UNIVERSITY OF EDUCATION, WINNEBA

TEACHERS' SELF-EFFICACY OF IMPROVING ACADEMIC STANDARDS THE CASE OF BOLGATANGA MUNICIPALITY

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DECLARATION

STUDENT'S DECLARATION

I, NORA BAKABBEY KULBO, declare that this project report, with the exception of quotations and references contained in published works, which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or completely, for another degree elsewhere.

SIGNATURE: …….....

DATE: …….....

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of project report as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: PROF. MARTIN AMOAH

SIGNATURE: …….....

DATE: …….....

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I thank the almighty God for the wisdom and good health given me to complete this work. A special appreciation goes to Prof. Martin Amoah, the dean of the faculty Technology Education, University of Education, Winneba – Kumasi for his untiring assistance given to me and also his constructive criticisms, guidance, suggestions and correction that have resulted in improvement and completion of this work. I am greatly indebted to Newton Dzoagbe my in law for his great support in putting this work together.

DEDICATION

To my dearest husband Mr. Prince Clement Addo and my beloved son Cameron Etornam Addo.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Self-efficacy is considered as **o**ne'**s** belief in the likelihood of goal completion and can be motivating in itself. To achieve the goals of education, it is very important for teachers to have high self-efficacy which has a direct positive effect on their delivery and the overall benefit of their pupils. In this study, the self-efficacy of teachers in the Bolgatanga municipality was studied. The purpose of the study was in three-fold. First was to access the influence of teachers' demographics on the self-efficacy. Second, how location influences teachers' self-efficacy and finally, how these efficacy impact students' performances. The efficacy dimensions studied are classroom management practices, classroom instructional practices and student engagement. A total of 198 out of 1404 teachers were randomly sampled with simple lottery based on Yerman's formula. The study was purely quantitative using structured questionnaires. It was noted that, whiles gender has no significant impact on teachers' self-efficacy, older, more educated and highly experienced teachers had higher self-efficacy. Teachers in the urban sector turn to have higher self-efficacy than those in the rural areas. Not overlooking other factors, students' poor performance in some rural areas can largely be attributed to the less self-efficacy of their teachers. It's recommended that more rewarding packages must be introduced to teachers serving in the rural areas (housing, transportation, risk allowances and scholarships). This could affect the mind-sets and increase the motivation of teachers working in rural areas. Finally, government and institutional scholarships for further studies and on-the-training should made available mainly to motivate teachers who serve in rural areas.

CHAPTER ONE

INTRODUCTION

Background to the Study

Teacher efficacy has been defined as a teacher's "judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated". The purpose of the study was to identify teachers' self-efficacy in line with their Classroom Management Practices, Classroom Instructional Practices and Student Engagement with particular focus on teachers serving in Bolgatanga municipality of the Upper East region of Ghana. This chapter of the study is dedicated to the background and motivation for the study, objectives, how to realize these objectives (Hypothesis and research questions), and the significance of the study. Limitations and delimitations of the study and the organization of the study are equally presented in this chapter.

Social Cognitive Theory proposes that individuals do not simply respond to environmental influences, but rather they actively seek and interpret information (Nevid, 2009). Individuals "function as contributors to their own motivation, behaviour, and development within a network of reciprocally interacting influences" (Bandura, 1999, p. 169)

Self-efficacy is considered as one's belief in the likelihood of goal completion and can be motivating in itself (Van der Bijl & Shortridge-Baggett, 2002). "Self-efficacy refers to people's judgements about their capability to perform particular tasks. Task-related self-efficacy increases the effort and persistence towards challenging tasks; therefore, increasing the likelihood that they will be completed" (Barling & Beattie, 2003).

Self-efficacy beliefs are an important aspect of human motivation and behaviour as well as influence the actions that can affect one's life. Regarding self-efficacy, Bandura (1995) explains that it "refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). More simply, self-efficacy is what an individual believes he or she can accomplish using his or her skills under certain circumstances (Snyder & Lopez, 2007). Self-efficacy has been thought to be a task-specific version of self-esteem (Lunenburg, 2011). The basic principle behind Self-Efficacy Theory is that individuals are more likely to engage in activities for which they have high self-efficacy and less likely to engage in those they do not (Van der Bijl & Shortridge-Baggett, 2002). According to Gecas (2004), people behave in the way that executes their initial beliefs; thus, self-efficacy functions as a self-fulfilling prophecy. Self-efficacy has influence over people's ability to learn, their motivation and their performance, as people will often attempt to learn and perform only those task for which they believe they will be successful (Lunenburg, 2011). More specifically to this study teacher efficacy can be said to be “teachers’ confidence in their ability to promote students’ learning” (Hoy, 2000).

Teacher efficacy has been defined as a teacher’s “judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated” (Tschannen-Moran & Woolfolk Hoy, 2001: p. 783). Teachers’ efficacy beliefs are associated with teachers’ willingness to devote more time to academic instruction and take greater responsibility for the education of students who have learning difficulties (Dembo& Gibson, 1985). In addition, more efficacious pre-service teachers were less interventionist toward classroom

management after examining the multivariate relationships between teacher efficacy and task analysis variables as predictors of classroom beliefs about control (Henson, 2001).

Given that teacher efficacy is related to teacher effectiveness and appears to influence students' achievement, attitude, and affective growth, it is of great interest to explore the development of efficacy beliefs among teachers. In addition, given the importance of a strong sense of efficacy for optimal motivation in teaching, exploring factors that contribute to the initial development of such a strong efficacy belief early in their career is important.

Experienced teachers are generally provided with the source of information, including an abundance of mastery experience, to develop their teaching efficacy. However, prospective teachers generally do not have this source of information, at least not until they have their teaching practice in school in which they receive emotional arousal and verbal persuasion, including performance feedback from supervisors, classroom teachers, and other peers (Chan, 2008; Tschannen-Moran & Woolfolk Hoy, 2007).

Statement of the Problem

It is difficult to retain talented teachers in Ghana, just like most parts in the world. Several factors have been identified as integral to teacher attrition (Macdonald, 2009). For instance, research has found that many teachers leave the profession because they become burned out, and teacher burnout has been linked to teachers' perceived self-efficacy in classroom management (Brouwers & Tomic, 2000; Emmer & Hickman, 2011; Chwalisz, Altmaier & Russell, 2012). Gold (1996) suggests that an additional reason

teachers do not remain in teaching is that they develop ‘‘a sense of inconsequentiality this leaves teachers with a lack of personal accomplishment along with feeling little or no appreciation from others’’ (p. 558).This sense of powerlessness and ineffectuality is in stark contrast to teacher self-efficacy or ‘‘the teacher’s belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context’’ (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998, p. 233).

A majority of the studies conducted on teacher self-efficacy utilizing the instruments designed by Tschannen-Moran and Woolfolk Hoy focused on differences in the years of experience teachers had spent in the field of education and it was found that this variable is unrelated to teacher efficacy (Tschannen-Moran & Woolfolk Hoy, 2001; Putnam, 2012; Tanris even, 2012). Many studies also focused on comparing pre-service and classroom teachers and they found that classroom teachers showed a higher level of efficacy in regards to their implementation of new instructional practices (e.g. Wolters and Daugherty, 2007 and Fives and Buehl, 2009).

Holzberger, Philipp, and Kunter (2012) studied the relationship between teachers' self-efficacy and instruction in Germany. They found "... teachers with higher self-efficacy beliefs showed higher instructional quality" (p. 782). A study conducted in Connecticut by McCoach and Colbert (2010) researched collective teacher efficacy in several schools and compared the results with reference to the socio-economic status of the schools in which the teachers were employed. While this research focused on collective instead of individual teacher efficacy it did look at schools with different socio-economic demographics. McCoach and Colbert found that those teachers who

collectively identified themselves as “high-ask and high confidence” were more likely to work at schools with a student population from higher socio-economic status (2010, p. 43).

In Ghana, several studies attributed the falling nature of students’ academic performance in rural areas, the northern regions and most specifically in the Upper East region to factors like poverty gap, lack of access roads, water and electricity, lack of school infrastructure and educational resources, conflict among others (Schoon& Boone, 1998; Avoke, 2001; Action Aid Ghana, 2002; Akyeampong, 2004; and Akyeampong, Djangmah, Oduro, & Seidu, 2007). Unfortunately, the inherent nature of teachers to be able to deliver once they accept posting to these areas is missing among these factors. If teacher’s self-efficacy has been identified in previous studies in different parts of the world as a contributor to students’ performance and teachers in low socioeconomic status schools are highly to be ranked with low self-efficacy, then there is the need to take a second look at how the self-efficacy of teachers in deprived schools affect the performance of their students. The study therefore focused on how teachers’ self-efficacy impacts on student performance most especially in deprived communities.

Purpose of the Study

The purpose of the study was to identify teachers’ self-efficacy in line with their Classroom Management Practices, Classroom Instructional Practices and Student Engagement with particular focus on teachers serving in deprived schools of the Bolgatanga municipality.

Objectives of the Study

The specific objectives will be to:

1. Establish the relationship between teachers' demographic characteristic and their self-efficacy in classroom management practices, classroom instructional practices and student engagement.
2. Investigate the role of teacher self-efficacy in students' performance.
3. To establish the difference in the self-efficacy of teachers in rural and urban settings of the Bolgatanga municipality.

Hypothesis

1. How teachers' Demographic characteristics have no impact on their self-efficacy
2. How teachers' self-efficacy does not affect teacher ability in improving students' performance.
3. How teachers' self-efficacy does not dependent on the location (Urban or rural) or the socio-economic status of the schools.

Research Question

1. How does teachers' background influence their self-efficacy?
2. To what extent does teachers' self-efficacy influences students' performance?
3. Is teacher self-efficacy location dependent?

Significance of the Study

Like most studies in the field of education, the findings of this study will span beyond the classroom and the Bolgatanga municipality since the work of an effective teacher have a lifelong effect on the student. More precisely, the study will not only add

to existing body of knowledge but will address the medium and short term educational challenges in the municipality that have to do with teacher confident, willingness and the ability to teach. It will serve as a measure for in-service training for teachers, a guide to selection and posting of teachers and as a personal measure for self-efficacy among teachers.

Delimitations

The catchment area of the study is the Bolgatanga municipality in the Upper East region of Ghana and much focus on how the performance of students in deprived schools are influenced by their teacher level of self-efficacy. It focused on teachers already in the classroom not pre service teacher as done in other studies.

Limitations

The study focus mostly on the three main teacher efficacy defined by Tschannen-Moran and Woolfolk Hoy (2001). This scale consists of three dimensions: instructional strategies, classroom management, and student engagement. It therefore does not allow the inclusion of any other area of teachers' self-efficacy outside the four walls of the classroom. Because of the use of cross sectional survey and closed ended measurement items, the a very high possibility of teachers not expressing their personal views and as such, there was no follow up in finding the post study efficacy of the teachers.

Organisation of the Study

The research was organized into five chapters. Chapter one included, background to the study, statement of problem, objectives, research questions and hypothesis, significance of the study, limitations, delimitation. Chapter two looked at the review of

relevant literature related to the topic. Chapter three discussed the methodology used in the study. Chapter four dealt with the presentation and analysis of the results of the study as well as the discussion of the findings. Finally, chapter five was on the summary, conclusions and recommendations with areas for further research suggested.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The purpose of the study was to identify teachers' self-efficacy in line with their Classroom Management Practices, Classroom Instructional Practices and Student Engagement with particular focus on teachers serving in Bolgatanga municipality of the Upper East region of Ghana. In this chapter, the relevant literature on teacher's classroom self-efficacy if presented.

Theoretical Framework

The theoretical foundation of self-efficacy is found in social cognitive theory, developed by former APA president (1974) and Stanford professor Albert Bandura (1977, 1997). Social cognitive theory assumes that people are capable of human agency, or intentional pursuit of courses of action, and that such agency operates in a process called triadic reciprocal causation. Reciprocal causation is a multi -directional model suggesting that our agency results in future behaviour as a function of three interrelated forces: environmental influences, our behaviour, and internal personal factors such as cognitive, affective, and biological processes.

This trinity mutually impacts its members, determines what we come to believe about ourselves, and affects the choices we make and actions we take. We are not products of our environment. We are not products of our biology. Instead, we are products of the dynamic interplay between the external, the internal, and our current and

past behaviour. Bandura's (1977) defined self-efficacy as the beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments. Self -efficacy beliefs were characterized as the major mediators for our behavior, and importantly, behavioral change.

Self-efficacy has been widely researched since the concept was pioneered by Albert Bandura. There are four primary sources of self-efficacy according to Bandura: "mastery experiences, vicarious experiences, social persuasion, and physiological factors" (Putman, 2012, p. 27). In other words, the belief that one possesses the ability to perform their job or tasks with mastery is dependent upon previous experiences, training, and environment.

Considering Bandura's notion of self-efficacy several researchers have examined teachers' sense of self-efficacy. Tschannen-Moran and Woolfolk Hoy developed the Teacher Self Efficacy Scale (TSES) (2009), sometimes referred to as the Ohio State Teacher Efficacy Scales, for purposes of measuring the level of teacher self-efficacy beliefs which this study will be based on.

Overview of Social Cognitive and Self-Efficacy Theories

The Social Cognitive Theory

Social Cognitive Theory proposes that individuals do not simply respond to environmental influences, but rather they actively seek and interpret information (Nevid, 2009). Individuals "function as contributors to their own motivation, behavior, and development within a network of reciprocally interacting influences" (Bandura, 1999, p.

169). Although Social Cognitive Theory covers many topics such as moral judgment and physiological arousal, research in this area is primarily focused on self-efficacy, or the beliefs regarding one's capabilities of successfully completing tasks or goals (Locke & Latham, 2002).

According to Bandura (2005), social cognitive theory takes on an agent-like perspective to change, development and adaptation. Bandura describes an agent as someone who intentionally influences one's functioning and life circumstances; "In this view, people are self-organizing, proactive, self-regulating, and self-reflecting. They are contributors to their life circumstances not just products of them" (Bandura, 2005, p. 1).

Self-Efficacy was developed by Albert Bandura's as part of a larger theory, the Social Learning Theory (Ashford & LeCroy, 2010), which has progressed into the Social Cognitive Theory (Levin, Culkin, &Perrotto, 2001). Social Cognitive Theory was presented by Bandura in response to his dissatisfaction with the principles of behaviorism and psychoanalysis. In these two theories, the role of cognition in motivation and the role of the situation are largely ignored (Bandura, 1977). "Unidirectional environmental determinism is carried to its extreme in the more radical forms of behaviorism" but humanists and existentialists, who stress the human capacity for conscious judgment and intentional action, contend that individuals determine what they become by their own free choices.

Most psychologists find conceptions of human behaviour in terms of unidirectional personal determinism as unsatisfying as those espousing unidirectional environmental determinism. To contend that mind creates reality fails to acknowledge

that environmental influences partly determine what people attend to, perceive, and think" (Bandura, 1978, p.344-345).

Social Cognitive Theory

Albert Bandura's Social Cognitive Theory emphasizes how cognitive, behavioral, personal, and environmental factors interact to determine motivation and behavior (Crothers, Hughes, & Morine, 2008). According to Bandura, human functioning is the result of the interaction among all three of these factors (Crothers et al., 2008), as embodied in his Triadic Reciprocal Determinism model (Wood & Bandura, 1989). While it may seem that one factor is the majority, or lead reason, there are numerous factors that play a role in human behavior. Furthermore, the influencing factors are not of equal strength, nor do they all occur concurrently (Wood & Bandura, 1989). For example, employee performances (behavioral factors) are influenced by how the workers themselves are affected (cognitive factors) by organizational strategies (environmental factors). The figure below illustrates Triadic Reciprocal Determinism as portrayed by Wood and Bandura (1989).

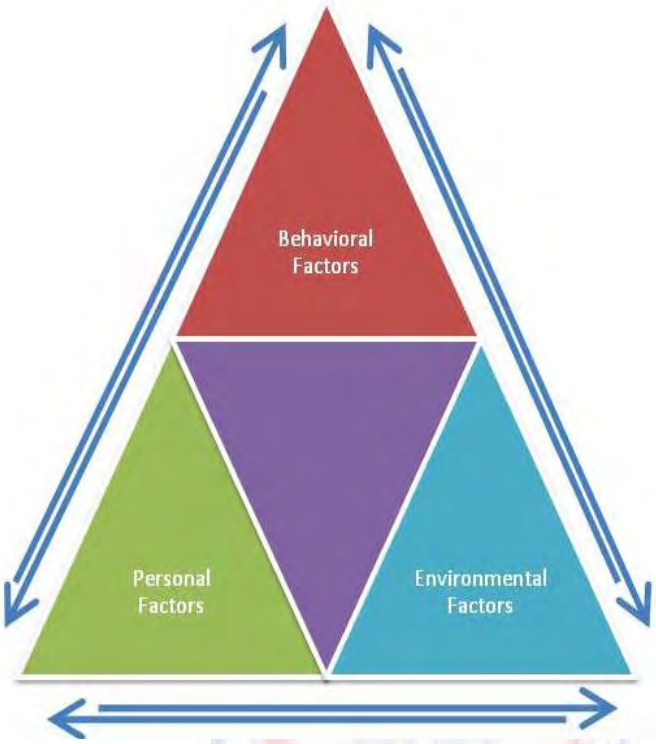

Fig 2.1 Bandura's Triadic Reciprocal Determinism

The Social Cognitive Theory is composed of four processes of goal realization: self-observation, self-evaluation, self-reaction and self-efficacy. These components are interrelated, each having an effect on motivation and goal attainment

The Processes of Goal Realization

i. **Self-observation**– Observing oneself can inform and motivate. It can be used to assess one's progress toward goal attainment as well as motivate behavioral changes. There are two important factors with regards to self-observation: *regularity and proximity*. Regularity means the behavior should be continually observed, whereas proximity means the behavior should be observed while it occurs, or shortly after. Alone, self-

observation is insufficient because motivation depends on one's expectations of outcomes and efficacy (Zimmerman &Schunk, 2001).

ii. **Self-evaluation**–Self-evaluation compares an individual's current performance with a desired performance or goal. It is affected by the standards set and the importance of the goals. Goals must be specific and important; therefore, goals such as, "do your best" are vague and will not motivate. Schunk and Zimmerman (1994) state that "specific goals specify the amount of effort required for success and boost self-efficacy because progress is easy to gauge." If one has little regard for his goal, he will not evaluate performance. There are two types of self-evaluation standards: *absolute and normative.* For example, a grading scale would be an example of a fixed or absolute standard. A social comparison such as evaluating one's behavior or performance against other individuals is an example of a normative standard (Zimmerman &Schunk, 2001). People gain satisfaction when they achieve goals that they value. When individuals achieve these valued goals, they are more likely to continue to exert a high level of effort, since sub-standard performance will no longer provide satisfaction (Bandura, 1989).

iii. **Self-reaction**–Reactions to one's performance can be motivating. If the progress made is deemed acceptable, then one will have a feeling of self-efficacy with regard to continuing, and will be motivated towards the achievement of their goal. A negative self-evaluation might also be motivating in that one may desire to work harder provided that they consider the goal to be valuable. Self-reaction also allows a person to re-evaluate their goals in conjunction with their attainments (Bandura, 1989). If a

person has achieved a goal, they are likely to re-evaluate and raise the standard (goal); whereas, if a person has not achieved the goal, they are likely to re-evaluate and lower the standard (goal) to an achievable goal.

iv. **Self-efficacy–** One's belief in the likelihood of goal completion can be motivating in itself (Van der Bijl & Shortridge-Baggett, 2002). "Self-efficacy refers to people's judgments about their capability to perform particular tasks. Task-related self-efficacy increases the effort and persistence towards challenging tasks; therefore, increasing the likelihood that they will be completed" (Barling & Beattie, 1983, as cited in Axtell & Parker, 2003, p. 114).

Fig. 2.2 The Processes of Goal Realization

Self-Efficacy Theory

Self-efficacy beliefs are an important aspect of human motivation and behavior as well as influence the actions that can affect one's life. Regarding self-efficacy, Bandura (1995) explains that it "refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). More simply, self-efficacy is what an individual believes he or she can accomplish using his or her skills under certain circumstances (Snyder & Lopez, 2007). Self-efficacy has been thought to be a task-specific version of self-esteem (Lunenburg, 2011). The basic principle behind Self-Efficacy Theory is that individuals are more likely to engage in activities for which they have high self-efficacy and less likely to engage in those they do not (Van der Bijl & Shortridge-Baggett, 2002). According to Gecas (2004), people behave in the way that executes their initial beliefs; thus, self-efficacy functions as a self-fulfilling prophecy. For example, Employee A has high ability and a great deal of experience in creating graphs, but does not have confidence that he can create a high quality graph for an important conference. Employee B has only average ability and only a small amount of experience in creating graphs, yet has great confidence that she can work hard to create a high quality graph for the same conference. Because of Employee A's low self-efficacy for graph creation, he lacks the motivation to create one for the conference and tells his supervisor he cannot complete the task. Employee B, due to her high self-efficacy, is highly motivated, works overtime to learn how to create a high quality graph, presents it during the conference, and earns a promotion. Self-efficacy has influence over people's ability to learn, their motivation and their performance, as people will often attempt to

learn and perform only those task for which they believe they will be successful (Lunenburg, 2011).

Judgments of self-efficacy are generally measured along three basic scales: magnitude, strength, and generality.

i. **Self-efficacy magnitude** measures the difficulty level (e.g. easy, moderate, and hard) an individual feel is required to perform a certain task (Van der Bijl & Shortridge-Baggett, 2002). How difficult is my class work? Are the quizzes easy or hard?

ii. **Self-efficacy strength** refers to the amount of conviction an individual has about performing successfully at diverse levels of difficulty (Van der Bijl & Shortridge-Baggett, 2002). How confident am I that I can excel at my work tasks? How sure am I that I can climb the ladder of success?

iii. **Generality of self-efficacy** refers to the "degree to which the expectation is generalized across situations (Lunenburg, 2011).

The basic idea behind the Self-Efficacy Theory is that performance and motivation are in part determined by how effective people believe they can be (Bandura, 1982). The theory is clearly illustrated in the following quote by Mahatma Gandhi:*" If I have the belief that I can do it, I shall surely acquire the capacity to do it even if I may not have it at the beginning"- Mahatma Gandhi.*

Self-Efficacy Judgment

Bandura (1977) outlined four sources of information that individuals employ to judge their efficacy: performance outcomes (performance accomplishments), vicarious experiences, verbal persuasion, and physiological feedback (emotional arousal). These components help individuals determine if they believe they have the capability to accomplish specific tasks. Williams and Williams (2010) note that "individuals with high levels of self-efficacy approach difficult tasks as challenges to master rather than as threats to be avoided" (p. 455).

i. **Performance Outcomes**– According to Bandura, performance outcomes, or past experiences, are the most important source of self-efficacy. Positive and negative experiences can influence the ability of an individual to perform a given task. If one has performed well at a task previously, he or she is more likely to feel competent and perform well at a similarly associated task (Bandura, 1977). For example, if one performed well in a training workshop, they are more likely to feel confident and have high self-efficacy in another training workshop. The individual's self-efficacy will be high in that particular area, and since he or she has a high self-efficacy, he or she is more likely to try harder and complete the task with much better results. The opposite is also true. If an individual experiences a failure, self-efficacy is likely to be reduced. However, if these failures are later overcome by conviction, it can serve to increase self-motivated persistence when the situation is viewed as an achievable challenge (Bandura, 1977).Mastery experiences are the most influential source of efficacy information because they provide the most authentic evidence of whether one can muster whatever it takes to succeed. Success builds a robust belief in one's

personal efficacy. Failures undermine it, especially if failures occur before a sense of efficacy is firmly established."

ii. **Vicarious Experiences**– People can develop high or low self-efficacy vicariously through other people's performances. A person can watch another perform and then compare his own competence with the other individual's competence (Bandura, 1977). If a person sees someone similar to them succeed, it can increase their self-efficacy. However, the opposite is also true; seeing someone similar fail can lower self-efficacy. An example of how vicarious experiences can increase self-efficacy in the work place is through mentoring programs, where one individual is paired with someone on a similar career path who will be successful at raising the individual's self-efficacy beliefs. This is even further strengthened if both have a similar skill set, so a person can see first-hand what they may achieve. Example of how the opposite can be true is in a smoking cessation program, where, if individuals witness several people fail to quit, they may worry about their own chances of success, leading to low self-efficacy for quitting, or a weight-loss program where others do not achieve the results you are hoping for.

iii. **Verbal Persuasion–**According to Fives and Buehl, (2009) self-efficacy is also influenced by encouragement and discouragement pertaining to an individual's performance or ability to perform, such as a manager telling an employee: "You can do it. I have confidence in you." Using verbal persuasion in a positive light generally leads individuals to put forth more effort; therefore, they have a greater chance at

succeeding. However, if the verbal persuasion is negative, such as a manager saying to the employee, “This is unacceptable! I thought you could handle this project” can lead to doubts about oneself resulting in lower chances of success. Also, the level of credibility directly influences the effectiveness of verbal persuasion; where there is more credibility, there will be a greater influence. In the example above, a pep talk by a manager who has an established, respectable position would have a stronger influence than that of a newly hired manager. Although verbal persuasion is also likely to be a weaker source of self-efficacy beliefs than performance outcomes, it is widely used because of its ease and ready availability.

iv. **Physiological Feedback (emotional arousal)** –People experience sensations from their body and how they perceive this emotional arousal influences their beliefs of efficacy (Bandura, 1977). Some examples of physiological feedback are: giving a speech in front of a large group of people, making a presentation to an important client, taking an exam, etc. All of these tasks can cause agitation, anxiety, sweaty palms, and/or a racing heart. Although this source is the least influential of the four, it is important to note that if one is more at ease with the task at hand they will feel more capable and have higher beliefs of self-efficacy. The following video is an animation of Albert Bandura giving a lesson in social cognitive theories, particularly self-efficacy. Throughout this video he discusses the definition of self-efficacy and why it is important. This video provides an educational and entertaining way to learn about self-efficacy from Albert Bandura himself.

Fig 2.3: Self- Efficacy Sources of Information

Relationship between Self-Efficacy and Performance

Self-efficacy theory states that the combination between the four factors of developing self-efficacy and three assessment processes used to interpret self-efficacy will determine the level of self-efficacy which directly effects performance outcomes. The three assessment processes for self-efficacy are the analysis of task requirements, attributional analysis of experience, and assessment of personal and situational resources/constraints (Gist & Mitchell, 1992).

Analysis of Task Requirements-An individual's determination of what it takes to perform a task (Gist & Mitchell, 1992).

Attributional Analysis of Experience-An individual's judgment about why a performance level occurred (Gist & Mitchell, 1992).

Assessment of Personal and Situational Resources/Constraints-An individual's consideration of personal and situational factors. Personal factors could include such things as skill level and available effort. Situational factors could include factors such as competing demands (Gist & Mitchell, 1992).

Self-Efficacy and Academic Success

Academic success depends fully on the three assessment processes of self-efficacy.

Analysis of Task Requirements: This is the amount of determination that a student has to do whatever it takes to perform/complete a task. Student belief to accomplish the task, How much time and effort is dedicated to the course work and The quality of notes that are taken

Attribution Analysis of Experience: This is the personal perception and understanding that a student has in regards to why they accomplished a specific performance level.

- Was there enough time put into completing the task at hand - Did the time spent or lack thereof affect the outcome?
- Was there enough energy put into completing the task at hand - Did the student do minimal work or go above and behind to get the end result?
- Was there enough communication between student and professor if there were questions and/or concerns regarding the materials - Did asking or not asking affect the outcome?

Assessment of Personal and Situational Resources/Constraints: This is the student's consideration of personal and situational factors that may affect their education

- Quality and quantity or work could be affected by surrounds, environment and emotions - Where is studying occurring? Is the student surrounded by calm or chaotic individuals and/or environment?

- Does the student feel comfortable and confident in completing all tasks at hand?

- Is the student taking courses at a level in which they can succeed? Are they taking courses that are too easy or too difficult for their skill level and abilities?

Self-Efficacy and Related Ideas

i. **Personality Traits**- Personality is considered a fairly stable pattern of psychological behavior (thoughts, feelings, and actions) and influences how one will act in response to diverse circumstances (Quinn, Faerman, Thompson, & McGrath, 2003). Personality does not determine behavior; behavior arises in a context, such as work. According to Berens et al. (2001), “personalities reflect the requirements of the contexts as well as our innate tendencies and how we have adapted to these contexts over time”. In other words, an individual’s behavior is determined by the requirements of the situation. "Efficacy beliefs do not share the major properties ascribed to personality traits" (Bandura, 1997). While self-efficacy is not considered a personality trait, it is considered a situation-specific construct. This is context dependent and functions as, a “cognitive mediator of action” (Bandura, 1982). "Self-

efficacy is a related but subtly different personality characteristic. Self-assessments of ability contribute to self-efficacy but so does the individual's personality" (Griffin, et al., 2010). For example, an employee may have a high self-efficacy for performing a job, but due to a personality trait such as shyness, has low self-efficacy for training a new employee to do the same job. According to the self-efficacy theory, the employee would exert more effort on performing the job themselves than on training a new employee on how to perform the job. Bandura (1977) upholds that efficacy beliefs can be changed and that, "psychological procedures, whatever their form, serve as a means of creating and strengthening expectations of personal efficacy". An efficacy expectation is defined by Bandura (1977) as, "the conviction that one can successfully execute the behavior required to produce the outcomes."

ii. **Self-esteem**- Self-esteem and self-efficacy are often thought of as being synonymous, however they vary greatly. Self-efficacy differs from self-esteem in that it's a judgment of specific capabilities rather than a general feeling of self-worth. For example, an employee may have low self-efficacy for training a new employee, but this will not cause any negative feelings of perceived self-worth. Even though the two concepts are different, they are connected. The philosophy behind Bandura's Triadic Reciprocal Determinism is that all determinants of motivation are functionally dependent, interacting and influence one another (Bandura, 1997). Therefore, an individual who has high self-efficacy and is successful in most of the tasks he/she undertakes will most likely develop high self-esteem. Alternatively, self-esteem could also influence self-efficacy. "It is true, however, that people tend to cultivate their

capabilities in activities that give them a sense of self-worth. If empirical analysis is confined to activities in which people invest their sense of self-worth, they will inflate correlations between self-efficacy and self-esteem, because the analysis ignore both domains of functioning in which people judge themselves inefficacious but could not care less and those in which they feel highly efficacious but take no pride in performing the activity well because of its socially injurious consequences" (Bandura, 1997).

iii. Equity - Self-efficacy theory utilizes an important construct of equity theory. Like equity theory, motivation can be influenced by how an individual perceives themselves when compared to another. The difference between the two theories is that equity theory illustrates that an individual's motivation is influenced by the perceived equality of input/output ratios of the comparison-other, where in contrast, self-efficacy theory predicts that an individual's motivation can be influenced by the positive/negative vicarious experiences of the comparison-other. In truth, both theories have been proven to be correct.

iv. VIEtheory- The expectancy theory, also known as the VIE (Expectancy, Instrumentality, and Valence) theory, is based on the beliefs that an individual’s effort will lead to performance, which in turn, will lead to a specific outcome. Comprehensively, self-efficacy is based on an individual’s belief about their ability to perform specific behaviors. Expectancy theory explores how rewards affect motivation, whereas self-efficacy explores how beliefs about capabilities affect

motivation. According to Bandura (1997), “People take action when they hold efficacy beliefs and outcome expectations that make the effort seem worthwhile. They expect given actions to produce desired outcomes and believe that they can perform those actions." To successfully achieve the desired outcome, individuals must possess the necessary skills as well as a buoyant self-belief that they are capable of controlling the specific situational factors (Bandura, 1989). People with high self-efficacy are more likely to respond with renewed effort (expectancy) when feedback shows that they are not reaching their goals by developing more successful strategies (Smith, et al., 2005). However, individuals with low self-efficacy, given the same circumstances, may perform poorly because their low self-efficacy impairs their motivation and effort. For example, an employee with high self-efficacy and ability for performing a job, but low self-efficacy for training a new employee will most likely be an inadequate trainer. On the whole, perceived self-efficacy can be distinguished as being competence-based, prospective, and action-related as opposed to related ideas that only share some these elements (Bandura, 1997).

The figure below is a diagram representing the difference between efficacy expectations and outcome expectations. (Bandura, 1977).

Application of Self-Efficacy and Social Cognitive Theories in the Workplace

Self-efficacy and social cognitive theories both provide a number of suggestions that can be applied in the work setting. They can be used in almost any work environment, with any task, and any demographic of individuals. These theories can be applied in a basic form or specific to an employer's leadership style. They are cheap, easily attainable, and can be used outside the workforce as well. Efficacy beliefs can be

changed, depending on the particular circumstance, the task, or an individual's prior experience (Bandura, 1977). This can be attractive to organizations because it can be applied to any type of individual regardless of background or work history.

To present this application in a more orderly manner, I will categorize them in research milestones from 1986-2003. Self-efficacy theory suggests that increasing the self-efficacy of employees will boost motivation and performance. This basic idea behind this theory is that motivation and performance are determined by how successful people believe they can be (Bandura, 1982). This is extremely useful in the workplace because employers can develop and improve self-efficacy beliefs in their employees by focusing on the four primary sources (Bandura, 1977; Gist & Mitchell, 1992). Utilizing the sources of self-efficacy (performance outcomes, vicarious experiences, verbal persuasion, and emotional arousal) can improve employee's effort, persistence, goal setting, and performance on specific tasks. Applying vicarious experiences can be as simple as a waitress shadowing another experienced server or an apprentice learning his trade. Verbal persuasion can be used by showing praise for a job well done or by giving positive feedback on a specific task. Verbal persuasion can be used at any time and requires almost no effort.

According to Bandura's social cognitive (learning) theory, an important source of motivation comes through the many links between goal setting and self-efficacy. Managers can begin by setting up small, basic goals leading up to larger, more difficult ones in order for the employee to develop beliefs of efficacy as each one that is successfully completed (Bandura, 1982). For example, if a new employee is assigned an extremely difficult task, the employee will likely experience self-doubt, stress, and threat

of performing an unfamiliar task, resulting in an unsuccessful performance. However, if they are assigned a simple task and are able to experience initial success, with more difficult tasks being introduced slowly they are building high self-efficacy along the way (Bandura, 1982). These tasks are examples of performance outcomes, which are the most significant sources, used to develop self-efficacy. As stated by Bandura (1988), competencies are superbly developed when, "modeling is combined with guided practice and success experiences".

According to Bandura (1982), self-efficacy affects both learning and performance of employees in the following three ways:

- Self-efficacy effects the goals that employees choose. For example, employees with low levels of self-efficacy are more likely to set lower goals for themselves than employees with higher self-efficacy.
- Self-efficacy impacts learning as well as the effort that employees exert on the job. For instance, when an employee has high self-efficacy they are more likely to work harder to learn a new task as they will be more confident in their abilities than an employee with low self-efficacy.
- Self-efficacy will influence the persistence for which a person will attempt to learn a new and difficult task. Employees who are high in self-efficacy are thought to be more confident and therefore will persist in their efforts when learning a new task even when encountering a problem.

Support of the applicability of self-efficacy to work motivation has been established by numerous studies performed in organizational settings. The following section highlights only a few of the studies performed:

1986: Effects of employees' self-efficacy beliefs on productivity

Christopher Earley has conducted a study of employee beliefs in their capabilities, and the effect on their productivity in manufacturing organizations in the United States and in England. Earley (1986; as cited in Bandura, 1988) found that when employees are taught better production techniques and are given production goals, their belief in their capabilities increases. Consequently, as an employee increases his/her self-belief of efficacy, he/she more robustly accepts the production goals and has a higher level of productivity (Early, 1986; as cited in Bandura, 1988).

1987: Effects of self-regulation training on absenteeism

Research by Frayne & Latham (1987) on employee absenteeism led to the development of a program to reduce employee absenteeism (as cited in Bandura, 1988). Groups of employees who often missed work were taught how to more effectively manage their motivation and behavior, in addition to strategies to overcome obstacles that prevented them from attending work (Frayne & Latham, 1987; as cited in Bandura, 1988). The study found that as individuals raised their self-efficacy, their work attendance also increased. In addition, by setting short-term goals for work attendance, individuals increased their work attendance and were personally rewarded (Frayne & Latham, 1987; as cited in Bandura, 1988).

1988: Effects of self-efficacy beliefs on organizational productivity

Wood & Bandura (1990) conducted a series of simulated studies on the level of organizational productivity as a function of managerial perceived self-efficacy. In a simulation organization, MBA graduates assumed manager positions and were tasked with matching employees to sub-functions, motivating the employees, and establishing

and applying rules. The study found that perceived self-efficacy and personal goals have a direct effect on organizational performance (Wood, Bandura, & Bailey, 1990). In addition, challenging goals have a positive effect on performance in a low complexity organization, but not in a high complexity organization (Wood, Bandura, & Bailey, 1990). Furthermore, the study confirmed that, "the interaction of cognitive and motivational processes is important to an understanding of how managers approach the daily stream of decisions that must be made in complex and uncertain decision environments" (Wood & Bandura, 1989).

1993: Effects of training on self-efficacy beliefs

A study by Eden &Aviram (1993) to evaluate the effects of training intended to boost self-efficacy on reemployment. The training provided unemployed workers intensive workshops and job search training, as well as the opportunity to build positive performance outcomes. The study found that individuals with low self-efficacy were able to build higher self-efficacy through training. As a result, these individuals were equally successful in finding jobs as the individuals who began the training with high self-efficacy. Furthermore, the treatment increased reemployment among the individuals who began with low self-efficacy, but did not increase reemployment among the individuals who began with high self-efficacy (Eden &Aviram, 1993). This study demonstrates the importance of self-efficacy and shows that self-efficacy perceptions can be changed.

Application of self-efficacy theory in the workplace is evidenced in a case study conducted by Sanjib Chowdhury and Thomas Lanis at East Central University in 1999. This case study examined the relationship between employees' self-efficacy of team membership and their satisfaction in regards to this membership and individual

performance. The study demonstrated dependencies on the teams' performance. The subjects of the case study were junior and senior students enrolled in a business course that required team projects that were similar in nature to workplace projects.

2003: Task control, breadth of training raise self-efficacy

Research by Axtell & Parker (2003) prove that increasing task control (autonomy) and training phases of increasing generalizability increase the transfer of self-efficacy to the workplace. The study also finds that job enlargement can lower self-efficacy if task control is not also increased.

Teacher Self-Efficacy

Teacher self-efficacy was identified over 40 years ago as one of the few teacher characteristics related to student achievement (Armor et al., 1976). Since that early study, teachers' sense of efficacy has been related to student outcomes such as achievement (Armor et al., 1976; Ashton & Webb, 1986; Moore &Esselman, 1992; Ross, 1992; Saklofske, Michayluk, & Randhawa, 1988), motivation (Midgley, Feldlaufer, & Eccles, 1989), and sense of efficacy (Anderson, Greene, &Loewen, 1988).

In addition, teachers' self-efficacy also relates to their behavior in the classroom. Self-efficacy affects the effort teachers invest in teaching, the goals they set, and their level of aspiration. Teachers with a strong sense of efficacy are open to new ideas and are more willing to experiment with new methods to better meet the needs of their students (Berman, McLaughlin, Bass, Pauly, &Zellman, 1977; Ghaith&Yaghi, 1997; Guskey, 1988; Milner, 2002; Stein & Wang, 1988), and tend to exhibit greater levels of planning and organization (Allinder, 1994; Milner, 2001). Efficacy beliefs influence teachers'

persistence when things do not go smoothly and their resilience in the face of setbacks. Greater self-efficacy enables teachers to be less critical of students when they make errors (Ashton & Webb, 1986), to work longer with a student who is struggling (Gibson & Dembo, 1984), and to be less inclined to refer a difficult student to special education (Meijer & Foster, 1988; Podell&Soodak, 1993; Soodak&Podell, 1993). Teachers with a higher sense of efficacy exhibit greater enthusiasm for teaching (Allinder, 1994; Guskey, 1984; Hall, Burley, Villeme, &Brockmeier, 1992), have greater commitment to teaching (Coladarci, 1992; Evans & Tribble, 1986; Trentham, Silvern, & Brogdon, 1985) and are more likely to stay in teaching (Burley, Hall, Villeme, &Brockmeier, 1991; Glickman & Tamashiro, 1982; Milner, 2002).

Bandura postulated four sources of efficacy expectations: mastery experiences, physiological and emotional states, vicarious experiences, and social persuasion. Mastery experience has been identified as the most powerful source of efficacy information—the perception that a performance has been successful raises efficacy beliefs while the perception of failure lowers efficacy beliefs, contributing to the expectation that future performances will also be inept. The level of arousal, either of excitement or anxiety, adds to the feeling of mastery or incompetence. Vicarious experiences are those in which the skill in question is modeled by someone else. When a model with whom the observer identifies performs well, the efficacy of the observer is enhanced. When the model performs poorly, the efficacy expectations of the observer decrease. Social persuasion may entail a "pep talk" or specific performance feedback. The potency of persuasion depends on the credibility, trustworthiness, and expertise of the persuader (Bandura, 1977, 1986). Beyond direct attempts at persuasion, other social factors may be important

as well. For teachers, forms of social persuasion can include the responses of their students (Mulholland & Wallace, 2001) and the sense of collective efficacy within the entire faculty (Goddard & Goddard, 2001). In addition, social persuasion, in the form of social support systems, is one of the major occupational stress reducers (Bandura, 1997). Thus social persuasion in terms of verbal feedback and specific help, encouragement, praise, and norms of persistence and achievement can help create a supportive social environment, whereas lack of feedback, non-responsiveness from colleagues and students, criticism, and norms of neglect can create an unsupportive environment.

Benefits of Teacher Efficacy

Teacher efficacy has been linked to student outcomes in a number of studies. In each case, they have shown that students whose teachers scored high on efficacy did better on standardized tests than their peers who were taught by teachers with lower efficacy scores (Henson, 2001; Gordon, 2001; Lin, 1999; Muijs& Reynolds, 2002). A Rand study, done in 1976, supports the notion of a direct connection between student academic achievement and a teacher's sense of efficacy (Goodwin, 2010/2011). Teachers who lacked high efficacy qualities had low expectations of students, cast blame on students when things don't go as planned, and had a negative outlook about student learning and their behaviour (Ferguson, 2003; Gordon, 2001; Scharlach, 2008). Therefore, literature seems to support the idea that efficacious teachers have more positive and effective results in the classroom.

Subject Specific Efficacy

A teacher's academic skills can have considerable impact on student achievement also (Peske& Haycock, 2006). High efficacy teachers are more likely to support positive student attitudes in the classroom (Henson, 2001; Rimm-Kaufman, & Sawyer, 2004). According to Roberts, et al. (2000), a teacher may feel very comfortable in his or her ability to achieve student learning in one subject area and may not have the same degree of confidence to do so in another. Teachers may feel efficacious in delivering certain curriculum to certain students in specific settings, and they may feel more or less efficacious doing so under different circumstances (Goddard, Hoy, & Hoy, 2000). Teacher efficacy may grow with time and experience (Ross, 1994). Teacher efficacy is constantly changing. Most often, it improves with time and experience, but sometimes it diminishes and gets worse, especially with teachers who may be disillusioned with their jobs or may be getting ready to retire.

Teacher Beliefs and Efficacy

Researchers have reported that pre-service and in-service teachers' beliefs influence their teaching behaviors (Cagle, 1998; George & Aaronson, 2003; Gordon, 2001; Lin & Tsai, 1999: Henson, 2001; Maxton, 1996; Scharlach, 2008). Beliefs about children who are prone to struggle academically can influence the decisions and practices of new teachers (Lin & Tsai, 1999; Scharlach, 2008). New teachers may not have the experience in dealing effectively with struggling or difficult students. They may not have high expectations or the degree of stamina required to develop them. As a result, the teacher's actions and expectations may prohibit the students from rising above their

expectations. The student may achieve no more than what was expected by the teacher. This negative aspect is what Cagle (1998) described as the "self-fulfilling prophecy." This happens when students give back to their teachers what they perceive is expected of them. This approach can have positive as well as negative implications for students in the classroom.

Hill, Phelps, and Friedland (2007) demonstrated in their study how new teachers' beliefs affect their expectations for students. A lesson on the historical event of the *Amistad* uprising revealed the assumptions that pre-service teachers held about cultural diversity in urban middle schools. What the pre-service teachers encountered in this educational setting was very different from what they expected to find. The pre-service teachers found that in the urban schools, students were knowledgeable, hardworking, enthusiastic, and well behaved. Teacher beliefs can also have adverse effects on students and on their ability to learn in an environment where they may not feel comfortable. Because these particular students were studying a topic to which they could relate and become immersed, they demonstrated engagement and productivity. As in this case, for students to become engaged in meaningful learning, they must see the relevance of the material to their lives and their surroundings (Fry & DeWit, 2010/2011). Teachers have to be sensitive to students' culture and learning styles when developing lessons or the signal of boredom given by the students can be misconstrued as being lazy, or the inability to learn. Hills, Phelps, and Friedland, (2007) quoted Ladson-Billings by saying, "The ability to incorporate culturally relevant topics in the curriculum is often cited as a necessary ingredient for successful teaching in urban schools" (p. 36). To add to this, it can also make the difference between classroom success and classroom disruptions.

Another well-documented study is the *Pygmalion in the Classroom.* In this study, some teachers were made to believe that certain students in their classrooms were gifted, when they really were not. As a result, the students were treated as if they were gifted by their teachers, and the students rose to their teachers' expectations and performed like gifted students (Cagle, 1998; Cooper, 1979; Maxton, 1996; Skiba& Leone, 2002). In this study, the teachers' misconceptions about the students' abilities were based on teacher-formed beliefs rather than on internal efficacy and expectations. Schugurensky (2002), in commenting about that classic study, *Pygmalion in the Classroom,* confirms this theory by stating, this influence, also known as self-fulfilling prophecy… can have a positive or negative impact on student achievement. If a teacher expects that certain students will do well, they are likely to do well; if a teacher expects other students to fail, they will be more likely to fail. (p.1)

Building Relationships and Student Achievement

Several studies have shown that when teachers made connections with students and dispel negative opinions about them, those students did well academically (Cagle, 1998; Cooper, 1979; Jacobson, 2007). Cooper, Baturo, Warren, and Doig (2004) cite two studies that support the contention that when teachers form relationships with their students they do well. One study conducted in 1982 involved a group of White teachers (15) from classrooms where the Aboriginal students varied from 5-60 percent. The teachers' opinions of the Aboriginal students were that of having some form of "insufficiency" that caused them to be low academic performers. None of the students were expected to do well because of their cultural deficiencies. However, in another study that was conducted in1998, the teachers of Aboriginal students were caring,

knowledgeable of their culture, formed meaningful relationships with students, and had high expectations of them. The results in this study were significantly greater, showing remarkable success in student achievement (Cooper et al., 2004; Cronin, 2001).

This study has implications for teachers who push aside cultural barriers and form meaningful relationships with their students. The result of such relationships will be greater student motivation and academic achievement. As literature supports, a student's academic success in the classroom depends largely upon the quality of the teacher (Henson, 2001; Holley, 2008; Peske& Haycock, 2006; Rimm-Kaufman & Sawyer, 2004); high expectations on the part of the teacher, and the confidence that he or she can effectively teach those students (Gordon, 2001; Lin & Tsai 1999; Guskey&Passaro, 1994; Muijs& Reynolds, 2002; Henson, 2001; Holley, 2008; Peske& Haycock, 2006; Rimm-Kaufman & Sawyer, 2004).

Trust is another component that must accompany building meaningful relationships. Arletta Bauman-Knight explains that *trustworthiness* has to do with whether or not the teacher has the students' best interests at heart. She proposed that a teacher who exhibits trustworthiness would promote positive teacher/student relationships (Bauman-Knight, 2006).

Students, (as do teachers) form opinions of their teachers by observing how they speak to, and respond to other students in the classroom. A student's perception of his or her teacher can be positive or negative. Therefore, teachers must develop positive relationships with their students so that students can build on that initial trust, value learning, and grow academically.

Influences on Teachers' Sense of Efficacy

Social cognitive theory posits the importance of reciprocal determinism in human functioning (e.g., Bandura, 1997), recognizing the conjoined forces of the person, behaviors, and environment as interactive and interdependent influences on individuals. Factors related to the person include efficacy beliefs, which in turn influence behaviors and are also developed through experiences with the world. Furthermore, beliefs and behaviors influence and are influenced by the environment. Teacher efficacy researchers have long examined the relations between teachers' sense of efficacy and their level of teaching experience. Prior teaching experience can be considered a "mastery experience" and, as such, serves, theoretically, as a powerful source of efficacy beliefs (e.g., (Tschannen-Moran, Woolfolk-Hoy, & Hoy, Teacher Efficacy: its meaning and measure, 1998)). Similarly, the contexts in which teachers teach influence how they interpret the teaching task and evaluate their perceived capabilities.

Experience. In previous investigations of teacher efficacy, researchers perceived pre-service teachers to demonstrate higher, perhaps inflated, levels of efficacy that decreased with experience (Brousseau, Book, & Byers, 1988). However, we found mixed results across the research that examined the differences between preservice and practicing. For example, Gorrell and Dharmadasa (1994) found that although preservice teachers reported higher efficacy for implementing new methods of instruction, experienced teachers reported higher efficacy for classroom management, organization of instruction, and impact on students. In contrast, Campbell (1996) found that practicing teachers in Scotland and the United States reported significantly higher efficacy beliefs than did pre-service teachers. Researchers have compared the efficacy beliefs of practicing teachers

with varied years of experience. Some researchers have found no relation between years of experiences and efficacy beliefs (e.g., Ghaith&Shaaban, 1999; Guskey, 1987), whereas others found a negative relation between years of experience and general teaching efficacy beliefs (e.g., Hoy & Woolfolk, 1993; Taylor & Tashakkori, 1995).

Recently, Wolters and Daugherty (2007) used the TSES and found that teachers in their first year reported significantly lower self-efficacy for instructional practices and classroom management than did teachers with more experience.

Teaching level. Researchers have also compared the efficacy beliefs by grade or school level taught. Comparable findings have emerged across some published studies that suggest that pre-service and practicing elementary teachers have significantly higher efficacy beliefs than do those at the middle or secondary levels (e.g., Midgley, Anderman, & Hicks, 1995; Wolters & Daugherty, 2007). In contrast, others have reported no significant differences in efficacy beliefs by teaching level (e.g., Chester &Beaudin, 1996; Ross, 1994; Soodak&Podell, 1996).

As the teacher efficacy literature moves forward with a more theoretically coherent perspective and measures, it is essential to determine whether common understandings, developed under different theories and measures, are still appropriate. In the following section, we examine efficacy beliefs with respect to experience and grade level taught with a new and more theoretically grounded measure of teachers' sense of efficacy to determine whether previous findings are replicated.

(Bandura, elf-efficacy: The exercise of control, 1997) (Brousseau, Book, & Byers 1988)(Campbell, 1996)(Chester & Beaudin, 1996) Ghaith & Shaaban, The relationship

between perceptions of teaching concerns, teacher-efficacy, and selected teacher characteristics, 1999)Gorrell & Dharmadasa, 1994)9Hoy & Woolfolk, 1993)9Midgley, Anderman, & Hicks, Difference between elementary and middle school teachers and students: A goal theory approach, 1995)(Ross, The impact of an inservice to promote cooperative learning on the stability of teacher-efficacy, 1994) (Soodak & Podell, 1996) (Taylor & Tashakkori, 1995)(Tschannen-Moran, Woolfolk-Hoy, & Hoy, Teacher-efficacy: Its meaning and measure, 1998)(Wolters & Daugherty, 2007)

Criticism of Self-Efficacy

Eastman and Marzillier (1984) outlined three main criticisms to Bandura's Self-Efficacy Theory. The first was ambiguity and lack of definition in self-efficacy. The second included methodological deficiencies which could cast doubt on the "published relationship between the empirical findings and self-efficacy." The third stated that claims and conclusions made by Bandura were not adequately evaluated, and more precise definitions and modification of assessment procedures are needed.

In regards to the conceptual problems of self-efficacy, it was thought that "efficacy expectations were definite in such a way that included within them expectations of outcome, and thus could not be regarded as conceptually distinct" (Eastman and Marzillier, 1984). Bandura had sought to make a distinction between self-efficacy and outcomes but others found some of his statements to be misleading in this regard. One specific statement, "the conviction that one can successfully execute the behavior to produce the outcomes," was the focus of much criticism and debate over the true

difference between outcomes and efficacy. Kazdin (1978) found the concepts of self-efficacy and outcome expectations to be “very closely related." Bandura has replied to this criticism by stating that the outcomes are conditional upon the behavior and that the critics were “misreading the definition of efficacy.” (Bandura, 1978)

The scale used in Bandura’s experiment studies is further subject to criticism. The scale provided to Eastman and Marzillier by Bandura is shown below:

“Rate your degree of confidence by recording a number from 10-100 using the scale given below:

10	20	30	40	50	60	70	80	90	100
Quite uncertain				moderately certain					certain

Remember, rate what you would expect you could do and your confidence if you were asked to perform the tasks _now” (Eastman and Marzillier, 1984)

This scale was criticized for two main reasons. The first is that the scale is not clear and a 10 can be interpreted at varied levels. While one may consider a 10 to be very uncertain, another may interpret it as “virtually impossible.” A second criticism was the use of a 100-point probability scale with the ability to only select between 10 possible numbers. While there is no zero on the scale, the scale also does not allow for numbers between the numbers listed on the scale which can account for a large difference on a 100-point probability scale.

Further criticism of self-efficacy provides that it is, “impossible to exclude outcome considerations from efficacy expectations.” It is human nature to be aware and concerned with the outcomes in performing a task. While Bandura’s studies focused on discrete tasks, the applications for self-efficacy move beyond discreet tasks with limited

outcomes. While critics of Bandura and self-efficacy agree that there is value in his experiments, it is doubted that self-efficacy and outcomes can be limited and distinct on a larger scale or in application of the theory.

High Self-efficacy, Over-confidence and Possible Negative Repercussions

Vancouver, Thompson, Tischner, and Putka did two studies to examine how high self-efficacy would relate to a person's performance. The findings of these studies were reported in the Journal of Applied Psychology in 2002. What they found was that when a person had a high level of self-efficacy, this did not mean they had a high level of performance. In fact, it could lead to a low level of performance.

The studies were done on western college students using the Mastermind game which is a game that participants must put four colored squares in the correct order and they have ten attempts to do so. With each attempt, the participant would get feedback to use for their next attempt. 46 participants were in the experimental group and 41 in the control group. In the experimental group, during a few of the games, the participant would automatically get their third attempt correct in order to increase self-efficacy. The control group did not get any manipulations at all.

The way that they determined a person's level of self-efficacy and self-confidence was through questionnaires given between each set attempts to arrange the blocks in the correct order. One question for self-efficacy involved having the participant state how many attempts it would take them to find a solution based on a scale of 1, extremely unlikely to 6, extremely likely. The question for self-confidence involved having the participant state how confident they were in the arrangement choice they were making

based on the feedback that they had received based on a scale of 0, not confident, to 100, very confident.

What the experiment found was that in the experimental groups, the manipulated games did increase the self-efficacy of the person and on some levels it also decreased the performance of the person on the next game. Once the person did not have a couple of the games manipulated, the self-efficacy lowered and the person's performance once again increased. Vancouver in 2001 found that by looking at the change with-in an individual, there was a negative affect between high self-efficacy and performance as a whole but he also felt that there needs to be more research on this for there could also be other reasons that the study did not show for these changes.

In the second study they did similar testing but this time they were looking at what the level of confidence had on the performance and the self-efficacy of the individuals. What they found surprised them. They found that there was a positive effect of self-efficacy and confidence, the higher the level of self-efficacy the higher the level of confidence and vice-versa. What they also found was that there was no effect on confidence and performance and this also did not explain the lower performance of participants with the higher levels of self-efficacy.

Powers in 1973 and 1991 also found a negative between self-efficacy and performance but these studies did not take a look at the confidence of the individuals. He feels that having high levels of self-efficacy may cause a person to set higher goals, but it can also reduce the motivation to reach the goals (Vancouver et el, 2002).

Stone in 1994 also found that a person that was over-confident in their abilities were high is self-efficacy and that these individuals also had less motivation and contributed less to reaching these goals. In 1991, Bandura and Jourdon found similar results in studies that they performed and stated “complacent self-assurance creates little incentive to expend the increased efforts needed to attain high levels of performance” (Vancouver et al, 2002).

After looking at these studies, one may conclude that high levels of self-efficacy may not be as good as Bandura once thought. Before making this conclusion, one must realize that this is what seems to happen over time and not in a short length of time. It must also be considered that people in this group are also more likely to set higher goals and to push on when the going gets tough. These individuals are less likely to stop or quit a task where as a person with low self-efficacy is more likely to set lower goals and to quit or give up when things get tough. It must also be considered that there may be other factors that have not been researched that are leading to the lower performance levels with high levels of self-efficacy and high self- confidence. These are just a few of the points that need to be considered when trying to use high levels of self-efficacy to get more and better production out of workers.

Summary

The understanding that I have gained through research on self-efficacy theory is “the employee who is given the flexibility to try a task under various conditions builds a body of knowledge that increases both his natural ability to perform the task and the self-efficacy to believe in his ability to do it” (Petersen, 2013). Human functioning may be primarily influenced by personal (self-efficacy), behavioral (social recognition), and environmental (sense of cohesion in work area) influences. What this may imply is that

the core of our motivation may be extrinsically reinforced. The amount of research support for self-efficacy motivation is rather high, which shows that the theory is not only valid but reliable. No matter what a person's status is, employees need to know that their work is not going unrecognized. By getting to know your staff and keeping them motivated, you help to increase their self-efficacy levels, which in return will produce higher productivity ratings.

CHAPTER THREE

METHODOLOGY

Introduction

The purpose of the study was to identify teachers' self-efficacy in line with their Classroom Management Practices, Classroom Instructional Practices and Student Engagement with particular focus on teachers serving in the Bolgatanga municipality of the Upper East region of Ghana. In this chapter, methodology adopted for the study. The chapter includes research design, the population, sampling technique and sample size. The background characteristics of the respondents and the ethical considerations will equally be presented.

Research Design

A research design is "a plan that describes how, when and where data are to be collected and analysed" (Parahoo, 2012). This is a quantitaive study hence a quantitative approach was chosen for the study because such approach is very good at producing "information on groups and phenomenon that already exist (Flick, 2007). This approach also afforded me the chance to adopt scientific and numerical means of establishing associations among the variables.

Population

A population is the totality of persons, events, organization units, case records or other sampling units with which the research problem is concerned (Crotty, 1998). The target population for this study was all primary schools in the Bolgatanga municipality. This study area was chosen because of its proximity to the researcher, the willingness of Municipal Education Service directorate to give out the needed data. Most importantly,

the study area is very relevant to the study owing to the fact that the municipality is populated with a number of deprived schools and my high familiarity with the area of study which will help me to access all the schools. Based on the December 2015 teacher head count of the municipality, a total of 1404 teachers are identified as the target population. These targeted teachers were made up of 698 male and 706 female teachers from 51 JHS, 69 Primary schools and 74 Kindergartens.

Study Population

The study population is a section of the total population which is reachable and accessible to the researcher at the time of the study. To be able to effectively handle the research work? According to Mohamed, (2016) the accessible population is the population in research to which the researchers can apply their conclusions to. This population is a subset of the target population and is also known as the study population. It is from the accessible population that researchers draw their samples. In this study, the schools in the Bolgatanga municipality were much more accessible and therefore constituted the study population.

Sample and Sampling Procedure

A sample is any part of the fully defined population (Indrayan, 2008). The sample size used for the study was 260 Basic school teachers. This was sampled from a total of 812 teachers in the municipality. (2015 GES Head count). The sample size was determined using Yerman's formula for calculating sample size taking into consideration a confidence level of 95% and a 5% margin of error.

The participating schools were selected using a simple random sampling of which the circuit supervisors with the permission of the municipal director of education balloted with simple "YES or NO". Only the circuits with YES were selected for the study.

Instrument

In considering the instruments for data collection for this study, I made a thorough consideration of the factors that determined the appropriateness and reliability of the instruments for the study. I found that questionnaire was feasible in collecting the data for the study owing to the fact that generalization is a key component of the study. Besides, the sample size was too large for effective observation or interviewing. Questionnaire has become the most suitable instrument since it proves to have a higher confidentiality than interviewing and observation.

I adopted a tried and tested scale for measuring teachers' sense of efficacy developed by Tschannen-Moran and Woolfolk Hoy (2001) as the instrument for data collection. The carefully selected variables of the instrument are grouped into three dimensions: classroom instructional strategies, measured on a 9-point scale (1 = nothing to 9 = a great deal).

Data Analysis

In analyzing the data, Spearman's correlation matrix was used to establish the relation between the demographic variables and all the three categories of efficacy dimensions. An Independent-Samples T-test was used to test how some of the efficacy dimensions differ in terms of the teachers training (professional and Non-professional),

gender and location of schools (Urban or Rural). Finally, multiple regression was used in predicting some of the vital variables on teachers' background data.

Handling of Ethical Issues

Scientific research work, as all human activities, is governed by individual, community and social values (Batchelor & Briggs, 1994). Research ethics involve requirements on daily work, the protection of dignity of subjects and the publication of the information in the research. In the current study the confidentiality of the respondents was treated with utmost security. A cover letter was attached to the survey to explain the purpose of this research and its relevance, and to seek their agreement to participate in this research. Contact information of the researcher was also provided in case a respondent has any questions. No individual was pressurized to respond to the Questionnaires. No form was identification was demanded from the respondents and the objectives of the study was clearly communicated to the respondents and their concerns soughed only after which did they took part in the study. Enough space and time space was given for the respondents to respond to the questionnaire. Permission to use the instrument was sorted form the original designer Professor Emeritus Anita Woolfolk Hoy, Ph.D (Appendix B). All sources of information were duly acknowledged.

CHAPTER FOUR

ANALYSIS AND PRESENTATION OF RESULTS

Introduction

The purpose of the study was to identify teachers' self-efficacy in line with their Classroom Management Practices, Classroom Instructional Practices and Student Engagement. The focus is on teachers serving in the Bolgatanga municipality of the Upper East region of Ghana. In this chapter, the results of the data collected is analysed and presented. All statistical analyses were done at 95% confidence level (p= 0.05). The internal correlation, for that matter the reliability was tested using Cronbach's Alpha (0.893). Other analyses were done using various measurement and statistical tools based on the nature of the items. Demographic characteristics of respondents.

Demographic characteristics of respondents

A total of 198 teachers' form public basic schools successfully responded to the questionnaires out of the 260 sampled. This represent 76% response rate. Their demographics are presented in Table 1. Females generally dominated the staff population in the basic schools in the Bolgatanga municipality and has reflected in the random sampling with more than half (53.5%) of the responding teachers being females. The staff is more youthful with about two-thirds (62.215) younger than 45 years. Only 6.06% are more than 55 years old. This is a development that have tolls on the stuff retention in the Bolgatanga municipality as more of the younger staff seek further education and greener pastures. Staff turn-over is therefore on the ascendency in the region. Work done by Owusuwaa, Nuamah, and Manu, (2013) supported this development. Unlike fear year ago where the Ghana Education Service engaged a substantial number of untrained-high

school hands especially for the rural areas, this study with random sampling found only 4.04% respondents with SSCE/WASSCE certificates. 26.26% cert 'A', 38.38% with diplomas. Eighteen percent have bachelor degrees whilst 8.58% hold master degrees. Even though the GES is determined to retain only trained teachers in the classroom, about a quarter (25.73%) of the respondents were not professionally trained teachers. The respondents were with varied teaching experiences with over two-thirds with between 5 to 15 years of teaching experience. More of these respondents were from the rural settlements of the Bolgatanga Municipality

Table 1: Demographic Characteristics of Respondents

Variables	**Categories**	**Frequency (N)**	**Percentage (%)**
Age	Below 25	19	9.59
	25 – 34	68	34.34
	35 – 44	36	18.18
	45 – 54	53	26.76
	55 and above	12	6.06
Gender	Male	92	46.46
	Female	106	53.53
Educational Qualification	SSSCE/WASSCE	8	4.04
	Teacher's cert A	52	26.26
	Diploma	76	38.38
	Bachelor	36	18.18
	Masters	17	8.58
	Others	9	4.54
Professionally trained	Yes	127	64.14
	No	71	35.85
Teaching Experience	Less than 5yrs	26	13.13
	5-10yrs	72	36.36
	11-15yrs	58	29.29
	16-20yrs	28	14.14
	More than 20	11	5.55
Location of work	Urban/Pere-urban	93	46.69
	Rural	105	53.31

(N=299)

Ho1: Teachers' Demographic characteristics have no impact on their self-efficacy

Presented in Table 2 is the Chi-square test for independence of determining whether the efficacy for classroom instructional practices is related to the gender of the teachers. The results indicate that apart from the ability of the teachers to respond to difficult questions form pupils (sum of quite a bit (4), and a great deal scales (5)) which shown a significant difference between gender and indicated that 73% for the male and 53% for the female, the difference in all other variables are not statistically significant.

Table 2: Efficacy for Classroom Instructional Practices by Gender (df =4, p=0.05)

	Classroom instructional practices	Group	Percentage (%)					χ2	Sig
			1	2	3	4	5		
1	Ability to adjust your lessons to the proper level for individual pupils	male	2.0	17.6	27.5	35.3	17.6	6.485	.166
		female	1.7	7.6	23.5	40.8	26.5		
2	Ability to respond implement alternative strategies in your classroom	male	2.0	16.0	24.0	40.0	18.0	5.22	.265
		female	0.8	7.6	21.2	43.6	26.7		
3	Ability to provide appropriate challenges for every capable pupil	male	2.0	13.7	23.5	35.3	25.5	1.64	.801
		female	.4	13.9	21.4	36.1	28.2		
4	Ability to provide alternative explanation when pupils are confused	male	2.0	9.8	19.6	49.0	19.6	8.37	.079
		female	0.8	8.8	22.3	31.1	37.0		
5	Ability to respond to difficult questions from your pupils	male	2.1	8.5	16.5	38.1	34.7	12.30	.015
		female	0.0	15.7	31.4	19.6	33.3		
6	Ability to use a variety of assessment strategies	male	2.0	12.0	24.0	40.0	20.0	7.03	.218
		female	1.7	10.2	26.0	32.3	29.8		
7	Ability to gauge pupils' comprehension of what you have taught	male	4.0	8.0	26.0	38.0	24.0	6.13	.190
		female	0.4	10.5	22.7	36.1	30.3		
8	Ability to craft good questions for your pupils?	male	2.0	3.9	15.7	47.1	31.4	3.21	.668
		female	1.7	9.7	14.7	39.1	33.2		

1 = nothing, 2 = very little, 3 = little, 4 = quite a bit, 5 = a great deal

Table 3 shows the correlation analysis of classroom instructional practices and teacher demographical variables. From the Table, it could be noted that Age correlate positively with all the variables indicating that, as the teachers grow older, they become more capable in classroom instructional practices. For example, they are able to adjust lessons to the proper level for individual pupils, ($r= 0.595$; $p< 0.01$); respond better to difficult questions from pupils ($r=0.122$; $p<0.05$) among others.

Additionally, it was clear from Table 3 that the higher educationally qualified the teacher, the better he is in implementing classroom instructional activities. Very notable among these activities are implementing alternative strategies in the classroom ($r=0.321$, $p< 0.01$), provide alternative explanation for example when pupils are confused ($r= 0.306$, $p< 0.01$), respond to difficult questions from pupils ($r= 0.322$, $p<0.01$) and craft good questions for pupils ($r= 0.302$, $p< 0.01$). This then suggests that the as respondents attain high level of education and advance in age there is a significant upward increase or improvement in respondent's ability to adjust lessons to suite students level of understanding, implement alternative strategies in the classroom, provide appropriate challenge for pupils, provide alternative explanation for confused pupils and also respond to difficult questions from pupils, using a variety of assessment strategies, assess the comprehension of lesson delivered and the ability to craft good questions for pupils.

Table 3: Correlation of teachers' activities and their demographic

	VARIABLES	1	2	3	4	5	6	7	8	9	10	11
1	Age		.142[b]	-.226[a]	.255[a]	.256[a]	.213[a]	.078	.122[b]	.202[a]	.172[a]	.134[b]
2	What is your highest educational qualification?			-.195[a]	.320[a]	.321[a]	.168[a]	.306[a]	.322[a]	.258[a]	.261[a]	.302[a]
3	Are you a professionally trained?				-.251[a]	-..232[a]	-.158[a]	-.137[b]	-.157[a]	-.135[b]	-.109	-.134[b]
4	How much can you do to adjust your lessons to the proper level for individual pupils?					.595[a]	.397[a]	.494[a]	.553[a]	.420[a]	.480[a]	.413[a]
5	How well can you implement alternative strategies in your classroom?						.520[a]	.533[a]	.545[a]	.524[a]	.469[a]	.463[a]
6	How well can you provide appropriate challenges for every capable pupil?							.448[a]	.488[a]	.398[a]	.495[a]	.443[a]
7	How well can you provide alternative explanation for example when pupils are confused?								.562[a]	.473[a]	.512[a]	.543[a]
8	How well can you respond to difficult questions from your pupils?									.419[a]	.508[a]	.481[a]
9	How well can you use a variety of assessment strategies?										.480[a]	.493[a]
10	How well can you gauge pupils' comprehension of what you have taught?											.555[a]

N =198 b. Correlation is significant at the 0.05 level (2-tailed).a. Correlation is significant at the 0.01 level (2-tailed).

In Table 4, spearman's correlation matrix is used to analyze the association that exists between classroom management practices and teachers' demographics. The results indicated that, older teachers turn to be more efficient in classroom engagement practices. From the Table, more elderly teachers showed to be abler to establish classroom management systems ($r=0.188$, $p< 0.01$) and calm disruptive pupils ($r= 0.140$, $p< 0.01$). The educational qualification of the teacher like the influence of their age also showed significant positive association with how they control disruptive behaviours in class ($r= 0.154$, $p< 0.01$), getting pupils to follow classroom rules ($r= 0.188$, $p< 0.01$), and the teachers' ability to effectively handle defiant pupils ($r= 0.244$, $p<0.01$). Those with professional training were equally better at implementing adequate measures to keep activities running ($r= -0.128$, $p<0.05$) and making clear expectations about pupils behaviour ($r= -0.118$; $p<0.05$) though the correlation was a weak one.

Table 4: Correlation of Teachers' Classroom Management Practices and their Demographic

	Variables	AG	HEQ	PTP	DBC	FCR	CDP	ECMS	PPD	HDP	CM	EPB
1	AG	1.000	.142*	-.226**	.141*	147*	.140*	.168**	.107	.089	.092	.039
2	HEQ		1.000	-.195**	.154**	.247**	.188**	.219**	.235**	.244**	.217**	.162**
3	PTP			1.000	-.077	-.204**	-.048	-.097	-.001	-.069	-.128*	-.118*
4	DBC				1.000	.579**	.655**	.436**	.361**	.461**	469**	.491**
5	FCR	.				1.000	.636**	.498**	.386**	.350**	.496**	.442**
6	CDP						1.000	.532**	.394**	.464**	.525**	.499**
7	ECMS							1.000	.415**	.445**	.463**	.451**
8	PPD								1.000	.492**	.499**	.337**
9	HDP									1.000	.516**	.490**
10	CM				.						1.000	.566**
11	EPB											1.000

N =198, *. Correlation is significant at the 0.05 level, **. Correlation is significant at the 0.01 level (2-tailed).

AG	Age	ECMS	Establish Classroom Management System
HEQ	Highest Education Qualification	PPD	Preventing Pupil from Disruption
PTP	Professionally Trained Teacher	HDP	Handling Defiant Pupils
DBC	Disruptive Behaviour Control	CM	Control Measures
FCR	Follow Classroom Rules	EPB	Expectations about Pupils Behaviour
CDP	Calming Disruptive Pupil		

Table 5 indicates the association between the demographic data of respondents and their efficacy for student' engagement. The teachers' efficacy to for students' engagement was measured on a six-point scale. The establishment of association using spearman's correlation coefficient shown a very weak positive association between the variables and the demographic data of the teachers. The age of the teachers was significant at 0.01 and 0.05 probability with most of the efficacy variables, the association was a weak positive one; the ability to help my pupils to value learning (0.181; $p<0.01$), ability to motivate pupils who show low interest in schoolwork (0.163; $p<0.01$). The teachers' level of education has equally produced a weak positive association with the variables measuring the efficacy for students' engagement. The teachers believe that they can do much to get pupils to believe that they can do well in schoolwork at 0.01 probability shown an association of 0.243 with the level of education of the teachers. I can take adequate measures to improve the understanding of a pupil who is failing (0.177; $p< 0.01$). On the whole, age and the educational levels of the teachers have positive association with the teachers' efficacy for student engagement giving an indication that an increase in age and educational level to some extent cause an equal increase in the teachers' efficacy for student engagement. It must however be noted that, despite the effect of age and education on teachers' classroom management, the effect is less significant in bringing an obvious change in students' progress.

Table 5: Correlation of teachers' Efficacy for Student Engagement and demographic

	VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12
1.	Age	1.000	213**	.142*	-.226**	.107	.176**	.159**	.227**	-.002	.067	.119*	.091
2.	Gender		1.000	.022	.016	.041	135*	.086	.003	-.061	.022	.041	.-006
3.	HEQ			1.000	-.195**	.243**	.275**	.235**	.170**	.177**	.223**	.165**	.235**
4.	PTK				1.000	-.085	-.046	-.081	-.114	-.080	-.066	-.078	.024
5.	BPS					1.000	.664**	.615**	.445**	.604**	.480**	.546**	.503**
6.	HPVL						1.000	.665**	.518**	.501**	.522**	.557**	.456**
7.	MPLI							1.000	.550**	.591**	.487**	.558**	.504**
8.	AFHC								1.000	.489**	.461**	.449**	.385**
9.	TMUP									1.000	.459**	.554**	.486**
10.	HTC										1.000	.618**	.492**
11.	FPCC											1.000	.514**
12.	PLA												1.000

N =198

*. Correlation is significant at the 0.05 level; **. Correlation is significant at the 0.01 level (2-tailed).

HEQ	what is Highest Educational Qualification	**AFHC**	I am able to assist families in helping their children to do well in school
PTK	Are you a professionally trained teacher	**TMUP**	I can take adequate measures to improve the understanding of a pupil who is failing
BPS	I believe I can do much to get pupils to believe that they can do well in schoolwork	**HTC**	I am able to do much to help my pupils think critically
HPVL	I am able to help my pupils to value learning	**FPCC**	I believe I can do much to foster pupils creativity in my classroom
MPLI	I am able to motivate pupils who show low interest in schoolwork	**PLA**	I am able to help pupils with lower abilities to understand my lessons

Table 6 presents the t-test for independence of classroom instruction practices by location. From the results, even though there were differences in the mean rating of the items by location, only the *ability of the teachers to adjust lessons to the proper level for individual pupils* (M: Rural= 3.49; Urban= 3.83; t= -2.236, p= 0.026) and *the ability to implement alternative strategies* (M: Rural=3.56; Urban= 3.88; t=-2.163; p= 0.031) were statistically significant at $p<0.05$. This suggests that, urban teachers were better off in adjusting their lessons to the proper levels of pupils and implementing alternative strategies in the classroom than their rural compatriots.

Table 6: T-test Analysis of Classroom Instruction Practices and Location

Classroom Instructional Practices Items	location	Mean	t-value	Sig. (2 tailed)
Adjusting lessons to the proper level for individual pupils	Rural	3.49	-2.236	.026
	Urban	3.83		
Implement alternative strategies	Rural	3.56	-2.163	.031
	Urban	3.88		
Provide appropriate challenges for every capable pupil	Rural	3.69	-.573	.567
	Urban	3.78		
Provide alternative explanation or example when pupils are confused	Rural	3.75	-1.296	.196
	Urban	3.95		
Respond to difficult questions from pupils	Rural	3.71		
	Urban	3.95	-1.449	.152
Use a variety of assessment strategies	Rural	3.70	-.512	.609
	Urban	3.78		
Gauge pupils' comprehension of what you have taught	Rural	3.70	-.986	.325
	Urban	3.85		
Craft good questions for pupils	Rural	4.02	.285	.776
	Urban	3.97		

Table 7 is the t-test analysis to establish is the teachers' efficiency in classroom management practices differ between Rural and Urban. The results indicates that, despite the higher mean ratings recorded by urban teachers over the rural teachers, these differences are not statistically significant at the 95% confidence interval.

Table 7: T-test Analysis of Classroom Management Practices and Location

Classroom Management Practices Items	Location	Mean	t-value	Sig. (2 tailed)
Control disruptive behaviour in classroom	Rural	4.08	-1.542	.124
	Urban	4.37		
Get pupils to follow classroom rules	Rural	4.37		
	Urban	4.51	-.830	.409
Calm a pupil who is disruptive or noisy	Rural	4.22	-1.188	.236
	Urban	4.44		
Establish classroom management system	Rural	4.29		
	Urban	4.38	-.570	.570
Keep problem pupils from disrupting an entire lesson	Rural	4.16	-.534	.594
	Urban	4.26		
Handle effectively defiant pupils	Rural	4.37	.377	.706
	Urban	4.30		
measures that are necessary to keep activities running	Rural	4.43	-.388	.698
	Urban	4.51		
make expectation about pupils behaviour clear	Rural	4.49	.057	.955
	Urban	4.48		

Ho3: Teachers' self-efficacy does not dependent on the location (Urban or rural) or the socio-economic status of the schools.

Table 8 is the t-test analysis to establish is the teachers' efficiency in student engagement differ between Rural and Urban. Statistically, only the ability to help pupils value learning recorded means rating; Rural= 4.22 and Urban= 4.60; t= -2.331; p=0.022 was significant at $p<0.05$ in favor of Urban teachers.

Table 8: T-test Analysis of Student Management Efficiency and Location

Student Management Efficiency Items	Location	Mean	t-value	Sig. (2 tailed)
Get pupils to believe that they can do well in schoolwork	Rural	4.49	-.372	.710
	Urban	4.56		
Help my pupils to value learning	Rural	4.22		
	Urban	4.60	-2.331	.022
Motivate pupils who show low interest in schoolwork	Rural	4.47		
	Urban	4.66	-1.183	.240
Assist families in helping their children to do well in school	Rural	4.37	.132	.895
	Urban	4.35		
Measures to improve the understanding of a pupil failing	Rural	4.57		
	Urban	4.35	1.331	.187
Help my pupils think critically	Rural	4.24	-.463	.644
	Urban	4.32		
Foster pupils creativity in my classroom	Rural	4.33	-.854	.394
	Urban	4.50		
Help pupils with lower abilities to understand my lessons	Rural	4.59	.281	.779
	Urban	4.54		

T-test was used to establish the significance in the mean ratings of instructional strategies as applied to professionally and non-professionally trained teachers. Evidence form Table 9 shows that teachers who are professionally trained to teach showed to be better in employing good instructional strategies than their non-professionally trained counterparts. Statistically, professionally trained teachers adjust lessons to proper levels of individual pupils than the non-professionally trained ones ($t=4.288$, $p<0.001$) and in implementing alternative strategies in the classroom ($t=4.144$, $p<0.001$). At $p<0.05$, professionally trained teachers proved to be better at providing appropriate challenges for every capable pupil, providing alternative explanation or example when pupils are confused, respond to difficult questions from your pupils and being able to use variety of assessment strategies.

Table 9: T-test of Teachers Efficacy for Instructional Strategies on Mode of Training

	Variables	Professionally trained	Mean	t-value	Sig (2-tailed)
1	How much can you do to adjust your lessons to the proper level for individual pupils?	Yes	4.07	4.288	.000
		No	3.58		
2	How well can you implement alternative strategies in your classroom?	Yes	4.10	4.144	.000
		No	3.66		
3	How well can you provide appropriate challenges for every capable pupil?	Yes	3.95	2.552	.011
		No	3.64		
4	How well can you provide alternative explanation or example when pupils are confused?	Yes	4.07	2.047	.042
		No	3.82		
5	How well can you respond to difficult questions from your pupils?	Yes	4.07	2.349	.020
		No	3.78		
6	How well can you use a variety of assessment strategies?	Yes	3.95	2.213	.028
		No	3.68		
7	How well can you gauge pupils' comprehension of what you have taught?	Yes	3.94	1.667	.097
		No	3.74		
8	How well can you craft good questions for your pupils?	Yes	4.11	1.776	.077
		No	3.89		

N=198, $p<0.05$

In Table 10 the results of the independent t-test of teachers' efficacy for classroom management with respect to their mode of training (Professional or non-professional). Though there were some differences in the mean ratings by the teachers, on accounts of the teachers' ability to control disruptive behaviour in the classroom, calming a pupil who is disruptive or noisy, establishing classroom management system with each group of pupils, keeping a few problem pupils from disrupting an entire lesson and being able to handle effectively deviant pupils were not statistically significant. However professionally trained teachers are more likely to able to do much to get pupils to follow classroom rules ($t= 3.416$, $p<0.001$), taking adequate measures that are necessary to keep activities running ($t = 2.031$, $p<0.043$) and the ability to always make expectation about

pupils' behaviour clear to pupils (t= 1.996, p<0.047) were attributes that favors teachers who are professionally trained.

Table 10: T-test of Teachers Efficacy for Classroom Management on Mode of Training

	Variables	Professionally trained	Mean	t-value	Sig (2-tailed)
1	I am able to control disruptive behaviour in the classroom	Yes	4.42	1.099	.273
		No	4.25		
2	I can do much to get pupils to follow classroom rules	Yes	4.80	3.416	.001
		No	4.31		
3	I am able to calm a pupil who is disruptive or Noisy	Yes	4.43	.496	.620
		No	4.36		
4	I am able to establish classroom management system with each group of pupils	Yes	4.50	1.491	.137
		No	4.29		
5	I can keep a few problem pupils from disrupting an entire lesson	Yes	4.19	-.374	.709
		No	4.26		
6	I am able to handle effectively deviant pupils	Yes	4.42	1.141	.255
		No	4.26		
7	I can take adequate measures that are necessary to keep activities running	Yes	4.69	2.031	.043
		No	4.38		
8	I am able to always make my expectation about pupils behaviour clear to my pupils	Yes	4.67	1.996	.047
		No	4.37		

N=198, p<0.05

Teachers' ability to efficiently engage students as indicated in the independent t-test analysis presented in Table 11 below shows that, there are not statistical difference in the ratings of students' engagement as with professionally and non-professionally trained teachers. The results therefore indicates that, the differences as seen in the mean score are best explained occurrences underscored by chance.

Table 11: T-test of Teachers Efficacy for Student Engagement on Mode of Training

	Variables	Professionally trained	Mean	t-value	Sig (2-tailed)
1	I believe I can do much to get pupils to believe that they can do well in schoolwork	Yes	4.66	1.190	.235
		No	4.48		
2	I am able to help my pupils to value learning	Yes	4.60	.761	.447
		No	4.49		
3	I am able to motivate pupils who show low interest in schoolwork	Yes	4.74	1.425	.155
		No	4.53		
4	I am able to assist families in helping their children to do well in school	Yes	4.50	1.681	.094
		No	4.25		
5	I can take adequate measures to improve the understanding of a pupil who is failing	Yes	4.50	1.193	.234
		No	4.32		
6	I am able to do much to help my pupils think critically	Yes	4.40	1.009	.314
		No	4.25		
7	I believe I can do much to foster pupils creativity in my classroom	Yes	4.58	1.200	.231
		No	4.40		
8	I am able to help pupils with lower abilities to understand my lessons	Yes	4.49	-.520	.603
		No	4.56		

N=198, $p<0.05$

Ho2: teachers' self-efficacy does not affect teacher ability in improving students' performance.

How Teachers' Self-Efficacy Influences Could Students' Performance

Presented in Table 12 is a regression of the ability of teachers to adjust classroom lessons to proper levels of individual pupils on the teachers' demographical data. The demographical data of the teachers collectively explains about 18.7% (adjusted R^2 = 0.187) of the variance in the ability of teachers to adjust classroom lessons to the proper levels of individual students. On individual accounts, we can confidently say that, for every one standard deviation in age (1.196), the teachers ability to adjust classroom lessons to individual pupils, level increases by about 9.1 (SD = 3.360* β = 0.225). In

unstandardized terms (b=0.225; t= 4.107, p<0.001), age explains about 22.5% of the variance in proper adjustment of lessons to pupils' level. Education explains about 30% variance (β= 0.293, t = 5.047, p<0.001). The professional qualification (1 = YES, 2=NO) gave about 22.6% change in predicting how teachers' at the level adjust lessons to the proper levels of individual pupils (β = -0.226, t = -3.836, p< 0.001) However, experience (β = -0.083, t = -1.278, p<0.003) on the other hand gave a negative prediction to the ability for teachers to adjust lesson to pupil's level when all other variables are held constant. This gave an indication that, while the increase in age, educational qualification and professionally trained cause an increase performance in adjusting lessons to proper level of pupils, an increase in experience rather explains a decrease in this variance.

Table 12: Regression Analysis of How Teachers Adjust Lessons to Proper Level for Individual Pupils on Teachers Demographic Data

Variables	b	β	R	R^2	R^2 Adjusted	SD	t	Sig.(t)
(Constant)	3.360					.989	8.431	.000
Age	.225	.272				1.196	4.107	.000
gender	.298	.116				.384	2.095	.037
What is your highest educational qualification?	.210	.293				1.379	5.047	.000
Are you a professionally trained teacher?	-.464	-.226				.481	-3.836	.000
Location of School	-.375	-.188				.497	-2.959	.003
Teaching Experience	-.065	-.083				1.264	-1.278	.202
			.452	.204	.187			

N=198

In terms of getting pupils to follow classroom rules as indicated in table 13, the background data of the teachers together contributed to only about 8% (adjusted R^2 = 0.079) of the variance. Age and educational qualification turn to be better predictors of how teachers get pupils to follow classroom rules as in Table 13. Age: (β = 0.166; t = 2.348; p<0.02); Educational Qualification: (β = 0.211; t = 3.411; p< 0.001). Professional training also explains about 19% change (β=-0.190, t= - 3.027, p< 0.003) in getting pupils to follow classroom rules. Age, educational qualification and professional training can convincingly be said to have explain the bulk in the predicting of how best teachers can get pupils to follow classroom rules.

Table 13: Regression of Getting Pupils to Follow Classroom Rules on Teachers' Demographic Data

Variables	b	β	R	R^2	R^2 Adjusted	SD	t	Sig.(t)
(Constant)	4.594					1.223	8.756	.000
Age	.171	.166				1.191	2.348	.020
Gender	.144	.045				.385	.767	.444
What is your highest educational qualification?	.187	.211				1.382	3.411	.001
Are you a professionally trained teacher?	-.483	-.190				.481	-3.027	.003
Location of School	-.342	-.139				.497	-2.056	.041
Teaching Experience	-.067	-.069				1.266	-.994	.321
			.313	.098	.079			

N=198

Base on the regression analysis of how best teachers help students to value learning performed on the teachers' background data, it came clear that, the demographic characteristics of the teachers' collectively explains about 8% (R^2 = 0.077) in the

variance. Increase in age (β = 0.202, t = 2.825, p< 0.005), and educational qualification (β = 0.226; t = 3.651, p<0.001) turn to explain the bulk in the variance cause in the ability of teachers to help students value learning with 20.2%, and 22.6% of standardized regression coefficients. [See Table 14]

Table 14: Regression of Helping Students Value Learning on Teachers' Demographic Data

Variables	B	Beta	R	R^2	R^2 Adjusted	SD	t	Sig.(t)
(Constant)	3.170					1.202	6.139	.000
Age	.202	.201				1.194	2.825	.005
Gender	.316	.101				.386	1.713	.088
What is your highest educational qualification?	.198	.226				1.376	3.651	.000
Are you a professionally trained teacher?	-.041	-.016				.480	-.259	.796
Location of School	-.133	-.055				.497	-.810	.419
Teaching Experience	-.082	-.087				1.269	-1.244	.215
			.311	.097	.077			

N=198

CHAPTER FIVE

SUMMARY OF FINDING, CONCLUSION AND RECOMMENDATIONS

Introduction

The purpose of the study was to identify teachers' self-efficacy in line with their Classroom Management Practices, Classroom Instructional Practices and Student Engagement with particular focus on teachers serving in Bolgatanga municipality of the Upper East region of Ghana. This chapter presents the summary of the findings, conclusion, recommendation and further areas needed to be researched into.

Summary of Findings

From a careful analysis of the data gathered, the following findings were arrived at.

i. Besides the ability to respondent to difficult questions from pupils which male teachers proved to be more efficient at, Gender in most cases has no significant impact on teachers' efficacy in the study area.

ii. The age, educational level, teaching experience and professional training of teachers all positively influence their classroom instructional practices where older, more experience, highly educated and professionally trained teachers turn to have better of classroom instructional practices.

iii. With regards to classroom management, and student engagement, age and highly educated teachers outweighed just being professionally trained or having some teaching experience. More educated and older teachers have the ability to manage their classroom more efficiently.

iv. In most of the cases, apart from classroom management where the location (Urban or Rural) was not statistically significant, teachers in the urban areas had an upper hand over their rural counterparts in areas of student engagement and instructional practices. Whiles professionally trained teachers shown better at all three (3) efficacy dimensions.

v. Teachers background information generally contribute about 45% to their ability to adjust lessons to proper level for kids, about 31% to how they can get kids to follow classroom rules and 31% to how to help pupils value learning.

vi. Age, educational qualification and location were the most contributors to the influence in demographics on the efficacy of teachers.

Conclusion

Over the years, research has shown that the efficacy of teachers have impacts on their delivery and the performance of the students. Whiles efficacy is more vied towards intrinsic motivation, there are some environmental factors (extrinsic) that influences teachers' efficacy. The findings pointed out that, the geographical location (rural/urban) of schools alone can make or unmake teachers' level of performance. It is important to note that, gender and experience where not so important in how efficient teachers were. Most important of these factors were education, location and professional training. Since experience, age, education and location has a roll to place, it is assumed that, rural education will continue to suffer unless that are policies that increase teachers appetite to teach in rural settlements. Because more educated teachers seek posting to urban centers,

more experienced teachers seek release to urban centers, the scale of education (urban and rural) continue to post a challenge.

Recommendation

From the results of the study, I recommended that;

i. More rewarding packages must be introduced to teachers serving in the rural areas (housing, transportation, risk allowances and scholarships). This could affect the mind-sets and increase the motivation of teacher working in rural areas.

ii. Professional training, in-service training, service conditions for teachers who schooled on scholarships should be geared towards rural areas.

iii. Since male teachers showed higher efficacy to respond to difficult questions from pupils than female teachers, the GES must to some extent consider issues of gender equity in their posting devoid of posting too many females to the rural areas. A perfect blend in the gender of teachers in each school will neutralise all minor gender-based deficiencies among teachers.

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APPENDIX A:

QUESTIONNAIRE FOR TEACHERS

TOPIC: Teachers' Self-Efficacy of Improving Academic Standards in the Rural Areas, the Case of Bolgatanga municipality of the Upper East Region.

The questionnaire is designed to elicit your kindest opinion and idea on teacher efficacy (the personal confidence of a teacher to handle a class and subject).

The findings are for academic purposes only and will not be disclosed to any third party. All information provided will be treated as confidentially

Please do not indicate your name or any form of identity on the questionnaire. Thank you

SECTION A: BIO DATA

1. Please indicate your age range
   - Below 25 [ ]
   - 25 – 34 [ ]
   - 35 – 44 [ ]
   - 45 – 54 [ ]
   - 55 and above [ ]
2. Gender
   - Male [ ]
   - Female [ ]
3. Highest educational qualification
   - High school [ ]
   - Cert A [ ]
   - Diploma [ ]
   - Bachelor [ ]
   - Masters [ ]
   - Others (please specify) ……
4. Professionally trained teacher
   - Yes [ ]
   - No [ ]
5. Teaching experience (years)
   - Less than 5 [ ]
   - 5 – 10 [ ]
   - 11 – 15 [ ]
   - 16 – 20 [ ]
   - More than 20 [ ]
6. Location of work

Unban/pre-urban [ ]
Rural [ ]

SECTION B: EFFICACY FOR INSTRUCTIONAL STRATEGIES

Please indicate your level personal confidence in carrying out the following instructional strategies

Nothing [N = 1] Very Little [VL =2] Some Influence [SI = 3] Quite A Bit [QB = 4] A Great Deal [GD = 5]

Item	N	VL	SI	QB	GD
Efficacy for instructional strategies					
1. To what extent can you use a variety of assessment strategies in your reading and writing lessons?	1	2	3	4	5
2. To what extent can you provide an alternative explanation or example when students are confused about your reading and writing lessons?	1	2	3	4	5
3. To what extent can you craft good questions about teaching reading and writing for your students?	1	2	3	4	5
4. How well can you implement alternative strategies for your reading and writing lessons?	1	2	3	4	5
5. How well can you respond to difficult questions about your reading and writing lessons from your students?	1	2	3	4	5
6. How much can you do to adjust your reading and writing lessons to the proper level for individual students?	1	2	3	4	5
7. To what extent can you gauge student comprehension of what you have taught about reading and writing?	1	2	3	4	5
8. How well can you provide appropriate challenges for very capable students in reading and writing lessons?	1	2	3	4	5

SECTION B: EFFICACY FOR INSTRUCTIONAL STRATEGIES

Please indicate your level of agreement to the following items

Strongly Disagree [SD = 1] Moderately Disagree [MD = 2] Disagree Slightly [DS = 3] Agree Slightly [AS = 4] Moderately Agree [MA = 5] Strongly Agree [SA = 6]

Item	SD	MD	DS	AS	MA	SA
Efficacy for classroom management						
9. How much can you do to control disruptive behavior in the classroom during your reading and writing lessons?	1	2	3	4	5	6
10. How much can you do to get children to follow classroom rules during your reading and writing lessons?	1	2	3	4	5	6
11. How much can you do to calm a student who is disruptive or noisy during your reading and writing lessons?	1	2	3	4	5	6
12. How well can you establish a classroom management system with each group of students for your reading and writing lessons?	1	2	3	4	5	6
13. How well can you keep a few problem students from ruining an entire reading and writing lesson?	1	2	3	4	5	6
14. How well can you respond to defiant students in reading and writing lessons?	1	2	3	4	5	6
15. To what extent can you make your expectation clear about student behavior during your reading and writing lessons?	1	2	3	4	5	6
16. How well can you establish routines to keep activities running smoothly in your reading and writing lessons?	1	2	3	4	5	6

SECTION B: EFFICACY FOR STUDENT ENGAGEMENT

Please indicate your level of agreement to the following items

Strongly Disagree [SD = 1] Moderately Disagree [MD = 2] Disagree Slightly [DS = 3] Agree Slightly [AS = 4] Moderately Agree [MA = 5] Strongly Agree [SA = 6]

Item	SD	MD	DS	AS	MA	SA
Efficacy for student engagement						
17. How much can you do to get students to believe they can do well in their reading and writing schoolwork?	1	2	3	4	5	6
18. How much can you do to help your students' value learning about reading and writing?	1	2	3	4	5	6
19. How much can you do to motivate students who show low interest in their reading and writing schoolwork?	1	2	3	4	5	6
20. How much can you assist families in helping their children do well in reading and writing?	1	2	3	4	5	6
21. How much can you do to improve the understanding of reading and writing of a student who is failing?	1	2	3	4	5	6
22. How much can you do to help your students think critically about reading and writing?	1	2	3	4	5	6
23. How much can you do to foster student creativity in reading and writing?	1	2	3	4	5	6
24. How much can you do to get through to the most difficult students in your reading and writing lessons?	1	2	3	4	5	6

THANK YOU

APPENDIX B: PERMISSION TO USE THE INSTRUMENT

Nora Kulbo <norakulbo@gmail.com> Feb 2

to anitahoy, Hoy.17

Hello Professor Emeritus
Anita Woolfolk Hoy, Ph.D.

My name is Mad Nora B. Kulbo, a student of the University of Education, Winneba, Ghana.
I am currently on MA Educational leadership from the above mentioned University. As part of the academic requirements, I am carrying out a study on teacher self-efficacy.

"Teachers' Self-Efficacy of Improving Academic Standards in the Rural Areas, the Case of Upper East Region of Ghana"

I will like to have your permission to adopt and use your instrument on Teachers' Sense of Efficacy Scale to collect the needed data.

Please I will like to assure you that, I will adhere to all the ethics as far as social research is concern and the instrument will be used purely for academic purposes.

Thank you

...

Anita Woolfolk Hoy <anitahoy@mac.com> Feb 2

to me

You are welcome to use the TSES in your work. Best wishes.

Anita Woolfolk Hoy, PhD
Professor Emerita
The Ohio State University
7655 Pebble Creek Circle, Unit 301
Naples, FL 34108
anitahoy@mac.com

APPENDIX C: SAMPLING FRAMEWORK

Required Sample Size

Population Size	Confidence = 95% Margin of error 5.0%	3.5%	2.5%	1.0%	Confidence = 99% Margin of Error 5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	146	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1,067	427	636	827	1,119
1,500	306	515	759	1,297	460	712	959	1,376
2,000	322	563	869	1,655	498	808	1,141	1,785
2,500	333	597	952	1,984	524	879	1,288	2,173
3,500	346	641	1,068	2,565	558	977	1,510	2,890
5,000	357	678	1,176	3,288	586	1,066	1,734	3,842
7,500	365	710	1,275	4,211	610	1,147	1,960	5,165
10,000	370	727	1,332	4,899	622	1,193	2,098	6,239
25,000	378	760	1,448	6,939	646	1,285	2,399	9,972
50,000	381	772	1,491	8,056	655	1,318	2,520	12,455
75,000	382	776	1,506	8,514	658	1,330	2,563	13,583
100,000	383	778	1,513	8,762	659	1,336	2,585	14,227
250,000	384	782	1,527	9,248	662	1,347	2,626	15,555
500,000	384	783	1,532	9,423	663	1,350	2,640	16,055
1,000,000	384	783	1,534	9,512	663	1,352	2,647	16,317
2,500,000	384	783	1,536	9,567	663	1,353	2,651	16,478
10,000,000	384	784	1,536	9,594	663	1,354	2,653	16,560
100,000,000	384	784	1,537	9,603	663	1,354	2,654	16,584
300,000,000	384	784	1,537	9,603	663	1,354	2,654	16,586

Source (Yerman's formula for calculating sample)