STAGES OF CONCERN OF TEACHERS IN THE VICTORIA EDUCATION DISTRICT ABOUT THE CONTINUOUS ASSESSMENT COMPONENT OF THE SECONDARY ENTRANCE ASSESSMENT

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Dedication

For Re

and Kayleigh, for her endurance

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Abstract

The purpose of this study was to investigate which stages of concern were most prevalent among Standards 4 and 5 teachers who are implementing the CAC of the SEA, and to determine if these concerns were related to their personal characteristics. 62 teachers from the Victoria Education District participated in this quantitative study which used the CBAM as its theoretical framework. Teachers were actively involved with the innovation and had a conglomeration of concerns with peak Management and Collaboration concerns. These concerns varied by teachers' age, qualification and teaching experience but not by their gender.

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Chapter 1- Introduction

Background

Assessment is an integral part of education (Marzano, 2006). Traditionally, the primary purpose of assessment was selecting and certifying the achievement of individuals. According to Black and Wiliam (1998), the contribution which assessment can make to education has been lost as a result of it being solely focused on the outcome of learning. In recent times however, assessment has been receiving more attention globally (DeLisle, 2010). Marzano (2006) defined assessment as "planned activities that provide information about students' understanding and skill in a specific measurement topic" (p.35). Assessments are changing and serve many other functions including monitoring national standards, showing evidence of trends, making comparisons between regions or countries, providing information which can be used to hold persons involved in education accountable, evaluating an institution or curricula, and providing feedback to the learner (Black & Wiliam, 1998).

"High stakes secondary school selection/placement examinations have persisted in Caribbean nation states" (De Lisle, 2012, p.109). The sole function of such assessments is selecting students for the various secondary schools. In Trinidad and Tobago, an eleven plus exam signifies the end of primary schooling, and its results determines students' placement in public secondary school. The first exam of this kind was the College Exhibition. According to Campbell (1992), from 1872, few College Exhibitions were awarded annually to boys, and much later on to girls as well. This exam was considered high stakes because of the limited number of free secondary school places available to students. De Lisle (2012) underscored that even at this

time, students underwent intensive coaching both in and out of school hours to be successful in this highly competitive exam.

The demand for secondary education continued to increase and in the 1960's the Common Entrance Examination was introduced to replace the College Exhibition. Although the number of free secondary school places was increased, it was still insufficient to accommodate all primary school students (Campbell, 1992), thereby making the Common Entrance exam high stakes as well. By the 1980's, the structure of the examination was modified and included multiple choice Mathematics, Language Arts, Science, and Social Studies components and a Creative Writing component. The Common Entrance was criticized because of its predominantly multiple choice format and in 2001 it was replaced by the Secondary Entrance Assessment (SEA).

The SEA boasted an assessment that was more representative of the child's competence and showed how students were thinking (Ministry of Education, 2004). It eliminated the multiple choice format of the Common Entrance in which students selected a response from a list of suggested responses and replaced it with open ended questions. Students were therefore required to construct written responses. The areas tested were English Language Arts (ELA) and Mathematics. These were the main subjects emphasized by Standards Four and Five teachers and students. Other areas which were a part of the curriculum such as Science, Social Studies, Visual And Performing Arts (VAPA) and Physical Education were neglected because they were not assessed in the SEA. Again, teaching was exam oriented and so students were coached to score well on the exam.

With the introduction of the SEA also came universal secondary education. This meant that all students scoring above 30% in the exam were given a place in a secondary school, while the rest remained in primary school and rewrote the exam the following year. However, if a student scored below 30% but had reached age thirteen, he/she was given the opportunity to receive secondary education at a Junior Life Centre. The curriculum at these centres was a Remedial/alternative education programme. Although free secondary education was universal, the SEA remained a high stakes exam because of the stratified secondary school system. The exam was highly competitive because the results determined if students were placed in a 'prestige' or 'non-prestige' school.

In an effort to reduce the students' and teachers' heavy dependence on Math and ELA, the Continuous Assessment Component (CAC) of the SEA was introduced in 2012. Continuous assessment as defined by Le Grange and Reddy (1998) is "the assessment of the whole learner on an ongoing basis over a period of time, where cumulative judgments of the learners; ability in specific areas are made in order to facilitate further positive learning" (p.11). DeLisle (2010) reiterates that it is holistic, integrated with the curriculum and the teaching-learning process, and it provides the learner with valuable feedback.

It should be noted that the CAC was not the Ministry of Education's first attempt at Continuous Assessment. In 1998, the Continuous Assessment Programme (CAP) was piloted in some schools and was fully implemented in all schools by 2000. CAP was not implemented with fidelity and so the full benefits were not realized. There was a lack of formative assessment, students were not given feedback and data collected were not used properly (DeLisle, 2010). The CAP, unlike the CAC, was not a high stakes assessment.

The CAC assesses students of Standard Three in Agricultural Science, and those of Standards Four and Five in Agricultural Science, Drama, Physical Education, Science, Music, Citizenship Education, Visual Arts and Character Education. Students' participation in these areas became mandatory since they were now a part of the high stakes SEA. Additionally, pupils of Standards Four and Five participated in Creative Writing. Although Creative Writing was a part of the traditional SEA, changes were made to the CAC curriculum guide to include a variety of writing modes and purposes. In the new incarnation of the SEA, the CAC scores of Standards Four and Five students each contribute twenty percent of their final SEA mark. The CAC therefore accounted for forty percent of a student's final SEA score. The remaining sixty percent comes from the original form of the assessment.

The main purposes of the CAC are to give students a chance to demonstrate skills which were not previously assessed, to emphasize all subject areas and thereby reduce the dependence on the three areas (Math, ELA and Creative Writing) which were previously assessed, and also to formalize the teaching of Character and Citizenship Education (Ministry of Education, 2012). One of the main benefits of the innovation is the holistic development of children (Ministry of Education, 2012). That is, the CAC seeks to develop the child socially, emotionally, intellectually and physically through the variety of activities and tasks in each subject area. CAC also employs Gardner's Multiple Intelligences theory and so it caters to the variety of learning styles students possess.

The CAC is touted to have many innovative features. First, it is structured so that some subject areas are assessed at Standard Four and others at Standard Five. There is also a schedule that outlines the subject areas to be assessed in each term using a variety of assessment strategies

such as projects reports, checklists, products and performance based tasks. CAC uses a thematic approach to integrate subject areas which allows for topics to be explored entirely. These activities and themes are all nationally relevant. A monitoring system is used to standardize the marking; a monitor who is attached to the school guides the teacher through the marking process or in areas such as Physical Education and an external moderator reassesses some of the students' work to ensure that marking was fair.

The ambitious CAC innovation required teachers to use new/alternative assessment strategies; to develop lessons in the various subject areas from given themes; to learn content matter for some subject areas, especially the VAPA subjects; and to use a variety of teaching strategies to deliver this content to students.

In May 2012, teachers were informed that CAC would be implemented in September of the same year. Information was disseminated mainly through the mass media. Teachers initially learned about the CAC mainly through the radio and newspaper. This meant that implementation was abrupt and rushed. Short training workshops followed these announcements. These were one or two day training sessions for each of the subjects. Implementation was top-down since all decisions were made at the top by those in-charge and they were merely handed down to the teachers as instructions to be adhered to. Teachers had no input in the manuals, schedules or mark schemes nor were they a part of the overall planning process.

Anecdotal evidence from informal interactions with primary teachers revealed that they have serious concerns about the CAC. Their concerns included the volume of paperwork with respect to the submission of marks, inadequate training since the workshops were piecemeal and

did not equip them for delivering the programme, lack of content knowledge (especially in VAPA areas), overloaded curriculum since nothing was removed from the curriculum but a significant amount was added, and time constraints both in delivering the programme and the submission of marks. For this high stakes innovation, more time and carefully planning were needed.

Teachers were resentful of the change because of the lack of consultation between the Ministry of Education (MoE) and themselves. The MoE mandated teachers to implement the CAC but made little or no attempt to identify and address the teachers' concerns about the implementation process. The MoE attended to elements of the systematic dimension of change (Hargreaves & Fullan, 1992) such as the provision of resources, schedules, curriculum guides and opportunities for training. However, they neglected the personal dimension of change (Hall & Hord, 2001) which involves identifying and alleviating teachers' concerns. Hall, George and Rutherford's (1977) research on the change process showed teachers' concerns, perceptions and attitudes toward an innovation must be identified to effectively manage change. When concerns are not identified and addressed, the programme is usually implemented with low fidelity. This results in the desired outcomes not being realized.

Hall & Hord (2006) uphold that concerns must be understood by both the implementers/teachers themselves and those overseeing the implementation process. However, teachers generally felt overwhelmed and frustrated because the MoE had not given them a forum to voice their concerns and inhibitions. Teachers therefore vented among themselves and needless to say, their concerns were left unresolved. Intervention and support are in tandem with the particular types of concerns teachers have (Hall & Hord, 2001). If no attempt is made to

determine the concerns of teachers then no support can be rendered. Cetinkaya (2012) maintains that "Teachers' concerns about a reformed curriculum have a significant effect on their implementation of the reformed curricula" (p. 156). In an effort to make implementation more successful, it is necessary to identify the Stages of Concern (SoC) of teachers who are implementing the CAC so that teachers can come to terms with the change process and make implementation more successful.

The systematic dimension of change is important in efforts to reform education (Hargreaves & Fullan, 1992). The teacher is the key to educational change which makes the personal dimension of change (Hall & Hord, 2001) equally important. Teachers are critical stakeholders in the implementation and adoption of an innovation. Cetinkaya (2012) contends that there is the need to explore how personal factors impact the formation and change of concerns. The impetus for this study arose out of the researcher's personal experience as a primary school teacher for over ten years, as well as the researcher having a child who is a student of Standard four and is experiencing the CAC.

Statement of the Problem

There is little empirical or formal information about the nature of the concerns of Standards 4 and 5 teachers who are at present implementing the CAC of the SEA, the stages of concern in which they currently operate, and if these concerns are related to their personal characteristics, the nature of the innovation or the implementation process. Unless these

concerns are acknowledged and addressed, it is uncertain if the CAC will satisfy its purpose in improving assessment at the primary level.

Purpose

The purpose of this study was to explore the SoC of Standards 4 and 5 teachers in the Victoria Education District who are implementing the CAC of the SEA, to determine which stages of concern were most prevalent among them, and to determine if these concerns about the innovation were related to teachers' personal characteristics (age, gender, years of teaching service, and qualifications). This information will give a clearer understanding of how teachers' perceptions about the innovation and its implementation may influence how successfully it is being implemented.

Research Questions

1. What are the Stages of Concern of Standards 4 and 5 teachers in the Victoria Education District who are implementing the CAC of the SEA?

2. What are the differences in Stages of Concern as it relates to teachers' personal characteristics (age, gender, years of teaching service, and qualifications)?

Significance of the study

The CAC was implemented in September, 2012 which makes it a relatively new innovation to Trinidad and Tobago's primary education system. For this reason, there is little research available in this area. This research paper will therefore add to the limited body of knowledge on the CAC and continuous assessment, more specifically, teachers' concerns about the innovation. It may also be used as a base for further research about the CAC and about implementation of similar innovations locally. The information gleaned from this study may be used to make teachers who participated in the study more aware of the personal aspect of change and how their concerns hinder implementation. This study will also raise the awareness among teachers so that they may begin dialogue among themselves and their colleagues, thus further ventilating the issue in the public domain. It can help change facilitators and policy makers to better understand the issues faced by implementers and furthermore to design strategies to address teachers' concerns thereby making implementation more successful.

When teachers are allowed to express their concerns, they are more likely to accept the innovation (Hall & Hord, 2001). Teachers were not given such an opportunity regarding the CAC. Participation in this research will not only provide teachers with a platform to voice their concerns and inhibitions, but it will also aid them in coming to terms with the implementation process and help them to better understand educational change.

Key terms and concepts

Change – any planned process or event in education that has as its aim, some improvement (Chen, 2002).

Innovation - "an idea, practice or object that is perceived as new by an individual or other unit of adoption" (Rogers, 1995, p.12). In an educational context, it is usually intended to improve the effectiveness of teaching and learning (Fullan, 2007).

Implementation - "the process of putting into practice an idea or programme or set of activities and structures new to people who are attempting or expected to change" (Fullan, 1991, p.65).

Stages of Concern - a process that enables leaders to identify staff members' attitudes and beliefs toward a new program or initiative, so leaders can take actions to address individuals' specific concerns (Hall & Hord, 2001). It is assessed using a questionnaire, interview, and open-ended statements provided in the Concerns Based Adoption Model (CBAM).

Organization of paper

Following this chapter is a review of literature relevant to this study and a theoretical framework which underpins the study. Chapter 3 outlines the methods and procedures used to conduct the study, including the research design and procedures for data collection and data analysis. In Chapter 4, data are analyzed and the findings are presented in an effort to answer the research questions. In the final chapter, the findings are discussed, and the implication of the findings, the recommendations for further research and the conclusion are outlined.

Chapter summary

This chapter provided an introduction to the study. It began with a detailed background to the research problem, followed by the purpose of the study, the research questions to be addressed and the significance of the study.

Chapter 2- Literature Review

Introduction

This chapter explores various models of educational change and the factors affecting the implementation of change efforts. This was followed by explanations of specific elements of the Concerns Based Adoption Model (Hall & Hord, 2006). Another major aspect of this literature review is Continuous Assessment. The chapter concludes with the benefits and challenges of Continuous Assessment.

Change

Education has undergone significant reform efforts internationally, for example, in China (Wang, 2014), North America (Waks, 2007), UK (Department for Education, 1997), and Trinidad and Tobago (DeLisle & Barrow, 2010). Each reform effort is associated with one, two or all three of Fullan's (2007) dimensions of change. These include the use of new or revised materials, a new approach to teaching, and the alteration of beliefs. In tandem with Fullan (2007), Snyder, Bolin and Zumwalt (1992) posited that with any curricular reform, there are changes in at least one of the following: goals, organization, role of the teacher, content, strategies, classroom management, materials or evaluation.

When teachers are faced with implementing an innovation, they experience change. There are many models which can be used to explain change in an educational setting, each of which focuses on varying aspects of change. Fullan's (2007) model delineates the factors which affect implementation, namely, the characteristics of the innovation, the characteristics of the

school district and other external factors. Rogers (1995) model presents 'Diffusion' as a particular type of communication concerned with the spread of messages about a new idea. These messages are communicated to members of a social system through mass media or interpersonal channels over a period of time. Zaltman and Duncan's model (as cited in Harry, 2008) focuses on strategies to reduce resistance to change. Hall and Hord's (2001) CBAM focuses on the affective side of change or the concerns of the implementers. According to this model, "change is a process, not an event" (p. 4) and teachers must buy-in to the change if it is to be successful.

Fullan and Hargreaves (1992) maintain that for successful reform, teachers must accept ownership of the change and they must know how to implement the change. Teachers also need time to accept change and come to terms with it (Hall & Loucks, 1978). Ornstein and Hunkins (2013) contend that "it is easier to keep things as they are" (p.224) which leads some teachers to adhere to tradition and resist change.

Factors Affecting Implementation

Fullan posits that the characteristics of an innovation (need, complexity, clarity, and quality) greatly impact its implementation (as cited in Altrichter, 2005). Implementation is successful if teachers see the need for the change, it is not overly complex, the change is clearly explained and materials to support the change are available. Fullan and Park (as cited in Glatthorn, Boschee and Whitehead, 2006) add that a successful history of implementing change, district administrative support and having an implementation plan with a monitoring schedule

can positively impact implementation. Furthermore, school level factors such as administration, competence and level of commitment of the teachers and collegiality among the staff members also affect implementation.

Durlak and DuPre (2008) emphasize that "training and technical assistance lie at the centre of effective implementation" (p.335). Also critical to implementation are "funding, a positive work climate, shared decision making, leadership and administrative support" (p.340). Joyce (as cited in Reynolds et al., 1996) reiterates the importance of school culture, and more specifically, collegiality among school staff in curriculum implementation. In addition, Ornstein and Hunkins (2013) put forward two other significant factors which limit implementation; these are resistance to change and lack of time.

Rogers (1995) advocates that ideas may be diffused by mass media and/or interpersonal channels, each of which affects implementation. When innovations are communicated via the mass media, the message reaches a large audience. However, this may create resistance to change since this is a one way exchange of information and teachers don't have a voice. Conversely, when the interpersonal channel is used, the exchange is two way but only a small audience can be reached using this channel.

Teachers' Concerns

In the innovation focus approach to educational change, "teachers only had to adopt an innovation to achieve the desired outcomes" (George, Hall & Stiegelbauer, 2006, p. 1). Fuller's Concern Theory arose out of the need to resolve this misconception. According to George et al.,

Fuller believed that change began with the teacher and that it was important to understand how teachers were affected by change.

Educational change' is about how teachers implement a new practice in their classrooms (Hall & Hord, 2001). The CBAM describes the process of change teachers experience as they adopt an innovation into their practice (Anderson, 1997). During the change process, teachers have concerns or feelings and perceptions as a result of implementing an innovation (Fuller, as cited in Hall & Hord, 2001). Van den Berg and Ros (as cited in Cheung, 2002) define concerns as the questions, uncertainties, and possible resistance that teachers may have in response to an innovation. Teachers have different types of concerns at different stages in the implementation process. Acquiring more information about the innovation, gaining experience with using the innovation, and time are all factors which may aid in resolving concerns. However, there is no guarantee that concerns will be resolved since the change process is a highly personal one. Concerns are indicative of the type of support teachers need. For example, teachers with information concerns may require training workshops and 'how to' tips while teachers with task concerns want help in making the innovation work more smoothly (Hall & Hord, 2001). Likewise, a teacher with impact concerns may require more opportunities to collaborate with co-workers and develop collegiality.

Teachers are central to implementation. For successful reform, an innovation must be aligned to the beliefs of the teacher (Wang, 2014). In an effort to facilitate implementation, change facilitators sometimes try to alter teachers' beliefs to match that of the innovation. Since changing beliefs may prove difficult, addressing the teachers' concerns is a more feasible option (Hord, Rutherford, Huling-Austin & Hall, 1987). Lloyd and Wilson (as cited in Cetinkaya,

2012) maintain that teachers' concerns about an innovation have a significant effect on their implementation of this innovation. If teachers' concerns remain unaddressed, implementation is more likely to be unsuccessful.

Theoretical framework- CBAM

Concern Theory (Fuller, 1969 as cited in Cetinkaya, 2012) suggests that teachers' concerns about an innovation develop in stages from 'self' to 'task' and finally to 'impact' concerns. Based on Concern Theory, the Concerns Based Adoption Model (CBAM) was conceptualized by Hall, Wallace and Dossett (1973) and was further developed by Hord, Rutherford, Huling-Austin and Hall (1987). In this model however, teachers may have concerns in different stages at the same time and the type of concern informs the type of support needed (Hall & Hord, 2006).

There are several assumptions about change upon which the CBAM (Hall & Hord, 2001) is based:

- change is a process and not an event
- change is accomplished by individuals first, then institutions
- change is a highly personal experience
- change involves developmental growth in feelings and skills about an innovation
- change can be facilitated by intervention directed toward the individual, innovation and content

George et al. (2006) assert that "The CBAM is a conceptual framework that describes, explains, and predicts probable behaviours throughout the change process, and it can help educational leaders, coaches and staff developers facilitate the change process" (p.5). Anderson (1997) contends that the CBAM details the change processes teachers undergo as they engage in something new. The CBAM is comprised of three dimensions: the Stages of Concern (SoC), Levels of Use (LoU) and Innovation Configurations (IC). This study is based on the SoC which describes the affective side of change (Horsley & Loucks-Horsley, as cited in Harry, 2008).

Hall and Hord (2006) delineate seven SoC which are categorized as either unrelated, self, task or impact concerns.

Unrelated Concerns	Stage 0/Awareness: teachers have little knowledge about the innovation and are unconcerned about it.
Self Concerns	Stage 1/Informational: teachers are aware of the innovation and want to learn more about it. They are interested in the general characteristics of the innovation and what they need to be able to implement it.
	Stage 2/Personal: teachers are concerned about how they will be affected by the innovation and want to know what is required of them for implementation.
Task Concerns	Stage 3/Management: teachers are focused on the task required for implementation. They are concerned about timing, schedules, resources and other logistic factors.

Impact Concerns	Stage 4/Consequence: teachers are concerned about the impact of the innovation on their students. They are concerned with student performance and outcomes.
	Stage 5/Collaboration: Teachers are interested in working with others regarding the use of the innovation.
	Stage 6/Refocusing: teachers begin to evaluate the innovation and seek ways to modify it so that it works better.

CBAM focuses on the processes of change teachers experience in implementing an innovation by identifying teachers' SoC. The SoC are assessed using one of three methods. In one legged interviews, a trained facilitator listens as a teacher describes what he or she is doing with an innovation. The facilitator may probe lightly but must listen attentively to the teacher's concerns. With open ended concerns statements, teachers are asked to write their concerns regarding an innovation on a blank sheet of paper. The SoC Questionnaire or SoCQ is the most rigorous of the three techniques. It is a thirty five item questionnaire with high reliability (Hall & Hord, 2006). The questions are answered using a Likert-type format.

Use of CBAM in Educational Innovations

Many international, regional and local studies have been conducted using the CBAM as a theoretical framework. Some of them have used the seven stage model (Hall & Hord, 2006)

while others employed the modified five stage model (Cetinkaya, 2012). In these studies, teachers generally had several concerns of varying intensities about the innovations they were implementing. For example, they have very intense concerns in one or two stages and some stages were absent altogether (Hall & Hord, 2001; George et al., 2006).

Cetinkaya (2012) investigated teachers' concerns about a sixth grade Mathematics curriculum in Turkey. Moreover, links between teachers' SoC and their personal characteristics were made. The most intense SoC were Collaboration and Information. Findings revealed that females were more concerned about Collaboration and Information while males were concerned about Impact and Awareness; less experienced teachers had higher Awareness concerns than more experienced teachers; and teachers with higher academic qualifications had more concerns than those with lower qualifications. Likewise, Faircloth, Smith and Hall (2001) indicate that teachers in the state of Georgia had Stage 3 Personal concerns about the Family and Consumer Science (FCS) National Standards curriculum. Teachers viewed the innovation as a threat; they lacked self confidence and were uncertain of their abilities to deliver the curriculum to their students.

Regionally, the CARICOM Health and Family Life Education (HFLE) innovation was implemented in Forms One to Three in four countries: Antigua, Barbados, St. Lucia, and Grenada. Constantine et al. (as cited in Rigaud, 2011) focused on the implementation, monitoring and evaluation of this programme. Process evaluation revealed that teachers had concerns about scheduling classes (Management concerns) and they lacked relevant pedagogical knowledge and training (Informational concerns) about the HFLE Innovation. Additionally, local studies were conducted by Harry (2008) and DeLisle and Barrow (2010). Harry's (2008)

case study presents the progression of two teachers' SoC about CAPE Communication Studies Innovation. Teachers had Awareness concerns prior to implementation, Personal concerns during the initial phases of implementation, and Information and Management concerns during the second year of implementation. DeLisle & Barrow (2010) investigated the concerns of twenty four teachers from twenty four schools across the country. These teachers had been implementing the Secondary Education Modernization Programme (SEMP) Science curriculum for over five years. The study revealed that they had Management and Consequence concerns about the innovation.

Anderson (1997) argues that CBAM cannot be applied non-critically to any innovation in any context. From the review of the literature, the prevalent use of the CBAM in educational change clearly demonstrates its importance and value.

Continuous Assessment

Ravela et al. (2008) note that both regionally and internationally more effort is being placed on using assessment to provide insight about improving education systems. De Lisle (2010) claims that in the Caribbean, high stakes examinations are usually summative in nature and are held in the form of public exams. With continuous assessment however, the decision was made to "incorporate teacher assessment into the high stakes selection for secondary school" (p.11).

Information about a student's knowledge gains, behavioural changes and development are obtained through assessment (Oguneye, as cited in Esere & Idowu, 2009). Ipaye (as cited in

Esere and Idowu, 2009) defines continuous assessment as a method of ascertaining what a child gains from schooling in terms of knowledge, industry and character development, taking into account all his/her performances on tests, assignments, projects and other educational activities for a given period of time at a particular educational level. Falayalo (as cited in Yigzaw, 2013) maintains that continuous assessment is an integral part of instruction which is used to grade learners' cognitive, affective and psychomotor domains of learning.

According to Yu (2012) benefits of continuous assessment include:

- Its ability to provide students with a constant stream of opportunities to prove their mastery- With the CAC, students participate in a variety of tasks in a wider range of skills over a longer period of time than in a traditional one day SEA exam.
- It provides higher learning standards for all since it is planned to suit the age and developmental levels of the students.
- The purpose of assessment is clear- as outlined in the CAC manuals and curriculum guides.
- It increases students' self-awareness of their proficiencies and knowledge gaps- CAC teachers must provide feedback after each assessment so students to keep track of their progress over time.
- It is cumulative in nature and so all the information about the student is gathered before decisions are made- the CAC marks are collected over a two year period following which students are placed in a secondary school.

- It builds the capacity to uncover interdisciplinary relationships between subject domains and concepts- the CAC is comprehensive in that it links all areas across the curriculum through nationally relevant themes.

Challenges with the use of Continuous Assessment

A Nigerian study conducted by Bernard and Emmanuel (2012) revealed five categories of problems associated with the use of continuous assessments. Teacher centred problems included teachers setting easy tests so students could score highly, teachers not conducting assessments regularly, poor construction of test items by teachers, subjective marking, fabrication of marks, and overworked teachers. Student centred problems ranged from cheating to pass tests, depression as a result of failure and pupils feeling threatened by tests. Failure to supply resources was the main problem on the part of the government. The problem of collecting and using the evidence from the data stemmed from poorly constructed tests; lack of time for teachers to guide students and give feedback; and teachers' inability to evaluate some subjects, especially those in the Visual And Performing Arts (VAPA) areas. Finally, there is no uniform standard since teachers may be subjective in their grading and also because the tests are not standardized.

Similar points were echoed by Ebelechukwu (as cited in De Lisle, 2010) who argues that continuous assessment test items lack validity and reliability and also that teacher tend to inflate student marks. In agreement, Alausa (as cited in Yigzaw, 2013) reiterates that two of the main problems with the use of continuous assessment are record keeping and teachers' lack of skill in

constructing test items and administering tests. With regard to the CAC, teachers are not responsible for writing test items since these are handed down from the MoE. However, since the assessment is high stakes, there may be a tendency by teachers to inflate students' marks.

Chapter Summary

Chapter 2 briefly delineated various models of educational change and the factors affecting the implementation of educational reform. The Concerns aspect of the Concerns Based Adoption Model (Hall & Hord, 2006) was discussed at length. The chapter also included an explanation of continuous assessment and the benefits and challenges of it.

Chapter 3-Methodology

Introduction

This chapter attends to the methodological processes employed in conducting this study. It begins with a rehash of the problem statement, purpose statement and research questions. Following these is a justification for the research design and the sampling procedure. The chapter continues with a description of the research instrument, the data collection methods and the data analysis methods. The chapter concludes with the ethical considerations, the limitations and delimitations. The following research questions were operationalized in this study:

1. What are the Stages of Concern of Standards 4 and 5 teachers in the Victoria Education District who are implementing the CAC of the SEA?

2. What are the differences in SoC as it relates to teachers' personal characteristics (age, gender, years of teaching service, qualifications)?

Statement of the Problem

There is little information about the nature of the concerns of Standards 4 and 5 teachers who are at present implementing the CAC of the SEA, the stages of concern in which they currently operate, and if these concerns are related to their personal characteristics, the nature of the innovation or the implementation process. Unless these concerns are acknowledged and addressed, it is uncertain that the CAC will satisfy its purpose in improving assessment at the primary level.

Purpose

The purpose of this study was to explore the SoC of Standards 4 and 5 teachers in the Victoria Education District who are implementing the CAC of the SEA, to determine which stages of concern are most prevalent among them, and to determine if these concerns about the innovation are related to teachers' personal characteristics (age, gender, years of teaching service, and qualifications). This information will give a clearer understanding of how teachers' perceptions about the innovation and its implementation may influence how successfully it is being implemented.

Research Design

Quantitative research involves "analysis of reality into measurable variables, creation of generalizable knowledge through the study of samples that accurately represent the defined population, and reliance on statistical methods to analyze data" (Gall, Gall & Borg, 2010, p.124). In this study, a questionnaire was used to collect data on teachers' concerns about the CAC of the SEA and quantitative methods were used to investigate relationships between teachers' SoC and their personal characteristics. A quantitative research design was particularly appropriate for this study because it allowed for statistical analysis of data. The study involved examining relationships among variables and testing hypotheses. It relied on inferential statistics which draws conclusions about a population by studying a sample (Cohen, Manion & Morrison, 2000). Numeric data were collected via the SoC questionnaire and were analyzed using statistical procedures (Creswell, 2008).

Population and Sample

The population for this study included all Standards Four and Five teachers at government and denominational primary schools in the Victoria Education District. The sample for this study consisted of 62 of these teachers. These teachers' age, gender, qualifications, and teaching experience varied. The teachers were either males or females. They belonged to the age groups 30-39, 40-49 or 50-59. The number of years teaching experience they possessed ranged from 7 to 38 years. Their highest academic qualification was either a Teachers' Diploma, Bachelors Degree, or Masters Degree.

Sampling Strategy

Stratified random sampling is a type of probability sampling in which the researcher divides the population into smaller homogeneous groups and then randomly selects from each subgroup (Best & Kahn, 2006). This makes the sample more representative of the population. It ensures that the characteristics the researcher wants to include in the sample are included (Creswell, 2008). In the Victoria Education District, there were 58 denominational primary schools and 16 government primary schools. Since the number of denominational schools was substantially higher than the number of government schools, it was likely that a simple random sample may have yielded only denominational schools. By stratifying the sample according to school type, the researcher was able to select a more representative sample. The sample was chosen from the two strata via simple random sampling. Random sampling was used since this

is one of the criteria needed for the type of data analysis (statistical significance testing) done in this study (Gall et al., 2010).

"A sample size of thirty is held by many to be the minimum number of cases if researchers plan to use statistical analysis on their data" (Cohen et al., 2000). Since sample size influences the quality and accuracy of research, Cohen and Manion (1994) identified four considerations for choosing a sample size: confidence required, margin of error tolerated, type of analysis to be done, and size of the population. In order to generalize the research findings, sampling procedures must be optimum. In this study, many variables were being analyzed: gender, age, teaching experience, and qualification. It was important that the sample contained an adequate number of individual representatives for each variable under study. Furthermore, since inferential statistics were being used, a sample larger than 30 was required (Cohen et al., 2000).

On average, most primary schools in the Victoria Education District have 2 or 3 classes at each of the seven levels of the primary school system. This meant that there were between 4 and 6 Standards 4 and 5 classes at each school. Based on this, the researcher estimated that from 20 schools, 80 to 120 questionnaires could have been completed by teachers. 20 schools were chosen via stratified random sampling. This meant that 16 denominational and 4 government primary schools were selected and the Standards 4 and 5 teachers at these schools comprised the sample for this study. The sample consisted of a total of 93 teachers.

Instrumentation

According to Best and Kahn (2006), a questionnaire is a data gathering instrument in which respondents answer questions or respond to statement in writing. The questionnaire used in this study consisted of two sections. Section A of the questionnaire asked participants to provide demographic data while Section B was the Stages of Concerns Questionnaire (SoCQ) (Hall & Hord, 2001).

Section A elicited participants' age, gender, highest educational qualifications, and years of experience in the teaching service. This information was needed so that the differences in SoC could be related to teachers' personal characteristics.

The purpose of the SoCQ is to determine what teachers who are using or thinking about using an innovation are concerned about at various times during the adoption process (Hall & Hord, 2001). In this study, the purpose of the SoCQ was to assess teachers' concerns about the CAC innovation at present. The questionnaire contained 5 items for each of the 7 stages of concern, for a total of 35 items. Each item was rated on a 7-point Likert-type scale. That is, the participant was required to choose a response from the range of responses provided (Cohen et al., 2000). Participants therefore responded to the statements as follows:

0- statement is irrelevant to me

1-2- statement is not at all true for me

3-5- statement is somewhat true for me

6-7- statement is very true for me

The original questionnaire was pilot tested by colleagues of the researcher to ensure that respondents would have been able to complete it. They were asked to comment on the layout and language use in the instrument. Space was provided for written feedback. It was felt that teachers may have been unfamiliar with a few of the terms used in the SOCQ (Hall & Hord, 2001). Based on the recommendations made, these terms were replaced. The revised questionnaire (see Appendix D) was again tested. The researcher was satisfied with the feedback from the second test and so the instrument was replicated for distribution.

Best and Kahn (2006) identified a number of advantages of using questionnaires. If they are personally administered, the researcher has an opportunity to establish rapport with the respondents and they in turn have an opportunity to clarify any misconceptions about the items on the questionnaire. At some schools, the researcher was allowed to meet with the teachers and personally deliver the questionnaires. However, at other schools, sealed packages containing the questionnaires and introductory letters were left with a member of the administrative staff for distribution to the respective teachers. Questionnaires are also an economical way of collecting data since the researcher may have multiple participants at one school. Such was the case in this study.

One of the main disadvantages of using questionnaires is a low response rate. The researcher anticipated that this would have been reduced since many of the teachers participating in this study had a genuine interest in the issue being researched.

Data Collection

The researcher's application for permission to conduct research (see Appendix A) in the Victoria District was granted by the MoE through its Victoria District Office in March, 2014. The approval may be perused in Appendix B. The researcher made packages for each of the twenty schools selected for the sample. Each package contained a copy of the permission letter from MoE; Introductory Letters (see Appendix C) explaining the purpose of the study, ethical considerations and contact information for the researcher; and the SoCQ.

The researcher personally visited each school. At some schools, the researcher was allowed to meet with the teachers of Standards 4 and 5. This opportunity was used to debrief the participants about the purpose of the study and what was required of them. They were also told that participation was voluntary and that anonymity and confidentiality would be maintained. Teachers were each given an Introductory Letter and the SoCQ. Some of these teachers opted to set their classes to work and complete the questionnaire at that point. These questionnaires were returned to the researcher on the same day of the visit.

Other teachers felt that they needed more time and asked the researcher to return at a later date to collect the questionnaires. In this case, the researcher asked one of the teachers who was participating in the study to volunteer to collect the questionnaires on her behalf. Additionally, each teacher participating in the study was given an extra envelope in which he/she could place the completed questionnaire. They were all advised to seal the envelope to ensure that its contents remained confidential. The researcher asked that she be contacted by phone or email when the questionnaires were ready to be collected. The researcher recorded the contact information of the voluntary representatives at each of these schools.

At other schools, the researcher was not allowed to meet with the teachers. The reason given for this was because the teachers were very busy with preparation for term test, submission of CAC marks and completion of end of term reports. In such cases, the researcher communicated with either the Principal or administrative assistant. The packages were opened and their contents were explained briefly. Again, envelopes were left for each teacher to seal the completed questionnaires. Contact information for the school was recorded by the researcher and a date for anticipated collection was determined. The researcher requested of the personnel that she be contacted in the event that the questionnaires were not completed by this date.

A total of 93 questionnaires were delivered to 20 schools. Of these, 62 were returned. This provided a response rate of 67%. The response rate from schools where the researcher had the opportunity to meet with the teachers was considerably higher than that of the schools in which the questionnaires were left with administration and the researcher had not met with the teachers.

Data Analysis

Firstly, a method to deal with missing data was determined. If demographic data from Section A of the questionnaire were missing, the questionnaire would be discarded. If however, data from Section B were missing, the missing data analysis approach as recommended by George et al. (2006) would be employed. In this method, the omitted item from each stage would be replaced by the mean score for that stage. By using this method, there would be no need to discard the questionnaire. Upon examination of the questionnaires, it was found that all

respondents completed both Sections A and B of the questionnaires adequately and so all were usable. The questionnaires were then labeled #1 through #62.

Demographic data from Section A of the questionnaire were summarized and tabulated. This showed the personal characteristics of all respondents. Section B of the questionnaire was then scores using the first three steps of the "SOCQ Quick Scoring Device" (Hall & Hord, 2001). For each respondent, a raw score between 0 and 35 was subsequently tabulated for each of the 7 SoC. All data were then imported to Statistical Package for the Social Sciences 20 (SPSS20). Descriptive statistics such as mean and standard deviation for each of the SoC were then calculated.

The data analysis for this study employed statistical significance testing which allowed the researcher to make inferences about the population based on the sample (Gall et al., 2010). However, Gall, Gall and Borg (2007) identified some disadvantages of using this type of analysis. Random sampling must be used to conduct significance testing. This criterion was met for this study. Secondly, the power of statistical significance testing in educational research is usually low. The purpose of significance testing is to determine if the null hypothesis should be rejected. Sometimes, the null is rejected when in fact it was true. Therefore, generalizations can be made but not with certainty. To compensate for this, the study can be replicated and better judgments can then be made (Cohen et al., 2000). Both independent sample t-tests and analysis of variance were conducted in this study.

Independent sample t-tests assuming equality of variance were conducted to determine if there were any significant differences in mean scores for the various SoC for male and female teachers. Next, one way Analysis of Variance (ANOVA) was calculated to determine if there

were differences in means scores of the SoC scores for teachers with varying personal characteristics. To check for a difference in means of teachers of varying ages, teachers' were placed in the following age groups: 20-29, 30-39, 40-49 and 50-59. To determine if there were differences in mean scores of the SoC for teachers with varying years of teaching experience, they were grouped as follows: 0-2, 3-5, 6-9, 10-19 and 20 and above (Cetinkaya, 2012). Finally, teachers were groped as possessing either a Diploma, Bachelors Degree or Masters Degree in order to decipher if there were differences in SoC as it relates to highest educational qualifications. "In educational research, $p = 0.05$ is considered sufficient to reject a null hypothesis because the observed difference between the mean scores does not need to be large" (Gall et al., 2010, p. 197). For both the t-tests and the ANOVA's, $\alpha = 0.05$ was selected prior to data collection.

If there were differences in means, post hoc analyses were conducted using the Tukey HSD tests to show exactly where the differences occurred. However, to reduce the chance of committing a Type I error, the α level of the post hoc analyses was changed using the Bonferroni Correction (Tabachnick & Fidell, 2013). The Bonferroni Correction for multiple (pair wise) comparisons was used because there were comparisons performed between each pair of the different groupings for each of the independent variables/personal characteristics. For the independent variable 'Age', there were participants in 3 groups (30-39, 40-49 and 50-59); for the independent variable 'Years of Teaching Experience', there were participants in 3 groups (6-9, 10-19 and 20 and over); and for the independent variable 'Qualifications', there were 3 groupings as mentioned previously. Therefore, for each of these variables, there were 3 categories and hence 3 pairs of comparisons. The α level was therefore adjusted to 0.05/3 or 0.007. The effect size for each comparison was then calculated.

Ethical considerations

Permission to conduct research in the Victoria Education District was sought from the School Supervisor III for that district. The researcher furnished the MoE with the information they required to grant permission.

Respondents were informed that participation in this study was not mandatory and that they had the right to refuse to participate or withdraw their participation at any time during the study. Participants were assured that their anonymity would be protected and that data they provide would be treated as confidential. These considerations were explained on the cover letter which was attached to the questionnaire. In instances where the researcher was allowed to meet with the participants, these were reiterated.

Delimitations

Although the CAC was implemented in Standards three, four and five, only the marks of Standards four and five contribute to the final SEA score. One district, the Victoria Education District, was chosen by the researcher because of convenience. The sample was therefore restricted to Standards 4 and 5 teachers of 20 government and denominational schools in the Victoria Education District. As such, participation in this study was delimited to teachers who teach Standards four or five in this district. Results were only generalized to these teachers.

Limitations

This study would have had more generalizability if the 20schools were randomly selected from the country as opposed to one district. The Victoria Education District was selected by the researcher because of its convenience.

Time to complete the research was a major limitation. Permission to conduct research was granted 3 weeks before the end of the term. Participants were at this time preparing for end of term test. Subsequent to this, they were in the process of completing report books and submitting CAC marks to the MoE. For some teachers, these activities led to a delay in completing the questionnaire until the start of the new term.

Chapter Summary

This chapter gave an account of the methodology of this study. The problem statement, purpose and research questions were restated and a rationale for the use of a quantitative design was provided. This was followed by a detailed explanation of the sampling strategy and sample size. The questionnaire was then described along with a rationale for its selection as the method of data collection. The chapter continued with an explanation of both the data collection and the data analysis procedures. Next, the ethical considerations, delimitations and finally, the limitations were outlined.

Chapter 4 – Analysis and Presentation of Data

Introduction

This chapter presents the findings of the analyses of the data gathered from the SoCQ on the CAC of the SEA. Section A of the questionnaire elicited demographic data while Section B elicited teachers' concerns about the said innovation. All data were analyzed using statistical procedures and tests offered in SPSS 20.

Data from Section A were analyzed using descriptive statistics. Respondents' age, gender, highest educational qualifications, and experience in teaching were summarized. Data from Section B were analyzed using both descriptive and inferential statistics. The descriptive analyses entailed finding the mean, standard deviation, and variance for each of the seven SoC. Next, inferential statistics was used to identify differences in means for each SoC as it relates to age, gender, qualifications, and years of teaching experience. This was done using both t-tests and one way analysis of variance.

The Sample

The sample comprised 62 teachers, 27 of which were males and 35 of which were females. They all ranged in age from 30 to 59 with 26 teachers in the 30-39 age group, 22 in the 40-49 age group and 14 in the 50-59 age group. None of the participants had less than 5 years teaching experience. Approximately 15% possessed 6-9 years experience, 48% possessed 10-19 years experience and 37% possessed over 20 years in the teaching service. Of the 63 teachers, 21 were holders of Teachers' Diplomas, 24 of Bachelors Degrees and 17 of Masters Degrees. A full description of the sample is represented in Table 4.1.

Table 4.1

Demographics of the Participants (N = 62)

Profile	Frequency	% of sample
Gender		
Male	27	43.5
Female	35	56.5
Age		
20-29	0	0.0
30-39	26	41.9
40-49	22	35.5
50-59	14	22.6
Qualification		
Diploma	21	33.9
Bachelors	24	38.7
Masters	17	27.4
Teaching Experience		
0-2	0	0.0
3-5	0	0.0
6-9	9	14.5
10-19	30	48.4
20+	23	37.1

Research Question 1: What are the Stages of Concern of Standards 4 and 5 teachers in the Victoria Education District who are implementing the CAC of the SEA?

Findings

Teachers participating in the study had concerns of varying intensities about the CAC of the SEA. George et al. (2006) contends that the higher the mean score, the more intense the concerns are at that stage and the lower the mean score, the less intense they are. Table 4.2 shows the mean and standard deviation for each of the Stages of Concern.

Table 4.2

Descriptive Statistics: SoC of Participants (N = 62)

	Overall		Males		Females	
Stages of Concern	M	SD	M	SD	M	SD
Unconcerned	06.35	4.73	6.81	4.92	6.00	4.62
Informational	16.10	5.91	16.00	5.15	17.09	6.46
Personal	25.05	4.91	25.33	4.51	24.83	5.26
Management	27.45	5.47	28.33	4.13	26.77	6.29
Consequence	24.90	4.93	24.44	4.34	25.26	5.38
Collaboration	25.85	5.94	25.15	6.47	26.40	5.53
Refocusing	24.02	5.40	23.74	4.93	24.23	5.81

The peak or highest score tells the most intense concern. According to George et al. (2006), "the second highest score should be analyzed in addition to the peak score" (p. 34). With regard to this innovation, the two most intense Stages of Concern were Management (*M* = 27.45, *SD* = 5.47) and Collaboration (*M* = 25.85, *SD* = 5.94). Figure 4.1 shows the general concerns profile for the sample of teachers.

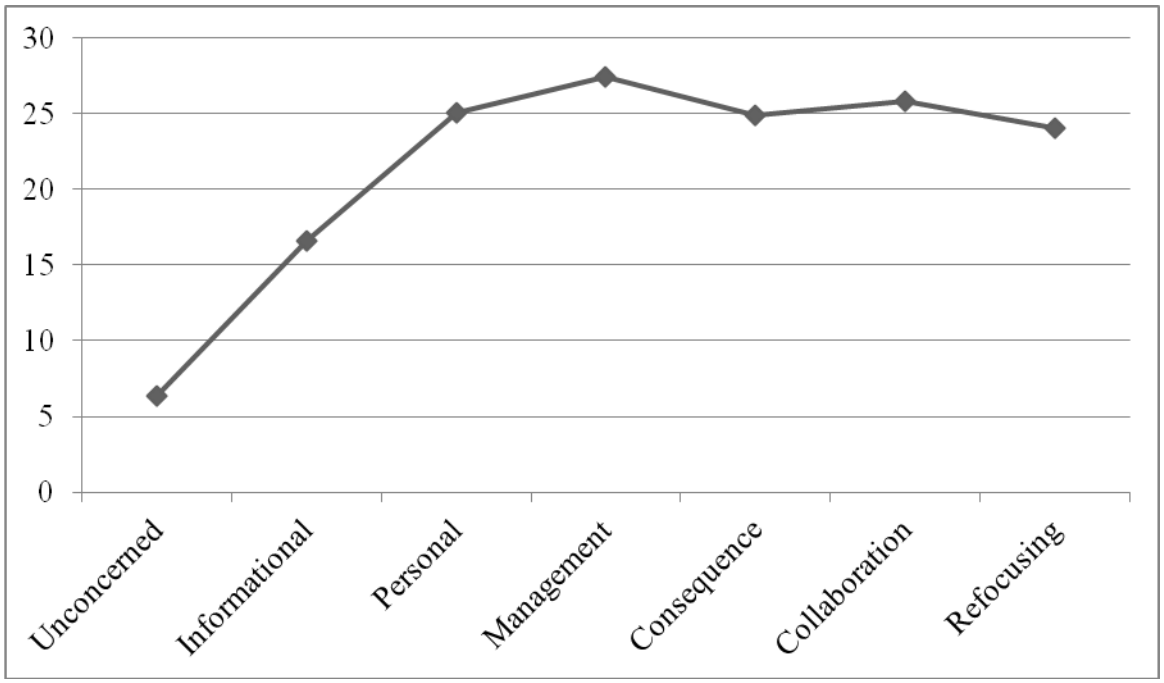

Figure 4.1. General concerns profile of teachers (N = 62)

Research Question 2: What are the differences in SoC as it relates to teachers' personal characteristics (age, gender, years of teaching service, qualifications)?

Assumptions

To examine Research Question 2, both independent sample t-tests and one way analysis of variance were conducted. First, the data were screened for potential violations of the assumptions of independence of observations, normality and homogeneity of variance (Cunningham & Aldrich, 2012). The assumption of independence of observations was met since each participant belonged to only one group in each of the independent variables gender, age, years of experience and qualification. Levene's Test for homogeneity of variance was conducted for the t-test and for each individual ANOVA test. The assumption of homogeneity of variances was discussed for each test individually.

The normality of the data was checked using box-and-whisker plots and the Shapiro-Wilks test. The individual box-and-whisker plots showed the presence of outliers in Stages 3 and 5 and they also implied that the data were skewed (See Figure 4.2).

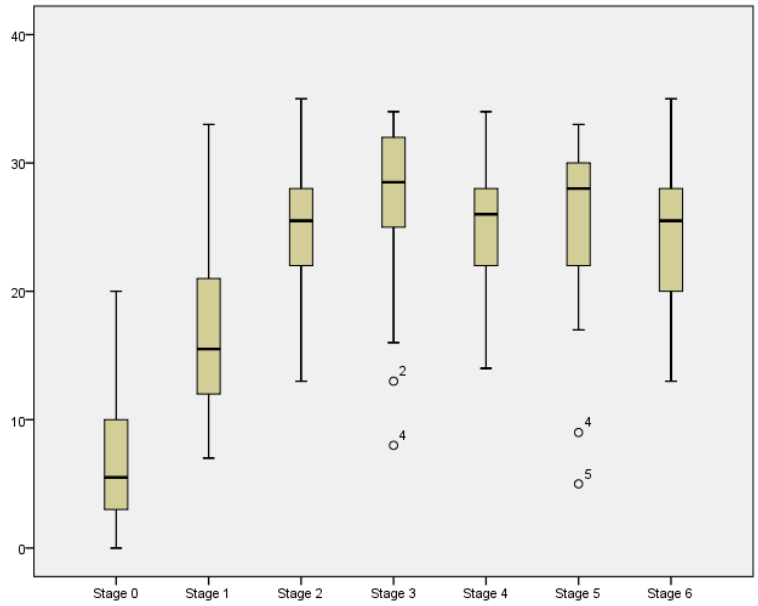

Figure 4.2 Box-and-whisker plot showing spread of scores

The Shapiro-Wilks test for Stage 0 (*S-W* = 0.949, *df* = 62, *p* = 0.011), Stage 3 (*S-W* = 0.898, *df* = 62, *p* = 0.000), Stage 5 (*S-W* = 0.871, *df* = 62, *p* = 0.000), and Stage 6 (*S-W* = 0.944, *df* = 62, *p* = 0.007) suggested that these scores were not normally distributed. However, the tests for Stage 1 (*S-W* = 0.970, *df* = 62, *p* = 0.136), Stage 2 (*S-W* = 0.977, *df* = 62, *p* = 0.291), and Stage 4 (*S-W* = 0.967, *df* = 62, *p* = 0.090) implied that these scores were normal. The t-test and ANOVA are robust to violations of normality and so results may still be valid. According to Pagano (2004), if data are not normal but the size of the samples are similar and each sample is ≥ 30, the tests may be used without appreciable error. Since these criteria were met, it was possible to use both the ANOVA and t-test. However, the findings of the analyses will be interpreted with this factor in mind.

Findings

(a): What are the differences in SoC as it relates to teachers' gender?

H_0: $\mu_1 - \mu_2 = 0$

There is no difference between the mean scores of SoC for males (μ_1) and females (μ_2)

H_1: $\mu_1 - \mu_2 \neq 0$

There is a difference between the mean scores of SoC for males (μ_1) and females (μ_2)

Levene's Test showed that $p \geq 0.05$ for all 7 SoC. The assumption of homogeneity of variance was therefore met. To determine if there were differences in means scores of the SoC of male and female teachers, independent sample t-tests assuming equal variance were conducted. Table 4.2 shows the mean scores for each SoC by gender. The mean scores for males were higher than that of females for Stages 0, 2 and 3. Analysis indicates that at the 0.05 alpha level, there were no significant differences detected on any of the stages of concern by gender. It is therefore possible to fail to reject H_0: $\mu_1 - \mu_2 = 0$ and conclude that males and females had similar concerns.

(b): What are the differences in SoC as it relates to teachers' age?

H_0: $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$

There is no difference in mean scores of SoC as it relates to age of the teacher.

H_1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$

There is a difference in mean scores of SoC as it relates to age of the teacher.

Levene's Test showed $p \geq 0.05$ for Stages 0, 1, 2, 4, 5, and 6. The assumption of homogeneity of variance was therefore met for these stages. Though the assumption was not met for Stage 3, $F(2,59) = 8.21$, $p = 0.001$, it did not prevent the test from being run. Table 4.3 shows the descriptive statistics and ANOVA for the Stages of Concern by age.

Table 4.3

ANOVA: Teachers' Ages

	30-39		40-49		50-59			
SoC	M	SD	M	SD	M	SD	F	p
0	8.54	4.85	5.18	4.45	4.14	3.06	(2,59) = 5.75	0.01
1	19.88	6.01	14.95	4.32	13.14	5.01	(2,59) = 9.24	0.00
2	24.58	5.14	25.77	4.48	24.79	5.35	(2,59) = 0.37	0.69
3	25.92	7.08	28.77	4.09	28.21	2.97	(2,59) = 1.84	0.17
4	25.85	5.40	24.32	4.24	24.07	5.08	(2,59) = 0.83	0.44
5	24.96	6.76	27.50	4.81	24.93	5.76	(2,59) = 1.32	0.27
6	23.85	6.12	24.45	4.36	23.64	5.81	(2,59) = 0.12	0.89

Differences in mean scores of the SoC with respect to age were detected in Stages 0 (Unconcerned) and Stage 1 (Informational). The difference in means of Stage 0 concerns of the various age groups was significant, F (2, 59) = 5.75, p = 0.005, η^2 = 0.16. The effect size of 0.16 indicates that 16% of the variance reported in Stage 0 scores was attributable to teachers' age. The Tukey HSD Test using the Bonferroni adjusted alpha level of 0.017 was conducted on all possible pair wise comparisons. In Stage 0, there was a significant difference in means between the 30-39 and 50-59 age groups (p = 0.011). There were also differences in means of Stage 1 concerns among teachers of the various age groups such that F (2, 59) = 9.24, p = 0.000, η^2 = 0.24. The effect size of 0.24 indicates that 24% of the variance reported in Stage 1 scores was attributable to teachers' age. Again, the Tukey HSD Test using the Bonferroni adjusted alpha level of 0.017 was conducted on all possible pair wise comparisons. For Stage 1, there was a significant difference in means between the 30-39 and 40-49 age groups (p = 0.005) and between the 30-39 and 50-59 age groups (p = 0.001).

Analysis indicates that there were significant differences detected at the 0.05 alpha level. Therefore, it is possible to accept H_1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$ and conclude that teachers in the three age groups had varying concerns.

(c): What are the differences in SoC as it relates to the number of years of teaching experience of the teacher?

H_0: $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$

There is no difference in mean scores of SoC as it relates to the number of years of teaching experience of the teacher.

H_1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$

There is a difference in mean scores of SoC as it relates to the number of years of teaching experience of the teacher.

Levene's Test showed $p \geq 0.05$ for Stages 0, 1, 2, 4, and 6. The assumption of homogeneity of variance was therefore met for these stages. Though the assumption was not met for Stage 3, $F(2,59) = 4.55$, $p = 0.02$ and Stage 5, $F(2,59) = 4.75$, $p = 0.01$, it did not prevent the test from being run. Table 4.4 shows the descriptive statistics and ANOVA for the Stages of Concern by years of teaching experience.

Table 4.4

ANOVA: Years of Teaching Experience

	6-9		10-19		20+			
SoC	M	SD	M	SD	M	SD	F	p
0	8.00	6.56	7.97	4.16	3.61	3.34	(2,59) = 07.46	0.001
1	21.22	6.98	18.10	4.87	12.87	4.63	(2,59) = 11.06	0.000
2	21.78	6.06	26.57	3.92	24.35	5.03	(2,59) = 04.02	0.023
3	20.67	7.26	29.73	4.74	27.13	2.85	(2,59) = 13.49	0.000
4	25.00	5.72	26.17	4.37	23.22	5.01	(2,59) = 02.44	0.096
5	21.22	9.24	27.40	4.66	26.65	5.10	(2,59) = 04.16	0.020
6	23.93	6.72	24.17	5.63	24.02	4.77	(2,59) = 0.015	0.985

Differences in mean scores of the SoC with respect to years of teaching service were detected in Stages 0 (Unconcerned), Stage 1 (Informational), Stage 2 (Personal), Stage 3 (Management) and Stage 5 (Collaboration). The difference in means of Stage 0 concerns of the various categories of teaching experience was significant, F (2, 59) = 7.46, p = 0.001, η^2 = 0.20. The effect size of 0.20 indicated that 20% of the variance reported in Stage 0 scores was attributable to teaching experience. The Tukey HSD Test using the Bonferroni adjusted alpha level of 0.017 was conducted on all possible pair wise comparisons. In Stage 0, there was a significant difference in means between the 10-19 and 20+ groups (p = 0.002).

There were also differences in means of Stage 1 concerns among teachers in the three categories of teaching experience such that F (2, 59) = 11.06, p = 0.000, η^2 = 0.27. The effect size of 0.27 implied that 27% of the variance reported in Stage 1 scores can be explained by

teaching experience. Again, the Tukey HSD Test using the Bonferroni adjusted alpha level of 0.017 was conducted on all possible pair wise comparisons. For Stage 1, there was a significant difference in means between the 10-19 and 20+ groups ($p = 0.001$) and between the 6-9 and 20+ groups ($p = 0.000$).

Similarly, differences in means of Stage 2 concerns were detected among the three categories of teaching experience, F (2, 59) = 4.02, $p = 0.023$, $\eta^2 = 0.12$. The effect size of 0.12 implied that only 12% of the variance reported in Stage 2 scores can be explained by teaching experience. The Tukey HSD Test using the Bonferroni adjusted alpha level of 0.017 was conducted on all possible pair wise comparisons. Analysis revealed that for Stage 2, there was a significant difference in means between the 6-9 and 10-19 groups ($p = 0.015$).

The difference in means of Stage 3 concerns of the various categories of teaching service was significant, F (2, 59) = 13.49, $p = 0.000$, $\eta^2 = 0.31$. The effect size of 0.31indicated that 31% of the variance reported in Stage 3 scores can be accounted for by teaching experience. The Tukey HSD Test using the Bonferroni adjusted alpha level of 0.017 was conducted on all possible pair wise comparisons. In Stage 3, there was a significant difference in means between the 6-9 and 10-19 groups ($p = 0.000$) and the 6-9 and 20+ groups ($p = 0.002$).

Likewise, there were also differences in means of Stage 5 concerns among teachers in the three categories of teaching experience such that F (2, 59) = 4.16, $p = 0.020$, $\eta^2 = 0.12$. The effect size of 0.12 indicated that only 12% of the variance reported in Stage 5scores was attributable to teaching experience. The Tukey HSD Test using the Bonferroni adjusted alpha level of 0.017 was conducted on all possible pair wise comparisons. For Stage 5, there was a significant difference in means between the 6-9 and 10-19 groups ($p = 0.015$).

Analysis indicated that there were significant differences detected at the 0.05 alpha level. Therefore, it is possible to accept H_1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$ and conclude that teachers with varying years of teaching experience had different concerns about the CAC.

(d): What are the differences in SoC as it relates to teachers' highest educational qualification?

H_0: $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$

There is no difference in mean scores of SoC as it relates to highest qualification of the teacher.

H_1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$

There is a difference in mean scores of SoC as it relates to highest qualification of the teacher.

Levene's Test showed $p \geq 0.05$ for all seven Stages of Concern. The assumption of homogeneity of variance was therefore met for all stages. Table 4.5 shows the descriptive statistics and ANOVA for the Stages of Concern by highest educational qualification of the teacher.

Table 4.5

ANOVA: Highest Educational Qualification of the Teacher

	Diploma		Bachelors		Masters			
SoC	M	SD	M	SD	M	SD	F	p
0	04.95	3.51	07.42	4.80	6.59	5.70	(2,59) = 1.58	0.215
1	13.57	4.75	17.42	5.28	19.24	6.65	(2,59) = 5.35	0.007
2	24.81	5.39	25.58	4.75	24.59	4.74	(2,59) = 0.24	0.791
3	27.71	3.51	28.29	5.94	25.94	6.67	(2,59) = 0.95	0.391
4	24.67	4.92	25.08	5.32	24.94	4.93	(2,59) = 0.04	0.961
5	26.38	5.60	25.00	6.37	26.41	5.92	(2,59) = 0.40	0.673
6	23.76	5.35	24.13	5.37	24.18	5.83	(2,59) = 0.03	0.966

Analysis revealed that there were differences in means of Stage 1 concerns among teachers with different levels of educational qualification such that F (2, 59) = 5,35, p = 0.007, η^2 = 0.15. The effect size of 0.15 implied that 15% of the variance reported in Stage 1scores can be explained by teacher qualifications. Post hoc analysis using the Tukey HSD Test was conducted. The Bonferroni adjusted alpha level of 0.017 was used for all possible pair wise comparisons. For Stage 1, there was a significant difference in means between teachers who held Diplomas and those who held Masters Degrees (p = 0.007).

Analysis indicated that there were significant differences detected at the 0.05 alpha level. Therefore, it is possible to accept H_1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$ and conclude that teachers with varying qualifications had different concerns about the CAC.

Summary

This chapter presented the findings of the data analysis. The data were analyzed using descriptive statistics such as means and standard deviation, and inferential statistics such as t-tests and analysis of variance to determine differences in means. The findings were as follows:

- Teachers in the Victoria Education District experienced intense Management (Stage 3) and Collaboration (Stage 5) concerns about the CAC of the SEA.

- At the 0.05 alpha level, there were no significant differences detected on any of the stages of concern by gender. Male and Female teachers therefore had similar concerns.

- Teachers in the 30-39 age group had the highest mean scores for Stages 0, 1 and 4 concerns while teachers in the 40-49 age group had the highest mean scores for Stages 2, 3, 5 and 6. At the 0.05 alpha level, there were significant differences detected for Stages 0 and 1. Teachers of varying ages therefore had different concerns.

- At the 0.05 alpha level, significant differences in mean scores of the SoC with respect to years of teaching service were detected in Stages 0 (Unconcerned), Stage 1 (Informational), Stage 2 (Personal), Stage 3 (Management) and Stage 5 (Collaboration). Teachers with varying numbers of years teaching experience had different concerns.

- With respect to teacher qualifications, significant differences in mean scores of the SoC were detected in Stage 1 (Informational) at the 0.05 alpha level. Teachers with different qualifications therefore had different concerns.

Chapter 5 – Discussion, Recommendations and Conclusions

Introduction

In this chapter, the findings of the research along with their implications will be discussed. Also, recommendations for further research on teachers' concerns about the CAC of the SEA will be made.

Discussion of Findings

Research Question 1: What are the Stages of Concern of Standards 4 and 5 teachers in the Victoria Education District who are implementing the CAC of the SEA?

In this study, the CBAM was used to identify teachers' concerns about the CAC of the SEA. Findings of the study showed that collectively, teachers had low Awareness concerns, moderately low Informational concern, and high levels of Personal, Consequence, and Refocusing concerns with peak Management and Collaboration concerns. Hall and Hord (2006) in tandem with George et al. (2006) purport that at the beginning of the implementation process, users have intense lower level concerns at Stages 0, 1 and 2. However as their use becomes more sophisticated, implementers' concerns move to Stage 3, and eventually to Stages 4, 5 and 6. George et al. admit that although "research suggests that this developmental pattern holds for most innovations, it is not a certainty" (p. 8). Andersen (1997) adds that the cultures and context in which the implementation is taking place may determine whether or not the development of concerns follows this pattern. The mandatory implementation of the high stakes CAC in 2012 suggests that teachers have been using the innovation with some degree of fidelity

for over two years. As a result, their Awareness and Informational concerns have been resolved to some extent. At present, teachers are experiencing more intense concerns in Stages 2 through 6. Teachers concerns are therefore progressing according to the pattern.

While any combination is possible, it is likely that the second highest concern will be close to the highest concern (George et al., 2006). This is again due to the developmental nature of the concerns. This was not the case in this study. The peak score was Management or Stage 3 while the second highest score was Collaboration or Stage 5. It may be noted however that scores for Stages 2, 4, 5 and 6 were all very close. Since analysis of group data is not sensitive to individual differences, George et al. recommends examining the raw scores for each individual to determine their peak SoC. These results were similar to that of the group profile with approximately 40% of teachers having a peak score on Stage 3 and approximately 30% of teachers on Stage 5.

According to George et al (2006), the low Stage 0 score along with the high scores in the other Stages suggests intense involvement with the innovation. Due to the fact that the CAC is a mandatory, high stakes assessment, teachers are very involved with the innovation. Hall and Hord (2006) contend that the high Stage 3 score is indicative of concerns about management, time and logistics of the innovation. High Stage 5 or collaboration concerns imply that teachers want to work with their peers and exchange information to better implement the innovation. This is indicative of teachers' needs for cooperation in learning to use the innovation (Cetinkaya, 2012). Teachers also had Stage 2, 4 and 6 concerns. Concerns about changes in roles, demands of the innovation and competence to meet these demands are all characteristic of Stage 2 concerns. Stage 4 concerns suggest that teachers are concerned about the use of the innovation

and its impact on students while Stage 6 concerns signify that teachers have strong ideas about how the change process may be improved (Hall & Hord, 2006; George et al., 2006)

Research Question 2: What are the differences in SoC as it relates to teachers' personal characteristics (age, gender, years of teaching service, qualifications)?

The second purpose of this study was to determine if teachers' concerns were related to their personal characteristics. There were no significant differences detected on any of the stages of concern by gender. Male and Female teachers therefore had similar concerns. These results were consistent with Ghaith and Shaaban's (1999) study which also found no relationship between teacher conerns and gender. However, Cetinkaya (2012) found that males and females had different concerns such that females had higher Information and Collaboration concerns while males had higher Awareness and Consequence concerns.

In their study on teachers' concerns, Christou, Eliophotou-Menon, & Philipou (2004) found that new teachers had Informational concerns while more experienced teachers had Consequence concerns. Contrary to this, Cetinkaya (2012) found no relationship between teachers' concerns and their teaching experience. In this study, it was found that teachers with more experience had lower intensity concerns in Stages 0 and 1 than those teachers with less teaching experience. However, more experienced teachers had stronger Stages 2, 3, and 5 concerns than their less experienced counterparts.

Analysis showed that younger teachers had more intense Stage 0 and 1 concerns than older teachers. In contrast, older teachers had higher scores on Stage 2 and 3 concerns than

yonger teachers. Although different, these were not significantly so. Furthermore, regardless of age, teachers' most intense concern was at the Management level. Similar findings were echoed by Cetinkaya (2012) who maintained that "the older the teachers, the lower was the teachers' concerns at the Awareness and Information stages" (p. 161).

A general trend existed in which teachers with higher qualifications had more intense concerns at all stages. Teachers who held Bachelors Degrees had the highest scores in Stages 0, 2, 3, and 4 and those who held Masters Degrees had the highest scores in Stages 1, 5, and 6. Furthermore, teachers with the lowest qualification, a Diploma, scored lowest on Stages 0, 1, 4, and 6. However, these differences were insignificant with the exception of Stage 1 concerns where teachers who held Masters degrees had more intense concerns than those with Diplomas. A similar trend was found in Cetinkaya's (2012) study which showed that more qualified teachers had more intense concerns.

Implications of Findings

The SoC dimension of the CBAM focuses on teachers' feelings about an innovation. The model emphasizes addressing these feelings or concerns. The findings of this study have clear implications for implementation of the CAC or any other innovation in the education system. It is imperative that programme developers work with teachers to assess their concerns and pay attention to them during the implementation process. When concerns are identified they can be addressed thereby making implementation more successful.

Programme developers and facilitators need to provide support that is specific to the type of concern identified by the teachers. Teachers in this study had peak Management and

Collaboration concerns about the CAC. Teachers are burdened with schedules, correction of pieces and submission of marks for the CAC along with their regular classroom teaching and other related duties. The CAC teachers are severely overworked and simply do not have enough time to complete all of these tasks. Additional staffing such as a clerical assistant to help with the submission of marks or a teaching assistant to help with classroom duties may alleviate this problem. To address collaboration concerns, teachers need opportunities to work with each other and develop collegial relationships. The MoE therefore needs to create more avenues whereby teachers can work together and discuss their ideas with respect to the implementation of the CAC. This can be achieved through professional development seminars and training workshops. Such opportunities will better equip teachers to deliver the CAC curriculum and may also aid teachers in resolving their Personal and Consequence concerns. Additionally, teachers also had Refocusing concerns. To address this concern, teachers need to become involved in the consultation, discussion and decision making process with regard to implementation. Teachers are the implementers, the ones in the field, and so they should be given a voice. They are aware of the students' needs and they have experienced all the problems with implementation first hand. Giving teachers a chance make suggestions will bring new ideas on implementation to the fore.

Teachers' concerns about the CAC affects its implementation. These concerns are indicative of the support and guidance they need (Christou et al., 2004). By using such measures to address concerns, teachers are better able to come to terms with the change process. This results in more successful implementation and the full benefits of the CAC can be realized.

Recommendations for Further Research

The findings of this study were based on the views of teachers from twenty (20) schools in one educational district, Victoria. Furthermore, the study was conducted approximately two (2) years after the CAC was implemented and so the concerns identified are at this time only.

This study may be used as a base for conducting further research. For example similar studies may be done during the third, fourth and fifth years of implementation and the intensities and types of concerns may be compared to see how they have changed over time. Another approach may be to compare the individual concerns profile for teachers with various personal characteristics, teachers in urban or rural schools, or teachers in denominational or government schools for example. Yet another option may be to conduct a similar study but on a larger scale. In this way teachers from all eight (8) regional education districts may be sampled.

This study was purely quantitative in nature. A combination of qualitative and quantitative approaches may be used if the open ended statement is added to the SoCQ. This would allow for teachers' written responses about their concerns and would lend itself to the researcher analyzing the statements for themes or the researcher being able to use the responses as a criterion for selecting participants for further qualitative research.

Conclusion

The purpose of this study was to explore the SoC of Standards 4 and 5 teachers in the Victoria Education District who are implementing the CAC of the SEA, to determine which stages of concern are most prevalent among them, and to determine if these concerns about the

innovation are related to teachers' personal characteristics (age, gender, years of teaching service, and qualifications). This was accomplished and the findings revealed that these teachers had a conglomeration of concerns. These included peak Management and Collaboration concerns with relatively high Personal, Consequence and Refocusing concerns. Teachers concerns did not vary by gender however, there were significant differences in teachers' concerns by age, teaching experience and qualifications. To address these concerns programme developers and those spearheading implementation must work to identify teachers' concerns and provide the necessary support. Providing additional staffing, opportunities for teachers to work together and develop collegial relations, professional development, ongoing training and consultation with teachers are some measures which may aid in alleviating these concerns.

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Appendix A – Application for Permission to Conduct Research

GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO
MINISTRY OF EDUCATION

APPLICATION FORM – PERMISSION TO CONDUCT RESEARCH IN SCHOOLS

- For one school only, the application is submitted through the Principal of the school who endorses it, and submits to the School Supervisor III of the District.
- For national or District scope, the application is submitted directly to the School Supervisor III who will engage in extensive consultation with other Units/ Divisions of the Ministry of Education for investigation, comments and recommendations. Criteria being met, reservation approval is granted.
- All applications will be evaluated according to the criteria laid down by the Ministry of Education.
- Applicants are advised to submit their application at least two months in advance of their intended programme implementation.
- Approved users should have their copy of their signed approval and agreement for presentation to school officials upon request.
- ***The contact person given in this form must be the legal entity that will be offered the agreement with the MOE, should the application be successful.***

Please provide full answers to the following questions in complete sentences with no acronyms or other abbreviations.

1 Applicant Details

a) Name of Student conducting Research - PRINT

Daena Dubay-Ramnanan

b) University/ Educational Institute & Department

The University of the West Indies

c) Name of Research Study – PRINT

Teachers' Concerns about the Continuous Assessment Component (CAC) Innovation

d) Contact Information

Address	871 Crissy Street, Block 5, Palmiste
Phone Number	726-5948
Email:	daenaramnanan@gmail.com

e) Department Head/ Research Supervisor/ Course Facilitator

PRINT_____

SIGN_____

2 Rationale

What are the underlying reasons for developing this study?
The findings of this study will add to the limited body of knowledge about implementation of the CAC.
It can be used as a base for further research.
The study gives teachers an opportunity to voice their concerns.

3 Objectives

What are the intentions of the study?

To identify relationships between teacher personal characteristics (age, gender, qualification, teaching experience) and Stages of Concern about the CAC innovation.

To identify relationships between school type (denominational and government) and teachers' Stages of Concern about the CAC innovation.

4 Target Group(s)

Study Targets?

Stakeholder group – *tick one*	Students	Teachers ✔	Parents
Level (students only)		-	
Gender		M/F	
Group size		100	
Number of schools		20	

5 Duration (dates and times)

Data will be collected in March, 2014.
Teachers will complete questionnaire in 10-15 minutes.

6 Expected Outcomes

Learning	Understand the stages of Concern of teachers who are implementing the CAC of the SEA. Acquire a better understanding of the issues faced by teachers. Identify strategies to address concerns and make implementation more successful.
Psychosocial	
Behavioural	

Other	

7 Methodology

Give a brief description of the implementation process.

1. Deliver questionnaire to Standards 4 and 5 teachers in 20 schools in the Victoria Educational District
2. Teachers complete questionnaire and return to researcher
3. Analysis of data
4. Short report of findings disseminated to participating schools

8 Monitoring and Evaluation Plan

Please list the method(s) that will be used for the monitoring and evaluation of your study/research to ensure its success.

1. Personally deliver questionnaire to schools
2. Await completion by teachers
3. Personally enter data
4. Have colleagues check data entry

10 Expected input from School/ Ministry

What input does your study need from the School or Ministry? (e.g. Supervision, Security, Equipment)

- Place and time for private completion of questionnaire
-
-
-

11 Other Relevant information

Please attach (with this application) all questionnaires and other relevant documents/materials to be used in the study.

12 Declaration – Agency Representative (Contact Person)

I declare that:

- The information given by me in this application is complete and correct
- I will notify MOE, in writing, of any changes to this information, within seven (7) days of that change occurring.

I understand that:

- The information on this form allows MOE to assess the proposed initiative for access to schools

I understand that:

- Giving false or misleading information is a serious offence.
- Any information obtained (about any individual participant/school) through this study is to be held in strict confidence.
- All findings of this study are to be made available to the Ministry of Education on completion of the research study.

13 Signature

Name of Applicant (PLEASE PRINT)	Daena Dubay-Ramnanan
Signature	
Course Facilitator/ Research Supervisor (PLEASE PRINT)	Sharon Jaggernauth
Signature	
Date	

Appendix B – Approval from Ministry of Education to Conduct Research

THE UNIVERSITY OF THE WEST INDIES
ST. AUGUSTINE, TRINIDAD AND TOBAGO, WEST INDIES
FACULTY OF HUMANITIES AND EDUCATION
SCHOOL OF EDUCATION
Telephone: (868) 662-2002 Ext. 2118/2319 Fax: (868) 662-6615 e-mail: headsoe@fhe.uwi.tt

MINISTRY OF EDUCATION RECEIVED 12 MAR 2014 Victoria Education District

11th March, 2014

The Planning Officer,
Ministry of Education,
Chepstow House,
Frederick Street,
PORT OF SPAIN.

Email address: balchanh@gov.tt

Dear Madam,

The following student is currently registered at the School of Education, The University of the West Indies at St. Augustine pursuing the following programme-

NAME OF STUDENT	I.D. NO.	PROGRAMME
Daena Dubay-Ramnanan	812005037	M.Ed. [Concentration in Curriculum]

Mrs. Dubay-Ramnanan is submitting her application form with all the necessary information to the Ministry of Education to carry out research in schools.

We wish to advise that while carrying out her research, she will follow all the protocols necessary to ensure the confidentiality of the findings and to treat the subjects with respect. We look forward to the usual cooperation accorded to our graduate students by your Ministry.

THE UNIVERSITY OF THE WEST INDIES SCHOOL OF EDUCATION ST. AUGUSTINE, TRINIDAD, W.I.

Dr. Jeniffer Mohammed
Head,
School of Education, UWI, St. Augustine

Appendix C – Cover Letter for Questionnaire

Participant Informed Consent Information

Dear Colleague,

I am Daena Dubay-Ramnanan, a student of the University of the West Indies pursuing a Masters in Education Degree. A requirement of this degree is a research project which I am working on at present. I am investigating the Stages of Concern (SoC) of Standards 4 and 5 teachers who are implementing the Continuous Assessment Component (CAC) of the Secondary Entrance Assessment (SEA).

The purpose of this study is to explore the SoC of teachers and to identify possible relationships between teachers' concerns and (i) teachers' personal characteristics (age, gender, years of teaching service, experience in teaching upper primary level, qualifications) and (ii) the school type (denominational or government). The information gleaned from this study will add to the limited body of knowledge on this topic, making it a base for further research. The information can be used by change facilitators and policy makers to better understand the issues faced by implementers and design strategies to address their concerns thereby making implementation more successful. This study will also provide teachers with a platform to voice their concerns.

I am seeking your assistance in completing the attached questionnaire which will provide data for my research. Section A requires you to provide demographic data and Section B is the SoC Questionnaire adapted from Hall and Hord (2006). The questionnaire requires approximately 10 minutes to complete.

Participation in this study is voluntary and you may choose to withdraw from the study at any time. You are not required to provide your name and all information you provide will be kept confidential.

Thank you for taking the time to assist me in my educational endeavours. Should you require further clarification, I can be contacted at 726-5948 or by email at daenaramnanan@gmail.com.

Sincerely,

Daena Dubay-Ramnanan

Appendix D – Revised Stages of Concern Questionnaire

Teachers' Stages of Concern about Continuous Assessment Component (CAC) Innovation

The purpose of this questionnaire is to determine teachers' concerns about the implementation of the Continuous Assessment Component (CAC) of the Secondary Entrance Assessment (SEA).

Section A

Please select a suggested response to each of the following:

School type:	Gender:	Age:	Qualification:
☐ Government	☐ Male	☐ 20-29 ☐ 30-39	☐ Teachers' Diploma
☐ Denominational	☐ Female	☐ 40-49 ☐ 50-60	☐ Bachelors
			☐ Masters

Please state:

Number of years experience in teaching Upper Primary Level (Standards 4 and 5): _____

Number of years in teaching service: _____

Section B

Some items may be of little relevance to you at this time. For a completely irrelevant item, please circle "0". Other items will represent those concerns you have about the CAC in varying degrees of intensity and should be marked accordingly on the scale. For example:

This statement is very true for me at this time. 0 1 2 3 4 5 6 ⑦

This statement is somewhat true for me at this time. 0 1 2 3 ④ 5 6 7

This statement is not at all true for me at this time. 0 ① 2 3 4 5 6 7

This statement is irrelevant to me. ⓪ 1 2 3 4 5 6 7

Please respond to the items in terms of your present concerns about your involvement with the CAC. Thank you for taking the time to complete this task.

0	**1, 2**	**3, 4**	**5, 6, 7**
Irrelevant	**Not true for me now**	**Somewhat true for me now**	**Very true for me now**

1.	I am concerned about students' attitudes toward the CAC.	0 1 2 3 4 5 6 7
2.	I now know of some other approaches that might work better.	0 1 2 3 4 5 6 7
3.	I don't even know what the CAC is.	0 1 2 3 4 5 6 7
4.	I am concerned about not having enough time to organize myself each day.	0 1 2 3 4 5 6 7

5.	I would like to help other teachers in their use of the CAC.	0 1 2 3 4 5 6 7
6.	I have a very limited knowledge about the CAC.	0 1 2 3 4 5 6 7
7.	I would like to know the effect of this reorganization on my professional status.	0 1 2 3 4 5 6 7
8.	I am concerned about conflicts between my interests and my responsibilities.	0 1 2 3 4 5 6 7
9.	I am concerned about revising my use of the CAC.	0 1 2 3 4 5 6 7
10.	I would like to develop working relationships with teachers both in and out of my department/school about the use of the CAC.	0 1 2 3 4 5 6 7
11.	I am concerned about how the CAC affects students.	0 1 2 3 4 5 6 7
12.	I am not concerned about the CAC.	0 1 2 3 4 5 6 7
13.	I would like to know who makes the decisions about the new system.	0 1 2 3 4 5 6 7
14.	I would like to discuss the possibility of using the CAC.	0 1 2 3 4 5 6 7
15.	I would like to know what resources are available for the implementation of the CAC.	0 1 2 3 4 5 6 7
16.	I am concerned about my inability to manage all that the CAC requires.	0 1 2 3 4 5 6 7
17.	I would like to know how my teaching is supposed to change.	0 1 2 3 4 5 6 7
18.	I would like to familiarize other departments or persons with the progress of the CAC.	0 1 2 3 4 5 6 7
19.	I am concerned about evaluating my impact on students.	0 1 2 3 4 5 6 7
20.	I would like to revise the instructional approach of the CAC.	0 1 2 3 4 5 6 7
21.	I am completely occupied with other things.	0 1 2 3 4 5 6 7
22.	I would like to modify my use of the CAC based on the experience of my students.	0 1 2 3 4 5 6 7
23.	Although I don't know about the CAC, I am concerned about other things regarding the SEA.	0 1 2 3 4 5 6 7

24.	I would like to excite my students about their part in the CAC.	0 1 2 3 4 5 6 7
25.	I am concerned about my time spent working with nonacademic problems related to the CAC.	0 1 2 3 4 5 6 7
26.	I will like to know what the use of the CAC will require in the immediate future.	0 1 2 3 4 5 6 7
27.	I would like to coordinate my efforts with others to maximize the effect of the CAC.	0 1 2 3 4 5 6 7
28.	I would like to have more information about the time and energy commitments required by the CAC.	0 1 2 3 4 5 6 7
29.	I would like to know what other departments/schools are doing with regard to the CAC.	0 1 2 3 4 5 6 7
30.	At this time, I am not interested in learning about the CAC.	0 1 2 3 4 5 6 7
31.	I would like to determine how to supplement, enhance or replace the CAC.	0 1 2 3 4 5 6 7
32.	I would like to use feedback from students to change the CAC.	0 1 2 3 4 5 6 7
33.	I would like to know how my role will change when I am using the CAC.	0 1 2 3 4 5 6 7
34.	Coordination of tasks and people is taking too much of my time.	0 1 2 3 4 5 6 7
35.	I would like to know how the CAC is better than the previous system.	0 1 2 3 4 5 6 7