL examination on teachers' instructional practices, materials, and curriculum. The study revealed that the BECE did not represent the current curriculum; a negative washback was observed on the content of the curriculum: some teachers tended to rely on the "hidden syllabus", while others narrowed the syllabus to meet the content of the examination. In Australia, Polesel et al. [56] investigated the impact of high-stakes testing on curriculum and pedagogy from the teacher's perspective. Their findings revealed that teachers adjusted their pedagogical practices and curriculum content to mirror the test.

Mutereko [57] examined the washback effect of the national senior certificate examinations on teaching in South Africa. The findings of the study indicated that there was manipulation of test records by teachers; a narrow emphasis on teaching subject matter that would be covered in the examinations; and an emphasis on addressing past examination papers to finish the

syllabus. Likewise, Saglam [38] found that a negative washback effect of high-stakes tests leads to narrowing of the curriculum. In the same vein, BECE as a high-stakes test drives curriculum implementation in Ghana, places our "national curriculum" and "teaching practices" at stake [58].

The washback effects of a high-stakes test on students' learning practices have not been left unsupported by empirical studies. Several studies have highlighted the washback effects of a high-stakes test on students' learning practices. In his study, Yildirim [59] investigated students' and teachers' teaching and learning practices in the preparation process for the English Component of the Foreign Language University Entrance Exam (ECFLUEE). The results of the study revealed that ECFLUEE had negative washback on both teachers and students.

Sukyadi and Mardiani [60] studied the washback effects of the English National Examination (ENE) in the Indonesian secondary education context. The findings of the study revealed that the ENE affects students' learning in the classroom, in which teachers mainly teach to test, practice the test, and develop test-taking strategies. The dimensions of the washback effect of the ENE on both English teachers and students were negative and positive. Nevertheless, the study was limited to three secondary schools in Indonesia; it could have been conducted with more secondary schools. Moreover, the findings of the study in terms of the type of washback were not definitive.

Pan and Newfields [61] found that the learners in their study allocated more time to study English because of the test and adopted more test-related practices with more variation in the methods used. Washback literature suggests that learners are most likely to resort to traditional methods rather than more communicatively oriented methods when preparing for a test [62,63]. Moreover, this negative washback effect was also discovered by Hoque [24] where he noticed students did not care about the curriculum as they were preparing for the (EFL) examination because of their overreliance on test-related materials. This may suggest that they practised what they considered important for the examination. In the same vein, Agbeti [64] and Hoque [24] stated in their washback studies that students were skipping contents and topics they felt will not appear in the

test because they were being influenced by test-related materials.

A study by Gashaye [65] focused on the washback effects of the University Entrance English Examination (UEEE) on teachers' and students' practices. It was revealed that the examination yielded overt, strong, and harmful washback effects on teachers' and students' practices that in turn led to the implementation of the syllabus to be less successful. The examination system exerts a negative influence on students' learning practices [66, 67].

Akpinar and Cakildere [68] investigated two high-stake language tests in Turkey and found that most learners focused more on passing the exam than improving skills not included in the test. These two tests only brought about a positive washback for reading, which was the only skill tested. In China, Ren's [69] findings were similar to those of Akpinar and Cakildere. Ren asserted that the students had little incentive to learn anything that was not tested and put very little effort into doing so as their primary motive was to pass the test.

Similarly, Kilickaya [23] explored the washback effect of the foreign language section of the transition examination from primary to secondary education. The findings of the study showed that the test had a negative washback effect on not only students but also teachers, parents, and administrators as a whole. The findings of Kilickaya agree with those of Toksoz and Kilickaya [70] that examinations have a negative washback effect on both teachers and students. However, the study was conducted with only teachers teaching in public schools; teachers teaching in private schools could have been involved to enrich the findings.

Adegoke [71] examined the effects of high-stakes examinations on the teaching and learning of physics in secondary schools in Nigeria. The findings of the study revealed that when studying physics, students try to understand the basic concepts, master the fundamental principles of physics, memorize formulae and procedures, and practice old or past examination questions. In a different study, Mahmud [72] examined the washback effect of the Malaysian University English Test (MUET) as a University Entry Test on students in Malaysia. It was found that the student's perceptions of the test shaped their goals and consequently stimulated their use of language learning strategies when preparing for the test. However,

the study did not investigate the washback effect of the test on students' learning practices; hence, there is a need for more research to be conducted to augment the literature in this field.

In Korea, Park [73] explored the washback effects of English examination on learning. The results of the study revealed all students experienced a negative washback effect in their learning process. The results also showed that students choose to focus on the tested features rather than the non-tested features. Park's result is in line with Allen's [74] and Tsang's [75] that the examination brings washback to students' preferences on learning strategies and it can be considered as a negative washback.

In the Ghanaian context, Owusu [76] investigated the washback effect of high-stakes tests on teaching and learning of the English language among 4 JHS's and 8 SHS's with 374 students and 24 teachers in the Central Region. 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. Moreover, the findings of the study indicated that the BECE/WASSCE English language test exerted a negative washback effect on students' learning practices.

Again, Moradi [77] conducted a study on the washback effect of final examinations on teaching and learning. The results indicated that Payame Noor University (PNU), English and Foreign Languages (EFL) final examinations have a washback effect on learning and this washback effect is more positive than negative. Similarly, Zheng [78] studied the washback effects of the Chinese National Matriculation English Test (NMET) on student learning and their test anxiety. The findings of the study revealed that the English test had negative washback effects on what and how students learn. Additionally, Chou [79] examined the effect of the English hearing test on junior high school students and teachers in high-stakes national entry examinations. The results showed that the tests affected learning more than teaching and that teachers have adopted a test-oriented teaching approach. Although Chou reported that the test impacted learning, the findings did not indicate whether the impact was positive or negative.

### 1.1 Statement of the Problem

The WASSCE is a high-stakes test administered by the West African Examinations Council

(WAEC) and is used to determine whether students are eligible for admission into tertiary institutions in Ghana. The test has been criticized for its potential to create a negative washback effect on teaching and learning in Ghanaian secondary schools. The unearthing of the washback effect of high-stakes testing on teaching and learning in the 21st century in Ghana can be traced to several scholars [48, 58, 80]. Anane [48] examined the influence of accountability pressures on teachers' classroom practices in senior high schools in the Ashanti Region. The results of the study showed that the WAEC examination (SSSCE) shaped the content of a broad curriculum of examination-focused teaching. Again, Amoako [67] studied the effects of BECE on curriculum implementation on the teaching and learning of English, Mathematics, and Science in the Kwahu South District. The results of the study showed that BECE as a high-stakes test drives curriculum implementation in Ghana.

Additionally, Yidana and Arthur [80] investigated the perceived washback effects of the high-stakes test on the teaching and learning of Economics. 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. However, their study focused on the mediating variables such as form of students and school proprietorship that might influence the washback effect of a high-stakes test.

Studies on the washback effect of high-stakes tests have been conducted in different teaching and learning contexts. In Ghana, such studies are quite limited. Based on assumptions that the washback effect of high-stakes tests is contextual and best explained through the specific test conducted [25], this study sought to examine the perceived washback effects of WASSCE Economics examination on the teaching and learning of Economics. This study, therefore, increases the richness of the literature already gathered in this field of research carried out in other contexts of teaching and learning.

## 1.2 Assumptions of the Study

Every study is grounded on some assumptions. The assumptions in effect, form the criteria by which judgements about the study can be made. The current study is based on several assumptions that underpin the washback effects of the high-stakes test on the teaching

and learning of Economics. The assumptions are:

1. That the washback effect of high-stakes tests is inevitable, it is a well-known phenomenon in educational research. This implies that the washback effects of the WASSCE Economics examination would likely be positive or negative.
2. That a high-stakes test such as the WASSCE Economics examination has important consequences, hence it will have a washback effect or influence on the teaching and learning of Economics.
3. That high-stakes test (WASSCE) will influence what and how teachers teach. This suggests that the WASSCE Economics examination will affect teachers' classroom instructional practices and the content of the syllabus.
4. That high-stakes test (WASSCE) will influence what and how students learn. This means that WASSCE will have an impact on the learning practices of students.

## 1.3 Objectives of the Study

The main purpose of this study was to examine the perceived washback effects of high-stakes tests on the teaching and learning of Economics. Specifically, the study intends to:

1. Explore the perceived washback effects of WASSCE on economics teachers' classroom instructional practices.
2. Find out the perceived washback effects of WASSCE on the implementation of the Economics syllabus.
3. Ascertain the perceived washback effects of WASSCE on economics students' learning practices.

## 2. METHODS

The descriptive survey design was employed for this study based on the recommendation of Leedy and Ormrod [81] that the descriptive survey design helps the researcher to elicit information about the opinions and attitudes of respondents by surveying a sample of that 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 at the Ashanti Region of Ghana.

**Table 1. Summary of the population and sample for the study**

Respondents	School proprietorship	Population	Sample
Teachers	Public	130	79
	Private	205	21
	Total	335	100
Students	Public	3510	300
	Private	5535	300
	Total	9045	600

Source: Fieldwork (2020)

The multistage sampling technique was used to select the size of the sample. The sampling was carried out in 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 proprietorship 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. The proportionate sampling technique was used to select 600 economics students. This sampling was based on the Krejcie and Morgan [82] sample size determination table. The researchers also employed the census method to select 100 teachers from twenty schools. This technique was used due to the small number of Economics teachers in each school. Also, the census method was employed because large sample gives better judgment over smaller ones provided such large samples are available and accessible [83].

The high-stakes test survey questionnaire developed by Hope et al. [84] was adapted as the data collection instrument. The questionnaire was a five-point Likert scale item of strongly agree to strongly disagree.

Data collected were encoded and refined with the aid of Statistical Product for Service Solutions (SPSS) version 23. Descriptive statistic was used to analyse the data to provide the needed results. The research questions were analysed using means and standard deviations. Also, all negative worded items were recoded before the analysis was done. The following is the interpretation of the scale mean score:

- (1) 1.00-2.49 = Strongly Agree
- (2) 1.50-2.49 = Agree
- (3) 2.50-3.49 = Neutral
- (4) 3.50-4.49 = Disagree
- (5) 4.50-5.00 = Strongly Disagree

### 3. PRESENTATION OF RESULTS

This section presents the results of the study concerning the research questions that were formulated to guide the study.

#### 3.1 Perceived Washback Effect of WASSCE on Economics Teachers' Classroom Instructional Practices

Research Question One: What is the perceived washback effect of WASSCE on economics teachers' classroom instructional practices?

The essence of this research question was to explore the perceived washback effects of WASSCE on teachers' classroom instructional practices. Table 2 shows the results from the analysis of data provided by the respondents on the perceived washback effects of WASSCE on economics teachers' classroom instructional practices.

From Table 2, the mean of means of 2.16 which is below 3.00 indicates that respondents share the opinion that the WASSCE Economics examination has a negative effect on classroom instructional practices. The average standard deviation score ( $SD = .96$ ) also suggests that the responses of the respondents were uniform. The highest mean value recorded was ( $M = 3.55, SD = 1.16$ ), and is about the statement that WASSCE discourages them to engage in a student-centred mode of instruction. This suggests that teachers disagreed that WASSCE discourages them to engage in a student-centred mode of instruction. However, as clearly shown in Table 2, the lowest mean value recorded was ( $M = 1.46, SD = .61$ ), and it is concerning the statement that teachers give model tests in the format of WASSCE to help prepare the students. This implies that teachers agreed that WASSCE influences them to give model tests to economics students.

**Table 2. Perceived washback effects of WASSCE on economics teachers' classroom instructional practices**

S/N	Statement	M	SD
1	I don't teach in a way that my students understand because of WASSCE.	1.52	.56
2	WASSCE discourages me to adopt innovative methods and techniques of teaching.	1.70	.82
3	I sometimes change my methods of teaching to reflect WASSCE requirements.	1.59	.59
4	Methods and techniques, I employ in teaching become more test-like in the third year than the second and first years.	1.82	1.00
5	I sometimes skip some topics and contents because they are unlikely to be tested in WASSCE.	2.82	1.28
6	I give more attention to the content that is likely to be assessed by WASSCE.	2.05	1.15
7	I do ignore tasks and activities that are not directly related to the purpose of WASSCE when teaching.	3.31	1.09
8	I teach test-taking strategies at all levels to prepare students for WASSCE.	1.92	.81
9	I practice and solve WASSCE past questions with students during instructional periods.	1.80	.83
10	I give model tests in the format of WASSCE to help prepare them.	1.46	.61
11	I emphasize and sometimes reteach topics that are likely to be assessed in WASSCE.	1.53	.67
12	WASSCE does not make me improve classroom instruction and practice.	1.95	1.02
13	WASSCE does not permit teachers to use the full range of their teaching skills.	2.39	1.10
14	WASSCE does not lead to better teaching.	2.72	1.11
15	The quality of my teaching is directly related to student performance in WASSCE.	2.39	1.06
16	WASSCE reduces the teaching and learning process to a student's test score.	2.54	1.00
17	WASSCE discourages teachers to improve the teaching and learning process.	2.05	.86
18	WASSCE discourages me to engage in a student-centred model of instruction.	3.55	1.16
19	WASSCE had made me encourage my students to memorize factual concepts.	2.31	1.10
20	WASSCE does not make me prepare more teaching and learning materials.	2.50	1.24
21	I do make a selection of teaching and learning materials that are relevant for WASSCE.	2.31	1.12
22	WASSCE discourages me to gather information from reliable and authentic sources to prepare my teaching materials.	2.12	1.04
23	WASSCE discourages me to use different Economics textbooks or Economics related materials.	1.73	.90
24	I recommend well-prepared economics textbooks with a lot of exercises following the format of WASSCE to students.	1.76	.84
Mean of Means/Average Standard Deviation		2.16	.96

Source: Fieldwork (2020)

### 3.2 Perceived Washback Effect of WASSCE on the Implementation of the Economics Syllabus

Research Question Two: What is the perceived washback effect of WASSCE on the implementation of the Economics syllabus?

Research question two was meant to ascertain the perceived washback effect of WASSCE on the implementation of the Economics syllabus. Economics teachers were asked to respond to several statements relating to the perceived washback effect of WASSCE on the implementation of the Economics syllabus by indicating their level of agreement or

disagreement with the statements. The results of this research question are shown in Table 3.

Table 3 shows results on the perceived washback effect of WASSCE on the implementation of the Economics syllabus. From Table 3, the mean of means of 2.55 compared to the cut-off point of 3 mean scores for positive washback effect, which indicates that the economics teachers affirmed that WASSCE has a negative washback effect on the implementation of the Economics syllabus. The average standard deviation score ( $SD = 1.11$ ) also suggests that teachers' responses to the items on this particular subscale were varied. The respondents disagreed that "they are not



aware of the objectives of the economics syllabus in which they teach” and this recorded the highest mean value ( $M = 4.21$ ,  $SD = 1.04$ ). From Table 3, the lowest mean value recorded was ( $M = 1.10$ ,  $SD = 0.48$ ) and is about the statement that “WASSCE hardly permits me to give attention to the requirements of each topic in the Economics syllabus”. This implies that teachers agreed that WASSCE hardly permits them to give attention to the requirements of each topic in the Economics syllabus.

### 3.3 Perceived Washback Effect of WASSCE on Economics Students’ Learning Practices

Research Question Three: What is the perceived washback effect of WASSCE on economics students’ learning practices?

The purpose of this research question was to determine the perceived washback effect of WASSCE on economics students’ learning practices.

Table 4 presents results that relate to the perceived washback effects of WASSCE on

Economics students’ learning practices about learning strategies and techniques, learning materials used by students, and the content of the syllabus. The summary of the results is presented in Table 4.

From Table 4, the mean of means of 2.68 compared to the cut-off point of 3 for the negative washback effect, which shows that WASSCE influences students’ learning practices negatively. This suggests that the learning strategies and techniques, learning materials, and content of the Economics syllabus that students use to study are being influenced by WASSCE. The average standard deviation score ( $SD = 1.11$ ) also indicated that students’ responses to the items on this specific subscale were diverse.

Concerning the learning materials used by students, from Table 4, it can be observed that the highest mean value recorded was on the statement that students do not find interest in studying the economics textbook materials and WASSCE past questions ( $M = 4.09$ ,  $SD = .92$ ). This implies that students disagreed that they do not find interest in studying the economics textbook materials and WASSCE past questions.

**Table 3. Perceived Washback Effects of WASSCE on the Implementation of the Economics Syllabus**

S/N	Statement	M	SD
1	I do not care about the Economics syllabus while teaching.	4.13	1.00
2	I am not aware of the objectives of the Economics syllabus in which I teach.	4.21	1.04
3	I feel pressurised to cover the Economics syllabus before the final examination.	2.52	1.20
4	If there is no WASSCE, the content of my teaching will be better than what I teach now.	2.70	1.25
5	WASSCE hardly permits me to give attention to the requirements of each topic in the Economics syllabus.	1.10	.48
6	WASSCE sometimes makes me adopt the “finish the syllabus” syndrome.	2.01	1.03
7	I design Economics lessons and content around the WASSCE requirement.	2.13	1.07
8	WASSCE makes me do less lesson preparation.	2.85	1.53
9	I do not teach every section in the syllabus because some sections are unlikely to be tested in WASSCE.	2.53	1.40
10	WASSCE has led me to reassess my beliefs about the subject matter that is important to teach.	2.49	1.03
11	WASSCE hardly permits me to give equal attention to all topics.	2.42	1.21
12	For students to get higher scores in the WASSCE means that I should solve more past questions with my students.	2.08	1.00
13	WASSCE test questions do not accurately reflect the content students learn in the Economics syllabus implemented by schools.	2.28	1.00
14	WASSCE Economics questions do not cover all economics syllabus objectives.	2.48	1.25
15	WASSCE content is not aligned with the Economics syllabus.	2.88	1.33
16	WASSCE requires teachers to teach on the test.	1.94	.90
Mean of Means/Average Standard Deviation		2.55	1.11

Source: Fieldwork (2020)

**Table 4. Perceived Washback effect of WASSCE on economics students' learning practices**

S/N	Statement	M	SD
1	I use the rote learning approach to memorise most of the things taught in class.	2.44	1.12
2	I give attention to topics and contents which are likely to be tested in WASSCE.	1.67	.88
3	I skip classes to have personal studies.	4.01	1.21
4	I practice and solve more of WASSCE Economics' past questions.	2.10	1.15
5	I ask for test-taking strategies from teachers to prepare us for the final examinations.	2.22	1.09
6	I spend more time learning topics and past economics questions that are likely to be tested in WASSCE.	2.03	1.03
7	I attend extra classes both on campus and at home to help me prepare for WASSCE.	2.39	1.30
8	I combine different textbooks of economics to have varied ideas when learning.	2.09	1.14
9	I do not care about the Economics syllabus while learning.	3.66	1.25
10	Learning comes with a lot of stress in school as I prepare to take WASSCE.	2.07	1.10
11	I feel pressurised to cover the syllabus before the final examination (WASSCE).	1.94	.89
12	I skip contents and topics that are not likely to be tested in WASSCE when learning.	2.82	1.38
13	WASSCE makes me memorise most of the things taught in the class without getting a deeper understanding.	2.37	1.32
14	WASSCE does not provide enough room (e.g., in terms of time) for me to learn.	2.61	1.23
15	I rely on textbooks and WASSCE Economics past questions when learning.	1.96	.97
16	WASSCE discourages me to use different textbooks of Economics.	3.86	1.05
17	WASSCE discourages me to search for reliable and authentic information to support the economics textbooks.	3.99	1.00
18	I do not find interest in studying Economics textbook materials because of WASSCE.	4.09	.92
Mean of Means/Average Standard Deviation		2.68	1.11

Source: Fieldwork (2020)

Conversely, the lowest mean value was recorded on the statement that teachers give attention to topics and content which are likely to be tested in WASSCE ( $M = 1.67$ ,  $SD = .88$ ). This suggests that the students confirmed that one of the strategies they employed in their learning is; they give attention to topics and contents which are likely to be tested in WASSCE.

#### 4. DISCUSSION

The first research question sought to determine the perceived washback effect of WASSCE on Economics teachers' classroom instructional practices. The results from the study indicated that the majority of the teachers held the opinion that the WASSCE economics examination has a negative washback effect on teachers' classroom instructional practices. This finding supports the assertion of Hoque [24] that public examination has a negative washback effect on teaching. The

finding also lends credence to the opinions of Salehi et al. [26] that English high-stakes examination has a negative washback effect on language teaching. On the contrary, the study's result is not in tandem with that of Cholis and Rizqi [37] who found that a high-stakes test had a positive washback effect on teachers' teaching methods.

This finding implies that, in instances where teachers have to prepare students for the WASSCE Economics examination, they employ instructional practices that will enable them to cover the content of the syllabus. Instructional practices such as teaching students test-taking strategies, teaching to the test, skipping topics and content which are unlikely to be tested on WASSCE, and ignoring tasks or activities that are not directly related to the purpose of WASSCE are adopted. This is normally because students' performances are in most cases associated with teacher output, hence the focus

of the teacher is mostly to ensure that his or her students pass with distinction.

The second question research question was meant to ascertain the perceived washback effects of WASSCE on the implementation of the Economics syllabus. The findings of the study revealed that the WASSCE Economics examination had a negative washback effect on the implementation of the economics syllabus. The results of the study are in tandem with that of Onaiba [34] who discovered that the BECE had a negative washback on the content of the curriculum and as a result, some teachers narrowed the syllabus to meet the content of the exams. Additionally, this finding is in harmony with that of Anane [48], Amoako [58], and Saglam [38] who also found and concluded that high-stakes test tends to have a negative washback on the curriculum.

Curriculum experts have argued that the fidelity of the implementation of any syllabus might be linked to the period available for the full implementation of the syllabus. In Ghana, SHS students spend a maximum of two and a half years for their secondary education, and Economics teachers are supposed to implement the whole content of the Economics syllabus within this period. With challenges such as time constraints, inadequate textbooks, and other teaching and learning resources, the economics teacher is left with no choice but to resort to the "curriculum-in-use" instead of the formal (written curriculum).

The third research question was meant to determine the perceived washback effects of WASSCE on Economics students' learning practices. The finding of the study showed that WASSCE has a negative washback effect on students' learning practices. The finding of this current study is consistent with the assertion of Park [73] that students experience a negative washback effect in their learning process, in preparation for an English exam. Again, this finding gives credence to the claims of Owusu [76] that the BECE/WASSCE English test exerts a negative washback effect on students' learning practices. Besides, this finding seems to support the opinion of Zheng [78] that Chinese national matriculation tests influence what and how students learn negatively. However, this result does not seem to support the view of Moradi [77] who claims that final examinations have a positive washback effect on learning.

This finding suggests that students are forced to have abandoned learning practices that will broaden their understanding of concepts and issues in economics by going in using WASSCE Economics past question and solution books instead of standard economics textbooks. This finding also implies that rote learning is preferred by economics students. The main objective for this is that the progress of the student's formal education in the future is tied to their performance in WASSCE and as such the Economics students will resort to quick learning practices that will give them a pass in the WASSCE Economics examination.

## 5. CONCLUSIONS

The findings of the study have implications for quality teaching and learning of economics and several conclusions can be drawn. Firstly, teachers adopted teaching methods that made them teach by test and high-stakes tests forced the teachers to teach what they find suitable for students. This might lead to shallow teaching on the part of teachers. Secondly, classroom instructional practices of teachers drive the scope of the syllabus that is being implemented, hence a negative washback on the instructional practices leads to teachers narrowing the content of the syllabus. It can be concluded that the use of the WASSCE Economics examination as a high-stakes test that drives syllabus implementation, places the economics curriculum at stake. Additionally, students adopted learning strategies and techniques that lead to rote learning. In Ghanaian senior high schools, the high-stakes test has a certain level of effect on classroom instructional practices, implementation of the Economics syllabus, and students' learning practices.

## 6. RECOMMENDATIONS

The findings suggest some important actions which should be undertaken if any mark will be made in promoting positive washback in a high-stakes test. Therefore, in light of these findings, the following recommendations are made. GES and heads of institutions should provide appropriate in-service training to SHS teachers on testing practices and their effects to avoid the situation of teachers spending their instructional periods preparing students for tests. Teachers should be given in-service training on the relevance of providing quality instructional delivery to students. This will help teachers to teach the broad syllabus or curriculum to achieve

real students' growth and learning, not just "teaching to test" skill acquisition. Until a high-stakes test is considered a small portion of a student's educational life, it will continue to cause negative effects, hence GES should educate students on the fact that standardized tests in the educational system do not necessarily indicate how much they know and can do.

## ACKNOWLEDGEMENTS

The authors acknowledge Alhaji Prof. Mumuni Baba Yidana for his scholarly guidance and valuable suggestions which has helped shaped this manuscript to its current state. Also, the authors acknowledge that the manuscript was extracted from the corresponding author's Master's thesis captioned "Perceived washback effects of high-stakes test on teaching and learning: A study of senior high school economics teachers and students" (Arthur, 2021).

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Agbeti A. Influence of assessment on teaching and learning in junior high school in Ghana. Unpublished doctoral thesis the University of Sussex UK; 2011.
2. Ferman I. The washback of an EFL national oral matriculation test to teaching and learning. In *Washback in language Testing*. Routledge. 2004;213-232.
3. Dunn KE, Mulvenon SW. A critical review of research on formative assessment: The limited scientific evidence of the impact of formative assessment in education. *Practical Assessment Research & Evaluation*. 2009;14(7):1-11.
4. Popham WJ. Instructionally supportive accountability tests in science: A viable assessment option? *Measurement: Interdisciplinary Research and Perspectives*. 2005;3(3):121-179.
5. Resnick LB, Resnick DP. Assessing the thinking curriculum: New tools for educational reform. In O. Connor (Ed.): *Changing assessments: Alternative views of aptitude achievement and instruction*. Boston: Kluwer Academic Publishers. 2009;34-45.
6. Amrein AL, Berliner DC. High-stakes testing uncertainty and student learning. *Education Policy Analysis Archives*. 2002;10(18):1-74.
7. Broadfoot P, Pollard A. The changing discourse of assessment policy: The case of English primary education. *Assessment: Social Practice and Social Product*. 2000;2(1):11-26.
8. Gipps C. *Beyond testing: Towards a theory of educational assessment*. New York: Merrill/Macmillan; 2011.
9. Anamuah-Mensah Committee Report. *Meeting the challenges of education in the twenty first century: Review report of the President's Committee on Education Reforms in Ghana*. Accra; 2002.
10. Hughes A. International comparisons of intermediate skills. *Learning & Skills Research Journal*. 2003;6(4):5-9.
11. Qi L. Has a high-stakes test produced the intended changes? In L. Cheng Y. Watanabe & A. Curtis (Eds.): *Washback in language testing: Research context and methods*. Mahwah NJ: Lawrence Erlbaum Associates. 2004;171-190.
12. Qi L. Stakeholders' conflicting aims undermine the washback function of a high-stakes test. *Language Testing*. 2005;22(2):142-173.
13. Cizek GJ. Conjectures on the rise and call of standard setting: An introduction to context and practice. In G. J. Cizek (Ed.): *Setting performance standards: concepts methods and perspectives*. Mahwah NJ: Lawrence Erlbaum Associates Publishers. 2001;10-21.
14. Resnick LB, Rothman R, Slattery JB, Vranek JL. Benchmarking and alignment of standards and testing. *Educational Assessment*. 2004;9(2):1-27.
15. Casbarro J. Reducing anxiety in the era of high-stakes testing. *Principals*. 2004;83(5):36-38.
16. Cheng L, Curtis A. Washback or backwash: A review of the impact of testing on teaching and learning. In L. Cheng Y. Watanabe & A. Curtis (Eds.): *Washback in language testing: Research contexts and methods*. Mahwah NJ: Lawrence Erlbaum Associates. 2004;3-17.

17. Bachman LF, Palmer AS. Language testing in practice. Oxford: Oxford University Press; 2010.
18. Cheng L, Curtis A. Washback or backwash: A review of the impact of testing on teaching and learning. In L. Cheng Y. Watanabe & A. Curtis (Eds.): Washback in language testing: Research contexts and methods. Mahwah NJ: Lawrence Erlbaum Associates. 2004;3-17.
19. Cheng L. Changing language teaching through language testing: A washback study. Cambridge: Cambridge University Press; 2005.
20. Hughes A. International comparisons of intermediate skills. *Learning & Skills Research Journal*. 2003;6(4):5-9.
21. Hung STA. A washback study on e-portfolio assessment in an English as a foreign language teacher preparation program. *Computer Assisted Language Learning*. 2012;25(1):21-36.
22. Cheng L. Changing language teaching through language testing: A washback study. Cambridge: Cambridge University Press; 2005.
23. Kilickaya F. Washback effects of a high-stakes exam on lower secondary school English teachers' practices in the classroom. *Lublin Studies in Modern Languages and Literature*. 2016;40(1):116-134.
24. Hoque E. Washback of the public examination on teaching and learning English as a foreign language (EFL) at the higher secondary level in Bangladesh. Unpublished doctoral thesis Jahangirnagar University Bangladesh; 2011.
25. Watanabe Y. Washback effects of the English section of the Japanese university entrance examinations on instruction in pre-college level EFL. *Language Testing Update*. 2000;27(1):42-47.
26. Salehi H, Mustapha R, Yunus MM. A study of the effect of entrance examination of the universities (EEOU) on the EFL teaching methodology in Iran. *Advances in Language and Literary Studies*. 2012;3(1):59-68.
27. Salehi H, Yunus MM. The washback effect of the Iranian universities entrance examination: Teachers' insights. *GEMA Online Journal of Language Studies*. 2012;12(2):609-628.
28. Pan Y. Learner washback variability in standardized exit tests. *TESL-EJ: Teaching English as a Second or Foreign Language*. 2014;18(2):1-30.
29. Aftab A, Qureshi S, William I. Investigating the washback effect of the Pakistani intermediate English examination. *International Journal of English and Literature*. 2014;5(7):149-154.
30. Read J, Hayes B. The impact of IELTS on preparation for academic study in New Zealand. *IELTS International English Language Testing System Research Reports*. 2003;4(1):153-206.
31. Hayes B, Read J. IELTS test preparation in New Zealand: Preparing students for the IELTS academic module. In L. Cheng Y. Watanabe and A. Curtis (Eds.): Washback in language testing: research contexts and methods. Mahwah NJ US: Lawrence Erlbaum Associates Publishers. 2004;97-112.
32. Bunti YH. The washback effect of Ethiopian general secondary education certificate english examination (EGSECEE) on teachers' teaching practices: The case of Jajura senior secondary school Hadiya Zone. Unpublished master's thesis Haramaya University; 2014.
33. Ramezaney M. The washback effects of university entrance examination on Iranian EFL teachers' curricular planning and instruction techniques. *Social and Behavioral Sciences*. 2014;98:1508-1517.
34. Onaiba AMEM. Investigating the washback effect of a revised EFL public examination on teachers' instructional practices materials and curriculum. University of Leicester Leicester; 2013.
35. Soomro AH, Shah ASZ. Effects of washback on high school teachers of English". *International Journal of English and Education*. 2016;5(2):201-210.
36. Hatipoglu C. The impact of the university entrance exam on EFL education in Turkey: Pre-service English language teachers' perspective. *Procedia-Social and Behavioral Sciences*. 2016;232(1):136-144.
37. Cholis HWN, Rizqi F. Senior high school English teachers' perceptions on a high-stakes test (SBMPTN): A washback study. *International Journal of Education and Literacy Studies*. 2018;6(3):47-52.

38. Saglam AGL. Can exams change how and what learners teach? Investigating the washback effect of a university English language proficiency test in the Turkish context. *Eurasian Journal of Applied Linguistics*. 2018;4(2):155-176.
39. Cranley L. An investigation into the impact of high-stakes testing through the NAPLAN assessment on the teaching and learning of mathematics in one primary school. Unpublished master's thesis University of Notre Dame Australia; 2018.
40. Chou MH. Impacts of the test of English listening comprehension on teachers and teaching in Taiwan. *Asian-Pacific Journal of Second and Foreign Language Education*. 2017;2(5):1-14.
41. Stecher B, Chun T, Barron S. The effects of assessment-driven reform on the teaching of writing in Washington State. In L. Cheng Y, Watanabe and A. Curtis (Eds.): *Washback in language testing: Research context and methods*. Mahwah New Jersey: Lawrence Erlbaum Associates. 2004;53-72.
42. Crocco MS, Costigan AT. The narrowing of curriculum and pedagogy in the age of accountability. *Urban Education*. 2007; 42(6):512-535.
43. Amengual-Pizarro M. Exploring the washback effect of a high-stakes English test on the teaching of English in Spanish Upper secondary schools. *Revista Alicantina de Estudios Ingleses*. 2010;23(2):149-170.
44. Amengual-Pizarro M. Does the English test in the Spanish University entrance examination influence the teaching of English? *English Studies*. 2009;90(5):582-598.
45. Ghorbani MR. Washback effect of the university entrance examination on Iranian pre-university English language teachers' curriculum planning and instruction. *The Iranian EFL Journal*. 2008; 2(1):60-87.
46. Yeh S. High-stakes testing: Can rapid assessment reduce the pressure? *Teachers College Record*. 2006;108(4):621-661.
47. Firestone WA, Mayrowetz D. Rethinking high-stakes: lessons from the united states and england and wales. *Teachers College Record*. 2000;102(4):724-749.
48. Anane E. Effect of high-stakes testing on instruction in senior high schools in Ashanti Region of Ghana. *International Journal of Research in Education*. 2010;2(1):58-66.
49. Agrawal M. Curricular reform in schools: The importance of evaluation. *Journal of Curriculum Studies*. 2004;36(3):361-379.
50. Boit M, Chang'ach KJ, Njoki A. The influence of examinations on the stated curriculum goals. *American International Journal of Contemporary Research*. 2012;2(2):179-182.
51. Wall D. Washback. In G. Fulcher and F. Davidson (Eds.): *The Routledge handbook of language testing*. London: Routledge; 2012.
52. Abu-Alhija FN. Large-scale testing: Benefits and pitfalls. *Studies in Educational Evaluation*. 2007;33:50-68.
53. Cheng L. *Changing language teaching through language testing: A washback study*. Cambridge: Cambridge University Press; 2005.
54. Choi I. The impact of EFL testing on EFL education in Korea. *Language Testing*. 2008; 25(1):39-62.
55. Stecher B. Consequences of large-scales high-stakes testing on schools and classroom practices. In L. Hamilton B, Stecher & S. Klein (Eds.): *Making sense of test-based accountability in education*. CA: Rand USA.: Santa Monica. 2002;79-99.
56. Polesel J, Rice S, Dulfer N. The impact of high-stakes testing on curriculum and pedagogy: A teacher perspective from Australia. *Journal of Education Policy*. 2014;29(5):640-657.
57. Mutereko S. The washback effect of the national senior certificate examinations: Perceptions of teachers in Umgungunglovu district. *International Journal of Social Sciences and Humanity Studies*. 2017;9(2):126-142.
58. Amoako I. Investigating the perceived effect of BECE as a high-stakes test on curriculum implementation in Ghana. Unpublished master's thesis University of Cape Coast Cape Coast; 2018.
59. Yildirim O. Washback effects of a high-stakes university entrance exam: Effects of the English section of the university entrance exam on future English language teachers in Turkey". *The Asian EFL Journal Quarterly*. 2010;12(2):92-116.
60. Sukyadi D, Mardiani R. The washback effect of the English national examination. *Kata*. 2011;13(1):96-111.

61. Pan Y, Newfields T. Teacher and student washback on test preparation evidenced from Taiwan's English certification exit requirements. *International Journal of Pedagogies and Learning*. 2011;6(3):260–272.
62. Pan Y. Learner washback variability in standardized exit tests. *TESL-EJ: Teaching English as a Second or Foreign Language*. 2014;18(2):1-30.
63. Zhan Y, Andrews S. Washback effects from a high-stakes examination on out-of-class English learning: Insights from possible self theories. *Assessment in Education: Principles Policy and Practice*. 2014;21(1):71-89.
64. Agbeti A. How external assessment mediates teaching learning and assessment in junior high schools in Ghana. *International Journal of Humanities Social Sciences and Education*. 2014; 1(12):115-125.
65. Gashaye S. Washback of the university entrance English examination (UEEE) on teachers' and students' practices: The case of preparatory schools in Amhara National Regional State". Unpublished doctoral thesis Addis Ababa University; 2012.
66. Ahmad S, Rao C. Examination washback effect: Syllabus teaching methodology and the learners' communicative competence. *Journal of Education and Practice*. 2012;3(15):173-183.
67. Yavuzer H, Gover DH. Akademik personelin yabancı dil durumu ve yabancı dil sınavlarına bakışı: Nevşehir örneği [The academics' language proficiency and their views on foreign language exams: Nevşehir Example. *NEÜ Sosyal Bilimler Enstitüsü Dergisi*. 2012;1(2):136-158.
68. Akpınar KD, Cakildere B. Washback effects of high-stakes language tests of Turkey (KPDS and UDS) on productive and receptive skills of academic personnel. *Journal of Language and Linguistic Studies*. 2013;9(2):81-94.
69. Ren Y. A study of the washback effects of the College English Test (band 4) on teaching and learning English at tertiary level in China". *International Journal of Pedagogies and Learning*. 2011;6(3):243-259.
70. Toksoz I, Kilickaya F. Review of journal articles on washback in language testing in Turkey. *Lublin Studies in Modern Languages and Literature*. 2017;41(2):184-204.
71. Adegoke BA. Effects of high-stakes examinations on the teaching and learning of physics in secondary schools in Nigeria. *International Journal of Scientific Research in Education*. 2017; 10(3):228-242.
72. Mahmud N. Investigating the washback effect of the MUET as a University Entry Test on students in Malaysia. Unpublished doctoral thesis Malaysia University Malaysia; 2018.
73. Park S. Reinterpretation of the concept of washback in language testing". *SNU Working Papers in English Linguistics and Language*. 2018;16(1):125-142.
74. Allen D. Investigating washback to the learner from the IELTS test in the Japanese tertiary context". *Language Testing in Asia*. 2016;6(7):16-25.
75. Tsang CLH. Examining washback on learning from a sociocultural perspective: The case of a graded approach to English language testing in Hong Kong. *University College London London*; 2017.
76. Owusu S. Washback effect of high-stakes tests on teaching and learning of English Language in Ghana. Unpublished doctoral thesis University of Education Winneba; 2019.
77. Moradi E. The washback effect of final examinations at Payame Noor University on teaching and learning. *Malaysian Journal of Distance Education*. 2019;21(1):17-42
78. Zheng X. Exploring the washback effects of the Chinese national matriculation English test (NMET) on student learning and their test anxiety. Unpublished master's dissertation Queen's University Canada; 2019.
79. Chou MH. Impacts of the test of English listening comprehension on students' English learning expectations in Taiwan. *Language Culture and Curriculum*. 2019;28(2):191-208.
80. Yidana MB, Arthur F. Perceived washback effects of high-stakes test on the teaching and learning of senior high school economics. *The International Journal of Humanities and Social Studies*. 2020;8(11):73-82.
81. Leedy PD, Ormrod JE. *Practical research: Planning and design (11th ed.)*". Pearson Education Limited Edinburgh Gare; 2015.

82. Krejcie RV, Morgan DW. Determining sample size for research activities. *Educational and Psychological Measurement*. 1970;30(3):607–610.
83. Gall MD, Gall JP, Borg WR. *Educational research: An introduction* (8<sup>th</sup> ed.). New York: Pearson Education; 2007.
84. Hope WC, Brockmeier LL, Lutfi GA, Sermon JM. High stakes test's influence on teachers' beliefs. Paper presented at the annual meeting of the Florida Educational Research Association Jacksonville FL; 2006.

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