

Quality in the Implementation of School-Based Assessment in Ghana: Evidence from Business Studies Teachers

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ABSTRACT

The vitality and quality of implementing curriculum reforms and innovations depend on the teacher's acceptance and concerns about the reforms and innovations. This research examines the concerns of Business Studies teachers about the quality of the implementation of School-Based Assessment (SBA) in the Senior High Schools in Central Region of Ghana. A descriptive, cross-sectional survey design was employed, and the census method involved all the Business Studies teachers. Data was gathered using the adapted Stages of Concern Questionnaire (SoCQ), processed via SPSS version 25.0 and analysed using Mean, Standard Deviations, Relative Intensity Percentile (RIP) and Factorial Multivariate Analysis of Variance (MANOVA). The study discovered that Business Studies teachers have the most intense concerns self-concerns (Awareness, Informational and Personal) least intense concerns at Impact concerns (e.g., Consequence) about SBA implementation in the curriculum. Further, the study established that Personal, Consequence, Collaboration and Refocusing Concerns significantly depend on teachers' workload and SBA training. At the same time, gender, age, and years of teaching experience do not significantly influence teachers' concerns about SBA implementation. The Business Studies teachers were not very much interested and involved in the SBA implementation. They are non-users and resistant to SBA implementation in the curriculum. The study recommended that the MoE/GES and NaCCA, in partnership with school administrators and GABET, should frequently organise ongoing training, workshops, seminars, conferences, and professional development courses for teachers to use and implement SBA in the curriculum. The MoE/GES should provide SBA logistics (tools, equipment) and materials needed for SBA implementation.

Keywords: *Business studies, CBAM, Ghana, Implementation, School-based assessment, Stages of concern.*

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Highlights of this paper

- This study ascertains the concerns among Business Studies teachers about the quality in the implementation of School-Based Assessment (SBA) in the Senior high Schools in Central Regio of Ghana.
- The study established that the teachers highly expressed self-concerns and mangement concerns about SBA implementation in the curriculum, hence, they are non-users of SBA in the curriculum.
- MoE/GES and NaCCA, in partnership with school administrators and GABET, should frequently organise ongoing training, workshops, seminars, conferences, and professional development courses for teachers on SBA in the curriculum. The MoE/GES should provide SBA logistics (tools, equipment) and materials needed for SBA implementation.

1. INTRODUCTION

Education, generally, is an imperative tool for every nation's socio-economic growth and development. In education, assessment is a chief component of curriculum practice and instruction. This needs careful planning because it is an indispensable instrument for monitoring and evaluating the quality of the educational system, education policies, curriculum programmes, and students' learning and development. In Ghana, teaching, and assessment in senior high schools (hereafter SHS) seem to induce a passive, reproductive form of learning contrary to the educational system's aims. Practical evidence discovered that both examiners and classroom teachers emphasised factual knowledge (lower-order thinking skills) during instructional intercourse and assessed students' learning (e.g., (Agormedah, 2019a; Agormedah, 2019b; Mikre, 2010)). Concerns about how instruction and assessment affect the quality of learning are desirable. Our students need to acquire knowledge and competencies that can be transferable in the workplace. Consequently, effective, reliable, credible, and valid assessment practices are important to attain this goal and emphasise quality education.

On this account, the Government of Ghana (GoG), through the Ministry of Education [MoE] and Curriculum Research and Development Division [CRDD] (now National Council for Curriculum and Assessment [NaCCA]) had introduced a new assessment system (School-Based Assessment) into the curriculum in the last curriculum review in 2007 to replace traditional assessment/Continuous Assessment (hereafter CA) which tend to focus more on public examination. School-Based Assessment (after this, SBA) started in the basic schools in September 2008 and 2011 in the SHS to make assessment more comprehensive, reduce the teachers' workload, and ensure uniformity in the assessment processes and procedures. SBA includes assessments for learning and of learning to ensure learners' holistic development (cognitive, affective, and psychomotor) (e.g., (Curriculum Research and Development Division (CRDD), 2010; Mereku, Nabie, Appiah, & Awanta, 2011; Ministry of Education, 2011)). However, the quality of the implementation of SBA in our educational system remains questionable.

Globally, effective implementation of any educational change, innovation and reform remains a crucial concern for stakeholders of education in the 21st century due to gaps between intended educational reform policies and actual practice in the classroom (e.g., (Drew, Priestley, & Michael, 2016; Dufour & Marzano, 2011; Meyer, 2010; Payne & Kaba, 2007)). There is a growing concern about the quality of SBA implementation in some developed (e.g., UK, USA, Finland, New Zealand, Australia, China, Japan) countries and emerging economies (Malaysia, South Africa, Zambia, Nigeria, Ghana). There are concerns that the SBA implementation procedures may not be perfectly in line with the public examinations model worldwide (e.g., (Cheng, Andrews, & Yu, 2011; Davison, 2007; Poliah, 2010; Yung & Yung, 2001)). There is also the issue of adherence to SBA guidelines and fairness in the SBA processes (e.g., (Aduloju, Adikwu, & Agi, 2016; Awoniyi & Fletcher, 2013; Maile, 2013)). Finally, SBA scores generated for students are often questionable, and, in most instances, the root of the concerns is the role of the teachers involved in the SBA process (e.g., (Awoniyi, 2016; Mkpae & Obowu-Adutchay, 2017; Omorogiwa & Aibangbee, 2017; Williamson, 2017; Yates,

2018)). Based on these concerns, extant researchers call for the need for an ongoing evaluation of the SBA in schools. It is worth noting that the progress of any new educational innovations like SBA is often measured by how well they are being implemented.

The quality and validity in the acceptance, adoption and implementation of any educational innovation like SBA are contingent on several factors, including innovation itself (relative advantage, compatibility, complexity, trialability, and observability), communication system, time, social system, organisation culture and environment, people, leadership and management, institutional policies, resources and funding among others (e.g., (Coleman-Prisco, 2016; Fullan, 2014; Hall & Hord, 2015; Hord, Rutherford, Huling, & Hall, 2006; Meyer, 2004; Park & Sung, 2013; Rogers, 2003; Snyder, 2017; Talukder, 2012)). The human factor (teacher) is the most influential driver in implementing any educational innovation like SBA (e.g., (Agormedah, 2019c; Agormedah, Ansah, Betakari, & Parker, 2019; Fullan, 2014; Fullan, 2016)). Extant researchers indicated that individual teachers have concerns and beliefs about change. These concerns and beliefs would lead to their resistance to the change, which in turn would have a powerful influence on the effective implementation of change like SBA (e.g., (Bantwini, 2010; Fullan, 2016; Hall & Hord, 2015; Hargreaves, 2005; Hord et al., 2006; Snyder, 2017)). This is because accepting and adopting an innovation like SBA is an interpretive act that is extremely personal, interactive, and continuous.

In Ghana, effective acceptance, adoption, and implementation of the SBA in Business Studies curriculum at the SHS will depend on teachers' concerns, understanding and preparedness. cursory observations and informal conversations with some of the Business Studies teachers suggest that some have concerns, negative reactions, and beliefs towards SBA implementation. Some of the teachers have concerns about the nature of project work, guidelines on SBA, SBA materials, time and workload of SBA and students' attitude towards SBA. These concerns and feelings of the Business Studies teachers suggest that they go through change at different rates and in different ways like any other professional teacher. We cannot expect all of them to be ready at the same time to implement a change initiative like SBA. Some might need more information on the innovation to be convinced, while others might need more training to feel prepared for the innovation. This implies that each person will respond to an innovation like SBA with unique attitudes and beliefs, and each person will use a new program differently. This could negatively impede the teachers' level of commitment and involvement in the effective implementation of SBA in the curriculum.

Many studies have examined teachers' concerns about the quality of SBA implementation using the Concerns-Based Adoption Model (CBAM) in different jurisdictions. For example, in China (e.g., (Cheung, 2002; Cheung & Yip, 2003; Cheung, 2001; Cheung & Yip, 2004; Yip & Cheung, 2005)) Trinidad and Tobago (e.g., (Broomes, 2014; Ramoutar-Bhawan, 2014)) and Malaysia (e.g., (Baidzawi & Abu, 2013; Majid, 2011; Rasid, Nasir, & Singh, 2015)). Most of these studies found that teachers had concerns about SBA, and their concerns varied from awareness level (unconcerned) to refocusing level. These studies concluded that teachers' concerns highly influenced SBA acceptance, adoption, and implementation at all school levels. These findings are important to the current study because it focuses on teachers' concerns, feelings, beliefs, and perception about SBA implementation in schools; however, it must be noted that although there are general trends among research findings, these findings are not consistent across contexts, which may be due to variations in research contexts, populations and samples, and the precision of the instruments used to measure the construct. Also, these studies were conducted using teachers like English, Chemistry and Biology teachers, among others. None of these studies has examined Business Studies teachers' concerns about SBA implementation in Ghana's SHS. Also, due to disparities and inequalities in geographical areas, socio-economic development, social perspectives and educational policies within these countries, the findings of these studies cannot be generalised to the Ghanaian context.

In Ghana, studies have been conducted to assess the extent of SBA implementation in schools using different categories of teachers since its introduction. For example, studies focused on Junior High School (JHS) teachers (Ahenkora, 2019; Amoateng, 2017; Nugba, 2012) and SHS mathematics teachers (Atachie, 2015; Awoniyi & Fletcher, 2013; Awoniyi, 2016). However, these studies produced contradictory and inconsistent findings. Findings from these studies indicated quality issues in assessment practices among teachers in schools. Teachers have poor assessment practices, including non-adherence to profile dimensions, testing principles, grading practices and unreliable and valid assessment scores (Agormedah, 2019a; Agormedah, 2019b). It is apparent and conclusive from these studies that none has investigated Business Studies teachers' stages of concern (SoC) about the quality implementation of SBA in the SHS curriculum in Ghana using the Concerns-Based Adoption Model (CBAM). Also, due to differences in curriculum programme rationale, school context and culture, leadership, and individual teacher beliefs, the studies in Ghana on SBA implementation cannot be generalised to Business Studies teachers.

In Ghana, only a few studies had used CBAM to track the concerns of teachers about other educational reforms and innovations like information and communications technology [ICT] (e.g., (Agormedah, 2019c; Agormedah et al., 2019; Amankwah, Baafi-Frimpong, & Sam, 2016; Sarfo, Amankwah, Baafi-Frimpong, & Asomani, 2017; Yidana, 2007)) SHS Accounting curriculum (e.g., (Ankomah & Kwarteng, 2010; Kwarteng, 2009; Kwarteng, 2016)) SHS Social Studies curriculum (e.g., Donkoh (2016)) and Basic school curriculum (e.g., (Ani-Boi, 2009; Cobbold & Ani-Boi, 2011; Cobbold, 2013)). However, these studies never focused on SBA implementation in Ghana. This is a knowledge gap the current investigation seeks to fill. Since SBA is a fairly innovation in Ghana, there is a possibility that some Business Studies teachers may have concerns that deserve due attention. Since teachers are the crucial mediators for transporting and accepting changes into the classroom, they should be a major focus of sources of evidence and analysis concerning the implementation of SBA. Business Studies teachers' concerns should be high precedence in measuring the accomplishment of any change effort like SBA. Consequently, studies that focus on the concerns of the Business Studies teachers about SBA implementation need to be carried out as a curriculum enhancement endeavour. What remains unknown is whether the concerns voiced by the teachers are related to the demographic profiles (gender, age, years of teaching experience, workload (number of classes) and formal training on SBA). Accordingly, the investigation was directed by the following research questions:

1. What are Business Studies teachers' identifiable SoC about SBA implementation in the Curriculum?
2. Do the Business Studies teachers' SoC about SBA implementation differ by their demographic profiles?

The study adds to the scanty literature on Business Studies teachers' concerns about implementing curriculum change (SBA) with reference to the Ghanaian context. Using the SoC of CBAM as a framework for this study, the MoE/Ghana Education Service (GES) and NaCCA, in partnership with school administrators and the Ghana Association of Business Education Teachers (GABET), were alerted to organise ongoing and quality support, training, workshops and professional development course for teachers on SBA implementation. The school administrators were informed to create a collaboration culture in their schools to ensure that teachers seek and share information from each other on SBA implementation. The teachers were also informed to find ways to evaluate the effects of the SBA on students.

The paper is structured into five sections. Following this introduction, the second part focuses on the theoretical framework, conceptual review, and empirical studies on the phenomenon under examination. The next section thoroughly describes the research methods employed to carry out the study. The results are presented, and the findings are then discussed, after which implications are drawn and appropriate recommendations are made.

2. LITERATURE REVIEW

2.1. Theoretical Framework: Stages of Concern (SoC)

CBAM is a widely applied theory and methodology for studying the process of implementing educational change by teachers and by persons acting in change-facilitating roles. The CBAM is a conceptual framework that explains, describes, and predicts how teachers may behave throughout the change process (George, Hall, & Stiegelbauer, 2013). The key components of the model include Stages of Concern (SoC), Levels of Use (LoU), Innovation Configurations (IC). This study leveraged the Stages of Concern framework. The SoC dimension of the CBAM is employed for this current research to understand Business Studies teachers' concerns about the quality of the implementation of SBA in the SHS curriculum. Individuals involved in change generally have concerns about the tasks involved in implementing the innovation (George et al., 2013; Hall & Hord, 2020). SoC theory focuses on the concerns of individuals involved in change. SoC theory describes the feelings and motivations a Business Studies teacher might have about a change in the curriculum (SBA) at different points in its implementation. One of the underlying principles of SoC theory states personal characteristics of individuals influences the kinds of concerns they are likely to experience about the innovation at a particular point in time (Hall & Hord, 2020; Hall & Hord, 2015). SoC is a well-tried framework for educational innovation, including SBA (Agormedah, 2019c; Agormedah et al., 2019).

According to Fuller (1969) concerns are the emotions, perceptions, attitudes, and feelings people experience when confronting an innovation like SBA. Teacher concern is the composite representation of the feelings, preoccupation, thoughts, considerations, beliefs, and reactions individuals have about an innovation like SBA that touches their lives (Hall & Hord, 2020; Hall & Hord, 2015; Hall, George, & Rutherford, 1977; Hord et al., 2006). According to Fuller (1969) teachers' concerns are categorised into three: self, task, and impact. These concerns have been explained in the existing literature already. Hall et al. (1977) elaborated on Fuller's concerns-based approach to teaching. They identified seven stages of concerns that users, or potential users, may have about innovation like SBA (see Table 1). These levels of concern occur in stages and are considered hierarchical and developmental (Hall & Hord, 1987).

Table 1. Teachers' stages of concern (SoC), expression and nature of users.

Levels	SoC	Expressions of concern	Nature of user
Self-concerns	Stage 0 (Awareness)	I am not concerned about SBA	Non-SBA users Non-SBA adopters
	Stage 1 (Informational)	I would like to know more about SBA	
	Stage 2 (Personal)	How will using SBA affect me?	
Task concerns	Stage 3 (Management)	I seem to be spending all my time getting materials ready for SBA	Moderate SBA users Late SBA adopters
	Stage 4 (Consequence)	How is my use of SBA affecting my students?	High SBA users Early SBA adopters
Impact concerns	Stage 5 (Collaboration)	I am concerned about relating what I am doing with what my co-workers are doing.	
	Stage 6 (Refocusing)	I have some ideas about something that would work even better	

Source: Adapted from Hall et al. (1977) and Agormedah et al. (2019).

The seven (7) SoC that Business Studies teachers go through when adopting new assessment reform (SBA) is a logical sequence from Unrelated to Self to Management and Impact Concerns (Hall & Hord, 2015). The zero stage of concern is the Unconcerned (Awareness) stage related to Fuller's Unrelated Concerns. During this stage, the Business Studies teacher indicates little concern, and he/she is also not interested in the changes. In the first (Informational) and second (Personal) stages, the Business Studies teacher needs information about the SBA. He/she is also more

interested in how the adoption of the SBA will affect him/her personally. In the third (Management) stage, which falls under Fuller's Task Concerns, the Business Studies teacher is concerned about time management, making schedules, and using the available resources and logistics. In the fourth (Consequence) stage, the Business teacher is worried about how the adoption of SBA will affect the students. In the fifth (Collaboration) stage, the Business Studies teacher is concerned about how to cooperate with other teachers to adopt the SBA. Finally, in the sixth (Refocusing) stage, the Business Studies teacher is concerned with finding creative ways of teaching while using the SBA. As indicated by [Hall and Hord \(2020\)](#) the fourth (Consequence), fifth (Collaboration), and sixth (Refocusing) stages can be regarded as Fuller's Impact Concerns.

Looking at the nature and characteristics of SBA, it can be argued that a Business Studies teacher can express concerns at more than one stage simultaneously. For example, a Business Studies teacher can voice a Personal Concern about how the innovation (SBA) will influence his/her daily work at school and Impact Concerns regarding how the SBA will change the way he/she works with the students or colleagues in the school. [Hall and Hord \(2020\)](#) consider the SoC as the most important element in the CBAM for the following reasons. First, SoC can assess the perceptions and feelings of Business Studies teachers during the process of curriculum change as they come to understand the innovation (SBA) in the curriculum. Second, SoC can be used by the school administrators and curriculum developers like NaCCA to predict what will happen in the future and help create a plan to dress for the changes.

2.2. School-Based Assessment (SBA) in Business Curriculum

SBA is an assessment that is embedded in the teaching and learning process. SBA is a set of assessments conducted by the teachers and students following the guidelines (i.e., planning, administration, scoring, and reporting) MoE. According to [Ministry of Education \(2011\)](#) SBA is a system for collecting periodic information on students' learning status for planning improvement programmes in the performance of pupils. Generally, SBA consists of tests, quizzes, projects, assignments, self-assessments and self-reports, peer assessments, and end-of-year examinations. SBA is a holistic assessment system that includes assessments for learning and of learning to ensure learners' holistic development (cognitive, affective, and psychomotor) in line with Ghana's National Philosophy of Education ([Curriculum Research and Development Division \(CRDD\), 2010](#)).

In Ghana, SBA is a fairly innovation in the educational system. SBA was introduced into the basic education in September 2008 and 2011 into the SHS. SBA is introduced in the educational system to make assessment more comprehensive, reduce the teachers' workload, help teachers and pupils achieve the objectives of the syllabuses, raise the standard of learning in the country, and ensure uniformity in the assessment processes and procedures ([Ministry of Education, 2011](#)). The SBA system is designed to provide schools with an internal assessment system that will help to achieve the following: (1) periodic collection of assessment information; (2) use of different test modes (e.g., class tests, class exercises, homework, projects and other practical activities); (3) standardise the practice of internal SBA in all schools in the country; (4) guidelines for constructing assessment items other task; (5) standards of achievement in each subject area and in each class; (6) guidance in marking and grading of test and other assessment task; (7) system of assessment moderation to achieve accuracy and reliability of teacher's marks; (8) conduct remedial instructions on difficult areas of the syllabus to improve pupil's performance; (9) reduced number of assessments and mark recordings; (10) emphasis on student-centred learning; and (11) inclusion of more complex testing such as (a) thinking skills, (b) problem solving skills, (c) cooperative learning, (d) working with numbers (numeracy skills), (e) moral and spiritual development and (f) formal presentations skills ([Curriculum Research and Development Division \(CRDD\), 2010](#); [Ministry of Education, 2011](#)).

2.3. SBA Modes and Administration in Ghanaian SHS Curriculum

In Ghana, the SBA system consists of 12 assessments per year. There are three assessments and project work in a term, making twelve assessments for the year. The assessments for a term consisting of two tests, one group exercise and a project: Class tests, Group exercise and Project (investigative, experimental or materials production). The order of the twelve assessments for the three terms of the year is as follows:

The assessments are referred to as Class Assessment Tasks (CAT). CAT 1, 5, and 9 are tasks made up of test items. CAT 2, 6 and 10 are group exercises. CAT 3, 7, and 11 are also tasks made up of class tests. The first, second and third term project is CAT 4, 8 and 12, respectively. Preparations for the project work (CAT 4, CAT 8, and CAT 12) involving topic selection and data collection will start in the second week of each term. Projects should be completed and submitted in Week 12 or by the end of the term, whichever is earlier. Administration of SBA is expected to be completed by the end of the eleventh week to allow schools the time for preparation and administration of the End-of-Term Test in the twelfth or last week of the term (Ministry of Education, 2011). Table 2 presents the summary of the SBA modes and its administration in the Business Studies curriculum.

Table 2. SBA modes and administration.

Term 1		
First class assessment task (CAT 1):		End of week 4 of term 1
Second class assessment task (CAT 2):		End of week 8 of term 1
Third class assessment task (CAT 3)		End of week 11 of term 1
Fourth class assessment task (CAT 4):		To be collected by the end of week 12
Term 2		
First class assessment task (CAT 5):		End of week 4 of term 2
Second class assessment task (CAT 6):		End of week 8 of term 2
Third class assessment task (CAT 7)		End of week 11 of term 2
Fourth class assessment task (CAT 8):		To be collected by the end of week 12
Term 3		
First class assessment task (CAT 9):		End of week 4 of term 3
Second class assessment task (CAT 10):		End of week 8 of term 3
Third class assessment task (CAT 11):		End of week 11 of term 3
Fourth class assessment task (CAT 12):		To be collected by the end of week 12

Source: Ministry of Education (2011).

Since the introduction of SBA into the Business Studies Curriculum in the SHS, the teachers of Business continue to carry out poor assessment practices such as practising the traditional assessment (CA), manufacturing marks for students, non-adherence to assessment principles, improper records keeping, and emphasising the low level of skills in test construction. The observations made by the researchers seem to imply that the preparations and provisions in the assessment of students' achievement in the Business Studies programme were not noticeably dissimilar from the traditional modes of assessment (CA) which they were meant to replace. Some teachers continue to assess the students by focusing on some areas that the West African Examination Council (WEEC) assesses them instead of focusing on the curriculum or the syllabus. These attitudes and perceptions of the Business Studies teachers imply that they have concerns about introducing SBA into the curriculum. This could affect the quality of the implementation of SBA.

2.4. Empirical Studies on SBA Implementation

A plethora of studies exist on the quality of the implementation of SBA in schools using SoC. The research findings revealed that the teachers have several concerns such as self-concerns, task concerns and impact concerns about SBA implementation. These inquiries conclude that teachers are non-users of SBA in the schools. Thus, teachers had self-concerns (awareness, informational and personal) about SBA. For example, in China, using adapted SoCQ,

Cheung (2001); Cheung (2002) assessed 290 teachers' concerns about SBA in public examinations. The investigation found that the teachers had informational, personal, management and evaluation concerns about SBA implementation. There was a difference between the teachers who had experienced (participated) with the Teacher Assessment Scheme (TAS) and those who had never experienced TAS.

These findings were also mirrored in an extensive study of 400 Chemistry and 412 Biology teachers in China (Cheung & Yip, 2003; Cheung & Yip, 2004; Yip & Cheung, 2005). The authors further found that teachers had consequence and collaboration concerns (Cheung & Yip, 2003; Cheung & Yip, 2004; Yip & Cheung, 2005). Cheung and Yip (2004) discovered that the intensity of teachers' evaluation concerns remained low and unchanged when they gained experience with SBA; their consequence concerns did not increase with teaching experience, while that of information and management concerns tended to decrease over time. Yip and Cheung (2005) also found a change in the levels of concern as the teachers gained experience in TAS. One key element of SBA is the project work based on project-based learning (PBL). Using SoCQ, Leung (2008) in China found that teachers had concerned about the impacts of project learning on their students (consequence) as well as the possibilities of improving the implementation of curriculum reform (refocusing). Other teachers are also worried about the self-concerns and task concerns of project-based learning in SBA. On a similar note, Ferrara (2013) in Texas found that teachers had information and personal concerns about PBL.

In Malaysia, Majid (2011) examined the concerns of English teachers about SBA using the modified SoCQ of Cheung, Hattie, and Ng (2001). The study indicated that the teachers had informational-personal, consequence-collaboration and refocusing concerns about the innovation. Baidzawi and Abu (2013) examined the primary and secondary English school teachers' concerns about SBA in the same country. The study found that the primary teachers had personal concerns while the secondary teachers had management concerns about SBA. Using 260 primary teachers, Rasid et al. (2015) found that primary Mathematics teachers had personal concerns about SBA implementation in Malaysia. In a related study in Trinidad and Tobago, Ramoutar-Bhawan (2014) and Broomes (2014) evaluated the concerns of primary school teachers regarding the implementation of the Continuous Assessment Component (CAC) of the Secondary Entrance Assessment (SEA). The study found that the teachers' most intense concerns were Self-concerns [awareness, informational, personal] (e.g., inadequate training and information on CAC, marginalisation of roles, support systems), and task concerns [management] (e.g., insufficient time for teaching and assessment, school policy for CAC, inadequately trained monitors, resource allocation, management of assessment system).

In Ghana, extant investigations were conducted on SBA implementation without necessary using the SoC of CBAM. However, the findings could be related to SoC. For example, Nugba (2012) found lack of training on SBA (informational and personal concerns), inadequate materials and unable to adequately give the required number of exercises in terms of assignments and projects (management concerns) were the challenges confronting SBA implementation. These findings were supported by investigations of Atachie (2015) and Awoniyi (2016) who found that teachers were concerned about their knowledge of SBA (awareness-personal), lacked an understanding of SBA guidelines (informational concerns) and do still practise the old 'CA' scheme (Unconcerned) respectively. More recently, Amoateng (2017) using the Context, Input Process and Product (CIPP) evaluation model, found that the teachers had a positive attitude towards the practice of SBA (personal concerns), yet they faced the challenges of adherence to SBA directions monitoring, supervision, and lack of materials (management concerns). Awinyam (2018) found that teachers faced inadequate training on SBA (informational and personal concerns), while Ahenkora (2019) found that teachers lacked knowledge about SBA (awareness-personal concerns) and issues with the application of

SBA guidelines (management concerns). There was no significant difference in teachers' perception of SBA implementation based on the length of service.

It is concluded from these studies that the teachers' intense concerns about SBA implementation were Informational (Stage 1), Personal (Stage 2) and Management concerns (Stage 3). Accordingly, teachers are non-users of SBA in the curriculum. This could significantly affect the quality of the implementation of SBA in the curriculum. These recent studies have begun to provide insight into the quality of SBA implementation in schools. Nevertheless, one limitation of the past studies is focusing on other subject teachers like English, Mathematics, Science (Chemistry and Biology) and others rather than on Business Studies teachers. This means that researchers do not know whether Business Studies teachers are users or non-users of SBA in the curriculum. Suppose policymakers, school administrators, educators and researchers want a better understanding of SBA implementation in the Business Studies curriculum in the SHS. In that case, gauging the concerns of Business Studies teachers about SBA implementation is critical. This current investigation could contribute to identifying specific patterns of concerns of teachers that relate to the successful and quality implementation of SBA in the Business Studies programme in the SHS.

3. RESEARCH METHODS

3.1. Research Design

The current investigation was rooted within the positivists' research paradigm. We alleged that authenticity and reality exist, which can be revealed in a consistent and unbiased style autonomous from the investigators (Krauss, 2005). Because of this, Business Studies teachers' concerns about SBA implementation are firm and stable, which can be subjected to empirical testing. A descriptive cross-sectional survey design (non-experimental design) employing the census method was adopted for the research. This design was deemed appropriate because of the large number of teachers involved in the investigation, and there was no manipulation of variables. The design also helps to measure the current state of the phenomenon and obtain information from the respondents at one point in time (Creswell, 2012; Leedy & Ormrod, 2010) to generalise the findings to the population.

3.2. Respondents

The population comprised all Business Studies teachers (Accounting and Management teachers) within the public SHS at Assin Districts and Cape Coast Metropolis in the Central Region of Ghana. There are Nine (9) public SHS apiece in the Assin Districts and Cape Coast Metropolis that offered Business Studies Programme. The headcount of the teachers in the schools was 108. Census method was used to include all the teachers because the number was small, and it is realistic to involve everyone in the research.

3.3. Instrumentation

Adapted stages of concern questionnaire (SoCQ) (George et al., 2013; Hall et al., 1977) was used to collect primary data from the respondents. Principally, the SoCQ concentrated on teachers' feelings, anxiety, reactions, perceptions, and attitudes towards an educational innovation like SBA. The SoCQ contains 35-items recommended for innovation like SBA implementation. We adapted and used the SoCQ in this current study because of its accuracy of assessment, versatility, and completeness of the data (George et al., 2013; Hord et al., 2006). The quality (i.e., psychometric properties) of the SoCQ has been well tested, established and validated across several cultures. Table 3 shows the results of the internal consistency of the SoCQ using Cronbach's Alpha reliability coefficients.

Table 3. Internal reliability coefficients for the SoCQ (n = 88).

Variable: Stages of concern (SoC)	No. of items	Cronbach's alpha
Stage 0__Unconcerned/Awareness	5	0.518
Stage 1__Informational	5	0.671
Stage 2__Personal	5	0.806
Stage 3__Management	5	0.732
Stage 4__Consequence	5	0.921
Stage 5__Collaboration	5	0.948
Stage 6__Refocusing	5	0.940
Overall SoC	35	0.900

Source: Field data, 2021

Table 3 summarises coefficients of internal reliability for the stages of concern. The reliability coefficients using Cronbach's alpha ranged from 0.518 to 0.948 (n = 88). The values indicate that there was consistency in responses of Business Teachers across the items of SoC. Thus, the item scores on SoCQ were acceptable to the sample (Aron & Aron, 2003; Cohen & Swerdlik, 2005; Hulin, Netemeyer, & Cudeck, 2001).

3.4. Data Collection and Analysis Procedures

The ethical protocol was followed during the data collection process. The data gathered were assessed for their completeness after the fieldwork. The data were then keyed into Statistical Product and Service Solution (SPSS version 25) computer software for processing. Data entry errors were screened, and corrections were made where necessary. The first research question (RQ 1) was analysed using descriptive statistics (means, standard deviation), and relative intensity percentile (RIP) scores. The mean and standard deviation scores were computed to measure the trends of Business Studies teachers' concerns about SBA implementation and the extent of variation from the trends. The computed raw mean scores were converted to percentile scores using a percentile conversion chart recommended by developers (George et al., 2013). The percentile scores indicate the relative intensity of the concerns among Business Studies teachers about SBA implementation. The percentile scores were used to construct the SoC relative intensity graph (see Figure 1). According to George et al. (2013) the higher the percentile score, the more intense the concerns are at that stage, and the lower the percentile score, the less intense the concerns are at that stage. The data congregated on research question two (RQ 2) was analysed using factorial Multivariate Analysis of Variance (MANOVA). To reduce the extent of Type 1 error, an adjustment was made to the 0.05 alpha level based on the number of criterion variables. Thus, an alpha level of 0.007 (i.e., $0.05/7 = 0.007$) was used instead to determine whether the results were significant or not. Before the data analysis, the multivariate outliers, autocorrelation, singularity, multivariate linearity, multicollinearity, multivariate normality, and homogeneity of variance-covariance matrices were tested (Field, 2017; Tabachnick & Fidell, 2007).

4. RESULTS

This part of the paper presents the results, interpretation, and discussion of the findings based on the research questions that were formulated to guide the study. Prior to this, preliminary data screening was performed. Also, the demographic characteristics of the respondents were presented.

4.1. Preliminary Data Screening

The assumptions underlying the use of the statistical procedures were checked. The data points suggested no evidence of multivariate outliers using the box plots and Mahalanobis distance. The multivariate linearity and multicollinearity assumptions were tested using a correlation matrix. The reason behind these assumptions (i.e., linearity and multicollinearity) is that MANOVA is wasteful, and the power of the test is reduced when dependent

variables are not linearly related. Also, the dependent variables must be moderately correlated to avoid testing separate One-way Analysis of Variance (ANOVAs) and multicollinearity.

Table 4. Correlation matrix for stages of concern (SoC) (n = 88).

Variable: SoC	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Stage 0_Unconcern	1						
Stage 1_Informatio	0.394**	1					
Stage 2_Personal	0.337**	0.510**	1				
Stage 3_Manageme	0.655	0.39	-0.516	1			
Stage 4_Consequen	-0.46	0.416	-0.502**	0.576**	1		
Stage 5_Collaborati	-0.435	0.388	-0.443**	0.562**	0.897**	1	
Stage 6_Refocus	0.588	0.415	-0.465**	0.565**	0.817**	0.828**	1

Note:**Significant @ 0.01 level (2-tailed).
Source: Field data, 2021.

Multivariate normality assumption was checked using descriptive statistics (mean, median and mode statistics, skewness, and kurtosis statistics) checked. Table 4 revealed a moderate correlation (0.337 to 0.897) among the dependent variables. Also, there was no multicollinearity (less than 0.90) among the variables (Field, 2017; Tabachnick & Fidell, 2007). The results in Table 5 demonstrated that the assumption of multivariate normality was satisfied.

Table 5. Multivariate Normality of the Stage of Concerns (SoC) (n = 88)

Stage of concern (SoC)	Mean	Median	Skewness	SE _{sk}	Kurtosis	SE _{kur}
Stage 0_Unconcerned	14.00	14.00	-0.521	0.257	0.491	0.508
Stage 1_Informational	15.51	16.00	-0.710	0.257	1.463	0.508
Stage 2_Personal	16.02	16.00	-0.475	0.257	0.195	0.508
Stage 3_Management	12.11	12.50	-0.974	0.257	1.377	0.508
Stage 4_Consequence	12.90	14.00	-0.831	0.257	-0.368	0.508
Stage 5_Collaboration	12.40	14.00	-0.704	0.257	-0.838	0.508
Stage 6_Refocusing	11.72	13.50	-0.600	0.257	-0.796	0.508
Overall SoC scale	13.52	14.14	-0.554	0.257	-0.351	0.508

Source: Field data, 2021

For example, in Stage 0 (unconcerned/awareness) and Stage 3 (Management), the mean and median scores were approximately the same, indicating a normal data set distribution. Also, the coefficient of skewness of the variables (SoC) was within - 2.00 to + 2.00, and the kurtosis values were less than 3.00. These values also indicated that the data were normally distributed (Kline, 2005; Pallant, 2007; Tabachnick & Fidell, 2007). Further evidence was examined using histogram and Normal Q-Q plots. The distribution of data points for each of the cells was centroid in nature; this confirmed the non-violation of the multivariate normality. The Box’s Test of Equality of Covariance Matrices showed that the assumption of homogeneity of variance-covariance matrices had been met, $M = 64.487$, $F(28, 892.051) = 1.169$, $p = 250$. This was also evident in Levene’s Test of Equality of Error Variances. Wilks’ Lambda (A) was therefore reported in testing for statistical significance.

4.2. Demographic Profile of Business Studies Teachers

The respondents’ background information was sought, including their gender, age group, years of teaching experience, workload (number of classes taught,) and formal training on SBA. The background information helps provide a brief idea about the teachers who participated in the study and forms part of the main results (see RQ 2). The results are presented in Table 6.

Table 6. Demographic profile of business studies teachers (n = 88).

Variable	Category	Frequency	Percent
Gender (GE)	Male	53	60.20
	Female	35	39.80
Age group (AG)	Below 30 years	43	48.90
	30years and above	45	51.10
Teaching experience (TE)	Below 10 years	50	56.80
	10years and above	38	43.20
Workload (Number of classes) (WL)	Below 3 classes	52	59.10
	3 classes and above	36	40.90
SBA training (ST)	Yes	24	27.30
	No	64	72.70

Source: Field data, 2021.

In Table 6, most of the teachers were male (n = 53; 60%) with the age group of 30years and above (n = 45; 51%). Most of the teachers had taught for less than 10years (n = 50; 57%). This implies that most of the Business teachers in the school system were now recruited after introducing SBA into the curriculum in 2011. They could have training on SBA implementation compared to those in the school system before introducing SBA into the Business programme. Most of the teachers are teaching less than three (3) classes (n = 52; 59%). This could make teachers have positive concerns about SBA implementation because the aim of introducing SBA into the curriculum is to reduce the teachers' workload. Hence, it is expected that they would positively adhere to the principles and guidelines of SBA during its implementation. However, most teachers had never received any formal training (n = 64; 73%) on SBA since its introduction into the curriculum. It could be inferred that these teachers might lack information and education on SBA, and it could create negative concerns among the teachers regarding the SBA implementation in the curriculum.

4.3. Business Studies Teachers' SoC about SBA Implementation

Research Question 1: What are Business Studies teachers' identifiable SoC about SBA implementation in the Curriculum?

Research question one sought to gauge the concerns that Business Studies teachers have towards SBA implementation in the curriculum. The data was analysed using means, standard deviation and percentile scores using a conversion table provided by George et al. (2013). Details of the results are presented in Table 7 and Figure 1.

Table 7. Business studies teachers' concerns about sba implementation.

Levels of concerns	Stages of concern (SoC)	N	Mean	SD	RIP
Self-concerns	Stage 0_Unconcerned	88	14.00	2.41	81*
	Stage 1_Informational	88	15.51	2.13	60**
	Stage 2_Personal	88	16.02	3.19	59
Task concerns	Stage 3_Management	88	12.11	3.63	43
	Stage 4_Consequence	88	12.90	5.12	11***
Impact concerns	Stage 5_Collaboration	88	12.40	5.12	19
	Stage 6_Refocusing	88	11.72	5.17	30

Note: *Primary concern, **Secondary concern, ***Least concern.
Source: Field data, 2021.

Table 7 shows the mean and standard deviation analysis, and Figure 1 shows a pictorial presentation of the results using relative intensity percentile (RIP) scores. It is evident in Table 7 and Figure 1 that Business Studies teachers expressed mixed concerns about SBA implementation ranging from Self and Survival concerns, Task concerns to Impact concerns. A critical examination of the results revealed that the teachers had Self-concerns about SBA implementation in the curriculum. For example, the Business Studies teachers expressed their highest concern (most intense concern) at Stage 0_Unconcerned (M = 14.00; SD = 2.41; RIP = 81st percentile). This result signals

that the SBA is not the top priority among Business teachers. Currently, they are too busy with other priorities; hence, they are not interested in the assessment reform in the curriculum at all.

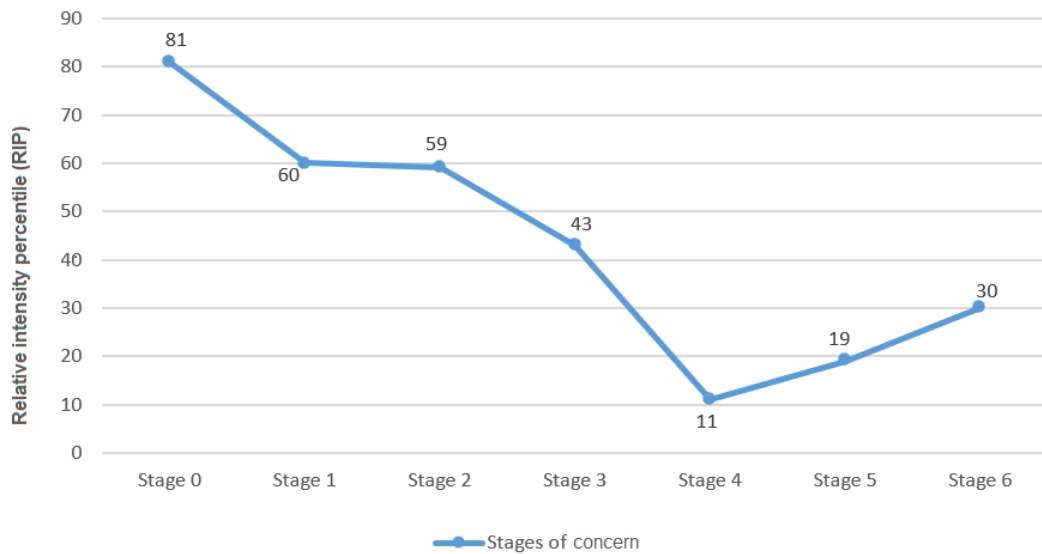


Figure 1. Relative intensity percentile score of business studies teachers' SoC.

The second and third highest concerns voiced by the Business Studies teachers about SBA implementation were at Stage 1_Informational ($M = 15.51$; $SD = 2.13$; $RIP = 60^{\text{th}}$ percentile) and Stage 2_Personal ($M = 16.02$; $SD = 3.19$; 59^{th} percentile). These results suggest that the Business teachers want more information on SBA and want to know what SBA implementation means for them respectively. The lowest concern (least intense concern) the Business Studies teachers succumbed about SBA implementation was at Stage 4_Consequence ($M = 12.90$; $SD = 5.12$) with a relative intensity peak of the 11^{th} percentile. This result implies that at this point, the teachers have minimal concerns about the impact of the SBA implementation on students. Accordingly, they are not worried about how this SBA would affect their students.

Other substantial evidence signifying that the Business teachers are non-users of SBA is relatively less intense in Stage 3_Management, Stage 5_Collaboration and Stage 6_Refocusing. This result infers that the teachers are relatively not focusing on the time and logistics of implementing SBA, the process and the tasks involved in the SBA implementation. They are not interested in understanding the best way to use the resources and information to implement the SBA in the curriculum. It is concluded that the concerns (Unconcerned, Informational, Personal and Consequence concerns) of the Business teachers are typical indications of non-users of innovation like SBA. The results indicate that the Business teachers are potential resistance to SBA implementation in the curriculum.

4.4. Business Studies Teachers' SoC and Demographic Profile

Research Question 2: Does the Business Studies teachers' SoC about SBA implementation differ by gender, age, years of teaching experience, workload (number of classes) and formal training on SBA?

Research question two sought to determine whether the demographic profile (gender, age, teaching experience, workload, and formal training on SBA) of the Business Studies teachers significantly matters in teachers' concerns about SBA implementation in the curriculum. The data were analysed using factorial MANOVA. A summary of the results is presented in Table 8.

Table 8. MANOVA results of differences in business studies teachers' concerns based on demographic profile.

Effect	Test	Value	F	H.df	E.df	Sig.	η_p^2	OP ^c
Intercept	Wilks' (Λ)	0.019*	422.236 ^{b*}	7.000	57.000	0.000	0.981	1.000
Gender (GE)	Wilks' (Λ)	0.941	0.506 ^b	7.000	57.000	0.826	0.059	0.201
Age group (AG)	Wilks' (Λ)	0.893	0.978 ^b	7.000	57.000	0.456	0.107	0.383
Teach expe. (TE)	Wilks' (Λ)	0.947	0.452 ^b	7.000	57.000	0.865	0.053	0.182
Workload (WL)	Wilks' (Λ)	0.698*	3.522 ^{b*}	7.000	57.000	0.003	0.302	0.950
SBA training (ST)	Wilks' (Λ)	0.606*	5.299 ^{b*}	7.000	57.000	0.000	0.394	0.996
GE*AG	Wilks' (Λ)	0.944	0.484 ^b	7.000	57.000	0.842	0.056	0.193
GE*TE	Wilks' (Λ)	0.940	0.518 ^b	7.000	57.000	0.817	0.060	0.206
GE*WL	Wilks' (Λ)	0.928	0.631 ^b	7.000	57.000	0.729	0.072	0.247
GE*ST	Wilks' (Λ)	0.978	0.183 ^b	7.000	57.000	0.988	0.022	0.096
AG*TE	Wilks' (Λ)	0.912	0.789 ^b	7.000	57.000	0.600	0.088	0.308
AG*WL	Wilks' (Λ)	0.920	0.711 ^b	7.000	57.000	0.663	0.080	0.278
AG*ST	Wilks' (Λ)	0.890	1.005 ^b	7.000	57.000	0.438	0.110	0.393
TE*WL	Wilks' (Λ)	0.954	0.393 ^b	7.000	57.000	0.902	0.046	0.162
TE*ST	Wilks' (Λ)	0.940	0.522 ^b	7.000	57.000	0.814	0.060	0.207
WL*ST	Wilks' (Λ)	0.727*	3.052 ^{b*}	7.000	57.000	0.008	0.273	0.911
GE*AG*TE	Wilks' (Λ)	0.947	0.457 ^b	7.000	57.000	0.861	0.053	0.184
GE*AG*WL	Wilks' (Λ)	0.954	0.391 ^b	7.000	57.000	0.904	0.046	0.161
GE*TE*WL	Wilks' (Λ)	0.906	0.841 ^b	7.000	57.000	0.558	0.094	0.329
GE*TE*ST	Wilks' (Λ)	0.908	0.829 ^b	7.000	57.000	0.568	0.092	0.324
AG*TE*WL	Wilks' (Λ)	0.957	0.364 ^b	7.000	57.000	0.920	0.043	0.152
TE*WL*ST	Wilks' (Λ)	0.917	0.737 ^b	7.000	57.000	0.641	0.083	0.288

Note: *Significant @ 0.05 level, η_p^2 = Partial eta-squared, OP^c = Observed power.

Source: Field data, 2021.

In Table 8, it was noted that there was a statistically significant interaction effect between workload (WL) and SBA training (ST) on the linear combined dependent variables (SoC about SBA), $F(7, 57) = 3.052, p = 0.008, Wilks' \Lambda = .727$. This means that the effect of the SBA training on Business teachers' concerns about SBA is not the same for those with less workload and more workload. Also, there exists statistically significant main difference in the linear combination of SoC of Business teachers about SBA based on workload, $F(7, 57) = 3.522, p = 0.003, Wilks' \Lambda = .698$ and SBA training, $F(7, 57) = 5.299, p < 0.001, Wilks' \Lambda = 0.606$. No significant difference was observed in the main effect of gender, age and teaching experience, and three-level, four-level and five-levels interactions. Table 9 presents the univariate results.

In Table 9, using the Bonferroni correction method, each ANOVA was tested at $0.007(0.05/7)$. The corrected models for Business teachers' Personal concerns (Stage 2), $F(24, 63) = 2.900, p < 0.001$; partial $\eta^2 = 0.525, OP = 0.999$; Consequence concerns (Stage 4), $F(24, 63) = 5.832, p < 0.001$; partial $\eta^2 = 0.690, OP = 1.00$; Collaboration concerns (Stage 5), $F(24, 63) = 6.575, p < 0.001$; partial $\eta^2 = 0.715, OP = 1.00$ and Refocusing concerns (Stage 6), $F(24, 63) = 6.213, p < 0.001$; partial $\eta^2 = .703, OP = 1.00$ were statistically significant. Thus, there were statistically significant differences in teachers' Personal, Consequence, Collaboration and Refocusing concerns about SBA based on workload, SBA training and interaction effects (WL*ST).

In Table 9, statistically significant difference was observed in Business teachers' Personal concerns, $F(1, 63) = 11.152, p = 0.001$, partial $\eta^2 = 0.150, OP = 0.908$ and Collaboration concerns, $F(1, 63) = 10.046, p = 0.002$, partial $\eta^2 = 0.138, OP = 0.877$ based on workload. The teachers with more workload (3 classes and more) ($M = 17.76; SE = 0.54; RIP = 67^{th}$ percentile) had significantly higher Personal concerns about SBA than the teachers with less workload (below 3 classes) ($M = 14.46; SE = 0.45; RIP = 57^{th}$ percentile). Also, the teachers with more workload ($M = 10.37; SE = 0.71; RIP = 14^{th}$ percentile) had significantly less Collaboration concerns than the teachers with less workload ($M = 15.15; SE = 0.59; RIP = 28^{th}$ percentile). The effect size was large for both ANOVAs. The strength

of the relationships between Business teachers' workload and their Personal (0.150) and Collaboration (0.138) concerns about SBA were strong, accounting for 15% and 14% of the variance in the dependent variables. The observed power of 0.908 and 0.877 indicated that there was 91% and 88% chance that the results could have come out significant for both analyses respectively.

Table 9. Tests of between-subjects effects.

Source	Dependent variable	df	F	Sig.	η_p^2	OP ^h
Corrected model	Stage 0_Unconcerned	24(63)	0.881	0.624	0.251	0.620
	Stage 1_Informational	24(63)	0.631	0.894	0.194	0.440
	Stage 2_Personal	24(63)	2.900*	0.000	0.525	0.999
	Stage 3_Management	24(63)	1.144	0.327	0.304	0.770
	Stage 4_Consequence	24(63)	5.832*	0.000	0.690	1.000
	Stage 5_Collaboration	24(63)	6.575*	0.000	0.715	1.000
	Stage 6_Refocusing	24(63)	6.213*	0.000	0.703	1.000
Workload (WL)	Stage 0_Unconcerned	1(63)	3.586	0.063	0.054	0.462
	Stage 1_Informational	1(63)	3.904	0.053	0.058	0.494
	Stage 2_Personal	1(63)	11.152*	0.001	0.150	0.908
	Stage 3_Management	1(63)	0.000	0.988	0.000	0.050
	Stage 4_Consequence	1(63)	6.673	0.012	0.096	0.720
	Stage 5_Collaboration	1(63)	10.046*	0.002	0.138	0.877
	Stage 6_Refocusing	1(63)	7.392	0.008	0.105	0.763
SBA training (ST)	Stage 0_Unconcerned	1(63)	3.437	0.068	0.052	0.447
	Stage 1_Informational	1(63)	0.716	0.401	0.011	0.132
	Stage 2_Personal	1(63)	2.655	0.108	0.040	0.361
	Stage 3_Management	1(63)	3.881	0.053	0.058	0.492
	Stage 4_Consequence	1(63)	33.136*	0.000	0.345	10.000
	Stage 5_Collaboration	1(63)	23.992*	0.000	0.276	0.998
	Stage 6_Refocusing	1(63)	32.696*	0.000	0.342	1.000
WL*ST	Stage 0_Unconcerned	1(63)	0.713	0.402	0.011	0.132
	Stage 1_Informational	1(63)	1.607	0.210	0.025	0.239
	Stage 2_Personal	1(63)	3.559	0.064	0.053	0.459
	Stage 3_Management	1(63)	3.376	0.071	0.051	0.440
	Stage 4_Consequence	1(63)	11.640*	0.001	0.156	0.919
	Stage 5_Collaboration	1(63)	14.811*	0.000	0.190	0.966
	Stage 6_Refocusing	1(63)	11.679*	0.001	0.156	0.920

Note: *Significant @ 0.007 level, η_p^2 = Partial eta-squared, OP^h = Observed power.
 Source: Field data, 2021.

It was also discovered in Table 9 that; SBA training of Business teachers significantly affect their impact concerns about SBA: Consequence concerns, $F(1, 63) = 33.136, p < 0.001$, partial $\eta^2 = 0.345, OP = 1.00$; Collaboration concerns, $F(1, 63) = 23.992, p < 0.001$, partial $\eta^2 = 0.276, OP = 0.998$ and Refocusing concerns, $F(1, 63) = 32.696, p < 0.001$, partial $\eta^2 = 0.342, OP = 1.00$. The Business teachers with SBA training (i.e., those who received training on SBA) ($M = 16.744; SE = 0.86; RIP = 21^{st}$ percentile) had significantly higher Consequence concerns than the teachers without SBA training (i.e., those who never received any training on SBA) ($M = 10.89; SE = 0.51; RIP = 8^{th}$ percentile). This pattern of the results was also observed in the Collaboration and Refocusing concerns among Business teachers about SBA implementation. The strength of the relationships between Business teachers' SBA training and their Consequence (0.345), Collaboration (0.276) and Refocusing (0.342) concerns were strong, accounting for 35%, 28% and 34% respectively of the variance in the dependent variables. The observed power of 1.00, 0.998 and 1.00 indicated that there was 100%, 99.8% and 100% chance that the results could have come out significant for both analyses respectively.

The results in Table 9 revealed that there were statistically significant interaction effects between workload and SBA training (WL*ST) on Business teachers' impact concerns: Consequence concerns, $F(1, 63) = 11.640, p = 0.001$, partial $\eta^2 = 0.156, OP = 0.919$; Collaboration concerns, $F(1, 63) = 14.811, p < 0.001$, partial $\eta^2 = 0.190, OP = 0.966$

and Refocusing concerns, $F(1, 63) = 11.679$, $p = 0.001$, partial $\eta^2 = 0.156$, $OP = 0.920$. The Business teachers with less workload and SBA training ($M = 16.46$; $SE = 1.11$; $RIP = 21^{\text{st}}$ percentile) significantly expressed higher Consequence concerns about SBA implementation than the teachers with less workload and without SBA training ($M = 14.79$; $SE = 0.62$; $RIP = 16^{\text{th}}$ percentile). Also, the Business teachers with more workload and SBA training ($M = 17.03$; $SE = 1.31$; $RIP = 21^{\text{st}}$ percentile) significantly voiced higher Consequence concerns about SBA implementation than the teachers with more workload and without SBA training ($M = 7.47$; $SE = 0.80$ $RIP = 5^{\text{th}}$ percentile). This pattern of the results was also observed in the Collaboration and Refocusing concerns among Business teachers about SBA implementation. The strength of the relationships between the interaction effect of workload and SBA training (WL*ST) and teachers' Consequence (0.156), Collaboration (0.190) and Refocusing (0.156) concerns were strong, accounting for 16%, 19% and 15% respectively of the variance in the dependent variables. The observed power of 0.919, 0.966 and 0.920 indicated that there was 92%, 97% and 92% chance that the results could have come out significant for both analyses respectively.

5. DISCUSSION

The Business teachers are Unconcerned/Awareness of SBA implementation in the curriculum. The inquiry was conducted to ascertain Business teachers' concerns about the quality of SBA implementation since its introduction into the curriculum programme in SHS. The high score at this stage implies that the teachers have a low degree of interest in and engagement with SBA compared to other tasks, activities, efforts, and responsibilities (Hall, Dirksen, & George, 2006). This is an indication of their negative perceptions of SBA. Innovation (SBA) is not their highest priority in the school. They are not thinking about the SBA implementation and are not involved in using it. This could be attributed to inadequate required competencies, resources, and logistics, information, and education (training) on SBA implementation. The evidence established in this investigation was reported by similar studies that teachers had self-concerns about SBA reforms (e.g., unconcerned, information and personal) (Ferrara, 2013; Leung, 2008). The findings of the current research agree with the results of previous researchers who found that teachers are non-users of innovation in schools (e.g., (Ahenkora, 2019; Broomes, 2014; George et al., 2013; Hall et al., 2006; Hall & Hord, 2020; Hall & Hord, 2015; Ramoutar-Bhawan, 2014)). For example, Ramoutar-Bhawan (2014) and Broomes (2014) found that teachers' most intense concerns about CAC were at the Awareness stage (e.g., inadequate training). This concern calls for additional discourse with the teachers to assess if some other initiatives or responsibilities may limit their time engaging with the SBA.

We also established that Business teachers highly expressed Informational Concerns about SBA. They are aware of the SBA initiative and want more information about the change. They believe that SBA is an interesting innovation, and they would like to know more about it (i.e., in terms of what the SBA is, what it will do, and what its use will involve). The concerns at this stage are substantive, focusing on the structure and function of SBA (George et al., 2013). Several investigators reported similar findings that teachers had informational concerns about SBA implementation (Atachie, 2015; Awinyam, 2018; Awoniyi, 2016; Broomes, 2014; Cheung, 2002; Cheung, 2001; Ferrara, 2013; Leung, 2008; Majid, 2011; Nugba, 2012; Ramoutar-Bhawan, 2014). For example, Ramoutar-Bhawan (2014) and Broomes (2014) found that teachers' most intense concerns about CAC were at the Informational stage (e.g., inadequate information, support systems). It is worth noting that the teachers' concerns at this stage do not mean that they have much knowledge and understanding about the SBA. They just need more information about it to ensure its quality implementation in the curriculum.

In furtherance, the teachers were focusing on their status, rewards, and the impacts the SBA implementation would have on them (Stage 2_Personal). They are uncertain about the demands of the new assessment reforms (i.e.,

SBA) and worried about the changes they would make in their routines during the implementation of SBA in the curriculum. Accordingly, they are much concerned about their adequacy to meet the demands of SBA and how their roles would change during the SBA implementation process. This concern among the teachers represents their ego-oriented questions and uncertainties about SBA (Stage 2_Personal). This might cause personal conflicts (e.g., values, morals, beliefs) since they may feel they cannot implement the change initiative. The finding agrees with [Cheung \(2001\)](#); [Cheung \(2002\)](#) results in China, where teachers expressed personal concerns about SBA implementation. Similar findings were documented by prior researchers that teachers were worried about the self-concerns (e.g., personal) (e.g., [Atachie, 2015](#); [Awinyam, 2018](#); [Awoniyi, 2016](#); [Baidzawi & Abu, 2013](#); [Ferrara, 2013](#); [Leung, 2008](#); [Majid, 2011](#); [Nugba, 2012](#); [Rasid et al., 2015](#)). For instance, [Ramoutar-Bhawan \(2014\)](#) and [Broomes \(2014\)](#) established that teachers' most intense concerns about CAC were the Personal stage (e.g., marginalisation of roles, support systems).

It is alarming for Business teachers to voice their lowest intense concerns about SBA implementation at Stage 4 (Consequence concerns). This means that teachers' apprehensions were not on the assessment change (SBA) impact on learners. They were less concerned about how innovation (SBA) affects their students. They appeared to be preoccupied with their self-centred needs (concerns, mostly unconcerned and personal stages) at the expense of the needs of their students. This might prevent their expected progression towards higher concerns. Until their self-concerns are resolved, teachers' most intense concerns are most likely to remain centred on the lower SoC instead of progressing to the higher SoC, such as collaboration and refocusing ([George et al., 2013](#)). The evidence from the current inquiry does not support the claim by [Leung \(2008\)](#) in China that teachers were more interested or concerned about the impact of project work/project-based learning (PBL) on their students (consequence concerns).

Another significant evidence suggesting that the Business teachers are non-users of SBA is the relatively less intense Stage 3_Management, Stage 5_Collaboration and Stage 6_Refocusing. This result infers that the teachers are relatively not focusing on the time and logistics of implementing SBA. They are not focusing on the process and the tasks involved in the SBA implementation. They are not interested in understanding the best way to use the resources and information to implement the SBA in the curriculum. They are rather thinking about the complexity of the SBA tasks at hand. If everything about the SBA (e.g., time, logistics etc.) is not in the mind of the teachers, then they could be practising their forms of assessment in the curriculum (Stage 3_Management). The management concerns of teachers imply their levels of efficacy to implement the change (SBA), suggesting the need for workshops to address this particular concern among the teachers (e.g., [Charambous, Philippou, & Kyriakides, 2004](#); [Cobbold, 2013](#)). This finding was also mirrored by extant researchers who found that teachers had management concerns about SBA implementation (e.g., [Ahenkora, 2019](#); [Amoateng, 2017](#); [Baidzawi & Abu, 2013](#); [Broomes, 2014](#); [Cheung, 2002](#); [Cheung, 2001](#); [Nugba, 2012](#); [Ramoutar-Bhawan, 2014](#)). [Ramoutar-Bhawan \(2014\)](#) and [Broomes \(2014\)](#) discovered that teachers' most intense concerns about CAC were at the Management stage (e.g., insufficient time, resource allocation, school policy for CAC).

They are presently not engrossed in cooperating with others on how best to implement the SBA. They are not even thinking about how their colleagues implement the SBA in schools. They are not ready to seek information from their colleague teachers and share some SBA ideas with other teachers. Further, this indicates that Business Studies teachers lacked teamwork in discoursing and deliberating on SBA implementation and its resources usage in the curriculum (Stage 5_Collaboration). Lack of collaboration among the teachers could negatively affect social capital development in the schools. Given the individualistic and isolationist culture in most Ghanaian schools, this is not surprising and points to the emergence of communities of practice. [Brady and Kennedy \(2003\)](#) emphasise that these collaborative school cultures are essential in managing any change process like SBA. The finding of the current

investigation does not provide support to the previous evidence that teachers in China are users of SBA in the curriculum [i.e., had consequence and collaboration concerns about SBA (Cheung & Yip, 2003; Cheung & Yip, 2004; Yip & Cheung, 2005)].

The Business Studies teachers do not understand the universal benefits of the assessment reforms (SBA) (Stage 6_Refocusing). They are not making significant modifications to the SBA to achieve better outcomes. They lacked innovative ways that could be explored to reap more universal benefits from SBA implementation. Thus, they seem not to have innovative ideas about changing their use of SBA in the curriculum or the SBA itself. Accordingly, any move to change any aspect of the SBA could be negative and more likely not towards the quality implementation of SBA. The findings of the current inquiry disagreed with the evidence reported by Leung (2008) in China that teachers are implementers and users of project work (PBL) as a component of SBA. The teachers were more interested or concerned about the possibilities of improving the implementation of curriculum reform (refocusing). The tailing up of Stage 6_Refocusing as observed in Figure 1 [i.e., where the point at Stage 6_Refocusing (30th percentile) rises above Stage 5_Collaboration (19th percentile)] indicates that the teachers seem to have ideas that they think or see as having more merit than the proposed SBA reform (Hall et al., 2006). They may have thoughts and opinions about a different assessment reform which may be causing their resistance to move towards effective implementation of SBA. As signposted by Hall et al. (2006) a tailing-up of more than 10 percentiles should be regarded as a panic, and there was a tailing-up of nearly 11 percentile points (30th -19th = 11th). This should be a major concern to MoE/GHS and its agencies like NaCCA and GABET since they take centralised decisions about Business Education curriculum planning and development in Ghana.

We established that Business teachers' workload and training on SBA (SBA training) have significant effects on their concerns (Personal, Consequences, Collaboration, and Refocusing) about SBA implementation in the curriculum. Thus, the effect of teachers' workload on their concerns about SBA implementation is not similar/consistent across the different training on SBA. The teachers with more workload (3 classes and more) had more Personal concerns about SBA implementation than the teachers with less workload (below 3 classes). Having high personal concerns indicates that teachers with more workloads were worried about the effects of the change on their roles and responsibilities and their capability to meet the demands of the change. This has led to their low interest in collaborating or teaming up with other teachers in implementing SBA in the curriculum. Teachers with heavier workloads expressed little worry about collaboration, implying that they did not perceive the need to collaborate with other teachers or schools on the SBA implementation. Not surprisingly, they have developed little interest in coordinating and cooperating with other schools and teachers in sharing their experiences about the SBA to tap colleagues' experiences to maximise their efforts to use the new assessment reform and reap the benefits of the change (SBA). Perhaps they felt inadequate to meet the numerous requirements of the SBA, as reflected in their high personal concerns, but did not want other colleagues to be aware of this inadequacy. This is unsurprising, given the individualistic and isolationist attitude prevalent in most Ghanaian schools, and indicates the establishment of communities of practice in the classroom. Brady and Kennedy (2003) underline the need for a collaborative school culture in managing any transition process. The significant effect of teachers' workload on their Personal and Collaboration concerns about SBA implementation could be attributed to the significant increase in students' enrollment due to the Double-Track System concerning Free SHS Policy. These policies, in a way, have increased the workload of the teachers in terms of the number of classes some of them have to handle. Some of the teachers are teaching in both track systems. This could put a lot of pressure on the teachers which might cause them to be interested only in completing the syllabus than teaming up with colleagues and focusing on or taking SBA implementation as a top priority.

Similarly, the teachers' impact concerns (Consequences, Collaboration, and Refocusing) significantly vary based on SBA training. The teachers with SBA training (i.e., those who received formal training on SBA) had significantly higher Consequences, Collaboration and Refocusing concerns than the teachers without SBA training (i.e., those who never received any formal training on SBA). If the teachers without SBA training have the least (lowest) intense concerns about; the effect of SBA on their students (Consequences), working together with other teachers on how best to implement SBA in the curriculum/sharing information (Collaboration) and innovative ways that could be employed to refine the SBA implementation (Refocusing) then, they will not adhere to the principles and guidelines of assessment reforms. They would also not bring any innovative assessment practices into the classroom that could influence both teaching and learning. Accordingly, the teachers will jeopardise the core mandate of SBA in the curriculum (enhancing students' competencies) because they are non-users of SBA. At a two-level interaction, there were statistically significant interaction effects between workload and SBA training (WL*ST) on Business teachers' impact concerns (Consequences, Collaboration, and Refocusing). In China, [Cheung \(2001\)](#); [Cheung \(2002\)](#) established a difference between the teachers who had experienced (participated) with TAS and those who had never experienced TAS.

No significant difference was observed in the main effect of gender, age and teaching experience, and three-level, four-level, and five-levels interactions. This result implies that the mixed concerns expressed by the teachers about SBA implementation in the curriculum are not sensitive to and dependent on gender, age, and years of teaching experience. Accordingly, both male and female teachers, those below 30years and above 30years and those who had taught for less than 10years or above 10years, had the same concerns about SBA implementation. Hence, gender, age, and years of teaching experience are not important factors predicting teachers' concerns about SBA implementation. The statistically insignificant difference in the SoC of the teachers based on gender, age and teaching experience established in this current examination has been reported by several investigators (e.g., [\(Agormedah, 2019c; Agormedah et al., 2019; Cheung & Yip, 2004; Gudyanga & Jita, 2018; Hall, George, & Rutherford, 1986; Jennings, 2015; Zamani, Abedi, Soleimani, & Amini, 2011\)](#)). [Cheung and Yip \(2004\)](#) discovered that the teachers' evaluation concerns remained low and unchanged when they gained experience with SBA. Their consequence concerns did not increase with teaching experience. Previous inquiries have established that teachers with longer working experience refused innovations more than their junior colleagues did ([\(Porubský, Trnka, Poliach, & Cachovanová, 2015; Tůmová, 2012\)](#) in contrast to [Ha, Wong, Sum, and Chan \(2008\)](#)). Conversely, the current inquiry failed to lend support to similar studies, which found that teachers' concerns about innovations were also dependent on gender, age, and years of teaching experience (e.g., [\(Alshammari, 2000; Amankwah et al., 2016; Ani-Boi, 2009; Cobbold & Ani-Boi, 2011; Cobbold, 2013; Fritz & Miller, 2003; Sarfo et al., 2017; Yip & Cheung, 2005\)](#)). These findings disagree with previous researchers who found that age influences teachers' concerns about an innovation like SBA ([\(Thankachan, 2013\)](#) however, they contradict the results of other researchers who found otherwise ([\(Agormedah, 2019c; Agormedah et al., 2019; Al-Sarrani, 2010\)](#)). [Yip and Cheung \(2005\)](#) found a change in the levels of concern as the teachers gain experience in TAS.

6. CONCLUSIONS

From the investigation findings, we concluded that Business Studies teachers have self-concerns about SBA implementation in the curriculum. They articulated their highest intense concerns about SBA implementation in the curriculum as self-concerns and least concerns at Impact concerns. Usually, concerns about self are natural, and most of us are absorbed only briefly by self and survival concerns when we begin implementing innovation (change). Relatedly, the Business Studies teachers feel like beginners all over again, as they were asked to replace CA that they

knew how to use effectively with new approaches (SBA) that feel foreign and strange. They are typical non-users/implementers of SBA in the curriculum. They are potential resistance to SBA implementation in the curriculum. This implies that SBA is still in an early implementation phase even though it was initiated a decade ago into the curriculum. The teachers are still in the early stages of understanding the process of implementing SBA for effective teaching and learning. Most of them are highly worried and anxious about themselves concerning SBA implementation. They are concerned about their survival in implementing SBA in the curriculum. This could negatively affect their attention towards the SBA tasks, best use of information, time, resources, and logistics. It could also negatively affect their organisation, efficiency, management, and schedule of SBA implementation.

Since SBA implementation is not the top priority among the teachers and they also have ego-centred questions about themselves, it could also negatively affect their ability to collaborate, learn and share vital information on SBA implementation with colleague teachers. This would have a repercussion effect on professional capital building in terms of social and decisional capital in the schools. They may also ignore the relevance of SBA for students and the changes needed to improve students' learning outcomes. It may also negatively affect their ability to generate innovative ideas on how best to supplement, enhance or positively add to the SBA during its implementation. This could, in turn, negatively affect quality teaching and learning and students' academic performance since quality assessment practices help improve teachers' instructional and pedagogical practices and students' academic achievement. The study further concluded that the concerns (Personal, Consequences, Collaboration, and Refocusing) among Business Studies teachers about quality of SBA implementation varies significantly with their workload and training on SBA. At the same time, gender, age, and years of teaching experience are not significant drivers of Business Studies teachers' concerns about SBA implementation in the curriculum.

7. RECOMMENDATIONS

The study recommended that the MoE/ GES and NaCCA, in partnership with school administrators and GABET, frequently organise ongoing and quality support, training, workshops, seminars, conferences, and professional development courses for teachers to use and implement SBA in the curriculum. They can also adopt monthly newsletters, flyers, and short multimedia presentations to share more information on SBA implementation in schools. This would help provide adequate information and equip the teachers with the requisite knowledge and skills on SBA implementation. MoE through school administrators should pay attention to the Task concerns (management concerns) of the teachers by providing adequate SBA logistics (tools, equipment), materials, time and effective monitoring and coordination to help address the challenge of lack of resources and negative attitude of teachers and students towards SBA implementation.

MoE, in partnership with NaCCA, school administrators and GABET, should develop a policy that encourages peer collaboration and coaching. They should create and nurture a collaboration culture in their schools via school-based curriculum development and peer observation of teaching to ensure that teachers learn, seek, and share information from each other on SBA implementation. They should establish support groups among teachers in each school, district, and region where teachers can receive support and assistance. They should encourage classroom visits and observations where teachers can learn from each other. This quality collaboration culture is important in managing any curriculum change process. It would also help reduce teachers' negative attitudes towards SBA implementation and foster successful social capital formation in the schools.

The teachers were also informed to find ways to evaluate the effects of the SBA on students. The MoE and school administrators should highly consider the workload and formal training on SBA of the teachers concerning SBA implementation. They should make a conscious effort to reduce the workload (number of classes) of teachers to ensure

that the SBA implementation is a top priority among the teachers and facilitate their collaboration and social capital formation in implementing the SBA in the curriculum. The MoE/GES, through its agencies (e.g., NaCCA and GABET), should provide equal training opportunities and information on SBA for teachers irrespective of their gender and years of teaching experience.

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