

UNIVERSITY OF CAPE COAST

CONCERNS OF PRIMARY SCHOOL TEACHERS IN THE CAPE COAST
METROPOLIS ABOUT THE 2007 EDUCATIONAL REFORM IN GHANA

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2009

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METROPOLIS ABOUT THE 2007 EDUCATIONAL REFORM IN GHANA

BY

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Thesis Submitted to the Department of Arts and Social Sciences Education,
Faculty of Education, University of Cape Coast, in Partial Fulfilment of the
Requirements for the Award of a Master of Philosophy Degree in Curriculum
Studies

JULY, 2009

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:..... Date:.....

Name: ELIZABETH ANI-BOI

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature Date:.....

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ABSTRACT

The study sought to track the concerns of primary school teachers in the Cape Coast Metropolis about the 2007 educational reform in Ghana within the framework of the Stages of Concerns dimension of the Concerns-Based Adoption Model developed by Hall, Wallace and Dossett in 1973. Data were gathered from three hundred and sixteen (316) private and public school teachers in the Cape Coast Metropolis of the Central Region. Results indicated that teachers have high concerns at personal, management, consequence and refocusing stages. This is an indication that primary school teachers in the metropolis are more concerned about the impact of the reform on learners. However, they are limited by their inadequacy in terms of knowledge and skills required by the reform and lack of material resources for successful implementation. Notwithstanding teachers' lack of knowledge and skills, they have developed other strategies of improving upon the implementation of the reform. ANOVA results showed that primary school teachers' concerns are totally independent of the type of school they work in whether private or public. Regarding gender, it was found that female teachers have more management concerns than their male counterparts.

It is recommended that Ghana Education Service organizes a series of workshops, seminars and forums for heads of schools and their teachers to upgrade their knowledge and skills as required by the 2007 reform. Again, material resources needed to enhance the implementation of the reform should be provided.

ACKNOWLEDGEMENTS

I wish to express my heartfelt gratitude to my supervisors, Dr. Cosmas Cobbold and Miss Modesta Efua Gavor, who in spite of their heavy schedule took the pain to read through this script. Thank you immensely for your priceless suggestions and recommendations that have contributed to the successful completion of this work. I appreciate you.

I thank the Head of Department, Dr. Ankomah, and lecturers of the Department of Arts and Social Sciences Education, especially, Mr. Ababio, Mr. KanKam Boadu, Reverend Asare Danso and Mr. Yidana, for their encouragement and substantive inputs toward the success of this piece.

I am grateful also to Mr. Wilson, the administrator for the Department of Arts and Social Sciences Education. Your encouragements are well appreciated. God bless you richly.

Finally, I acknowledge the tireless effort of my colleagues, Tufour Kwateng, Eric Mensah, Charles Adabour, Bernard Sakyi Acquah, Leticia Bosu, and Gloria Okyere to the success of this work. I really appreciate your contributions. Any shortcomings in the work are, however, mine.

DEDICATION

To Mr. and Mrs. Dankwa for being a blessing to me throughout my life.

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CHAPTER ONE

INTRODUCTION

Background to the Study

Ghana has since independence experienced two major reforms in its educational system. The first reform took place in the year 1987. It introduced a 6-3-3-4 structure of education which consisted of six years of primary education, three years of junior secondary education, three years of senior secondary education and four years of tertiary education. The primary and junior secondary levels were referred to as basic education, which is by law free and compulsory. The reform brought in its wake, an emphasis on technical and vocational skills subjects such as pre- technical skills and technical drawing were introduced and tools for their teaching and learning provided. Unfortunately, the schools lacked qualified teachers to teach these subjects. Even where there were teachers, those teachers could only teach the theory and not the practical aspects of the subjects.

In the year 2007, exactly twenty years of the existence of the 1987 Educational Reform, the second reform was introduced. This reform came into existence as a result of the work and recommendations of the Committee under the chairmanship of Professor Jophus Anamoah-Mensah on Review of Educational Reforms in Ghana, appointed by the then President of the Republic of Ghana in 2002.

The committee was charged to review the entire educational system in

order to make it relevant to meet national needs. The specific terms of reference for the committee, relevant to this study were, among others, to:

1. re-examine the goals and philosophy of the present educational system with the view of ensuring their relevance to the development of human resource for the nation in the light of new challenges facing the nation.
2. re-examine the basic educational system.
3. examine distance learning, using information and communication technology as a mode of instruction at the basic, secondary, and tertiary levels.
4. determine strategies for the introduction of ICT in all schools and colleges.
5. determine the institution of appropriate strategies for achieving quality education at all levels (Government of Ghana, 2004).

The committee proposed a 14-year pre-tertiary education structure comprising 2 years kindergarten, 6 years primary, 3 years junior secondary school and 3 years senior secondary school. With particular reference to primary education, which is the focus of this study, the committee made the following recommendations:

1. Creative arts comprising Art and Craft, Music and Dance, Physical Education and ICT should be taught as practical and creative activities.
2. The teaching of English and Ghanaian languages should emphasize reading, writing; dictation and comprehension texts should incorporate concepts of religious and moral education, culture, science, hygiene and agricultural science; and Life Skills and Civics should be taught in an integrated manner.

3. The teaching of French should be made optional in primary schools.
4. Either the local or English language should be used as medium of instruction at the lower primary level as appropriate.
5. Primary schools should run 6 hours extended session to allow for greater contact hours for teaching and more time for co-curricula activities.
6. Time or contact hours should be increased from four and half hours to five hours each day constituting twelve periods per day as against nine periods per day. Periods for co-curricula activities should remains unchanged.
7. Each class should not exceed thirty- five pupils. (Ghana Government, 2004).

Government's response to these recommendations as contained in its White Paper (2004) form the substance of the 2007 educational reform. Features of the new reform essential to this study are:

1. introduction of new subjects such as Information and Communication Technology (ICT), French language, Creative Arts, Citizenship Education;
2. introduction of new curriculum materials such as syllabi and textbooks;
3. increase in contact hours- from four and half hours to five hours each day constituting twelve periods per day as against nine periods per day (Ghana Government, 2002, p. 29).

The objectives for Primary Education as far as the 2007 educational reform is concerned are to:

1. consolidate the knowledge and skills acquired at the kindergarten level;
2. lay foundation for inquiry, creativity and innovation;
3. develop an understanding of how to lead a healthy life and achieve a good health status;

4. develop sound moral attitudes and appreciate one's cultural heritage and identity;
5. develop the ability to adapt constructively to the changing local and global environment;
6. inculcate good citizenship in children to enable them participate in national development;
7. develop the skills and aptitudes of assimilating new knowledge;
8. prepare pupils for further education and training;
9. make pupils to understand the environment and the need to contribute to its sustainability.

The extent to which these objectives are achieved depend on what teachers think and a reflection of those thoughts in practice.

The introduction of new subjects, new curricula documents and material resources and increase in contact hours, require that teachers gain new knowledge and skills, use new teaching techniques and strategies and work more hours. These, together with the increase in enrolments resulting from the emphasis given to girl child education, the implementation of capitation grant, and the school feeding programme add to the teachers' roles and responsibilities. Yet, the school environment in which the teacher works, particularly the classroom conditions, non-availability of material resources, remain unchanged All these presumably make the teacher a bit sceptical about the reform.

According to Stenhouse (1975) "Genuine innovation begets incompetence. It deskills teachers and pupils alike, suppressing acquired competences and demanding the development of new ones" (p. 170). The

implication is that once there is a change, teachers have to do new things in new ways. The demands and pressures associated with educational change make teachers express lots of concerns, especially about issues of transition from the existing programme to the change programme (Armstrong, 2003).

Statement of the Problem

The implementation of an educational change requires the services of teachers. The success or otherwise of educational change depends largely on the teacher. The teacher's role as an implementer in the curriculum process, therefore, can never be ignored.

The Concerns-Based Adoption Model has that, individual teachers have different kinds of concerns about their involvement with curriculum implementation at different times. These concerns include individuals' perceptions, feelings, motivations and anxieties regarding a reform (Jackson, 1992).

It appears curricula developers do not address these concerns in the curriculum development process. Bishop (1985) supported this view when he posited:

Curricula or method innovations invariably founder because they are formulated in vacuo by curriculum development experts and then imposed on schools where unprepared teachers, with neither the inclination nor knowledge to implement them, make impolite noises concerning these bothersome innovations and proceed with the business of preparing their pupils for public examination (p. 198).

The success of educational change is dependent on what the teacher thinks and does (Hammonds, 2002). It therefore becomes expedient for teacher concerns to be identified and addressed to ensure successful implementation of any educational change. The thrust of the study was, therefore, to find out the various concerns of primary school teachers as they get themselves involved in the implementation of the 2007 educational reform.

Purpose of the Study

The purpose of the study was to track the various concerns primary school teachers had as they implemented the 2007 educational reform in Ghana, and to determine any differences between the concerns of public primary school teachers and private primary school teachers. The study also sought to determine any relationship between teacher concerns and gender.

Research Question

The following questions were posed to guide the study.

1. What are primary school teachers' concerns about the implementation of the 2007 Educational Reform in Ghana?

Hypothesis

1. (Ho) There are no significant differences between the concerns of teachers in public primary schools and private primary schools

(H_A) There are significant differences between the concerns of teachers in public primary schools and that of teachers in private primary schools.

2. (H₀) There is no relationship between primary school teachers' concerns and their gender.

(H_A) There is a relationship between primary school teachers' concerns and their gender.

Significance of the Study

One finding from this study is teachers' expression of high personal concerns. This is a signal that teachers lack skills and knowledge in handling the change. This finding alerts curriculum developers who wish to see a planned and developed change in actual practice, to monitor teacher concerns and address them. It informs developers about the need for organizing workshops and seminars to upgrade teachers' knowledge and skills in the requirements for the reform. Fullan (2007) has said that institutionalization of change becomes possible if at the time of institutionalization, administrators and teachers, who are committed to the reform, have the required knowledge and skills to ensure its effective implementation. Again, institutionalization is possible if there are structures for continued provision of training for teachers and administrators, especially the novices.

The results showed that primary school teachers in the Cape Coast Metropolis have concerns with logistics as well. The result will help the Ghana Education Service to determine what further resources should be injected into the system for implementing the reform.

The study contributes to existing knowledge on teacher concerns. Fuller (1969) found out that American teachers' concerns in implementing change began with self-oriented concerns and progressed to task-oriented concerns through to impact-oriented concerns. Teachers expressed a lot of concerns at the initial stages of implementing a change. As they became experienced with the change, task concerns became paramount. Finally, impact concerns become most intense. Bringing the Chinese perspective, Cheung (2000) also found out that every teacher can experience several stages of concern about a change concurrently. However, there are various degrees of intensity depending on factors such as the nature of the reform, the teacher's personality and the kind of assistance provided during the change process. Cheung's findings imply that teacher concerns are not always developmental as found by Fuller (1969). This study has brought to focus teacher concerns regarding the implementation of change from the Ghanaian perspective. Ghanaian primary school teachers' concerns are concurrent, meaning they have diverse concerns at the same time.

Delimitation

The Concerns-Based Adoption Model of curricula implementation has three dimensions. These are the Stages of Concerns which look at the various concerns teachers express in their attempt to implement a new curricula; Level of Use which deals with what teachers actually do in the implementation process; and Innovation Configuration which is used to assess whether the operational use of a new curricula is consistent with developers' intentions.

The study centred on the Stages of Concerns dimension of the CBAM.

Specifically, it investigated the concerns of primary school teachers in the Cape Coast Metropolis on the implementation of the 2007 Educational Reform in Ghana.

Limitation

Tracking of teachers concerns regarding implementation of a change becomes more authentic if done over a period of time. The research design used for this study was descriptive survey which only looked at the current status of primary school teachers in the Cape Coast metropolis, about their involvement in the implementation of the 2007 educational reform. Teacher concerns are not permanent. As teachers progress through the implementation exercise, some of their concerns are overcome, some are addressed and new ones are developed. This makes the generalization of finding over time difficult. Again, the findings of the study can only be generalized to the population of the study and not to teachers outside the study.

Organization of the study

The study consists of five chapters. Chapter One of the study is the introduction. It discusses the background to the study, sets out the problem under study, and states the purpose of the study, the research questions and the significance of the study. The chapter defines the scope of the study and indicates its methodological limitations.

Chapter Two is concerned with review of related literature. It describes in detail the Concerns-Based Adoption Model (CBAM), the theoretical framework

within which the study is situated. The chapter also discusses the concepts ‘curriculum change’ and ‘the curriculum change process; and reviews some empirical works relevant to the study.

Chapter Three deals with the methodology employed for the study. It describes the research design, population, sample and the sampling procedure, the instrument used in data collection and how it was administered. The chapter ends with problems encountered during data collection and how the data were analyzed.

Chapter Four deals, basically, with the presentation of results and its discussion. Finally, Chapter Five summarizes the entire research process, draws conclusions and makes recommendations for policy, practice and further research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In this chapter, ideas and findings of recognized authors and researchers

related to the study are reviewed. The chapter looks at the Concerns-Based Adoption Model which constitutes the theoretical framework within which the study is situated. It also discusses the concepts ‘curriculum change’ and the ‘curriculum change process’. Finally, the chapter reviews some empirical studies.

Theoretical Framework: The Concerns-Based Adoption Model (CBAM)

The concern development theory dates back to 1969 from the research work of Frances Fuller. In her research, she discovered that pre-service teachers have different feelings and concerns about informational and training needs with respect to their peculiar stages or levels in their preparatory programme. These feelings and concerns, according to Fuller, occur in a predictable sequence. For instance, at the early stages of their programme, pre-service teachers typically express no concern. However, as they engage in student teaching, their attitude shifts to concerns about self where they begin to express worries about what they can actually do in order to complete the task ahead. Finally, toward the end of their teaching experience, pre-service teachers express concerns about the impact of their teaching on their students. At this time it is believed they have become familiar with the rudiments of the classroom teaching and have also developed the confidence in handling instruction.

According to Fuller “all pre-service teachers experienced the same sequence of concerns, moving from self, to concerns about teaching, and to concerns about students”, cited in Marsh and Willis. (2003, p. 253). Hall, Wallace and Dossett examined how this sequence applied to educational change, and developed their own sequences; namely, Stages of Concern (SoC) and Levels of Use (LoU). Later, Hall and Loucks also developed Innovations Configuration

(IC). Out of these sequences came the Concerns-Based Adoption Model (Marsh & Willis, 2003).

The Concerns-Based Adoption Model (CBAM) is described by Anderson (1997) as “the most robust and empirically grounded theoretical model for the implementation of educational innovations to come out of educational change research in the 1970s and 1980s” (p. 331). Horsley and Loucks (1998) hold that CBAM is a framework and a set of tools for understanding and managing change in people. Adding her voice to what CBAM is, Loucks (1996) states that it is an effective model for change in individuals who are engaged in change. Such individuals include policy makers, teachers, parents and students. The model holds that the concerns of people considering and experiencing change evolve in the kind of questions they ask and in their use of whatever the change is.

According to Marsh and Willis (2003), CBAM starts with the assumption that there is a particular curriculum that should be adopted by a school and, more specifically, teachers. Marsh and Willis (2003) further listed the following as assumptions for CBAM:

1. Change is a process, not an event, requiring time, energy, and resources to support it. This means that the procedural nature of change requires constant efforts to help it succeed. Continuous monitoring is essential to make sure that change is actually been implemented by implementers as planned. School heads, circuit supervisors etc should commit time, energy and resources needed to enhance implementation.
2. Change is achieved incrementally and developmentally and entails developmental growth in feelings about the skill in using new programs.

3. Change is accomplished by individuals first. Institutions cannot change until the individuals within them change.
4. Change is a highly personal experience.
5. Change can be facilitated by change agents (change facilitators) providing diagnostic, client-centred support to individual teachers (p. 253)

One significant thing about CBAM is its association with the fidelity approach to curriculum implementation. In the opinion of Jackson (1992), CBAM is “the most sophisticated and explicit conceptualisation of fidelity orientation to assessing degree of implementation” (p. 406). Fidelity to curriculum implementation looks critically at the extent or the degree to which implementation matches developers’ intentions, or better still, how faithfully users implement change in accordance with the goals and objectives of change as intended by its developers. It is believed that the implementation of any form of change in this direction will produce predictable outcomes. To achieve fidelity, monitoring and addressing of users’ concerns about change become crucial.

The focus of CBAM is to provide data that will help teachers to adopt a change as their own. This enables them contribute immensely to its implementation. The problem therefore is how can teachers adopt a change as their own and sustain it once it has been introduced? In dealing with the teachers’ voice and ownership of the curriculum change, Kirk and McDonald (2001) assert that “the possibilities for teacher ownership of curriculum change are circumscribed by the anchoring of their authority to speak on curriculum matters in the local context of curriculum change” (p. 551). According to them, teachers’ authority to speak on curriculum issues provides an opportunity to understand the

perennial problems of the transformation of innovative ideas from conception to implementation.

Still talking about sense of ownership in the change process, Hammonds (2002) and Armstrong (2003) believe that most people develop understanding only when they are made to take part in a process. Armstrong says that if we really want teachers to consider and think about change and make it functional in their respective classrooms, and give their reactions to the people charged with developing and refining the change, then teachers' perspectives should be considered as bases for action.

Armstrong (2003) based his argument on three assumptions. The assumptions are that (1) teachers are competent professionals who know their content, variety of instructional and assessment techniques, and the nature of the students they teach; (2) many elements of what they are doing prior to the installation of an innovation can be used as they begin working with the change; (3) there will be a mechanism in place for their ideas to be heard by the individuals responsible for developing and revising the proposed change and that the teachers will receive feedback from these people regarding the disposition of any ideas they send forward. Again, Armstrong (2003) talked about four distinctive phases which he considered as an approach that can promote active teacher involvement in the curriculum change process.

Phase one allows teachers to make a good comparison between an existing practice or programme with the newly introduced or revised practice or programme. The focus is to enable teachers to identify specific aspects of the existing curriculum that can be maintained with little or no modification as the

new one is introduced.

Phase two addresses the various concerns of teachers which are a key to successful adaptation and implementation of the change. Here, teachers are given the opportunity to examine the details of the change in terms of content difficulty, recommend appropriate instructional strategies, and make modifications that are in line with the concerns of teachers. In phase three, teachers put to use the modifications made in phase two on a small scale trial. Based on their experience in the trial out, they decide to adopt the modification or to make additional revisions. Finally, reports on the proposed modifications are made and sent to those in charge of developing and revising the change.

At phase four, which is the final phase, members of the development and revision group spend time to consider the modifications by teachers on the proposed change and provide feedback. Provision of feedback at this point is very necessary since it provides credibility to teacher participation in the entire curriculum change process. It also motivates teachers to claim ownership of the change, thereby enhancing its adoption and subsequent implementation.

Considering the various views on CBAM, it can be concluded that the Concerns-Based Adoption Model addresses nothing but the human aspect involved in curriculum change with particular reference to its implementation. This is crucial in that the success or otherwise of any form of change in the educational system depends largely on the beliefs and attitudes of the people involved especially in its implementation. This confirms the idea of Hammonds (2002) that curriculum change depends on what teachers think and do. Again, if teachers understand the fact that change is not instant but rather something which

takes time to take root, and also there are discernable patterns in the intrigued emotional feelings individuals experience as they are involved in the change process, tensions and the pressures associated with change will reduce.

The Concerns-Based Adoption Model (CBAM) comprises three key dimensions: Stages of Concern (SoC), Levels of Use (LoU), and Innovation Configuration (IC). Each dimension represents a facet of the change process, with SoC and LoU focusing on the implementer, while IC considers the nature of the innovation itself.

Stages of Concern

Stages of Concern which forms the basis for this study, focuses on the feelings teachers have as they become involved in the implementation of a change. Snyder, Bolin and Zumwalt (1992) describe ‘concerns’ as “the individuals’ perceptions, feelings, motivations, frustrations and satisfaction as they progress through different stages in the process of implementing an innovation” (p. 407). Van den Berg and Ros (1999) conceptualized concerns as “the questions, uncertainties, and possible resistance that teachers may have in response to new situations and/or changing demands” (p. 880). Havelock (1995) argued that concerns are the forces that will energize a change process.

In the opinion of Cheung (2002), teacher concern is a multidimensional and developmental construct. It comprises of seven distinct stages, namely awareness, informational, personal, management, consequence, collaboration and refocusing. The stages are further categorized into Self Concerns (awareness, informational, personal); Task-Oriented Concerns (management); and Impact

concerns (consequence, collaboration, refocusing).

According to Cheung, teachers progress from self-oriented concerns to task-oriented through to impact-oriented concerns. Teachers express much intense concerns at the initial stages of implementing a change. As they become experienced with the change, task concern becomes paramount. Finally, impact concern becomes most intense. Cheung further states that every teacher can experience several Stages of Concern about a change concurrently. However, there are degrees of intensity depending on factors such as the nature of the change, the teacher's personality, and the kind of assistance provided during the change process. These stages are assumed to exist irrespective of the nature of the change. This supports the view of Horsley and Loucks (1998) that CBAM is about the parallel of change, the natural and developmental process that each of us goes through whenever we engage in something new or different. According to Hord (1990), although each of the stages is distinct, they are not mutually exclusive.

Hall and George (1978) assert that "the concept of stages of concern and its assessment are proving to be valuable tools for researchers, evaluators, staff developers, and change facilitators who need to know about individuals as they are involved in change" (p. 2). Hord, Rutherford, Huling-Austin and Hall (1987) also says stages of concern is a major tool that can identify the different kinds of concerns teachers have and enable change facilitators to decide the kind of assistance to be provided to facilitate the implementation of change. Details of the theoretical explanation of the Stages of Concern Model by Marsh and Willis (2003) are provided below.

Stage 0 – Awareness: Little concern about or involvement with the innovation is indicated.

Stage 1 – Informational: A general awareness of the innovation and interest in learning more detail about it are indicated. The person seems unworried about him or herself in relation to the innovations. She or he is interested in substantive aspects of the innovation in a selfless manner, such as general characteristics, effects, and requirements for.

Stage 2 – Personal: Individual is uncertain about the demands of the innovation, his or her adequacy to meet those demands, and his or her role in the innovation. This includes analysis of his or her role in relation to the reward structure of the organization, decision making, and consideration of potential conflicts within the existing structures or personal commitments. Financial or status implications of the programme for self and colleagues may also be reflected.

Stage 3 – Management: The attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling and time are utmost.

Stage 4 – Consequence: Attention focuses on impact of the innovation on students within the teacher's sphere of influence. The focus is on relevance of the innovation for students; evaluation of students' outcomes, including performance and competencies; and changes needed to increase students outcomes.

Stage 5 – Collaboration: The focus is on coordination and cooperation with others

regarding use of the innovation.

Stage 6 – Refocusing: The focus is on an exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative to proposed or existing form of the innovation.

Hall, Wallace and Dossett, cited in Hall. (1987) also summarise the Stage of Concerns as follows:

Stage 0 – Awareness: Teachers have little knowledge of the innovation and have no interest in taking any action.

Stage 1 – Informational: Teachers express concerns regarding the nature of the innovation and the requirements for its implementation. At this stage, teachers usually show their willingness to learn more about specific innovation or reform.

Stage 2 - Personal: Teachers focus on the impact the innovation will have on them. At this point, they exhibit concerns about how the use of the innovation will affect them on a personal level. They may be concern about their own time limitations and the change they will be expected to make.

Stage 3 - Management: Concerns begin to concentrate on methods for managing the innovation within the classroom. Teachers now express concern over the organization and details of implementation. Time requirements are among the prime management factors, which creates scepticism on the part of teachers in relation to adoption of innovations.

Stage 4 - Consequence: Teacher concerns now centre upon effects on students learning. If positive effects are observed teachers, teachers are likely to continue to work for the implementation.

Stage 5 - Collaboration: Teachers are interested in relating what they are doing to what their colleagues are doing.

Stage 6-Refocusing: Teachers evaluate the innovation and make suggestions for continued improvement or consider alternative ideas that would work even better.

Figure 1 provides an outline of the Stages of Concerns Model.

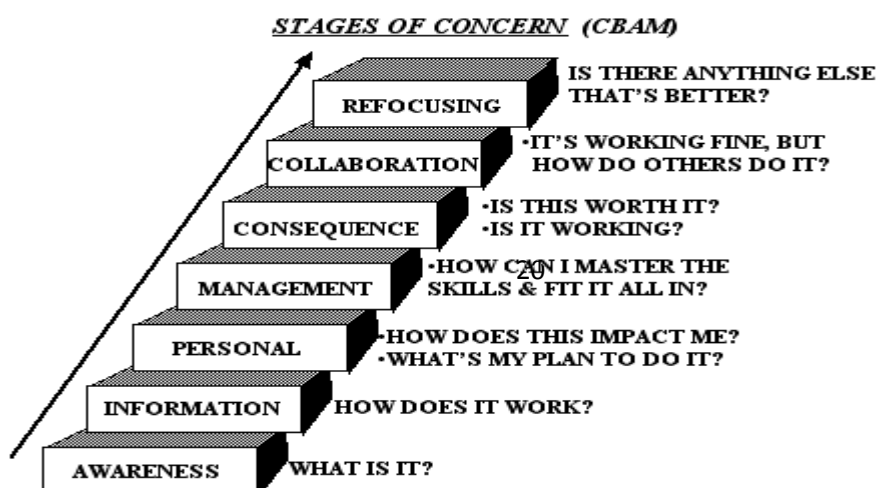


Figure 1: Stages of Concern Model

Figure 1 is a reflection of the sort of questions people who go through the implementation process ask to express their concerns about an innovation.

Cheung and NG (2000) produced a modified version of the 7-stage model developed by Hall, Wallace and Dossett in 1973. They developed a 5-stage model which, they argued, provide a best fit for teacher concerns than the original 7-stage model. The five stages are indifference, informational/personal, management, consequence/collaboration and refocusing. Table 1 shows details of the Chinese version of the Stages of Concern Model.

Table 1: Stages of Concern- The Chinese Version

Stages	Definition
Indifference	Little concern about or interest in the innovation is indicated.

Informational/Personal	The person is concerned about some general aspects of the innovation such as unique features and benefits of the innovation, requirements for use and personal commitment.
Management	The focus is on efficiency and time demands of implementing the innovation. The person is worried about issues such as the best use of information and resources, scheduling, time and organization.
Consequence/Collaboration	The person is concerned with impact of the innovation on students as well as coordination and cooperation with others regarding use of the innovation.
Refocusing	The focus is on possibility of improving the innovation by changing some of its features or by replacing it with an alternative.

Source: Derek Cheung and Davis NG (2000:110)

A critical look at the two versions of the Stages of Concern model shows that there is no significant difference between them. Cheung and NG only combined informational with personal stages and consequence with collaboration, thereby reducing the stages from seven to five. It therefore implies that any result from a study using the original version of SoC will not be different from the result accrued from a study which uses the modified version of the Stages of Concerns Model.

Levels of Use

Levels of Use (LoU) describe the behavioural dimension of CBAM. Its focus is to track what teachers actually do when implementing a change. The Levels of Use is an eight-level developmental hierarchy of behaviours implementers exhibit over time in relation to the use of change. The eight levels range from non-use, orientation towards and preparation to use the innovation through mechanical and routine uses, to refinement, integration and renewal where individuals evaluate the quality of the use of the innovation and seek major modifications and devise alternatives that can help increase impact of the innovation on learners.

According to Armstrong (2003), research has established that “adopters of innovations implement them in quite different ways. Some people who claim to use innovations have been found not to be using them at all” (p. 260). This idea denotes variations among use of innovations by users. Marsh and Willis (2003) are of the opinion that teachers progress through Levels of Use as they become acquainted with and knowledgeable in an innovation. Armstrong (2003), on the other hand, shared a different opinion. To him, “an issue that ties closely to Levels of Use has to do not so much with the intensity of involvement or the degree of familiarity but, rather, with the nature of what is being done in the name of the innovation” (p.260). However, the familiarity with, and expertise in a particular innovation, will determine greatly users’ involvement and use. There are three levels that define non-users of a programme and five levels which also define Level of Use among users. Details are as follows:

Level 0 Non-use: A person is taking no action with regard to the programme or

practice.

Level 1 Orientation: A person seeks information about the programme or the practice.

Level 2 Preparation: A decision has been made to adopt the new practice, and the person is actively preparing to implement it.

Level 3 Mechanical: This reflects early attempts to use new strategies, techniques and materials. It is the point in the use of something new at which a person often feels inadequate and awkward. At best, the person feels as though he or her is preparing a new recipe for the first time, constantly referring to the cook book for guidance and reassurance.

Level 4a Routine: A person has established a satisfactory pattern of behaviours.

Level 4b Refinement: People go beyond the routine by assessing the impact of their efforts and making changes to increase impact.

Level 5 Integration: People are actively coordinating with others to use the innovation.

Level 6 Renewal: People seek more effective alternatives to the established use of the innovation. (Horsley & Loucks-Horsley, 1998, p. 4).

Innovations Configuration

Innovations Configuration (IC) which is the third dimension of the Concerns-Based Adoption Model looks at the major components or characteristics of the new curriculum itself in order to assess whether its

operational use is consistent with its intended use. Marsh and Willis (2003) argue that “any new curriculum has its own distinctive characteristics such as how teaching materials are to be used and the kind of learning activities suggested for students. Some of these characteristics may be accepted by all teachers involved in the implementation, but some might not” (p. 256-7). This always brings inconsistency between configuration intended by developers and those enacted by teachers. Innovations Configuration helps to assess the extent to which implementers are *loyal* to the intended curriculum or better still how the intended curriculum matches with the enacted curriculum.

According to Hall (1987), the three dimensions of CBAM, Stages of Concern, Levels of Use, and Innovations Configurations are independent concepts. A person can be at any particular Stage of Concern, Level of Use and with any particular configuration of the innovation at any time. It is important, therefore, that the change facilitator continually probes to assess the current state of teachers in each of the dimensions. According to Hall (1987), the problem faced by the change facilitator is to determine which resources to use, when to use them and how to use them. Making such decisions requires ongoing concerns-based diagnosis. The Concerns-Based Adoption Model has been identified and verified through research for accomplishing diagnosis purposes. In the words of Hall (1985), data gathered from these exercises help in discovering and overcoming barriers to the adoption of a change and assist users to actively and effectively guide change to a successful implementation.

A lot of studies have been carried out using the Concerns-Based Adoption Model since its inception in the 1970s. According to Marsh and Willis (2003),

such studies have shown that change is influenced by the specific context in which it is implemented. The studies have as well affirmed the value of CBAM as an effective tool in promoting full implementation and in guiding staff development. Since the purpose of the present study was to track the various concerns primary school teachers have as they are involved in the implementation of the 2007 Educational Reform, it was deemed appropriate to adopt the Stages of Concerns dimensions of the Concerns-Based Adoption Model as its theoretical framework.

The Concept ‘Curriculum Change’

According to Fullan (1991), curriculum change is a generic term which is sometimes used loosely to refer to general changes and directions in the curriculum and sometimes to very specific changes in the curriculum. In his view “curriculum change is an alteration in any aspect of the curriculum” (p.276). The aspects may include the educational philosophy, values, objectives, and teaching strategies, among others.

A number of terms or concepts are found in the literatures which are related to curriculum change. These terms are often used interchangeably. They are, however, distinct in terms of their characteristics. Fullan (1991) explains four of these terms. They are *change*, *innovation*, *reform*, and *movement*. Fullan distinguishes clearly between innovation and reform. To him, innovation is often used to refer to specific curricula changes range from a single subject (e.g. a new science programme) to a more comprehensive one (e.g. an integrated approach to teaching children of certain age level).

A reform, on the other hand, refers to a particular change that occurs on a more comprehensive and fundamental scale. It encompasses restructuring of the school system, wholesale revision of the curriculum and a lot more. Reforms are often politically initiated. Alshammari (2000) identifies two kinds of reforms. They are first-order and second-order reforms. The first-order reform involves improving the existing structures in the school while the second-order reform involves rearranging, restructuring and altering the existing structures. According to him, the history of school reforms has it that the first-order reforms have been succeeded because they aimed at improving the quality and efficiency of what is already in existence. The second-order has always been a failure because they are difficult to adopt and implement.

A critical analysis of Fullan's idea on curriculum change shows that curriculum changes can either be a reform or an innovation. Again since a reform is a complete overhaul of the entire educational system, it can be concluded that an innovation is a subset of a reform. Finally, movement denotes period of change characterised by common themes. Curriculum change affects people who are partly or totally involved in the curriculum business as well. Smith, Stanley and Shores (1957) acknowledged this when they said:

Until recently it was thought that curriculum change consisted largely of developing and installing new courses of study. It is now recognized that curriculum change is a process involving the personalities of parents, students, and teachers, the structure of the school system, and the patterns of personal and group relations among members of the school and community. Curriculum change

is a social change (p. 438).

In talking about the social nature of curriculum change, Smith et al. (1957) again posit that every modern school and community has a number of working groups. Between these working groups exists patterns of relationships that express social positions, expectations and sentiments. Teachers, for instance, have become accustomed to such kind of relationships from which their status is defined and maintained. For this reason, any form of change anticipated to alter their status will meet their displeasure and resistance. Similarly, Pratt (1980) has said that “the basic reward system of school teachers involves their relationships with learners in the classroom” (p. 428). From this perspective teachers are likely to reject any change that they believe will strain rather than enrich those relationships. Therefore, since the curriculum is woven into such a human relationship, any attempt to change the curriculum must consider the social fabric too.

Factors affecting change

Talking about barriers to change, Pratt (1980) argued that if people appeared to resist change, it must be because the natural human drive for newness and excitement was being counteracted by opposing forces. He concluded that such forces acted on both personality and institutional dimensions. To Pratt, the major personality opposing forces include:

the tendency of any organism to return to equilibrium after a disturbance; to prefer the familiar and habitual; to stick with coping strategies previously found successful; to discount ideas

that conflict with established attitudes; to emulate the values and behaviour of past and present authority figures; to distrust one's own power to bring about change; to identify change with seduction and moral decay; to believe that imperfection is all we deserve; and to yearn for good old days (Pratt, 1980, p. 426).

Fullan (2007) makes the important point that changes in the curricula such as change in teaching approach or style using new materials presents greater difficulty, particularly if new skills must be acquired and new ways of conducting instructional activities established. Taba (1962) said something which though, decades ago, still has relevance as far as curriculum change is concerned. In her view, change in curriculum should involve change in people's attitudes toward what is significant and perceptions about roles, purposes and motivation. To effect change means to destroy dependencies on previous habits and techniques of work.

In relation to institutional factors which affect change, Pratt (1980) found five of them. The first is absence of motivation for change, and the other four are all related to the issue of motivation: vulnerability, inadequate resources, lack of clarity about the innovation, and scepticism concerning the value of the change.

Talking about absence of motivation as a barrier to change, Pratt (1980) argued that people will not implement a change unless there are appropriate rewards for doing so. According to Pratt, teachers get highly motivated in a change they are made part of. However, Cheung (2002) has pointed out that the context and process of mandated change often marginalizes teachers. Failing to deal with the concerns of marginalized teachers is a key cause of repeated failure

of educational change.

The first thing Pratt considered as a barrier to change under absence of motivation is the *relative advantage* that an innovation has over an existing one. Pratt (1980) cautioned change agents to be sensitive to the fact that though the existing curriculum may have some loopholes, it may still be meeting some important needs of learners. Relative advantage becomes subjective and situational depending on the priorities of both individual teachers and individual schools. This presupposes a kind of bias in the implementation of a particular change. This is because individual schools and teachers will not in anyway implement a change which from their own perspectives presents nothing *unique* from the existing one. It is, however, worth noting that until a particular change is implemented, it is difficult for one to tell its relative advantage offhand. Every change is supposed to serve a need.

In dealing with the issue of factors that can promote effective curriculum change, Pratt (1980) says that teachers who are innovative by nature find their ability to successfully introduce a curriculum a great reward in itself. Others are also motivated by the mere evidence of student success. The target of every curriculum is the learner; that is why the teacher gets motivated when implementing a change which has relevance on the learner's needs. The nature of the change is a great motivation to the teacher.

Teacher vulnerability is the second barrier to change discussed by Pratt (1980). According to him, teachers are vulnerable to both the school and the community at large. Community reaction to change is of a major concern to many teachers and will often lead them to resist change to which public reaction is

unpredictable. Public approval of curriculum change suffices here. The public defines and approves the teacher's role and responsibilities in the educational set up. As such any form of change which teachers feel will meet public disapproval and discredit their credibility in the face of the public will be ignored. Again, teachers are vulnerable in terms of their roles and responsibilities. The more rigidly such roles are defined, as in hierarchical organizations, the greater the resistance will be to a proposed change. Doing away with teacher vulnerability will also mean avoidance of rigid prescription of the teacher's roles and responsibilities by curriculum leaders. Fidelity with slight modification is more recommendable. Teachers should be given the room at least to bring little changes to suit their individual schools and classrooms. Again, because change is a process and not an event as said by many authors, teachers need ample time for gradual changeover from the old to the new curricula.

Another barrier to change discussed by Pratt (1980) is inadequate resources. The four main kinds of resources Pratt identified are time, material resources, administrative support and expertise. Both Pratt (1980) and Posner (1995) appreciate that time is the most precious resource of the teacher. In the words of Pratt (1980):

Each new curriculum requires extra time for teachers to prepare lessons and materials, to become familiar with the concepts and skills to be taught, to prepare or administer new tests, and to gather reference sources. In addition, many new curricula impose extra time-consuming responsibilities on the teacher: for coordination of team teaching, for individualization or remediation, for greater

amount of evaluation and marking, or for in- service training (p. 430).

Because teachers have a lot to cover within a stipulated time frame, they are constantly making compromises based on priorities as discussed under absence of motivation, that a teacher will not implement a change if it is not in support of his/her priorities. It has also been said under major personality factors that influence change, that individuals will always want to do the same old thing just to avoid the pressure that comes along with change. This therefore implies that if resources needed to effect change are not available, the tradition goes on.

Whether a change will become a reality or not depends so much on the provision of material resources as recommended by developers. Material resources, according to Pratt (1980), present few problems provided the curriculum designer provides a detailed record of what the change requires and budget accordingly, and the willingness on the part of establishments to provide the necessary funds, facilities, equipment and materials. Pratt (1980) and Posner (1995) openly state that in the real world these requirements are not met. In such cases the limited resources determine the *fate* of the change. However, change cannot continue to depend on existing facilities. The reason is that the existing material resources though may be meeting the demands of a particular change half-way through, may not satisfy all the necessary requirements thereby hindering successful implementation.

Lack of administrative support is yet another aspect of inadequate resources discussed by Pratt (1980). According to him, the inadequacy of such a support hampers a successful adoption and subsequent implementation of a

change. He stated emphatically that administrators and designers need to be sensitive about the fact that when teachers adopt an innovation, the results may be different from those intended. The first time through, the new curriculum may be less successful than the one it replaced. Yet teachers need to be encouraged rather than criticized. Anything outside this will make them panic and abandoned the programme at its adoption stage. The provision of both moral and political support is crucial to any successful change. Pratt (1980) lists a number of these supports as identified by a conference of Canadian curriculum innovators in 1977. Principals should (1) provide resources and time to facilitate and encourage innovation; (2) challenge teachers to review and revise their curricula; (3) monitor curriculum and instruction; (4) provide personal examples of effective curriculum design and teaching; (5) establish a climate of trust and security to reduce the threat implicit in innovation; and (6) encourage teacher participation in setting goals for the school and evaluating their attainment. The attitude of school heads to change plays a significant in ensuring successful implementation.

Last but not least under inadequate resources, is teacher expertise and knowledge. Change implies doing a new thing in a different way. It means teachers cannot depend so much on the old knowledge and skills they already have. New knowledge and skills in line with whatever change must be acquired by teachers. In the opinion of Pratt (1980), regardless of the material and moral support provided, teachers will still need to be equipped with expert knowledge to enable them handle implementation of change effectively. Without it, teachers will embrace the change alright but effecting it will be another thing.

Lack of clarity about the aspects or the characteristics of the change on the

part of the implementers is a great barrier to curriculum change (Pratt, 1980; Fullan, 2007). In Pratt's opinion, lack of explicitness on such issues will frustrate the implementation of an innovation and may suggest an attempt to mislead implementers. One basic thing Fullan (2007) deliberated on in his book, "The New Meaning of Educational Change" is what he termed "shared meaning". This is in connection with clarity about change. In his view the meaning of change is perceived differently by both innovators and implementers. This affects how change is implemented. The way a particular change is conceptualized by implementers is often in sharp contrast with innovators' intentions. This explains why teachers rush to adopt a change and yet continue to do the old things over and over. Research findings have shown that the consent of teachers to an innovation does not necessarily indicate their understanding of the change. It has also been found out that teachers who are supposedly implementing a new curriculum sometimes cannot even identify its main features (Fullan & Pomfret, 1977).

Oakes and associates (as cited in Fullan, 2007) conducted a study on the implementation of Carnegies Turning Points Agenda. The programme was intended to create caring, intellectually productive schools for young adolescents. The study revealed that educators rushed to adopt new structures and strategies without considering their deeper implications. Again, a study by Timperley and Parr on the national literacy initiative in New Zealand showed that the government's "theory of change" intended to generate new belief, knowledge and outcome, was totally different from the conception of the school implementing it. It can be inferred from the two studies that the meaning of curriculum change was

conceived differently by the two groups (innovators and implementers) and, therefore, implementation was not as intended.

This is what Fullan (2007) described as “different worlds of meaning” in relation to curriculum change. He was of the view that unless these two worlds of meaning that is, subjective meaning and shared meaning strike a compromise no positive results would be achieved. According to Fullan (2007) this problem of meaning comes about as a result of how change is introduced and more importantly the lack of opportunity for teachers to engage in deeper questioning and sustained learning with regards to the change. Sharing his view on shared meaning, Hammonds (2002) agreed with Fullan (2007) that change in any form involves anxiety and struggle. To relieve implementers of these problems, meaning of the change should be shared by both developers and implementers. How possible can this be since developers and implementers continue to exist as separate entities? Fullan (2007) offered an input that the key to successful change is the improvement in relationships between all involved and not simply the imposition of top-down reform. This idea becomes necessary because users have not participated in the same learning experience with designers and developers. It therefore presupposes that developers’ intentions as stipulated in the curriculum document will become clearer if developers and implementers engaged in a productive interaction regarding a particular change. Posner (1995) posits that the reason teachers often find themselves at odds with developers is that, contrary to the developers’ expectations, teachers do not necessarily share developers’ goals for lack of clarity and understanding. Curriculum change comes with lots of demands. These demands are often stated without little specification of the exact

means of accomplishing them. Rutherford reported a situation where a school attempted to implement a new commercially introduced programme in reading.

He wrote:

All the reading teachers were attempting to use the criterion programme; they were using parts of the programme but few actually were using the programme in a functional way... It is a fiction to assume that all teachers will use a criterion programme just as it is intended... The first and most difficult problem is that while criterion programmes offer teachers a carefully designed and sequenced set of components, tests, teaching materials, record keeping system, they do not tell teachers how to take all these parts and make them work effectively for a classroom of children, cited in Fullan. (2007, p.10)

Evident in this report is the idea that teachers who were supposed to implement the so-called criterion programme had a different meaning altogether from that of the developers.

Knoll is believed to have said that “One of the most common and serious mistakes ... are to presume that once an innovation has been introduced... the intended users will put the innovation into practice”, cited in Armstrong. (2003, p. 242). Pratt (1980) therefore suggested that, curriculum designers should ensure that details of all significant changes are described in a language that teachers will understand to ensure effective implementation.

Hammonds (2002) states that in recent times, emphasis on curriculum change is more on changing the culture of classrooms and schools than on

structural change. She is emphatic that the new meaning of educational change is for change agents to create opportunities that can help develop the 'capacity' of both organizations and individuals to learn. For change is all about continuous making of meaning. Therefore, such atmosphere becomes vital for people involved in change to share and sustain ideas and knowledge about change. This in effect leads to what Fullan refers to as 'democratic communities' or 'professional learning communities' in schools.

Democratic community or professional learning community simply refers to an atmosphere that allows people to seek clarification and share opinions and ideas about change to ensure successful implementation and sustainability. Such communities in Hammonds' (2002) view are worth striving for because teaching is a collective rather than individual enterprise. It can be concluded from Hammonds' view that to change a curriculum is to provide an opportunity for consistence staff development. The establishment and survival of these communities in the individual schools, requires the support and commitment of school leaders.

Common to most educational systems, with particular reference to Ghana, is the running of workshops and seminars on an innovation, for heads of institutions and their subordinates, after the introduction of the innovation in question. Talking about persistent superficiality of teacher learning, Fullan (2007) asserts " Although a good deal of money is spent on staff development, most is spent on sessions and workshops that are often intellectually superficial, disconnected from deep issues of curriculum and learning, fragmented and noncumulative" (p. 25). Consistent learning about an innovation will help reduce

teachers' concerns as they are engaged in the implementation process.

Absence of motivation, inadequate resources, lack of clarity in communication and vulnerability together contribute to teacher scepticism towards a change. Once doubt sets in, the credibility of the change comes under serious threat. Change will always fail until we find some ways of developing infrastructures and processes that engage teachers in developing new knowledge, skills, and understandings (Fullan 2007).

The Curriculum Change Process

According to Fullan (2007), most researchers now see the change process as involving three phases; namely, initiation, implementation and institutionalization.

Initiation

Fullan (2007) defines initiation as a process which leads up to and includes the decision to proceed with implementation. Initiation can take many forms ranging from a decision by a single authority to a broad-based mandate. It is assumed that sometimes specific educational changes are initiated because they are considered valuable to meet a given need better than the existing practices do. Fullan agreed that this is not always the case. To him, change can be initiated from different sources and for different reasons. The sources include the existence of quality of innovations, teacher advocacy, new policy and funds, problem solving and bureaucratic orientations, and advocacy from central administration. He stated specifically that "the matter of the need for change can be embedded in one or several of these factors, depending on whose viewpoint one takes." (p. 69)

Terms such as development, diffusion, dissemination, planning, and adoption can be used at the initial phase of the change process (Fullan, 1991).

Curriculum development consists of the decisions taken in the construction of a new or revised curriculum involving its goals, materials, instructional activities, assessment, and the like. For specific innovations these decisions might be taken by developers (the fidelity perspective) or by a combination of users and external personnel (the adaptive perspective). For more comprehensive changes, development may consist of policy formation, general directions, and frameworks within which any number of curricular innovations may occur. Diffusion and dissemination in the curriculum change process has to do with the spread of information about curricula changes. Although these two terms are used interchangeably, there is a clear-cut distinction between the two. They all focus on spreading information about an innovation to the notice of potential users. However, dissemination is an intentionally planned activity while diffusions occur naturally (Fullan 1991).

Pratt (1980) defines adoption as the point at which users (school systems, schools and teachers) express acceptance of the change. In the opinion of Fullan (1991) adoption takes the process one step closer to use. Fullan (2007) has observed that adoption is likely to reflect how effective the campaigns for and against a proposed change have been rather than to demonstrate whether or not a school actually has learned enough about a change to make an informed choice or to embark on successful implementation.

The ideas expressed by various writers on adoption gives a clear indication that some teachers and educators adopt change for several reasons. It

again indicates that adaptation of a change can occur without actual use of the adopted change. Fullan (2007) observed: “Policy and political decisions at state and district levels also often influenced schools’ adoption of external reform designs, which also caused some local educators to adopt models quickly and without careful consideration of ‘fit’” (p. 81).

Implementation

The second phase of the change process is implementation. Implementation, according to Fullan (2007), “is a process of putting into practice an idea, program, or set of activities and structures new to the people attempting and expected to change.” (p. 84). Fullan (1991) sees it as the actual use of change in practice. Fullan (2007) admits that implementation is critical for the reason that it is the means of accomplishing desired goals. Again, the effectiveness of implementation of an innovation will determine its sustainability.

According to Cobbold (1999), implementation consists of three stages namely re-invention, clarification and routinization. Re-invention which is the first stage is described as a period in implementation when users make modifications in the innovation just to make it fit the peculiar situations in their individual setups, or modifications are made in the organizational structures to accommodate the new programme or practice.

Cobbold (1999) states, “the amount of re-invention that occurs and why it occurs depends on a number of factors which have to do with the nature of the innovation itself and the people implementing it” (p. 19). He outlines the general factors that affect re-invention as follows:

1. Innovations that are relatively more complex and difficult to understand are more likely to be re-invented.
2. Re-invention occurs when the implementer lacks detailed knowledge about the new idea, due perhaps to relatively little contact between the implementer and the program developer.
3. An innovation that is a general concept or tool with many possible applications is more likely to be re-invented.
4. When an innovation is implemented in order to solve a wide range of users' problems, re-invention is more likely to occur. This is more so where there is a wide degree of differences in the individual and organizational problems and each individual and organization matches the innovation with a different problem from another.
5. Re-invention may occur when program developers encourage implementers to modify the innovation as is often the case in a decentralized educational system or under an adaptation and/or enactment to implementation (pp. 19-20).

The second stage of implementation which Cobbold (1999) identifies is the stage of clarification. At this stage “the relationship between the innovation and the institution implementing it is defined more clearly as the new idea is put into full and regular use. The meaning of the new idea then becomes clearer to the implementers” (Cobbold, 1999, p. 20). If this is done well it is assumed that fidelity to implementation will be high.

Institutionalization

The third and final stage of implementation, according to Cobbold (1999), is routinization. It is also the final phase of the change process. This is the point where the new idea becomes embedded in normal and regular activities of the school system. “At this point the new programme finally loses its distinctive quality as the separate identity of the new idea disappears. Also, problems might have been surmount, criticisms and oppositions to the new programme abated and the programme’s features internalized by the implementers” (Cobbold, 1999, p. 20).

Fullan (2007) admits that the change process is more complex and that the three phases only represent a general image of a much more detailed and snarled process. According to him, the change process also involves the scope of change and the question of who develops and initiates change; the total time perspective for change; factors operating at each stage; and what happens in the change process. This process in the end should produce an outcome as to whether or not student learning is enhanced, and whether or not experiences with change increase subsequently to deal with future changes.

Fullan (2007) again said that, the change process is not a linear process but rather one in which decision at one phase can alter decision at other stages. The phases work in a continuous interactive direction. For instance, a decision at the initial phase to use a particular change may be subsequently changed during implementation.

The idea that change is not an event and therefore needs time to root or institutionalize forms part of the change process. “More time is required for teachers to become familiar with a curriculum change, to commit to its use, to

master its nuances, and to develop patterns of use that include all critical components” (Armstrong, 2003, p. 245; Hall & Hord, 2001, p. 5) contend that “most changes in education take three to five years to be implemented at high level.” According to Fullan (2007), implementation for most changes takes two or more years and it is only then that one can consider that change had actually had the chance to be implemented.

Hall and Hord (2001), after studying curriculum-adoption processes for decades, concluded that after one year of the introduction of a new programme, its effectiveness can be assessed to ensure its rejection, continuity or modification. Contrary to this view, Fullan (2007) has pointed out that “the total time frame from initiation to institutionalization is lengthy; even moderately complex changes can take 2 to 4 years, while larger-scale efforts can take 5-10 years, with sustaining improvement still problematic” (p. 68).

Though Fullan (2007) agrees that the outcome of change can be assessed in a relatively short run, he asserts that much result should not be expected until the programme has run its full course. Deducing from the views expressed here is the idea of evaluation in the curriculum change process to monitor the direction of the change. Evaluation can be done right from day one of the introduction of a change. However, declaring the success or otherwise of a change at its early stages of implementation is unprofessional and unacceptable.

In deliberating on educational change process, Huberman and Miles (1984) and Fullan (2007) suggest that the uniqueness of the individual setting is a critical factor- what works in one situation may not work in another. Fullan (2007) has observed that some schools have a much higher proportion of change-

oriented teachers than others do. Huberman agrees that the climate or culture of a particular setting can shape the individual's state for better or for worse. This can make him or her predisposed toward considering and acting on improvements. Working conditions and contexts are the crucial in matters regarding change in any form. This is because it is within these that change is experienced, realized and mediated. It is well exemplified that teachers' working conditions and contexts effect what they can or are able to do (Fullan, 2007).

Another vital issue Fullan (2007) talked about in effective educational change is collaboration among all the people involved in the process. Fullan (2007) has found out that: reform adoption, implementation, and sustainability and school change more generally, are not processes that result from individuals or institutions acting in isolation from one another. Rather, they are the result of interrelations between and across groups in different contexts, at various points in time.

Fullan (2007) also asserts that if innovations are not succeeding, it is because the relationship existing between local school systems and external authority is more of episodic events than processes: submission of requests for money, intermittent progress reports on what is being done, etc. He suggests the establishment of what he termed processual relationship among members.

In summary, for a change to be implemented and sustained, change facilitators should accept the fact that the change process is interrelated, beginning with initiation to implementation through to institutionalization. The stages are not mutually exclusive. In the light of this, decisions with regard to implementation and institutionalization should be considered alongside initiation

decisions.

The foregoing section of this chapter has dealt with theoretical and conceptual issues related to the study. The following section takes a look at empirical studies conducted on some of those issues.

Empirical Review

This section looks at research works and findings of some researchers which have bearing on the topic under study. Specifically, it looks at teacher concerns in implementing educational change, teacher concerns and staff development and teacher concerns in relation to variables such as experience, gender, type of school and subject area.

Teacher Concerns in Implementing Educational Change

Chin-Lin Sun and Chieng- Ming Cheng (2004) conducted an exploratory study on teacher concerns about organizational change in elementary schools in Taipei and Taipei prefecture in China. The focus of the study was basically on the key roles teachers play in the implementation of educational change. A sample of six hundred and sixty-three teachers (663) from fifty (50) elementary schools was drawn for the study. The 7-stage concerns-based adoption model on curriculum implementation described in this chapter was used. Data were collected through questionnaire and analyzed using the statistical methods of frequency, cluster analysis, ANOVA, and the chi-square test. Results indicated that most teachers had high personal and collaborative concerns about organizational change.

Christou, Eliophotou and Philippou (2004) also conducted a study to

gauge teacher concerns regarding the adoption of a new mathematics curriculum in Cyprus. The study was purported to identify and examine the concerns of primary school teachers in relation to the implementation of a new mathematics curriculum and the use of new mathematics textbooks. An adaptation of the Stages of Concern Questionnaire (SoCQ) based on the Concerns-Based Adoption Model (CBAM) was administered to a representative sample of teachers. According to the findings, the concerns of teachers largely focused on the task-related issues. Teachers had concerns about organizing and scheduling of materials, and the unavailability of resources required for successful implementation of the new mathematics curriculum.

Liu and Huang (2002) investigated teachers' concerns about technology integration in the classroom. The study was carried out at a public Midwestern university in the United States. Eighty-five (85) in-service teachers in three different sections of a graduate course participated in the study. The Stages of Concerns Questionnaire (SoC) instrument designed by Hall, George and Rutherford in 1977 was used to collect data for this study. Results of the study indicated that teachers' have very high intense concerns at informational, personal and refocusing stages.

Shu Ching Yang and Yen-Fen Huang (2008) investigated the trends and patterns of teachers' concerns and teaching behaviour with respect to technology integration. Areas of concern included teaching practice; perceived barriers of technology integration in the English instruction and the technology deployed in the classroom. Participants in this study were 332 junior and senior high school English teachers from Taipei and Kaohsiung Cities. The study found that despite

pressure on schools to increase the application of technology, teachers' adoption of teaching and learning practices using new technologies was limited. Teachers' concerns were generally oriented toward personal and informational issues. Most teachers used technology to prepare their teaching activities instead of structuring higher levels of usage. This means that teachers were not using information technology in other areas of communication except in teaching. The reason was that teachers had inadequate knowledge and skills in using information technology in those areas.

In an attempt to find out teachers' acceptance of a technology education curriculum, Rogers and Mahler (1994) surveyed eighty (80) industrial technology education teachers from two states, Nebraska and Idaho in West Lafayette with sample populations of 45 and 35 respectively. The results show that nineteen (19) teachers representing 23.7% had intensive peak in one of the later four stages (management, consequence, collaboration, and refocusing) representing task and impact concerns. The researchers thus concluded that only nineteen (19) out of the eighty (80) teachers had accepted the innovation. Sixty-one (61) teachers, constituting the majority, were still at the early stages (awareness, informational, and personal). In comparing the acceptance of the innovation in the two states, they found out that only eight (17.8%) out of the forty-five (45) teachers in Nebraska had accepted the innovation whereas eleven out of the thirty-five (35) of teachers in Idaho had accepted the programme. Rogers and Mahler (1994) associated the unacceptability of the programme by teachers to (1) lack of enough information about the innovation, (2) lack of teacher involvement in the programme development and (3) inadequate in-service training. They

recommended that if technology advocates wish to continue their pursuits of replacing Traditional Industrial Art Education with Technology Education, they need to provide teacher in-service training for industrial art teachers.

A study by Hynes-Dusel (2003) on Physical Education student teachers in a teaching programme sought to (1) identify the concerns expressed by the student teachers on their programme; (2) assess the extent to which the expressed concerns of the teachers reflect Fuller's developmental theory of student teacher concerns; (3) determine whether the concerns expressed by student teachers change between the start and completion of their course; and (4) understand how the teacher preparatory programmes, the supervisor/cooperating teacher, the school setting, and other factors influence student teacher concerns. Data collected revealed that student teachers at the beginning of the semester were mostly concerned about self related items, had less concern for impact and least concern for task. By the end of their teaching experience, it was realised that student teachers' concerns had not changed as proposed by the theory of concern development. The theory of concern development has it that teachers express much intense self-concerns at the initial stages of implementing a change. As they become experienced with the change, task concern becomes paramount. Finally, impact concern becomes more intense. The results from Hynes-Dusel's study is in line with the view of Cheung (2002) who found that every teacher can experience several stages of concern about a change concurrently, though there are degrees of intensity depending on factors such as the nature of the change, the teacher's personality, and the kind of assistance provided during the change process.

Teacher Concerns and Staff Development

Wedman (1986) reported two studies about teachers' concerns toward implementing educational computing and how these identified concerns change during training. Both pre-assessment and post-assessment data collected indicate that in-service programme did not address the most intense self-oriented concerns. Teachers' peak concern was on task-oriented issues. They did not progress to a high level of impact-oriented concerns as argued by Fuller (1969) and Cheung (2002). Wedman concluded that failure of teachers' concerns to agree with Fuller's theory of concerns development was due to the nature of the innovation support. That is, the Educational Computing Innovation (CAI, word processing, interactive video) was complex and included many aspects of computer applications. He therefore suggested that educational computing should be considered as a unitary innovation introducing one aspect at a time with appropriate in-service activities, focusing on a single computer application. The results of these studies are in consonance with the view of Cheung (2002) that the varying degrees of intensity of teacher concerns depend on factors such as the nature of the change, the teacher's personality, and the kind of assistance provided during the change process. Again, Hall (1985) said, "teachers concerns can be developmental if the innovation is appropriate and the school principals and other facilitators do the right type of interventions" (p. 23). If not, then the concerns will tend to remain arousal of self or task with little or no indication of movement towards arousal of impact concerns.

Goldsmith (1997) also investigated the developmental concerns of 240

teachers who had 1-3 years staff teaching experience in a Science Reform Initiative Programme. The study found that teachers with one year staff development experience had more consequence concerns and those with 2 years and 3 years of training experience expressed collaboration concerns.

Vaughan (1997) investigated the effect of concerns-based staff development on seventy-nine (79) teachers' concerns about School Net technology and networking applications. He administered pre-training Stages of Concerns Questionnaire to identify teachers' concerns and designed a 2-week training session based on the findings. After the training section, a post-training Stages of Concerns Questionnaire was again administered to measure the change in teachers' concerns. A significant difference in teachers' concerns was detected. Teachers became more involved in and more experienced with the innovation after the training and, as a result, there was a significant shift from self concerns to an intense task and impact concerns.

Again, Wells and Anderson (1995) assessed teachers' concerns toward internet integration before and after a computer-mediated communications course at West Virginia University. The findings indicated that with computer experience teachers' internal concerns (awareness, informational, personal, management) decreased and external concerns (consequence, collaboration, and refocusing) increased consistently.

In a similar study, Brain and Davis (1995) examined the concerns of science teachers in one school. The focus was to track down the teachers' concerns about the implementation of newly introduced teaching and learning approaches. Data was collected before and after 18 months in-service programme

specifically designed to promote these approaches. The results of the study showed that teachers' initial concerns were related to how the approaches will affect their own teaching and how they could fulfil their responsibilities for completing the required syllabus (self-concerns). The post in-service concerns changed to a focus on how to maximize student involvement in science learning (task concerns) and to the consequences of their teaching (impact concerns).

Morris, Junjie, Fong-lok and Timmy (2008) also conducted a study into teacher concerns about the implementation of the virtual interactive student oriented learning environment (VISOLE). VISOLE is a constructivist pedagogical approach introduced to empower game-based learning in Hong Kong. A twenty five item questionnaire was used to measure teacher concerns which they categorised into five stages (evaluation, information, management, consequences and refocusing). Twenty eight teachers were used in the study. Before the study started, teachers were giving a two hour training concerning the pedagogy and the operation of FARMTASIA. FARMTASIA is the first online game designed as a result of the introduction of the VISOLE. After the training, teachers were given two weeks to familiarise themselves with the game. They were then given a period of one month to implement the VISOLE pedagogy. Two weeks after the implementation, the stages of concern questionnaire and interview were used to gather teachers' concern about the implementation of the VISOLE pedagogy. Results indicated that teachers' concern mean varied between 3.11(refocusing) and 3.62 (management). The highest concern recorded by teachers was management concerns and the least was refocusing concerns. A one-way ANOVA test revealed that the mean

differences among the five stages were statistically significant ($P < 0.05$)

Teacher Concerns and Teaching Experience, Gender, Subject Area and School Type

Cheung and Davis (2000) conducted a study to assess teachers' Stage of Concern about the Target- Oriented Curriculum (TOC) introduced in Hong Kong in 1995. Specifically, the study purported to find out whether (1) there are significant differences between teachers concerns about TOC in different subject areas; (2) teachers' stages of concern are related to the type of school they teach; and (3) teachers stages of concern vary with their experience in implementation of TOC. Cheung and Davis used the Chinese version of the Stages of Questionnaire developed by Cheung and NG (2000) to collect data from 1,622 primary school teachers. Results indicated that most teachers, whether they were teaching the Target- Oriented Curriculum or not, exhibited peak concerns at the third stage that focused on management of TOC. The teachers were most worried about issues related to efficiency, time demands, organization, scheduling and the best use of resources. Again, MANOVA analysis revealed that teachers' stages of concern were affected by their experience with TOC and the type of school they teach, but not with subject areas.

In an attempt to track down the concerns of primary school teachers on implementing Information Technology in Kuwait, Alshammari (2000) administered the Stages of Concern instrument to a sample of 248 teachers constituting 133 females and 115 males from 162 schools. Teachers were categorized into four groups of teaching experience (1 year, 2 years, 3 years and

4-6 years). More importantly, the study also looked out for a significant difference between stages of concerns and factors such as gender and experience. Results showed teachers that teachers with 1 year teaching experience had low personal and awareness concerns; those with 2 years teaching experience expressed primary and secondary concerns at collaboration and personal stages of concerns respectively with low awareness concerns; teachers with 3 years teaching experience expressed high concerns at collaboration stage and secondary concerns at the refocusing stage with low management concerns. The results of those with 4-6 years of teaching experience are the same as those with 3 years teaching experience. Again, the study found a significant difference between male and female at management and refocusing stages. Females had high concerns for management while males had high concerns for collaboration. However, no significant difference was found between stages of concerns and teaching experience.

Alshammari (2000) concluded that majority of the teachers had adopted the innovation and were working eagerly to ensure its successful implementation and subsequent institutionalization.

Alshammari (2000) reported a similar study conducted by Marso and Piggie in 1989. The study examined the concerns of 220 males and 950 females about teaching. Results indicated that females had higher impact concerns about pupils and more positive attitude toward teaching than their male counterparts. In the same study, Marso and Piggie found out that female teachers were more concerned about their students than male teachers.

Fritz and Miller (2003) investigated concerns expressed by student

teachers in agriculture using an internet-based tool in communication. The objectives outlined for the study were, among others, to (1) identify concerns (non-teaching and teaching) communicated by the teachers; (2) determine if the proportion of teaching concerns in each category differ in terms of gender and (3) account for other communication activities that supplement the students' teaching experience in agricultural education. The students were made to communicate with fellow students and university supervisors about non-teaching and teaching concerns. They also gave advice, responded to questions and shared lesson plans or ideas using internet-based communication tool. Student teachers had high personal concerns in relation to subject matter knowledge, discipline and administrative rules. The type of concerns expressed by student teachers majoring in agriculture was not independent of gender.

Marso and Piggie (1989) measured the concerns of three groups of student teachers (559 sophomores, 151 about to complete, and 162 having just completed their teaching programme) and three groups of in-service teachers (94 first- year in teaching, 104 third- year in teaching, and 123 fifth year in teaching). They found a significant change in the hierarchical order of the years of teaching experience. They, however, concluded that experience gained in in-service teaching has brought about a change from self- concerns to a higher task concerns with impact concerns remaining unchanged. This is in sharp contrast with Fullers theory of concern development theory that teacher concerns move from to task concern through to intense impact concerns.

Alshammari (2000) reported a study conducted by Marso and Piggie in (1986) to examine the relationships between the concerns and attitudes of 581

student teachers during their teaching preparatory programme at Bowling Green State University, and some selected students' characteristic such as grade level, gender, teaching field, level of father's education and time of decision to become a teacher. The study revealed that

1. Student teachers planning to teach in the secondary grades have less positive attitudes and less concern about teaching than those in the elementary grades.
2. Female teachers had high impact concerns and more positive attitudes than their male counterparts.
3. Elementary teachers had the most positive attitudes towards teaching and secondary teachers reported the lowest teaching concerns.
4. Students whose fathers had less education were more anxious about teaching.
5. Students who had decided very early to become teachers had more positive attitudes to teaching, low anxiety and high impact concerns.

Lau and Shiu (2008) conducted on assessing teachers' concerns on the use of a pair work on a large-scale oral assessment in Hon Kong. The study involved a sample of 375 teachers' primary school teachers with four groups of teaching experiences (1-5 years, 6-10 years, 11-15 years and 16 year and above). The study revealed that 68 respondents had taught for less than 6 years, 131 had taught between 6 and 10 years, 94 respondents had for 11 and 15 years and 82 had taught for at least 16 years. The ANOVA results showed that teachers teaching experience had a significant influence at the refocusing stage. Teachers who had 6-10 years of teaching experience were more concerned about

refocusing the innovation. ($F=4.672$, $p<0.05$) than their colleagues. Again, teachers who had most intense concerns at the refocusing stage were young and had less teaching experience.

Lau and Shiu (2008) therefore recommended that young teachers with less teaching experience can be confident to adopt an innovation and enhance its implementation to attain a maximum success. This can be success through monitoring and training of these young teachers with low teaching experience by much experienced teachers.

Hamilton and Middleton (2003) conducted an investigation into the implementation of technology education in one high school in Queensland. It was an evaluative case study purported to look out for factors which enhance or hinder the implementation of technology education in a one secondary school which is considered to have had a reasonable measure of success in implementing technology education programmes. Data were collected from three main sources. They are documentary evidence, semi structured interview and observation of the technology education activities in the school.

The results of the study revealed that the experience of the site of the implementation of technology education was similar to that of other schools and even in schools in other countries. Factors found to enhance the implementation of the technology education includes:

1. appropriate facilities and equipment.
2. access to and participation in quality in-service training.
3. support from the schools' administration.
4. involving teachers in the development of the curriculum

Strong leadership was identified as a key factor for continued success and improvement of technology education in the school. However, it was realised that though the teachers' passion was a key to the introduction of technology education, it was not enough to enhance its success.

Roxie (2005), investigated into teacher concerns towards the implementation of the phase three software programme - CLASSROOM xp, InteGrade Pro and Blackboard 5.5. The study also considered differences in teacher concerns in relation to factors such as age, gender, teaching experience and departments. The stages of concerns questionnaire was used to collect data from hundred high school teachers. The group profile analysis revealed that teachers had three high concerns related to awareness, personal and management. Teachers with least amount of teaching experience had awareness and informational concerns while teachers who are most experience had awareness and management concerns. All departments had high awareness concerns except the Foreign Language department which had management concerns.

Analysis of peak concerns of teachers indicated that teachers had intense concerns about the innovations and wanted more descriptive information about each of the innovations. ANOVA test revealed no significant differences among age, gender, teacher experience and department. Roxie (2005) therefore concluded that identifying and understanding teachers concerns are more critical in developing interventions than variable such as age, gender, teaching experience, etc. He further recommended the following: a visit by district heads and administrators to the classrooms to discover what actually happens with technology and the teacher and extension of communication

Summary

Literature on curriculum change indicates that change in educational system involves change in feelings, attitudes, perceptions and concerns of change users. There are interrelated factors which determine how change as intended can happen in reality. These factors include clear and effective communication between developers and users as well as the society; provision of resources and support; regular capacity building for teachers; and teacher motivation. For change to be successfully implemented and sustained, change facilitators should accept that the change process is a series of interrelated activities, beginning with initiation decisions to implementation through to institutionalization. It therefore implies that decisions with regard to implementation should be considered alongside initiation decisions. Again, teachers' concerns should be monitored and addressed. Change is also about consideration of the ethos of individual schools and how they affect the teacher. Teacher interaction, both inter and intra, is of much relevance to successful change. This is because change is about sharing of ideas and knowledge to bring out meaning.

The empirical studies reviewed provide a good platform for the current study, which investigates primary school teachers' concerns about implementing the 2007 educational reform in Ghana.

Finally, the review of related literature leads to the following assumptions which underpin the current study:

1. Female teachers may be overloaded with other household activities and may not have time for the reform. Hence they may have high concerns at the

early stages as compared with their male counterparts.

2. Female teachers may develop high impact concerns as they get grounded in the reform. The nature of females may compel them to think more about how the reform will affect the lives of pupils.
3. Male teachers will have high refocusing concerns because of their ability to take risk unlike their female counterparts who are quick to avoid risk.
4. Private school teachers will have fewer concerns about the reform than public primary school teachers. Their lack of professionalism and the desire to maintain their job will compel private school teachers to gather bits of information that will help them understand the reform.
5. Close supervision, provision of resources and support systems existing in private primary schools may contribute to low teacher concerns at the management level than their fellows in public primary schools.

These assumptions, derived from the literature review, were used to formulate the research questions and hypotheses for the study.

CHAPTER THREE

METHODOLOGY

In this chapter, the processes and procedures followed in conducting the study are spelt out and discussed. Specifically, the chapter describes the research design chosen for the study, population for the study, sample and sampling procedure, instrumentation and data analysis.

Research Design

The research design was a descriptive survey. It is a non-experimental research, meaning it does not involve manipulation of variables. Descriptive studies are designed to obtain information concerning the current status of a phenomenon. They are directed toward determining the nature of a situation as it exists at the time of the study (Ary, Jacobs & Razavieh, 1990). The descriptive survey was deemed an appropriate design for the study because it aimed at collecting data to describe the current status of teacher concerns about the 2007 educational reform.

According to Babbie (1998), there are three difficulties involved in using the descriptive approach for research. These are difficulty in ensuring that items on the questionnaire or interview guide are very clear; the difficulty of getting respondents to respond to the items in the right manner; and the difficulty in getting the questionnaires completed in time. To circumvent these difficulties, reliability and validity of the adopted instrument was re-established by pilot testing the instrument. To ensure the validity of the instrument, words such as 'innovations' and 'faculties' were replaced with 'reform' and 'schools' to make the items clearer and more understandable for respondents. Again, all teachers were given one week to complete the instrument. The same instructions on how to respond to the items were given to all respondents. Also there were follow-ups to ensure that respondents respond to the items on time.

Population

The study was conducted in the Cape Coast Metropolis, capital of the Central Region of Ghana. The target population consisted of all teachers in public

and private primary schools in the metropolis. In all, there were one hundred and three (103) primary schools in the metropolis, made up of seventy-three (73) public schools and thirty (30) private schools. The total population of teachers in the one hundred and three (103) schools was six hundred and seventy-eight (678), constituted four hundred and thirty-eight (438) public primary school teachers and two hundred and forty (240) private primary school teachers. Out of this total population three hundred and sixty were selected for the study.

Sample and Sampling Procedure

In all, 60 schools were selected for the study, 30 from each category-public and private. The schools were categorized into public and private. Because the number of private primary schools in the metropolis was small (30), the study made use of all of them. Systematic random sampling procedure was used to select thirty schools from a list of 73 public primary schools obtained from the Metropolitan Education Office. The researcher made the selection from the list by picking each other school starting from the first.

Each public primary school selected had six teachers, all of whom were used for the study. In the private schools, there were as many as ten teachers in each school. Six teachers were conveniently selected from each school. Convenient selection was done in the private primary schools because each school had more than six teachers; therefore any six who were readily available were picked for the study. This gave a sample size of three hundred and sixty (360) comprising one hundred and eighty (180) each for both types of school.

However, in the process of data collection, two private schools withdrew,

with the explanation that their teachers were busy with academic work and therefore, had no time for such research activities. One private school was found not existing as listed among the list of private schools by the Metropolitan Education Office. These reduced the number of private primary schools to 27 giving a total of 57 participating schools as against the intended 60 schools stated earlier. This invariably reduced the sample size of private primary school teachers to one hundred and sixty-two (162) as against one hundred and eighty (180). Again some teachers took the questionnaires but did not attend to them. Therefore teachers who actually took part in the study were three hundred and sixteen (316) constituting one hundred and forty-five (145) private school teachers and one hundred and seventy-one (171) public primary school. Table 2 shows the distribution of sampled teachers per category of school and gender.

Table 2: Number of participating schools, teachers and their gender

Type of school	No. Of school	Male	Female	No. of teachers
Public	30	54	117	171
Private	27	99	46	145
Total	57	153	163	316

Another characteristic of respondents the researcher considered was their professional ranks, based on the professional ranking of the Ghana Education Service from the highest to the lowest. Table 3 presents this information. A greater majority of respondents were found at the bottom of the ladder. About 50% of the respondents were ranked 'teachers' which forms the least on the

file. In the Ghana Education Service one needs a minimum of 1 year to progress from teacher to Superintendent II. Unfortunately this does not apply to private schools. In the private schools all who are employed there are classified as teachers irrespective of the number of years one has spent in teaching. It therefore implied that private school teachers do not have professional ranks. The few, who have it, are likely to be those who were once with the public schools. This may account for the greater majority of respondents ranked teachers particularly under private schools.

Table 3: Professional Ranks

	Freq.(Public)	%	Freq.(Private)	%
Director	1	.6	0	.0
Deputy director	1	.6	0	.0
Assistant director I	1	.6	3	2.1
Assistant director II	3	1.8	2	1.4
Principal Supt.	39	22.8	1	.7
Senior Supt. I	21	12.3	2	1.4
Senior Supt. II	42	24.6	2	1.4
Supt. I	16	9.6	0	.0

Supt. II	25	14.6	1	.7
Teacher	22	12.9	134	92.4
Total	171	100	145	100

A true reflection of this can be found in Table 4 showing five categories of respondents' teaching experience. One hundred and fifty-two (152) constituting the larger percentage of the respondents were only five years or less in the teaching service. This means that they were experiencing a reform for the first time. This was because the first educational reform Ghana has experienced since the last three decades was in 1987.

Table 4: Teaching Experience

	Freq.(Public)	Percentage	Freq.(Private)	Percentage
1-5years	62	36.3	90	62.1
6-10years	50	29.2	24	16.6
11-15years	31	18.1	8	5.5
16-20years	9	5.3	6	4.1
21-25+	19	11.1	17	11.7
Total	171	100	145	100

Instrumentation

To obtain relevant data to answer the research question and test the hypothesis, the English version of Hall, George and Rutherford 35-item Concerns-Based Adoption questionnaire designed and recommended for Concerns-Based Adoption Model (CBAM) of curriculum implementation, was adopted and modified to suit the Ghanaian context. The modification became necessary because the instrument was developed in different settings for different categories of respondents. The Concerns-Based Adoption Model was developed purposely for the collection of data to describe the various concerns implementers had as they go through the implementation process. These concerns, according to Hall, George and Rutherford, range from self to task through to impact. The questionnaire emerged from Halls research which hypothesized that teacher concerns develop through seven stages as they accept an innovation (Alshammari 2000).

Since the purpose of the study was to track teacher concerns on the 2007 Educational Reform, the above mentioned questionnaire was deemed appropriate. Teachers were asked to indicate the intensity of their concerns about the 2007 Educational Reform by checking one of 4 scales:

- 0 - irrelevant
- 1 - Not true of me now
- 2 - Somewhat true of me now
- 3 - Very true of me now

The researcher chose to use a 4 likert scale from 0-3 instead of the 8 likert scale from 0-7 as originally designed. This was because the items were

developed from typical responses of schools and college teachers whose experience with innovations ranged from no knowledge at all about various innovations to many years of using them. As a result many of the items may appear to be of little or no relevance to respondents at this time. Again, words like ‘innovation’ and ‘faculty’ in the original questionnaire were replaced with ‘reform’ and ‘school’ respectively.

Each stage of concern is represented by five items. However, the researcher deemed it appropriate not to group the items until after data had been collected. The reason for not classifying the items in the SoC questionnaire under the stages of concern before its administration was to avoid tempting the respondents from not giving the most honest responses. There was the possibility that most respondents would want to select responses that would indicate that they were operating at the highest level of concern which in fact may not be the case. Grouping the items may give them a clue. This explains the reason for mixing up the items in the questionnaire. The grouping was done at the completion of data collection to make the analysis easier.

Again, five additional items were added to the stages of concern items. These consisted of four close-ended items related to respondents’ demographic data and one open-ended item. The purpose for the close-ended items was to enable the researcher to give detailed characteristics of respondents and to serve as variables with which to compare teacher expressed concerns. The open-ended item was meant to find out other concerns respondents might have about the reform but which were not catered for in the stages of concern instrument. The instrument is presented in Appendix A.

Alshammari (2000) reported the validity and reliability of the 35-item Stages of Concern instrument as established by Hall et al. According to Alshammari, a week test-retest study conducted by, established stage score correlations ranging from 0.65 to 0.85 with four of the seven correlations above 0.80. Estimates of internal consistency (alpha coefficient) ranged from .64 to .83, with six out of seven coefficients above .70. Series of validity studies (factor analysis, known group differences, predictive, etc. among these were conducted), all of which provided increased confidence that the SoC Questionnaire measure the hypothesized stages of concerns.

Pilot Testing

Because the Stages of Concern instrument was to be used in a different setting its reliability and validity had to be re-established. To ensure the validity of the instrument, words such as ‘innovations’ and ‘faculties’ were replaced with ‘reform’ and ‘schools’ to make the items clearer and more understandable for respondents. Again, all teachers were given one week to complete the instrument, and the same instructions on how to respond to the items were given to all respondents.

The instrument was pilot tested in ten (10) selected primary schools in the Nkawkaw district of Kwahu North. The pilot test involved 6 public primary and 4 private primary schools. Six teachers were drawn from each school, thus making a total of 60 respondents. The researcher was able to retrieve fifty-seven out of the sixty questionnaires sent out. The test of reliability was conducted for groups of items that made up each stage. In all, the entire set of reliability coefficients

obtained was within a range of .75 and .85. However, an overall reliability test yielded a score of .83. According to Fraenkel & Wallen, 2000), a reliability coefficient of .78 is acceptable for most instruments. Based on this the researcher accepted the instrument as reliable and appropriate for the study and continued with the administration.

Administration of instrument

A letter of introduction was collected from the Department of Arts and Social Sciences Education at the University of Cape Coast to the various schools where the study was carried out. Also, included in the questionnaire was a cover letter explaining the purpose of the study to respondents and again assuring them of confidentiality of their responses. The researcher moved from school to school to administer the questionnaires. Though teachers were given one week to complete the questionnaires, the heads and the assistant heads mobilized the teachers for briefing and for instant filling and returning of the instruments. Some schools were, on the other hand, visited four to five times before getting the questionnaires. Some teachers were found to have misplaced their questionnaires. The number of questionnaires sent out and those returned are specified in Table 5

Table 5: Total of questionnaires sent out and the return rate

	Total	Return	Percentage
Public	180	171	95%
Private	162	145	90%

Again, it was detected that one hundred and forty-three (143) (45%) respondents out of the three hundred and sixteen (316) respondents did not answer the open-ended item. Few teachers, who were asked for their reasons for not responding to that item, openly stated they participate in such exercises almost every year but nothing as far as their job is concerned, has positively changed. In addition, forty-one (41) 13% provided uncompleted statements. Some of the statements were also found to be mere complements and not concerns as the item demanded. Examples of these statements are “the reform is good and should not be changed.” In the end hundred and thirty-two questionnaires were completely responded to.

Data Analysis

Both inferential and descriptive statistics were employed in the data analysis. Descriptive statistics describe the data just as it is without making any inferences. According to McMillan (1996), descriptive statistics change a set of values into indices that summarizes characteristics of a sample. Common among them include frequency of scores, percentages, mean, and standard deviation. Inferential statistics use a small sample of a population in making realistic guesses concerning a large but unknown population and enable us to test a stated hypothesis concerning what is true for that large population but not proved.

To address the research questions formulated, the 35 item questionnaire was coded to reflect the seven (7) stages of concerns. Group profile analysis was done to categorize the various items into the seven stages of teacher concerns. After, descriptive statistics were used to bring out the percentile means of the

total sample irrespective of type of school or gender and test the hypothesis. The Statistical Package for Social Sciences (SPSS) was used in this exercise. Again, teachers first and second highest concerns as well as their least concerns were considered

To answer research question 1(What concerns do primary school teachers have about the 2007 educational reform?), percentile means for the total sample was obtained. This was used to show the relative intensity of primary school teachers' concerns ranging from the first highest, the second highest and the low concerns. After, a line graph was used to bring out a graphical picture of teachers' concerns profile.

To find out whether there were differences in the concerns of public primary school teachers and that of private primary school teachers, (Hypothesis 1) percentile means for both types of schools were extracted. Then two lines each representing each type of school were drawn on the same graph to bring out a clearer picture of the concerns profile of teachers for both type of schools. Again, ANOVA was used to test whether there is a significant difference between the concerns of teachers in both types of school.

To find out whether there was any relationship between primary school teachers concerns and their gender (Hypothesis 2), percentile means or group profile for male and female teachers were obtained. On the same graph sheet two different line graphs were drawn. Male and female profiles were shown separately to give a pictorial description of the differences in their concerns. ANOVA was used to test whether there was a relationship between teachers concerns and their gender. The researcher used one-way analysis of variances

(ANOVA) at five percent (5%) significance level to test for any differences.

To analyze the single open-ended item, responses were coded to reflect teachers' diverse views.

CHAPTER FOUR

RESULTS AND DISCUSSION

The study investigated the concerns of primary school teachers in the Cape Coast Metropolis on the 2007 educational reform. It further sought to find any significant difference between private primary school teachers' and public primary school teachers' concerns regarding the reform. The study again tested for any significant relationship between primary school teachers' concerns and

gender. In this chapter, the researcher presents and discusses the results which emerged from the study in relation to these issues. An attempt was also made to look at why the results turned out the way it did, factors that might have affected the results, to what extent the results support the hypothesis stated, what the results mean, and how the results fit in previous research.

General Concerns of Teachers

Data analyzed in relation to the research question “What concerns do primary school teachers have about the 2007 educational reform?”, revealed that respondents had their first and second high concerns at personal and management stages respectively, and their low concerns at the informational stage. Table 6 provides details of this.

Table 6: SoC percentile means for the total study sample

Aware	Information	Personal	Management	Conseq	Collabo	Refocus
57.1	32.3	68.1	63.4	58.8	54.4	54.4

The results mean that teachers were concerned about their inadequacy in terms of skills and knowledge to meet the demands that come along with the reform and the effect of the reform on their roles and responsibilities as well. A look at the teachers responses to the various items on the questionnaire attest to this. For instance, a statement sought to find out primary school teachers concerns about changes in their roles and responsibilities as required by the

reform. As many as one hundred and ninety-three (193) teachers responded 'very true of me now' and eighty (80) teachers responded 'somewhat true of me now'. This means that a total of two hundred and seventy-three (273) (86%) out of the three hundred and sixteen (316) teachers used in the study express personal concerns. Another item required primary school teachers concerns regarding the amount of time and efforts required by the reform. One hundred and eighty-seven (187) teachers choose 'very true of me now' and eighty-seven (87) also choose 'somewhat true of me now'. This implies a total of two hundred and sixty-seven (267) (84%) out of the three hundred (316) sampled population expressed concern for that item on personal concerns.

Teachers also have concerns about managing the reform to achieve maximum impact. The focus here is on how best to use information and resources about the reform, and how to organize and manage the limited time available for the implementation of the reform. This is evident in their responses to an item seeking their concerns about time spent in working with non-academic problems related to the reform. One hundred and seven (107) and one hundred and two (102) teachers responded 'very true of me now' and 'somewhat true of me now' respectively. This shows that two hundred and nine (209) (66%) out of the three hundred and sixteen respondents expressed concerns for that item on management concerns. Also an item required teachers concerns about their inability to manage all the requirements of the reform. Eighty four (84) teachers responded 'very true of me now' and one hundred and two (102) teachers responded 'somewhat true of me now', giving a total of two hundred and eighty-six (186) (59%) out of three hundred and sixteen responding to this item related to management concerns.

Teachers' expression of low informational concerns means they have enough information about the 2007 educational reform. It also indicates their levels of involvement in the reform. For example, a statement enquires of primary school teachers whether they have limited knowledge about the reform. One hundred and fifty-seven (153) responded 'not true of me now' and twenty-three (23) responded 'irrelevant'. This was an indication that one hundred and seventy-six (176) (56%) out of the three hundred and sixteen (316) respondents are aware of the reform and have adequate knowledge about it as well.

A look at the relative intensity or the concern profile of the teachers' concerns indicates that though the primary school teachers have concerns about the 2007 educational reform, the concerns are not much higher. They have high concerns but do not have highest concerns. A concern is considered highest if it falls within 75% and above. A concern ranged between 50% and 75% is regarded as moderate and below 50% is low. This may perhaps be attributed to the various courses, workshops, and seminars organized for teachers in line with the introduction of the reform. This in one way or the other might have provided teachers with substantial amount of information about the reform as reflected in their low level of informational concerns. It could also be that teachers' worries and anxieties might have been heard and somehow dealt with. If this was so then teachers concerns might as well be considerably reduced. Empirical studies conducted by Wedman (1986), Vaughan (1997), Goldsmith (1997) and Wells and Anderson (1995) have proved that staff development equips teachers about a change thereby enhancing the implementation of a change.

It may also be associated with teachers' interests in working with and

sharing with others regarding the reform. However, this does not reflect so much in the results as responses as far as collaboration was concerned are not that high. Literature on recent studies has shown that successful change can be achieved through the collaborative efforts of implementers. This is because collaboration with other users reduces the worries and anxieties teachers have about change and increases adoption rate and enhances implementation (Fullan, 2007).

Again, it may also be that teachers did not take the pain to read through the items on the questionnaires well. As a result, rating was not properly done. Leedy and Ormrod (2005) say that “when people are willing participants in a questionnaire study, their responses will reflect their reading and writing skills and perhaps, their interpretation of one or more questions” (p.185).

The results agree with the view of Cheung (2000) that individual teachers can experience several stages of concern about change concurrently. However, there are differences in the degrees of intensity which are often determined by factors such as the nature of the change, the teacher’s personality, and the kind of assistance provided during the change process. Figure 2 shows a pictorial representation of the high and the low concerns profile of the total sample for the study

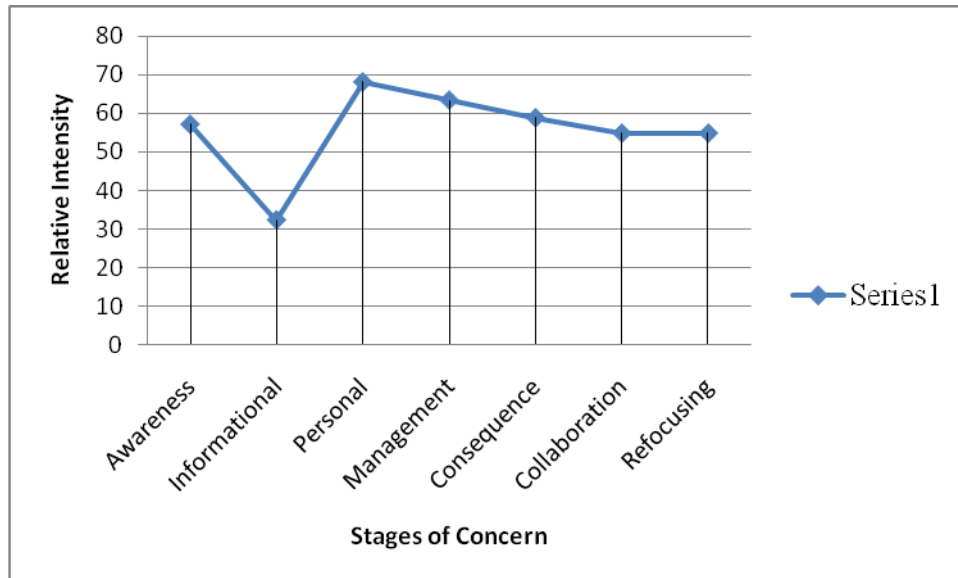


Figure 2: SoC graphical profile of total study sample

Concerns of Private and Public School Teachers

Profile of private and public primary school teachers showed that private school teachers have their first and second high concerns at collaboration and personal stages, and their low concerns at informational stage. Public school teachers, on the other hand, have their first and second intense concerns at consequence and personal stage with their low concerns at collaboration stage. Table 7 gives a reflection of this.

Table 7: SoC Percentile means for private and public school teachers

Stages	Aware	Info	Personal	Managt	Conseq	Collabo	Refocus
Private	59.4	23.3	67.3	63.0	53.0	73.0	63.0

Public	58.1	53.3	71.0	63.1	75.0	43.3	57.0
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The results are a clear indication that private school teachers have a problem of personal concerns regarding the 2007 educational reform and its implications on their roles and responsibilities. It is an expression of their inadequacy in terms of knowledge and skills in championing the reform in order to achieve success. This was reflected in their responses to some items on the questionnaire. Example an item demanded teachers concerns about change in their teaching to meet the demands of the reform. As many as one hundred and fifteen (115) (79%) private school teachers out of a total of one hundred and forty-five (145) responded in the affirmative. Eighty-one (81) teachers choose 'very true of me now' and thirty- four (34) 'somewhat true of me now'. Another item sought private school teachers' concerns about the effect of this reform on their professional status. One hundred and sixteen (116) (80%) out of one hundred and forty-five (145) teachers responded 'very true of me now' and 'somewhat true of me now'. This is an expression of high personal concerns.

This may have led to their high collaborative concerns. High collaborative concerns mean that private school teachers have developed the interest of teaming up and sharing ideas and experiences regarding the use of the reform. This was evidently expressed in their response to an item which sought their interest in providing different schools and teachers with information about the progress their schools are making in implementing this reform. One hundred and eight (108) (74%) teachers out of one hundred and forty-five (145) expressed high concerns. Sixty-four (64) responded 'very true of me now' and forty- four (44) responded

‘somewhat true of me now’. An item which solicited their interest in helping other teachers to learn how to implement this reform, seventy-one (71) teachers responded ‘very true of me now’ and thirty-nine (39) responded ‘somewhat true of me now’. This constituted one hundred and ten (110) (76%) out of the total population of one hundred and forty-five (145). See details of these responses in appendix C.

Private primary school teachers’ expression of low informational concerns means they have already acquired enough information about the reform. This is also an expression of their involvement in the reform. This may be as a result of their collaborative efforts or their attempt to gather pieces of information about the reform and learn on their own. For instance, an item on the questionnaire found teacher concerns about coordinating their efforts with others in order to attain maximum benefit from this reform yielded a high positive result concerning their collaborative efforts. Ninety-five (95) teachers choose ‘very true of me now’ and thirty-five (35) choose ‘somewhat true of me now’. This added up to one hundred and thirty (130) (90%) out of the population of one hundred and forty-five (145) teachers. See details in appendix C

The results also mean that public primary school teachers were much particular about the impact of the reform on pupils. This is clearly seen in their responses to an item which sought their interest in knowing the effects of this reform on pupils. Out of one hundred and seventy-one (171) teachers, one hundred and fifty-three (153) (89%) teachers responded ‘very true of me now’ and ‘somewhat true of me now’. In the same way, teachers concerns about evaluating the effects of the reform on pupils were sought. Seventy-five (75)

teachers responded 'very true of me now' and sixty-six (66) teachers responded 'somewhat true of me now'. This constitutes total of one hundred and forty-one (141) (82%) out of one hundred and seventy-one (171) respondents. These are true reflections of high impact or consequence concerns.

Such an ambition of public primary school teachers to achieve maximum impact regarding the 2007 educational reform will never materialize if teachers lack expert knowledge and skills in handling the various aspects of the reform. This is in line with the view of Pratt (1980) that irrespective of the material and the moral support provided for a particular change, teachers still need to be equipped with expertise knowledge to ensure smooth implementation of a change.

This is evident in public primary school teachers' expression of high personal concerns, an implication of their inadequacy in terms of knowledge and skills as required by the reform. An analysis of an item on how to change their teaching in order to meet the requirements of the reform revealed that one hundred and thirty-seven (137) (80%) out of one hundred and seventy-one (171) public school teachers expressed high concerns about this issue. Eighty-eight (88) responded 'very true of me now' and forty-nine (49) responded 'somewhat true of me now'. Another item soliciting teachers' interest in having more information on the amount of time and efforts required by this reform saw teachers expressing high personal concerns. Ninety-three (93) teachers responded 'very true of me now' and fifty-two (52) teachers responded 'somewhat true of me now'. This gave a total of one hundred and forty-five (145) (85%) out of the sampled population of one hundred and seventy-one (171) respondents responding to that

item. See details in appendix C.

With a critical look at the first and second high concerns of the public school teachers, one can emphatically say that they have a high sense of achieving greater success as far as the 2007 educational reform was concerned, yet their personal concerns are posing threat to their vision. Upon a second thought one might think that with such a vision, public school teachers may have very high collaborative concerns indicating their attempt to cooperate and coordinate with other users of the reform to acquire more skill and knowledge to increase their capabilities of implementing the reform. Interestingly, public school teachers recorded as low as 43.3% at the collaboration stage. This means they are not coordinating. See details in Table 7.

Even though teachers in both types of school do not record their first and second highest concerns at management stage, a good look at the results show that teachers in both types of schools recorded somehow high concerns at the management stage. This means teachers in both types of school have problems with the availability and use of logistics required for successful implementation of the 2007 educational reform. Figure 3 gives a graphical representation of concerns profile for both private and public school teachers.

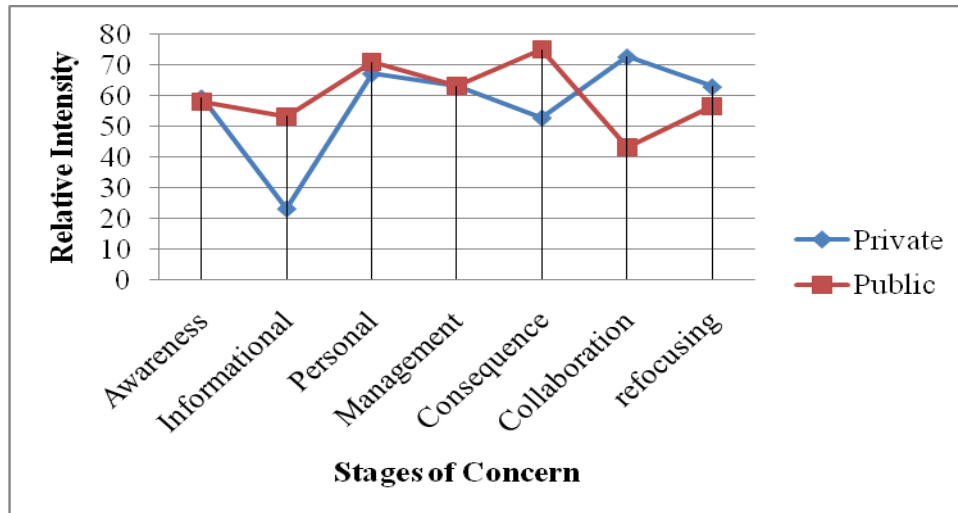


Figure 3: SoC graphical profile of private and public schools

Again, the analysis of individual items on the questionnaire confirms the expression of moderate management concerns for teachers in both types of schools. For example, an item sought teachers concerns about time spent in working with non-academic problems related to the reform. One hundred and twelve (112) (65%) public primary school teachers out of one hundred and seventy-one (171) teachers responded ‘very true of me now’ and somewhat true of me now’. On the same item, ninety-six (96) (66%) out of the one hundred and forty-five (145) private primary school teachers recorded ‘very true of me now’ and ‘somewhat true of me now’. Details of item by item analysis used in the discussion can be found in appendix C.

Concerns of Male and Female Teachers

Group profile analysis regarding gender indicated male teachers have their first and second high concerns at consequence and management stages respectively. The lowest concern recorded by male teachers was collaboration (47.0), whereas female teachers recorded their first high concerns at

both personal (73.0) and collaboration stages (73.0) and their second high concerns at refocusing stage (63.3). Female teachers, however, have low informational concerns. Table 8 spells out the detail.

Table 8: SoC Percentile means of male and female teachers

Stages	Aware	Info.	Person	Manage.	Conseq.	Colla.	Refocus.
Male	59.0	51.0	64.2	69.0	79.0	47.0	51.4
Female	56.0	26.3	73.0	61.0	46.0	73.0	63.3

The results mean male teachers' apprehensions were on the significance of the 2007 educational reform on pupils, and the availability and use of material resources that will help achieve greater consequence of the reform. Male teachers expressed concerns are consistent with the opinions of Pratt (1980) and Posner (1995) that inadequate material resources pose a greater threat to the implementation and the institutionalization of change in any form.

Having high concerns at both personal and collaboration stages mean that female teachers were worried about effects of the reform on their roles and responsibilities and their capability of meeting the demands of the reform. This may have developed their interest in coordinating and cooperating with other teachers in order to maximize their efforts to improve upon the use of the reform. For instance, female teachers recorded high collaborative concerns (73%) on items which sought for their collaborative concerns. Details of these items are provided in appendix B. Female teachers recorded refocusing as their second high concern (63.3%) and what this means is that, they have ideas about the reform

and how to improve upon its use. This was reflected in their expression of low informational concerns as found in Table 10. Low informational concerns mean female teachers have enough information about the reform. This may have been possible through their effort to share ideas about the reform with other teachers.

At the collaboration stage where male teachers recorded lowest concerns, females teachers recorded a higher concern. The results indicate that female teachers are interested in sharing their experiences about the 2007 reform with other schools and teachers and to also tap their experiences in order to maximize the benefits of the reform. This was rather the direct opposite of their male counterparts. Perhaps this may be attributed to the fact that women talk a lot as compared to their male counterparts. For that reason females may want to discuss things that pose a challenge with other people. It can also be as a result of their inadequacy to meet the numerous requirements of the reform. This could, however, compel them to share and learn more from others. A graph showing differences in the peak and valley concerns of male and female teachers is shown in Figure 4

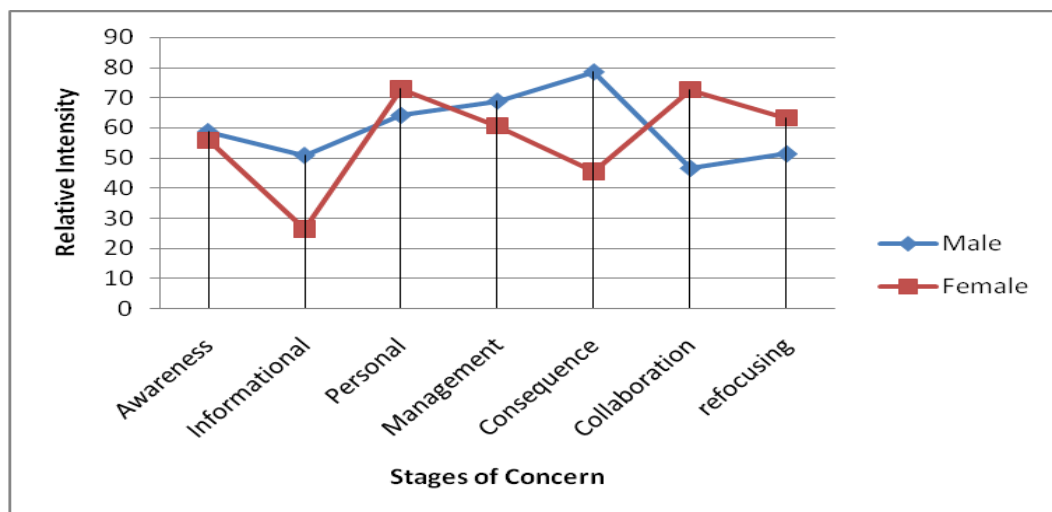


Figure 4: SoC graphical profile of male and female teachers

Teacher Concern and Type of School

ANOVA test to ascertain differences in teacher concerns and the type of school they work in revealed no significant differences in all the seven stages. Details are found in Table 9

Table 9: ANOVA for teacher concerns and type of school

		SS	Df	MS	F	Sig.
Aware	Type of sch.	.028	1	.028	.003	.955
	Residual	2855.516	314	9.094		
Infor	Type of sch.	5.379	1	5.379	.441	.507
	Residual	3830.299	314	12.198		
Personal	Type of sch.	8.295	1	8.295	.992	.320
	Residual	2624.882	314	8.359		
Manage	Type of sch.	40.207	1	40.207	2.792	.096
	Residual	4522.031	314	14.401		
Conseq	Type of sch.	.756	1	.756	.068	.795
	Residual	5513.611	314	11.190		
Collabo	Type of sch.	32.441	1	32.441	1.799	.181
	Residual	5662.176	314	18.031		
Refocus	Type of sch.	25.439	1	25.439	3.531	.061
	Residual	2262.295	314	7.205		

P<0.05

Type of school and teacher awareness concerns

ANOVA test results show no significant difference in teacher awareness concerns about the 2007 educational reform and the type of school they work in. ($F=.003$, $p> 0.05$). Its implication is that, the type of school in which teachers work in has no effect on their awareness about the reform.

Type of school and teacher informational concerns

ANOVA results found in Table 9 revealed no significant difference between teacher informational concerns and the type of school in which they teach. ($F=.441$, $p> 0.05$). This means that how well primary school teacher are informed about the details of the 2007 educational reform is totally independent of the type of school in which they work.

Type of school and teacher personal concerns

At the personal concerns stage, ANOVA results show no significant difference between the concerns of teachers and the type of school in which they work. ($F=.992$, $p>0.05$). It means that teachers concerns about the effects of the 2007 educational reform on their professional status and changes in their roles and responsibilities by the reform have no bearing on the type of school in which they work. It is a general concern.

Type of school and management concerns

Again, a look at the ANOVA results in Table 9 indicates no significant disparity between teacher concerns and the type of school they work in and their management concerns. ($F=2.792$, $p>0.05$).

Type of school and teacher consequence concerns

ANOVA results displayed in Table 9 show differentiation existing between consequence concerns and type of school in which teach. ($F=.068$, $p>0.05$). The indication is that, primary school teachers concerns regarding managing and scheduling of the reform, time and material resources has nothing to do with where they teach, be it public or private school.

Type of school and teacher collaborative concerns

Primary school teachers' collaboration concerns as indicated by the ANOVA test show no significant difference their collaborative concerns and the type of school in which they work. ($F=1.799$, $p>0.05$).

Type of school and teacher refocusing concerns

The ANOVA test results revealed that there is no significant difference between teacher refocusing concerns and the type of school they work in. ($F=3.531$, $p>0.05$). This result means that primary school teachers' concerns about the 2007 educational reform are totally independent of the type of school they work with. The results imply that the null hypothesis which states that there are no significant differences between the concerns of teachers in public primary schools and private primary schools cannot be totally accepted. Hence, it refutes the argument put forward by Huberman and Miles (1984) and Fullan (1991) that individual settings play crucial role in the adoption and subsequent use of change and, by implication, the concerns of implementers. The result is in contrast with the results of an empirical study conducted by Cheung and Davis (2000) in Hong

Kong on stages of teacher concerns about Target Oriented Curriculum, which revealed that teachers' concerns are influenced by the type of school they work in.

Teacher Concern and Gender

ANOVA test conducted to ascertain any relationship between teacher concerns and gender saw a relationship at the management concern stage. Table 10 depicts details of the result.

Table 10: ANOVA for gender and teacher concerns of the 2007 educational reform

		SS	Df	MS	F	Sig.
Awareness	Gender	24.743	1	24.743	2.745	.099
	Residual	2830.801	314	9.015		
Informational	Gender	1.726	1	1.726	.141	.707
	Residual	3833.945	314	12.210		
Personal	Gender	.057	1	.057	.007	.934
	Residual	2633.120	314	8.386		
Management	Gender	64.268	1	64.268	4.486	.035
	Residual	4497.970	314	14.325		
Consequence	Gender	1.698	1	1.698	.152	.697
	Residual	3512.669	314	11.187		
Collaboration	Gender	13.117	1	13.117	.725	.395
	Residual	5681.501	314	18.094		
Refocusing	Gender	9.363	1	9.363	1.290	.257
	Residual	2278.371	314	7.256		

P < 0.05

Gender and teacher awareness concerns

The ANOVA test conducted to determine whether there is a significant relationship between awareness of the 2007 educational reform among primary school teachers and their gender revealed no significant relationship. ($F=2.745$, $p > 0.05$). It therefore means that primary school teachers' awareness of the 2007 educational reform has nothing to do with their gender.

Gender and teacher informational concerns

At the informational stage, the ANOVA results show no significant relationship between teacher level of information about the 2007 educational reform and their gender. ($F=.141$, $p > 0.05$). This implies that primary school teachers' level of information about the reform, be it low or high is not determined by their gender.

Gender and teacher personal concerns

Gender plays a significant role in primary school teachers' concerns about how adequacy in terms of knowledge and skills, in meeting the demand of the 2007 educational reforms. The ANOVA results presented in Table 10 indicated that there is a significant relationship between primary school teachers' personal concerns about the 2007 educational reform and their gender. ($F= .007$, $p < 0.05$). Therefore implies that gender plays no role in primary school teachers' personal concerns.

Gender and teacher management concerns

A critical look at the ANOVA results presented in Table 10 reveals a clear significant relationship between primary school teachers' management concerns about the 2007 educational reform and their gender. ($F=4.486$, $p> 0.05$). It therefore means that how well primary school teachers can manage the changes brought about by the 2007 educational reform has a relationship with their gender.

The ANOVA results described above indicate a significant relationship between teacher concerns and gender at the management stage. This implies that teachers' sex play a crucial role in their ability to manage the 2007 educational reform. In order to determine which category of sex has high or low management concerns, teachers mean differences in relation to gender was extracted. Details are provided in Table 11

Table 11: Mean differences in management concerns for gender

Gender	Mean	N	Std. Deviation
Male	12.791	153	3.238
Female	13.693	163	4.234

Comparing primary school teachers means with regards to their gender, it becomes evident that female teachers have high management concerns than their male counterparts do.

Gender and teacher consequence concerns

Again, a look at the results in Table 11 indicates no significant relationship between primary school teachers' concerns about the impact of the 2007 educational reform on pupils and gender. ($F=.152$, $p>0.05$). This is an indication that there is no significant relationship between primary school teachers' consequence concerns and their gender.

Gender and teacher collaboration concerns

Primary school teachers' collaboration concerns as indicated by the ANOVA test show no significant relationship between teachers' collaborative concerns and gender. ($F=.725$, $p>0.05$). It means that primary school teachers desire and interest coordinating their activities with other teachers and school in order to enhance the 2007 educational reform is independent of their genders. (See Table 11).

Gender and refocusing concerns

At the refocusing stage, ANOVA results revealed that primary school teachers' concerns and their gender are totally independent of each other. ($F=1.290$, $p>0.05$), an indication of no significant relationship between gender and refocusing concerns.

The stage by stage analysis of the ANOVA results discussed above shows that six out of the seven stages of teacher concerns do not revealed any significant relationship between their concerns and gender with the exception of the management stage. Therefore, the null hypothesis which states that there is no significance relationship between teacher concerns and their gender is partially

acceptable.

Other Concerns of Teachers

The last item on the questionnaire sought for any other comments primary school teachers may have about the 2007 educational reform but which was not catered for in the stages of concern questionnaire. Details of teacher responses are provided below.

Provision of resources

Teachers expressed concerns about non availability of resources. These include curriculum materials especially for the newly introduced subjects, equipment such as computers, and limited time for successful implementation of the reform. Some of the comments passed by teachers are as follows. “The new reform has been in use for a year now and still some of the required materials have not been made available to schools.” “My concern is that teaching materials should be made available to schools to help teaching and learning.”

In answering research question one (1) on the concerns primary school teachers have regarding the implementation of the 2007 educational reform, it was realized that primary school teachers rated management concerns as their second high concern. Again ANOVA test on primary school teachers’ concerns and their gender revealed a significant relationship only at the management stage. In the extraction of percentile means for private and public primary school teachers, it became obvious that though teachers of both types of school did not record management concerns as their first and second high concerns, their

responses to management concerns were somehow high. They recorded 63.0% and 63.1% respectively.

With the above expressed teacher concerns and the results from the analysis, one does not need any more proof to conclude that primary school teachers irrespective of the type of school they work in, have worries about inadequate logistics for successful implementation of the 2007 educational reform.

In-service training and workshops

Teachers have worries about inadequate in-service training and workshops before the introduction of the reform to give them a good exposure, and to provide them with the necessary knowledge and skills demanded by the reform. It has already been established in the literature review that change means doing a new thing in a different way. It is, therefore, not surprising that teachers have expressed such concerns. They need new skills and expert knowledge in handling the different aspects of the reform. Examples of typical concerns raised by teacher in the area of in-service training and workshops are “The reform should have been implemented after two years to allow teachers to be well trained to handle the reform.” “There must be very intensive orientation for teachers to make them fully understand the reform.”

This result is a confirmation of primary school teachers concerns established in the previous results. The concern profile for the total sample indicated that primary school teachers recorded 68.1% as their first high concerns at personal concern stage. The profile for both private and public school teachers

show that teachers in both type of schools rated 67.3% and 71.0% personal concerns as their second high concerns. Again, the profile for male and female teachers recorded 64.2% and 73.0% respectively as personal concerns. All these are clear evidence that teachers have worries about their inadequacy to meet the demands of the 2007 educational reform. Alshammari (2000) has established that the expression of intense personal concerns by teachers is just an expression of their uneasiness about change and does not necessarily mean rejection to change. This means that an expression of personal concerns is a normal thing with change. Horsley and Loucks (1998) have also said that personal concerns are genuine concerns all people experiencing change go through. More often than not these concerns are regarded as irrelevant or at worst the response of the dreaded resister.

Teacher involvement in the change

Another area primary school teachers raised concerns has to do with their involvement in the change process. A teacher remarked that “the spreading of Religious and Moral Education into other subjects will curtail the moral level of the younger generation. Teachers must be consulted anytime a curriculum is to be changed.” In a similar statement, another teacher posited, “The reform was introduced before teachers were briefed on how to implement it, which to my opinion was not good.” Another teacher said, “I will like to plead with G.E.S to plan with teachers any time they want to make a new reform because the 2007 educational reform does not favour some teachers and even some head teachers of some schools.” These opinions expressed by teachers are clear indications that

their involvement or participation in change is of much concern to them. It has been substantiated in the literature by Armstrong (2003) that if we really want teachers to consider and think about change and make it functional in their respective classrooms, then their perspectives should be highly considered. Pratt (1980) has also established that teachers get highly motivated in a change they are made part of.

Lack of clarity about the reform

If the foregoing teacher concerns are addressed then the concerns of clarity about the reform to a very large extent are taken care of. Teachers expressed some concerns about lack of clarity of the 2007 educational reform. A teacher shared “some of the portions of the reform are like a stranger to teachers and the government cannot clarify it when questions are posed to them.” Another teacher remarked “The teacher and learner activities should be well explained in the syllabus.” If teachers have such concerns, there is no doubt they will implement a different thing from what developers intended. These concur with the views of Pratt (1980) and Fullan (2007) that lack of meaning or clarity about change on the part of its implementers hinders its effective use.

Need for subject teachers at the primary level

Other concerns expressed by primary school teachers have to do with the introduction of subject teachers to handle individual subjects. These concerns were common with public primary school teachers since private primary schools already had subject teachers. A teacher commented, “The eight subjects to be

taught at the primary level seem to be too much for one teacher. No one is an embodiment of knowledge hence a single teacher cannot teach all the aspects correctly. I recommend subject teaching at the primary level as done in Junior High Schools.” On the same area of concern, a teacher said, “There is a need to have subject teaching in the primary schools because some subjects need special teachers to teach.” These concerns may be attributed to lack of teacher expertise in handling certain subjects or the amount of work involved in teaching so many subjects in a class of not less than forty pupils.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a summary of the research process and its findings. It also draws conclusions from the findings and makes recommendations for improving educational reform implementation and for future research.

Summary

Overview of the study

The study investigated teacher concerns about the 2007 educational reform in Ghana. The purpose of the study was to track the various concerns primary school teachers have regarding implementation of the reform. The study tested for any significant differences between the concerns of private and public primary school teachers. It also looked out for any relationship between teacher concerns and gender. These were measured within the framework of the Stages of Concern Model developed by Hall, Wallace and Dossett in 1973. Data were collected from three hundred and sixteen (316) private and public primary school teachers. Group profile analysis was done to describe the concerns profile for (1) the total sample irrespective of type of school or gender; (2) private and public primary school teachers; and (3) male and female primary school teachers.

Findings

1. Group profile for the total sample revealed that primary school teachers have their first and second high concerns at personal and management stages of concerns and recorded a low concern at the informational stage.
2. Group profile for private and public primary school teachers also indicated that private primary school teachers have high collaboration and personal concerns and least concerns on information. On the other hand, public primary school teachers have more concerns on consequence and personal stages with a low concern on collaboration.
3. Again, group profile for male and female primary school teachers showed that male teachers have high consequence and management concerns with low concerns for collaboration. Female teachers, on the other hand, had high concerns at personal, collaboration and refocusing stages, and a low concern for information.
4. ANOVA for any differences between teacher concerns and the type of school they work in revealed no significant differences in all the seven stages of teacher concerns.
5. ANOVA for any relationship between teacher concerns and gender found a significant relationship at the management stage. Comparison between the percentile means of male and female teachers for management concerns portrayed female teachers as having high management concerns than their male counterparts do.
6. The results from the open ended item which sought other concerns primary school teachers had but were not catered for in the 35-item Concern-Based Adoption Questionnaire, brought to light an additional

finding on teacher concern in the area of the number of subjects to be handled by one teacher coupled with the large class size.

Conclusions

The following conclusions are drawn from the summary of findings.

1. Primary school teachers, irrespective of the type of school they work in, are still struggling with how best they can meet the demands of the reform in order to attain a greater height. This has to do with their inadequacy in terms of knowledge and skills in handling the various aspects of the reform.
2. Primary school teachers are limited by unavailability of logistics for successful implementation of the reform. They have the problem of managing the reform as well.
3. Primary school teachers are interested in coordinating and cooperating with other schools and teachers implementing the reform.
4. Primary school teachers have more information about the reform. They have ideas about improving the reform to achieve a greater impact.

Recommendations

Base on the findings and the conclusions drawn from the study, the following recommendations are made:

1. One important finding from the study is that private and public school teachers in the Cape Coast metropolis have high personal concerns about implementation of the 2007 reform. Curricula developers should therefore

endeavour to organize workshops, seminars and forums for heads of schools and their teachers.

2. The study also revealed that primary school teachers have high management concerns with female teachers having high consequence and management concerns. It is recommended that change developers clearly outline all material resources required by the reform and ensure that they are made available to implementers at the same time change is introduced.
3. Another finding from the study is that public primary school teachers have concerns with the number of subjects to be handled by one teacher coupled with the large class size. It is, therefore, recommended that subject experts are introduced to public primary schools as practised in the private primary schools. It means that more teachers need to be trained.

Recommendation for further research

Future researchers on teacher concerns in educational change should engage in a longitudinal study. This will enable them to track teacher concerns over a period of time. Implementation is a process, not a one-shot event, so as teachers are engaged in it, their concerns should be monitored and addressed. Again future studies should consider the other two dimensions of the Concern-Based Adoption Model that is, Levels of Use and Innovations Configuration.

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UNIVERSITY OF CAPE COAST

FACULTY OF EDUCATION

DEPARTMENT OF ARTS AND SOCIAL SCIENCES EDUCATION (DASSE)

CONCERNS OF PRIMARY SCHOOL TEACHERS IN THE CAPE COAST

METROPOLIS ABOUT THE 2007 EDUCATIONAL REFORM

QUESTIONNAIRE FOR TEACHERS

Dear Sir/Madam,

I write to solicit your help in a study on the above topic by asking you to complete a short questionnaire. As you know, in September 2007, the government of Ghana introduced a new educational reform. The reform brought about some changes in the curriculum of primary schools. This study aims to determine what primary school teachers implementing the 2007 educational reform are thinking about the various aspects of the reform.

Please be assured that your responses will be used solely for the purpose of this study. You will not be identified in any part of the study. Your participation in the study is greatly appreciated. Thank you.

Please tick your response in the appropriate space.

SECTION A

Type of school you teach

Public

Private

Your sex

Male ()

Female ()

Your teaching experience:

1-5 years ()

6-10 years ()

11-15 years ()

16-20 years ()

21-25 years ()

26-30 years ()

Above 30 years ()

Your professional rank

Director 1 ()

Director 11 ()

Deputy Director ()

Assistant Director 1 ()

Assistant Director 11 ()

Principal Superintendent ()

Senior Superintendent 1 ()

Senior Superintendent 11 ()

Teacher ()

The under listed statements represent various concerns in varying degrees of

intensity which primary school teachers might have about the various aspects of the 2007 Educational Reform. Please indicate the extent to which each statement is true of you.

	Irrelevant	Not true of me now	Somewhat true of me now	Very true of me now
I am concerned about students' attitudes towards the reform.				
I now know of some other approaches that might work better.				
I am more concerned about another reform.				
I am concerned about not having enough time to organize myself each day for teaching the newly introduced subjects in addition to the existing subjects.				
I am interested in helping other teachers to learn how to implement this reform.				
I have limited knowledge of the reform.				

I am interested to know the effect of this reform on my professional status.				
I am worried about conflict between my interests and my responsibilities required by the reform.				
I am concerned about revising my approach of implementing this reform.				
I am interested in establishing a working relationship with teachers in my school and teachers in other schools implementing this reform.				
I am interested in knowing the affects of this reform on students.				
I am not concerned about this reform.				
I am interested in knowing who will make decisions with regards to the implementation of this reform				

I am interested in discussing how to use this reform				
I would like to know resources available for implementing this reform				
I am concerned about my inability to manage all the requirements of this reform				
I would like to know how to change my teaching to be in line with the requirements of the reform.				
I am interested in providing different schools and teachers with information about the progress my school is making in implementing this reform.				
I am concerned about evaluating the effects of this reform on students				
I would like to revise the instructional approach recommended by the reform				
I am completely occupied with other things				

I would like to modify my methods of implementing the reform based on the experiences of our students				
Although I don't know much about this reform, I am concerned about things in the area (reform)				
I am interested in making my students feel happy and enthusiastic about their role in this reform				
I am concerned about time spent working with non-academic problems related to this reform.				
I am interested to know what things are required of teachers in the short term for implementing this reform.				
I would like to coordinate my efforts with others in order to attain maximum benefits from this reform.				
I am interested to have more information on the amount of time and efforts required by this reform				

I would like to know what other teachers are doing to enhance the implementation of this reform.				
I am not interested in learning about this reform at this time.				
I would like to determine how to modify aspects of the reform.				
I would like to use feedback from students to enhance the implementation of this reform.				
I am interested to know what changes in my role as a teacher are required for implementing this reform.				
Preparation to teach the newly introduced subjects is taking too much of my time.				
I am interested to know why this reform is considered better than that of 1987.				

Please complete the following

Any other comment you wish to make on the 2007 educational reform?

.....
.....
.....

APPENDIX B

Arrangement of Stages of Concern questionnaire into stages.

Stage 0 – Awareness

- 3. I am more concerned about another reform.
- 12. I am not concerned about this reform.
- 21. I am completely occupied with other things.
- 23. Although I don't know much about this reform, I am concern
about things in this area.
- 30. I am not interested in learning about this reform.

Stage 1 – Informational

- 6. I have limited knowledge of the reform.
- 14. I am interested in discussing how to use this reform.
- 15. I would like to know resources available for implementing this reform.
- 26. I am interested to know what things are required of teachers in the short
term for implementing this reform.
- 35. I am interested to know why this reform is considered better than that of the
1987.

Stage 2 – Personal

- 7. I am interested to know the effects of this reform on my professional status.
- 13. I am interested in knowing who will make decisions with regards to the

implementation of this reform.

17. I would like to know how to change in my teaching to be in line with the requirements of the reform.

28. I am interested to have more information on the amount of time and efforts required by this reform.

33. I am interested to know what changes in my role as a teacher are required for implementing this reform.

Stage 3 – Management

4. I am concerned about not having enough time to organise myself each day for teaching the newly introduced subjects in addition to the existing subjects.

8. I am worried about conflict between interests and my responsibilities required by the reform.

16. I am concerned about my inability to manage all the requirements of this reform.

25. I am concerned about time spent working with non-academic problems related to this reform.

34. Preparation to teach the newly introduced subjects is taking too much of my time.

Stage 4 – Consequence

1. I am concerned about students' attitudes towards the reform.

11. I am interested in knowing the effects of this reform on students.

19. I am concerned about evaluating the effects of this reform on students.

24. I am interested in making my students happy and enthusiastic about their role in this reform.

32. I would like to use feedback from our students to enhance the implementation of this reform.

Stage 5 – Collaboration

5. I am interested in helping other teachers to learn how to implement this reform.

10. I am interested in establishing a working relationship with teachers in my school and other schools implementing this reform.

18. I am interested in providing different schools and teachers with information about the progress my school is making in implementing this reform.

27. I would like to coordinate my efforts with others in order to attain maximum benefits from this reform.

29. I would like to know what other teachers are doing to enhance the implementation of this reform.

Stage 6 – Refocusing

2. I now know of some other approaches that might work better.

9. I am concerned about revising my approach of implementing this reform.

20. I would like to revise the instructional approach recommended by the reform.

22. I would like to modify my methods of implementing the reform based on the experiences of our students.

31. I would like to determine how to modify aspects of the reform.

Response	Frequency	Percentage
Irrelevant	11	3.5
Not true of me now	24	7.6
Somewhat true of me now	92	29.1
Very true of me now	189	59.8
Total	316	100

APPENDIX C

I am interested to know what changes in my role as a teacher are required for implementing this reform.

I am interested to have more information on the amount of time and efforts required by this reform

Response	Frequency	Percentage
Irrelevant	20	6.3
Not true of me now	22	7.0
Somewhat true of me now	87	27.5

Very true of me now	187	59.2
Total	316	100

I am concerned about time spent working with non-academic problems related to this reform

Response	Frequency	Percentage
Irrelevant	45	14.2
Not true of me now	63	19.9
Somewhat true of me now	101	32.0
Very true of me now	107	33.9
Total	316	100

I am concerned about my inability to manage all the requirement of this reform

Response	Frequency	Percentage
Irrelevant	42	13.3
Not true of me now	88	27.8
Somewhat true of me now	102	32.3
Very true of me now	84	26.6
Total	316	100

I have limited knowledge of the reform

Response	Frequency	Percentage
Irrelevant	23	7.3
Not true of me now	157	49.7
Somewhat true of me now	87	27.5
Very true of me now	49	15.5
Total	316	100

PRIVATE

I would like to know to change my teaching to be in line with the requirements of the reform

Response	Frequency	Percentage
Irrelevant	7	4.8

Not true of me now	23	15.9
Somewhat true of me now	34	23.4
Very true of me now	81	55.9
Total	145	100

I am interested to know the effect of this reform on my professional status

Response	Frequency	Percentage
Irrelevant	11	7.6
Not true of me now	18	12.4
Somewhat true of me now	32	22.1
Very true of me now	84	57.9
Total	145	100

I am interested in providing different schools and teacher with information about the progress my school is making in implementing the new reform

Response	Frequency	Percentage
Irrelevant	9	6.2
Not true of me now	28	19.3
Somewhat true of me now	44	30.3

Very true of me now	64	44.1
Total	145	100

I am interested in helping other teachers to help how to implement this reform

Response	Frequency	Percentage
Irrelevant	10	6.2
Not true of me now	25	17.2
Somewhat true of me now	39	26.9
Very true of me now	71	49.0
Total	145	100

I would like to coordinate my efforts with others in order to attain maximum benefits from the reform

Response	Frequency	Percentage
Irrelevant	5	3.4
Not true of me now	10	6.9

Somewhat true of me now	35	24.1
Very true of me now	95	65.5
Total	145	100

I am not concerned about time spent working with non-academic problems related to this reform

Response	Frequency	Percentage
Irrelevant	22	15.2
Not true of me now	27	18.6
Somewhat true of me now	42	29.0
Very true of me now	54	37.2
Total	145	100

PUBLIC

I am interested in knowing the effects of this reform on students

Response	Frequency	Percentage
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Irrelevant	6	3.5
Not true of me now	12	7.0
Somewhat true of me now	44	25.7
Very true of me now	109	63.7
Total	171	100

I am concerned about evaluating the effects of this reform on the students

Response	Frequency	Percentage
Irrelevant	11	6.4
Not true of me now	18	10.5
Somewhat true of me now	66	38.6
Very true of me now	76	44.5
Total	171	100

I would like to know how to change my teaching to be in line with the requirements of the reform

Response	Frequency	Percentage
Irrelevant	13	7.6
Not true of me now	21	12.3
Somewhat true of me now	49	28.7
Very true of me now	88	51.5
Total	171	100

I am interested to have more information on the amount of time and efforts required by this reform

Response	Frequency	Percentage
Irrelevant	12	7.0
Not true of me now	14	8.2
Somewhat true of me now	52	30.4
Very true of me now	93	54.4
Total	171	100

I am not concerned about time spent working with non-academic problems

related to this reform.

Response	Frequency	Percentage
Irrelevant	23	13.5
Not true of me now	36	21.1
Somewhat true of me now	59	34.5
Very true of me now	53	31.0
Total	171	100