Review Article

Proposed Model for Washback Effect of High-Stakes Test in Ghanaian Senior High Schools

Abstract
This study proposed a model for the washback effect of a high-stakes test in Ghanaian Senior High Schools. The proposed model focused on the micro washback effect of a high-stakes test since the washback effect is multidimensional. The study reviewed Hughes', Bailey's, and Nguyen's washback effect models of a high-stakes test. The assumptions that underpinned the proposed model was that the washback effect of high-stakes test is inevitable and it will affect teachers' classroom instructional practices, implementation of the syllabus and also, and students' learning practices. It was concluded that in the classroom context, a high-stakes test would have a positive or negative effect on classroom instructional practices, implementation of the syllabus and students' learning practices.

Keywords: High-stakes test, Instructional practices, Syllabus, Washback effect model

Introduction

A high-stakes test is a type of examination that is utilised to determine admission, progression, selection, or graduation decisions. As per Shohamy et al. (1996), the outcomes of such tests are of great significance. Heubert (2000) claims that high-stakes tests are instrumental in determining significant educational judgments regarding students, teachers, schools, or school districts. Similarly, Qi (2004) defines high-stakes tests as those evaluations whose outcomes are perceived by students, teachers, administrators, parents, or the general public as the foundation on which crucial decisions are made, directly impacting students. High-stakes tests are frequently utilized not only to identify high-performing students but also to enforce necessary alterations in teaching and learning approaches (Qi, 2005).

According to Au (2007), a test is considered high-stakes if its results are used to make significant decisions affecting various aspects of the educational system, including students, teachers, administrators, communities, schools, and districts. In the United States, Johnson, Johnson, Farenga, and Ness (2008) define high-stakes tests as those that have consequences for student achievement, such as promotion or graduation, as well as for teacher accountability, school reputation, and funding. However, Belcastro and Boon (2012) argue that a high-stakes test should have educational objectives and guidelines for teaching and learning, to avoid pressuring teachers to focus solely on preparing students for the test.

In Ghana, high-stakes assessments are commonly administered to students at different educational levels. An example of a high-stakes test at the primary level is the Basic Education Certificate

Examination (BECE), while the West African Senior Secondary Certificate Examination (WASSCE) serves as a high-stakes test at the secondary level (Anane, 2010). Thus, it can be argued that high-stakes tests such as the WASSCE, BECE, and other assessments conducted by WAEC are likely to have a significant impact on teachers and students. The present study specifically focuses on the WASSCE Economics examination as a high-stakes test.

Andrews (2004) defines washback as the impact of tests on both schools and society as a whole. However, some argue that the term washback refers specifically to the effects of tests on teaching and learning at a micro-level, while the impact on a macro-level is referred to as impact (Bachman & Palmer, 2010; Brown & Abeywickrama, 2010; Hamp-Lyons, 1997; Wall, 1997). Therefore, washback is considered to be one aspect or subset of test impact. However, in this study, the terms washback, effect, washback effect, impact, washback impact, influence, and consequence may be used interchangeably. Additionally, the study does not adopt Wall's (1997) differentiation between test impact and test washback.

Washback can be defined based on various factors such as the researcher conducting the study, the research conducted, and the context of the research. For instance, in her study of the Hong Kong Certificate of Education Examination (HKCEE), Cheng (2005) used washback to describe the intentional direction and function of curriculum change in teaching and learning through modifications in the public examination. Similarly, in this study conducted in Ghana, the term washback specifically refers to the extent to which the WASSCE Economics examination prompts modifications in teachers' classroom instructional practices, the implementation of the syllabus, and students' learning practices.

Washback can also be classified based on the context, as micro and macro levels of washback (Bachman & Palmer, 2000). The distinction between micro-washback (effects on teachers and learners within the school) and macro-washback (impacts on individuals, practices, and policymakers) is clearly stated (Wall, 1997). The micro-level washback examines the influence of the test on individual students and teachers within the classroom setting (Hakim, 2018). On the other hand, the macro-level examines the test's impact on society and the educational system as a whole (Chan, 2018). This particular study focuses on the micro-level washback effects.

Positive Washback Effect

To encourage effective teaching and productive learning, a test's washback effect can be considered beneficial. Positive washback pertains to the positive influence of tests and exams on teaching and learning (Alderson & Wall, 1993). Davies (1985) believes that a test's washback will be positive if it promotes teaching and learning. When a testing procedure encourages "good" classroom instructional practices, syllabus implementation, and learning practices of students, positive washback occurs. Positive washback occurs when the testing procedure aligns with the skills and abilities taught in the subject, such as when WASSCE is used for the final examination in a subject. It inspires students to work harder, enables teachers and learners to achieve their teaching and learning goals, and encourages teachers to pay closer attention to students' interests and needs. Thus, if the methods and materials utilised in teaching and learning a subject align with those employed in preparing for a test, it can be inferred that the test has a positive washback effect. Positive washback can serve as a tool for shaping the Economics syllabus and curriculum. It is important to note that washback is an inevitable phenomenon, and denying its occurrence is unreasonable (Davies, 1990).

To have a positive impact on teaching and learning, a test must provide beneficial washback that influences what and how teachers teach, what and how learners learn, and allows learners to prepare for the test purposefully (Brown & Abeywickrama, 2010). Additionally, for a high-stakes test to result in positive washback, it must be well-known to teachers and students, reflect the subject matter or instructional objectives, and have content that is based on these objectives (Bailey, 1996; Brown & Abeywickrama, 2010; Cheng & Curtis, 2004; Hughes, 2003; Pearson, 1988; Shohamy, 2001).

Tests are utilized by policymakers to attain teaching and learning objectives, including the implementation of new curricula and textbooks on a larger scale in educational or societal contexts, as per research conducted by Cheng (2005) and Shohamy (1992). In addition, high-stakes tests are designed to encourage students to adopt lifelong learning and inspire them to learn, according to Pan's (2009) study. Pan (2009) provides a breakdown of the various qualities or aspects of positive washback effects of high-stakes tests, as demonstrated in Table 1.

Table 1: Features of Positive Washback Effects

Level	Participants	Positive Washback
Micro level (Classroom settings)	Students	Tests encourage students to do their best to have a sense of fulfilment and thus promote learning.
	Teachers	Tests influence teachers to cover the subject more thoroughly and finish the syllabus within the prescribed time limits.
	Others	Good tests can be utilized and designed to be a model to

		enhance learning and encourage students to be positive toward high-stakes examinations.
Macro level	Educational or Societal System	Decision makers use the influence of high-stakes examination to reach the goals of teaching and learning. Such as the implementation of the syllabus.

Source: Pan, 2009.

Negative Washback Effect

The use of high-stakes tests may have undesirable effects on an educational system at the micro level (classroom settings). Negative washback has been defined by a host of scholars. Alderson and Wall (1993) define it as the undesirable influence of a test on teaching and learning, meaning that "something that the teacher or learner does not wish to teach or learn". According to Smith (1991), the washback effect of a test would be negative if "testing programs substantially reduce the time available for instruction, narrow curricular offerings and modes of instruction, and potentially reduce the capacities of teachers to teach content and to use methods and materials that are incompatible with standardized testing formats" (p. 18). Vernon (2004) asserts that in negative washback those subjects and activities that are not directly related to the test are usually ignored by the teachers. He claims that under such circumstances the tests "distort the curriculum".

Wiseman (as cited in Wall, 2005) believes that in coaching classes, where the students attended for test preparation, the time was not used properly because the students were mainly involved in mastering test techniques rather than genuine language learning. Davies (1990) states that testing devices had been extensively used as teaching devices, in the sense that teaching and learning were being directed to the test samples from previous years, which in turn made the educational experience narrow and uninteresting. Shohamy (1992) asserts that in negative washback the test would lead to a narrowing of content in the curriculum, and what students learn is the test language instead of expected understanding. Similarly, Shohamy, Donista-Schmidt and Ferman (1996) point out that negative washback occurs when teachers experience a high level of anxiety, fear, and pressure to cover the material because they feel that their job performance is assessed by students' test scores.

Washback becomes negative when there is a mismatch between the content (e.g., the material or abilities being taught) and the high-stakes test (Brown, 2002). Washback of high-stakes tests is harmful:

a. when training for a particular test comes to dominate classroom work;
b. when teachers teach one thing and the test then concentrates on another one;
c. when teachers end up "teaching to the test";
d. when there is no connection between high-stakes test objectives and syllabus or curriculum objectives;

e. when teachers tend to ignore subjects and activities that are not directly related to passing the exam; and
f. when students may not be able to learn real-life knowledge, but instead learn discrete points of knowledge that are tested.

According to Taylor (2005), negative washback happens when a test's content or format is based on a narrow definition of language ability, and so constrains the teaching or learning context. For instance, if the students are allowed to memorise texts or scripts for their speaking test, then there is great pressure to practise memorising rather than to practise the skill of speaking itself.

At the micro level, as a result of inappropriate test-preparation practices, a test will also have negative effects on teaching and learning when students' scores increase without a concomitant increase in learning (Andrews, Fullilove & Wong, 2002; Choi, 2008; Ferman, 2004). The other side of negative washback related to test-preparation practices is teaching to the test. Studies have shown that most high-stakes tests impose restrictions on syllabus or curricula, teachers and students. For instance, teachers tailor classroom instructional practices to meet WASSCE requirements. This impairs quality education by distorting the syllabus or curriculum and trivializes some important aspects of teaching and learning that narrow the syllabus or curriculum (Cheng & Curtis, 2004; Saif, 2006; Shohamy, 2001).

Moreover, some studies have indicated that classroom instructional time has been usurped by tests, that is, teachers spend a lot of time on test-oriented activities. Andrews et al. (2002) assert that teachers spent two-thirds of classroom instructional time working with exam-related materials. However, if the time allocations for test preparation were spent on more meaningful teaching and learning tasks, it should not be perceived as a negative washback effect (Andrews *et al.*, 2002; Ferman, 2004; Shohamy, 2001). Pan (2009) summarizes negative washback on both micro and macro level washback in Table 2.

Table 2: Features of Negative Washback Effects

Level	Participants	Negative Washback
Micro level (Classroom settings)	Students	Students learn only knowledge that is tested; have a negative attitude towards learning; and learning motivation is lowered.
	Teachers	Tests influence teachers to narrow the syllabus and only cover those tested topics.
	Others	Anxiety is created for both teachers and students.
Macro level	Educational or Societal System	Decision-makers use tests to promote political agendas and seize control over the educational system.

Source: Pan, 2009

Empirical Literature

A plethora of studies (e.g., Amoako, 2018; Anane, 2010; Arthur, 2021; Arthur & Partey, 2023; Chou, 2019; Ghorbani & Neissari, 2015; Green, 2007; Moradi, 2019; Onaiba, 2013; Owusu, 2019; Shih, 2007; Yidana & Arthur, 2020) have provided evidence for the washback effects of high-stakes test on teaching and learning. Whilst some studies discovered that high-stakes test has negative washback effects on classroom instructional practices (e.g., Aftab et al., 2014; Bunti, 2014; Onaiba, 2013; Soomro & Shah, 2016), others found that the effect was both positive and negative (e.g., Moradi, 2019; Saglam, 2018). Moreover, other studies were not able to reveal whether the washback was positive or negative (e.g., Chou, 2019; Cranley, 2018). In a micro washback study, Owusu (2019) found that teachers and students did not give the required attention to contents or areas that were not covered in the high-stakes test. Previous studies (Amoako, 2018; Anane, 2010; Onaiba, 2013) have also confirmed that high-stakes tests are responsible for narrowing the school curriculum or syllabus by influencing teachers to focus only on those contents, topics and skills that are included in the examination. Moreover, Park (2018) found that students choose to focus on the tested features of high-stakes tests rather than the non-tested features (contents). This finding suggests that the students experienced a negative washback effect in their learning process. The empirical studies show that the washback effect of high-stakes tests can be beneficial or deleterious on classroom instructional practices, syllabus implementation and students' learning practices. For instance, Arthur (2021) found that the WASSCE Economics examination had negative washback effects on classroom instructional practices, implementation of the Economics syllabus and students' learning practices. However, most of these studies failed to present a model that explains the washback effect of high-stakes tests at the micro or macro level. Therefore, this current study proposed a micro-level model for the washback effects of a high-stakes test.

Explanation of the Various Washback Effect Models

In the last two decades, few attempts have been made to explain a model of the effects of a test on teaching and learning. Conversely, it appears several attempts have been made in the field of Applied Linguistics to develop a model that could depict the process of washback. As more empirical results and a better understanding of the existence of washback became possible, the models mentioned evolved.

In general, washback models have been adapted from models or frameworks proposed in the literature on language testing and educational innovation. Hughes' trichotomy model (1993), Bailey's washback model (1996), Burrows' washback model (1998), Cheng's explanatory washback model (1999), and Chapman and Snyder's test effect model (2000), Cheng's washback model (2002), Green's washback

model (2003), Manjarres's washback model (2005), Nguyen's test washback models – effect on teachers and students (2005), Saif's washback model (2006), Shih's washback model (2007), Pan's holistic washback model (2008), Shih's washback model (2009), Tsagari's washback model (2009), and Mizutani's washback Model (2009) are some of the washback models that have been proposed over the years.

In this study, the researchers focused on three models which are Hughes's, Bailey's and Nguyen's washback models. These three models (Hughes's, Bailey's, and Nguyen's washback models) were discussed because the models focused on the washback effect on teaching and learning, not on the aspects of washback that influence society. For instance, Pan's (2008) holistic washback model outlines the micro and macro washback effects. Pan believes that tests can affect administrators, material writers and society as a whole. However, this study did not focus on the aspects of washback that could impact society.

Again, Tsagari's washback model (2009) proposes a washback effect on parents and the local educational system. Her model proposes a new way of viewing the washback effect by looking at how a test influences parents and the local educational system. On the contrary, this study is not interested in how WASSCE affects or influences parents and the local educational system. Lastly, since the scope of washback is too broad, this study limits itself to Hughes's, Bailey's and Nguyen's washback models.

Hughes's Washback Model

Hughes' (1993) washback model was a forerunner of Applied Linguistics. Hughes argued for a distinction between participants, processes, and products in both teaching and learning while acknowledging that all three can be influenced by the existence of washback in real teaching and learning environments. Students, teachers, administrators, material developers, and publishers are all 'participants' in Hughes' model, as seen in Table 1, whose expectations and attitudes toward their work can be shaped by a test. Hughes (1993) distinguished participants, processes and products in an unpublished paper cited by Bailey (1996), Cheng and Curtis (2004).

Table 3: Hughes's Trichotomy of Washback Model

(a)	Participants – students, teachers, administrators, materials developers, and publishers, whose perceptions and attitudes toward their work may be affected by a test
(b)	Processes – any actions taken by the participants which contribute to the process of learning
(c)	Products – what is learned (e.g., facts, skills, etc.) and the quality of the learning (e.g., fluency)

Source: Hughes, 1993.

From Table 3, Hughes defines 'processes' as any activity carried out by participants, such as the development of materials, syllabus design, and teaching methods, that contribute to the learning process. Finally, the term 'products' refers to what is learned (facts, skills, and so on) as well as the learning standard (fluency, etc.). The trichotomy is divided into three categories: participants, processes and products which allows planners to build a basic model of washback. According to Hughes (1993), the essence of a test can have an initial effect on the participants' expectations and attitudes toward their teaching and learning tasks. These expectations and attitudes, in turn, can influence what participants do in the course of their work (process), such as practising the types of items that will be found on the test, potentially affecting learning outcomes and the final result.

Bailey's Basic Model of Washback

Bailey (1999) developed a washback model (Figure 1) based on Hughes' (1993) model, and Alderson and Wall's (1993) washback hypotheses, to show the interrelationships of the mechanisms involved in washback.

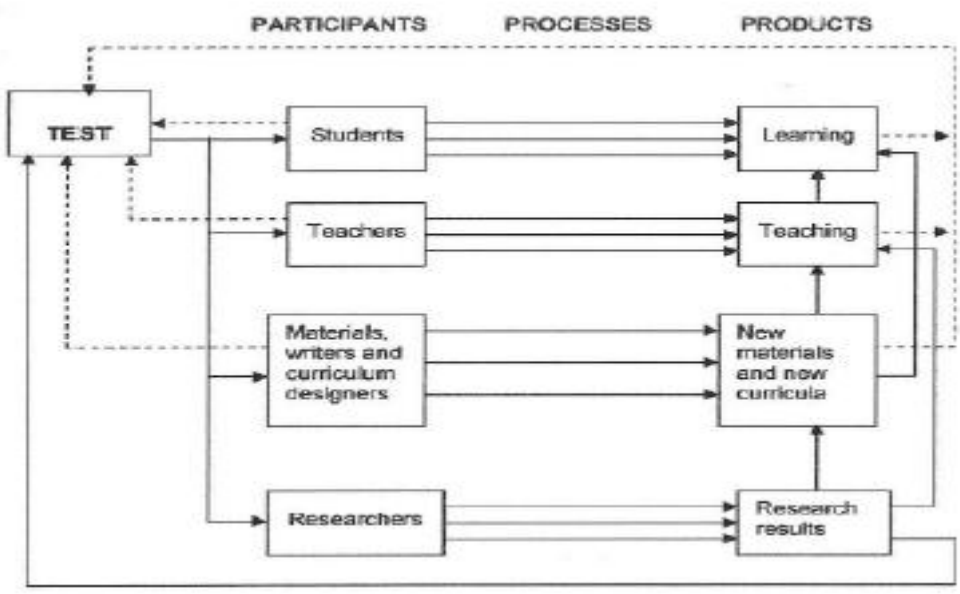

Figure 1: Bailey's Basic model of Washback
Source: Bailey, 1996.

In her model, Bailey (1996) outlined three major domains of the washback model which were identified by Hughes (1993) and these are participants, processes and products. Bailey stated that the participants are students, teachers, materials, writers curriculum designers, and researchers. She explained that all of these participants would be affected by the test. However, she did not explain the processes domain of the model. Bailey argued that the influence of a test on students, teachers, materials, writers,

curriculum designers and researchers will also affect learning, teaching, new materials and curriculum, and research results respectively.

Nguyen's Washback Effect Models

Nguyen (2005) posits that the washback effect of a test would influence teachers and students. For teachers and students, Nguyen (2005) propounded two washback models of the washback effect. Figure 2 depicts the proposed washback impact model for teachers.

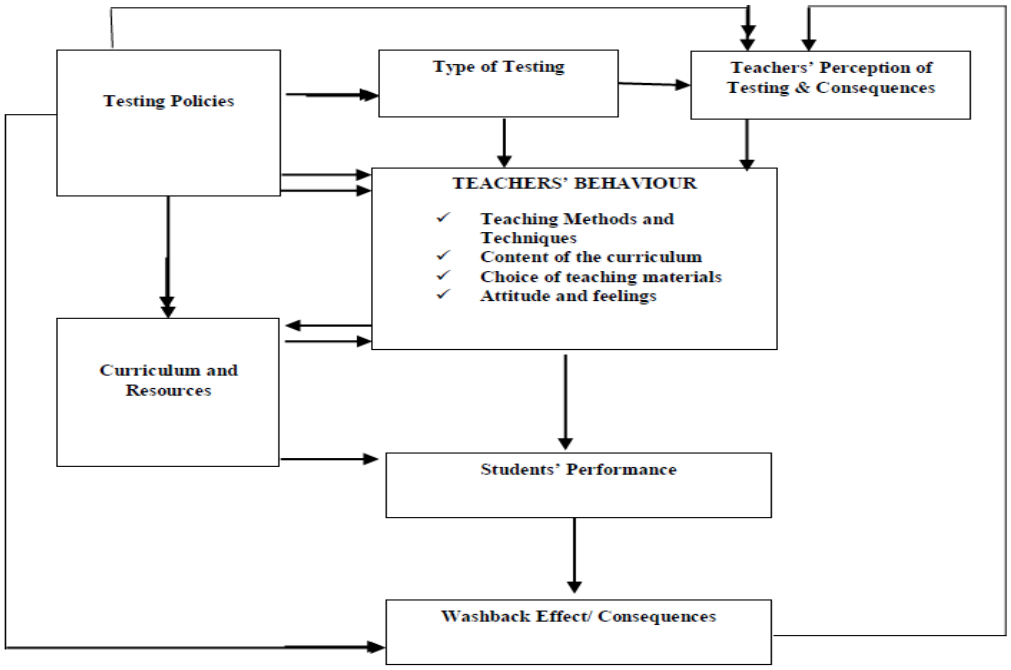

Figure 2: Nguyen's washback effect model for Teachers

Source: Nguyen, 2005.

Figure 2 shows the circle of testing effects at the teacher level. The direction of impact from the influencing factor to the dependent factor is shown by the dual-directional arrow from one factor to the other factor in the model. Due to an in-turn relationship, the dependent factor becomes the deciding factor, as seen by the other directional arrow. These interconnections form a circle of causal links.

Also, from the model in Figure 2, it can be observed that the testing policies have a direct influence on the type of testing, teachers' perception of testing and consequences, and curriculum and resources. Nguyen explained that the type of testing will affect teachers' behaviour (e.g., attitude and feelings, teaching methods and techniques, content of the curriculum and choice of teaching materials). The impact of a test on teachers' behaviour will also influence students' performance hence leading to the washback effect or consequences.

Additionally, from the model, there is an interaction between teachers' behaviour and curriculum and resources. The model suggests that the curriculum and resources influence the actual performance of students directly. The model emphasizes that changes and interactions result in a change in students' actual performance. Nguyen (2005) also proposes another washback model for students and this is shown by the model in Figure 2.

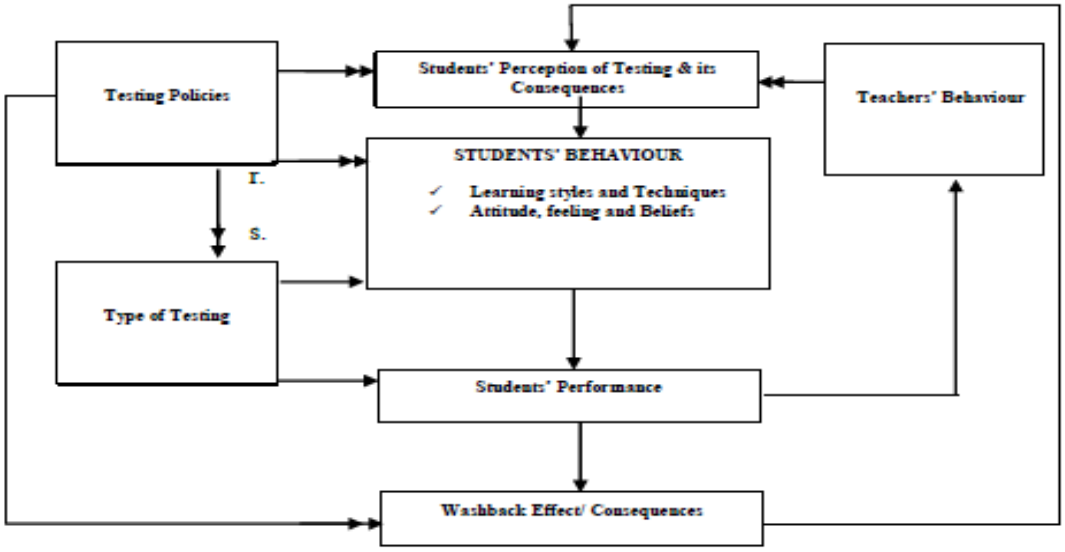

Figure 3: Nguyen's Washback Effect Model for Students

Source: Nguyen, 2005.

In the model shown in Figure 3, the double-directional arrows from one factor to another show the direction of influence from the determining factor to the dependent factor. The other directional arrow shows that due to an in-turn interaction, the dependent factor becomes the decisive factor. This relationship forms a circle of causal connections:

The model suggests that examination policy is the main influential factor that influences students' perception of the test, types of testing and the consequences of test results (Nguyen, 2005). In Figures 2 and 3, both models suggest that test washback effects can be predominantly stimulated by the testing policy, the perception of teachers about the testing policies and the type of test used. As such, to promote beneficial washback and minimise harmful testing policies, types of testing and teachers' behaviours are the factors that should be given priority. The models in Figures 2 and 3 indicate that the testing policies, types of tests, curriculum and resources play concerted roles in generating washback on teaching and learning.

Criticisms of the Various Washback Models

Hughes' (1993) washback model helps to describe the aftermath of a test as a forerunner model. The model, on the other hand, does not properly define the word 'processes.' Another critique levelled at this model is that it does not indicate whether the washback effect would be positive or negative. Also, Hughes' washback model is too simplistic and cannot be adapted to suit any testing environment.

Concerning Bailey's (1996) washback model, one of the shortcomings, as Hamp-Lyons (1997) and Wall (1997) have pointed out, is that she does not specifically demonstrate the intermediate processes and how the correspondent product is produced. The teaching method was not defined in Bailey's model as having a direct impact on the test. Although Bailey did not clearly explain the process phase in its model, she followed Alderson & Wall (1993) and Messick (1996), stating that if classroom instructional practices are dominated by test practising, then this can be counted as washback. Bailey's (1996) model also overlooked the macro context factors of social opinions and test usage. Bailey's model is based on the suggestions of Hughes' (1993), but she does not expand on the process phase herself. Bailey's model in Figure 1 shows and describes the participants and products, but it does not give any information on the process.

An apparent shortcoming of Bailey's model is that it shows a test directly affects the participants without clarifying the role of participants' beliefs, that is, the model does not explain why the participants did what they did. In addition, the model proposed by Bailey (1996) is no longer strongly supported by researchers because it includes a wider range of test effects, such as those on teaching materials which can be referred to as impact, rather than being restricted to the effects that a test has only on teacher and learner behaviour as defined by Hamp-Lyons (1997) and Wall (1997). However, her model has enormously contributed to the washback studies in the past twenty years. Her model can be considered a gateway and one of the pioneer washback models for future researchers.

Furthermore, Nguyen's (2005) washback models show teacher-level washback and student-level washback separately. Although the models appear to be a possible framework for washback generation, they are extremely ambitious in terms of teachers' actual classroom conduct. Also, the two models proposed by Nguyen did not indicate explicitly the dimension or type of washback effect that an examination or a test would have on teachers and students. Additionally, the models failed to explain the type of testing since a low-stakes test would not influence teaching and learning (Alderson & Wall, 1993). Nguyen was supposed to indicate in the models the type of test is a high-stakes test because it is only this type of test that would have a washback effect.

Proposed Model for Washback Effect of High-Stakes Test

Every model is grounded on specific assumptions. The assumptions in effect, form the criteria by which judgements about the models can be made. The current proposed model for the washback effect is predicated on numerous assumptions. The following are the assumptions:

1. The washback effect of high-stakes tests is ineluctable. This suggests that the washback effects of the WASSCE Economics examination are certain and would likely be positive or negative.
2. 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. a high-stakes test (WASSCE) will influence what and how teachers teach. This means that the WASSCE Economics examination will affect teachers' classroom instructional practices and also the content of the syllabus.
4. A high-stakes test (WASSCE) will influence what students learn and how they learn. This implies that WASSCE will have an impact on students' learning practices.

The proposed model illustrates the washback effect of the WASSCE Economics examination on Economics teachers and students in the Ghanaian context. It has been conceptualised based on extant literature related to washback studies (for instance, Cheng *et al.*, 2004; Nguyen, 2005). The model suggests that, on the part of teachers, two (2) factors are affected by the test (WASSCE), namely classroom instructional practices and implementation of the Economics syllabus, while on the part of the students, the learning practices of learners are affected by the test (WASSCE). Figure 4 shows the proposed model for the washback effect of the high-stakes test.

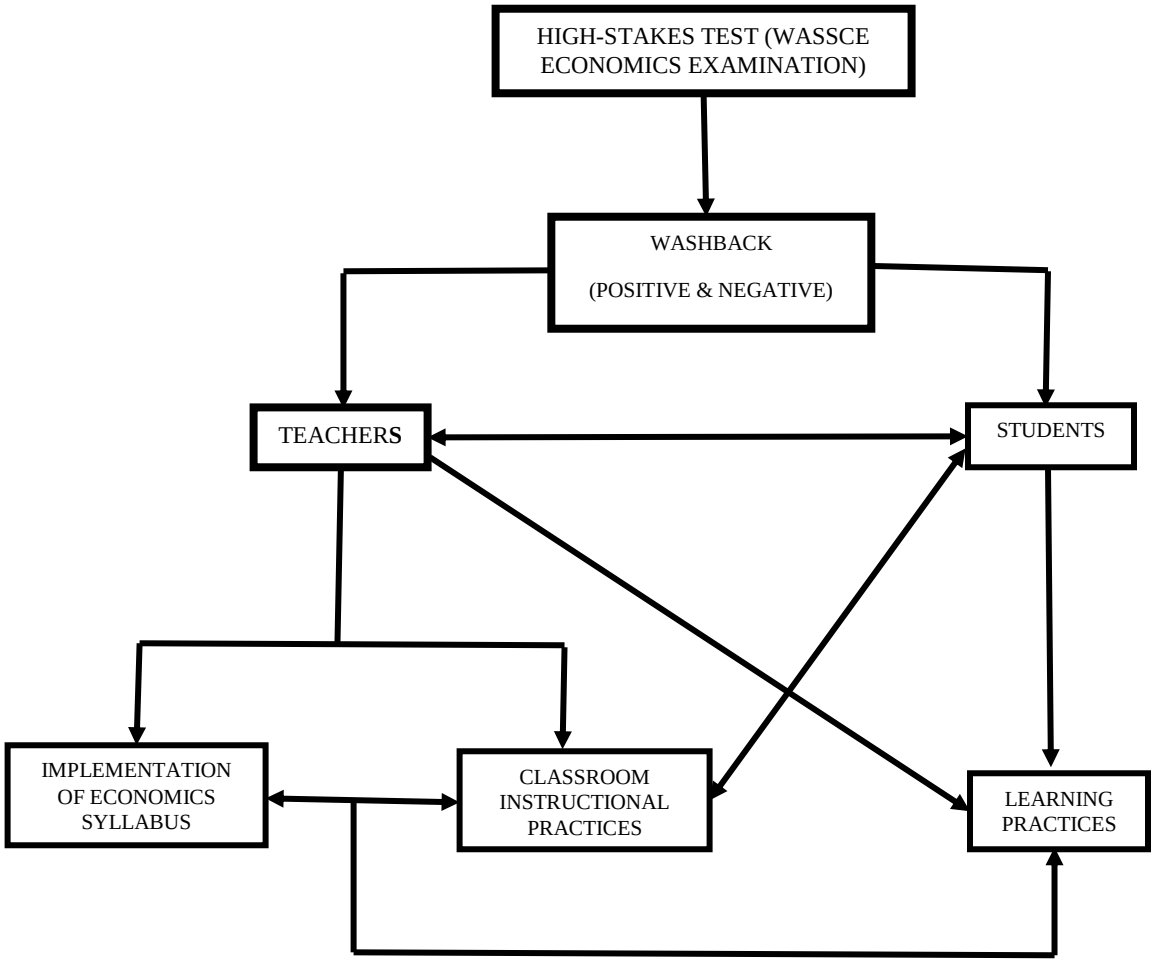

Figure 4: Proposed Model for Washback Effect of High-Stakes Test

In the proposed model, positive washback refers to the beneficial influence of the high-stakes test (WASSCE) on the teaching and learning of Economics (Arthur, 2021). Also, Arthur asserted that positive washback occurs when WASSCE encourages 'good' classroom instructional practices, syllabus implementation and learning practices of students. He further opined that positive washback would result when the testing procedure reflects the skills and abilities that are taught in Economics. On the other hand, negative washback explains the undesirable effect of WASSCE on the teaching and learning of Economics (Arthur, 2021). Moreover, in this proposed model, the teachers are the ones who lead the classroom instruction and implement the Economics syllabus whilst students are active recipients of what

is taught in the classroom. Specifically, the proposed model is limited to teachers and students in the classroom setting.

The proposed model (Figure 4) starts with the high-stakes test (WASSCE) which leads to the washback effect (positive and negative). Empirical findings have revealed that the washback effect of a high-stakes test can be both positive and negative (Moradi, 2019; Saglam, 2018). From the model, a high-stakes test (WASSCE Economics examination) is likely to have washback effects on both Economics teachers and students. This proposition from the model confirms that of Owusu (2019) who found that both teachers and students were affected by the high-stakes test.

The washback effect of the high stakes test (WASSCE) would have either positive or negative effects on teachers; this will in turn influence the classroom instructional practices of teachers and lastly, the implementation of the Economics syllabus. Aftab et al. (2014) and Bunti (2014) found that a high-stakes test had a negative washback effect on classroom instructional practices. Similarly, Owusu (2019) found that teachers focused on content that was only examined in a high-stakes test. Also, the assertion in the model that a high-stakes test will affect the implementation of the Economics syllabus validates that of Amoako (2018), Anane (2010) and Onaiba (2013) who found that a high-stakes test led to the narrowing of the school curriculum or syllabus. This means that teachers focused only on topics, skills and contents that were included in the high-stakes test.

On the part of students, the washback effect of the test might affect students which could eventually affect their learning practices. In this regard, Park (2018) found that students choose to focus on the tested features of high-stakes tests rather than the non-tested features (contents). The washback effect on the implementation of the Economics syllabus will also affect the learning practices of students.

Also, the teacher and the student interact during instructional sessions, so there is always an interaction between the teacher and the student. The teacher is the one who leads the classroom instruction and implements the curriculum or syllabus (i.e., the content of what the teacher teaches). How the teacher implements the curriculum or syllabus influences how he goes about his instruction in the classroom. What and how teachers teach could influence the learning practices of students. There is an interaction between the classroom instruction and the student. The classroom instructional practices of teachers may affect the learning practices of students. Anim (2020) found that teachers relied on test-oriented materials when teaching and this influenced students to also rely on test-oriented materials and WASSCE past questions. The classroom instructional practices that might be affected by the high-stakes test are teaching methods and techniques of teachers, classroom tasks and activities, and teacher's formative assessment practices (Pan, 2009; Saif, 2006). For instance, an Economics teacher may teach to the test and sometimes skip certain contents or topics that are not assessed in the WASSCE Economics examination.

Moreover, teachers may teach test-taking strategies to prepare students for WASSCE. When these things tend to dominate the classroom instructional sessions then we have a negative washback effect (Taylor, 2005). Again, the conceptual framework shows that the high-stakes test would influence the learning practices of students such as the student's learning concerning the content of the syllabus, students' learning strategies and techniques, and learning materials used by students (Anim, 2020). With regards to the learning strategies of students, the negative washback effect of the high-stakes test might influence students to memorise most of the things taught in class. Also, they may skip contents and topics that are not likely to be tested in WASSCE when learning (Anim, 2020).

Uniqueness of the Proposed Model

The proposed model is a shift from the previous models reviewed in the literature. It is a robust model that seeks to address specific criticism identified in literature against the washback effect of high-stakes test models and provide clarity on the processes and mechanisms involved in how the washback effect of high-stakes tests like WASSCE Economics would affect variables such as classroom instructional practices, students' learning practices and syllabus implementation within the Ghanaian secondary education context.

The proposed model for the washback effect indicates that the washback effect of high-stakes tests can be positive or negative which addresses one of the criticisms levelled against Hughes' (1993) washback model. Also, this model shows that the WASSCE Economics examination is a high-stakes test, as opposed to Nguyen's (2005) washback model, which did not indicate whether the examination was high-stakes or low-stakes.

Finally, this model differs from that Bailey's (1996) washback model in that it describes the washback process phase. This proposed model for the washback effect addressed process phase criticism of Bailey's washback model by explaining how high-stakes test washback influences students' learning practices, teachers' classroom instructional practices, and syllabus implementation.

Limitations of the Proposed Model for Washback Effect

The proposed model for the washback effect concentrated on the micro washback effect, specifically, on teachers and students. It is also related to the WASSCE Economics examination hence, this model does not apply to every high-stakes test in Ghana as well as other countries. However, it can be adapted in a different context with similar characteristics.

Conclusion

The proposed model for the washback effect of the WASSCE Economics examination has implications for quality teaching and learning of Economics. Firstly, it can be concluded that a high-

stakes test would have a washback effect on teaching and learning. Also, the aftermath of a high-stakes test can be positive or negative depending on the context of the examination. Lastly, in the classroom context, a high-stakes test would have a beneficial or harmful influence on classroom instructional practices, implementation of the syllabus and students' learning practices.

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Declarations

Additional information

There is no additional information available for this manuscript.

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