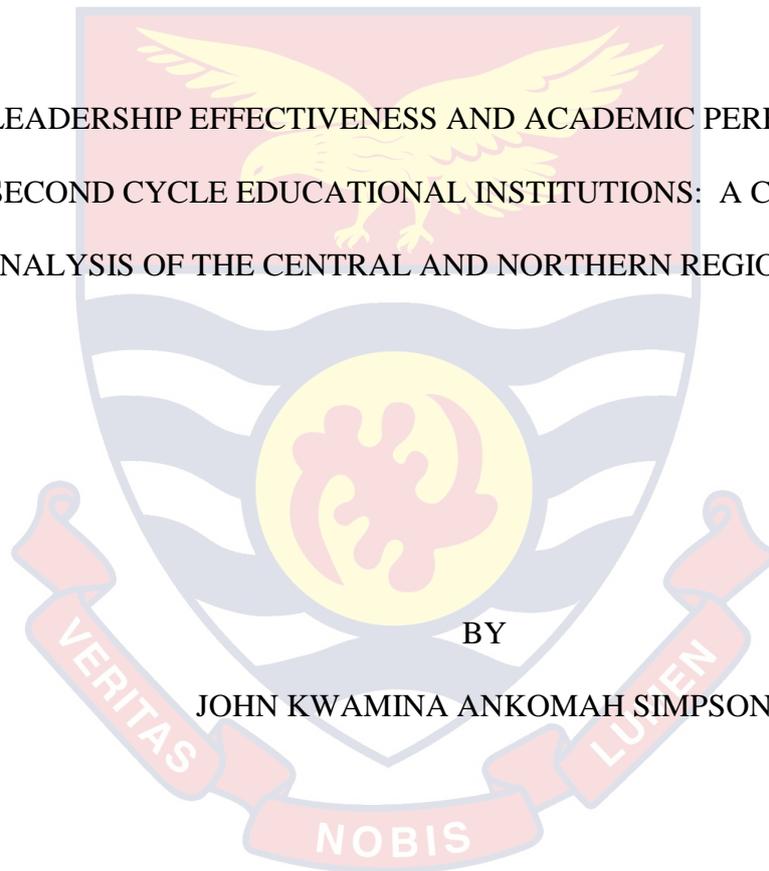


INSTITUTE OF DEVELOPMENT AND TECHNOLOGY MANAGEMENT

LEADERSHIP EFFECTIVENESS AND ACADEMIC PERFORMANCE IN
SECOND CYCLE EDUCATIONAL INSTITUTIONS: A COMPARATIVE
ANALYSIS OF THE CENTRAL AND NORTHERN REGIONS OF GHANA



BY

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Thesis presented to the Institute of Development and Technology
Management, towards the requirement for the award of Doctor of Philosophy
Degree in Development Studies

MARCH, 2020

DECLARATION

Candidate's Declaration

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

Candidate's Signature: Date:

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Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the Institute of Development and Technology Management

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ABSTRACT

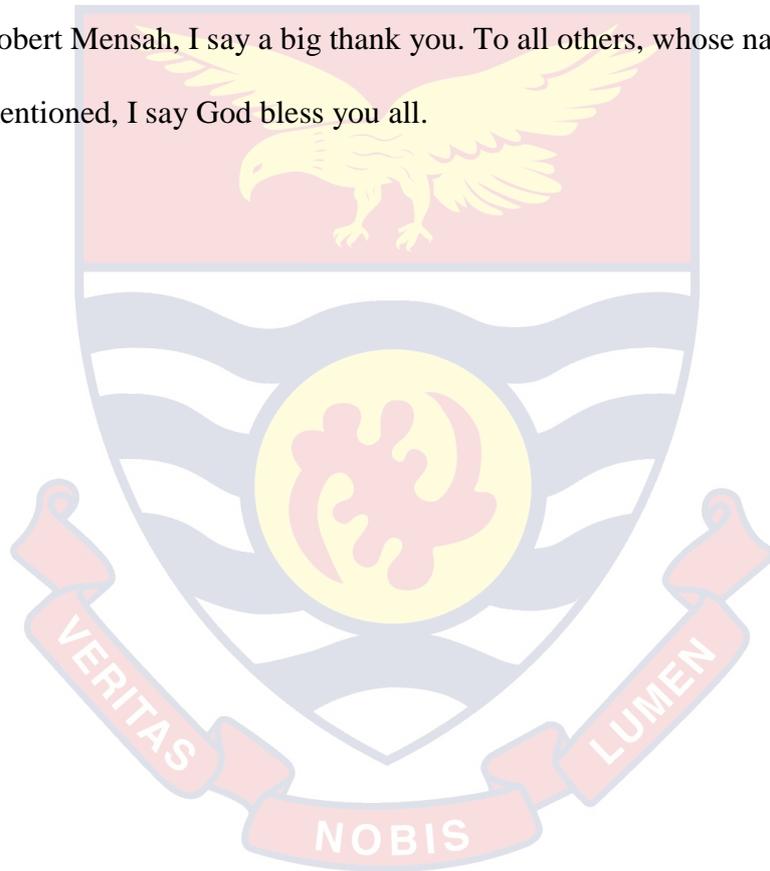
Leadership effectiveness has been used in the developed states to achieve success in organisations, communities and industries. Research in Ghana on leadership effectiveness has been at the Junior High School level. To highlight leadership effectiveness in second cycle educational institutions, literature related to the research was reviewed to obtain the views of various authorities. The general objective of this research was to analyse leadership effectiveness in the second cycle institutions of the Central and Northern Regions of Ghana. Questionnaire administration, focused group discussion, interviews and observations were used to gather data from 890 teachers in the two regions. The technique used for selecting the school teachers was the simple random sampling technique.

Data gathered were cleaned, coded and the SPSS software was used for the data processing. Parents, students and some opinion leaders also offered some suggestions on the questions administered. From analysis, it was found that the heads employed democratic process of leadership most in their schools. This enables teachers, students, leaders of the non-teaching service to offer ideas for decision-making in the schools. For the determinants of leadership effectiveness, 21 factors were regressed in batches of seven and effective supervision stood out as the most prominent factor. On measurement of leadership effectiveness, results showed improvement in the schools. Useful suggestions including special pension, car loan and housing schemes were put forward as ways of improving leadership effectiveness.

ACKNOWLEDGEMENT

I acknowledge and highly appreciate the hard work and foresight of my supervisors, Prof John A. Micah and Prof. Stephen Adei, in providing useful suggestions and reading through this thesis. I am also grateful to my wife Mrs. Nancy Ankomah Simpson for her support in diverse ways. Her encouragement to complete this thesis cannot be taken for granted.

To my research assistants, Messrs Solomon Afful, George Davis and Robert Mensah, I say a big thank you. To all others, whose names could not be mentioned, I say God bless you all.



DEDICATION

I dedicate this thesis to my uncle, Mr. Felix Ekow Roberts, who sought to make me better than he is and my better half, Mrs. Nancy Ankomah Simpson who provided the needed motivation to go on with this project to this level. To my son, Joseph Kobby Simpson, I dedicate this work, for helping in the research information from the internet.

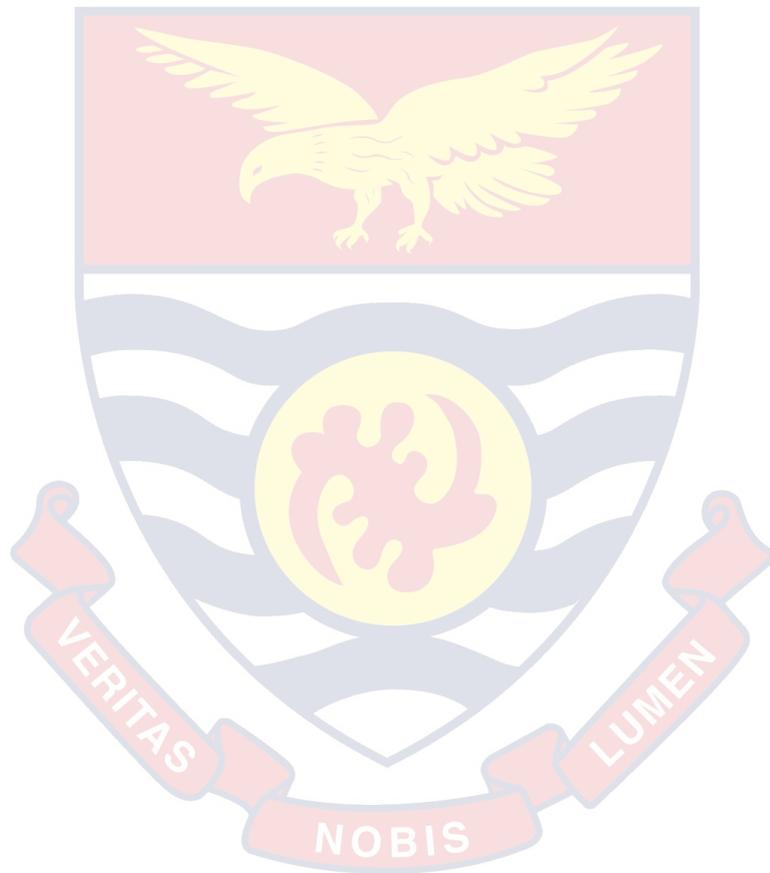


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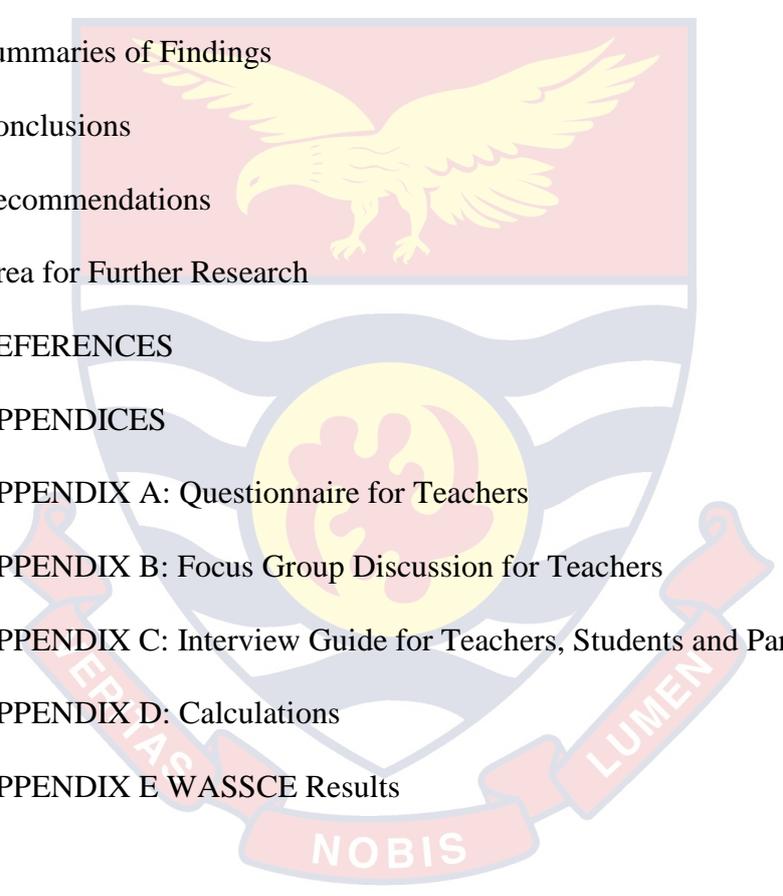
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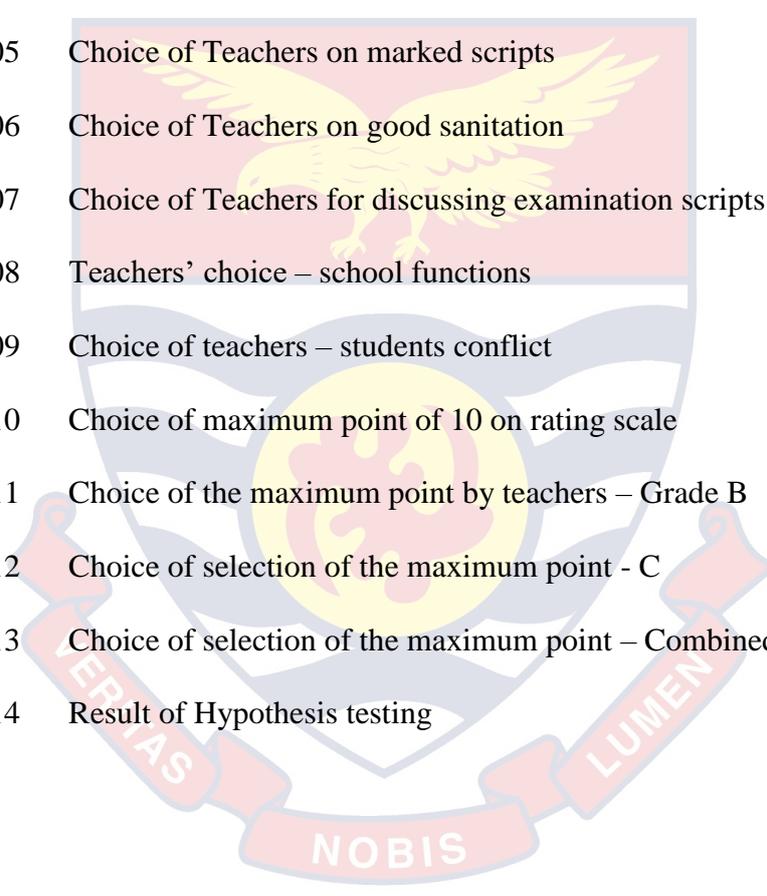
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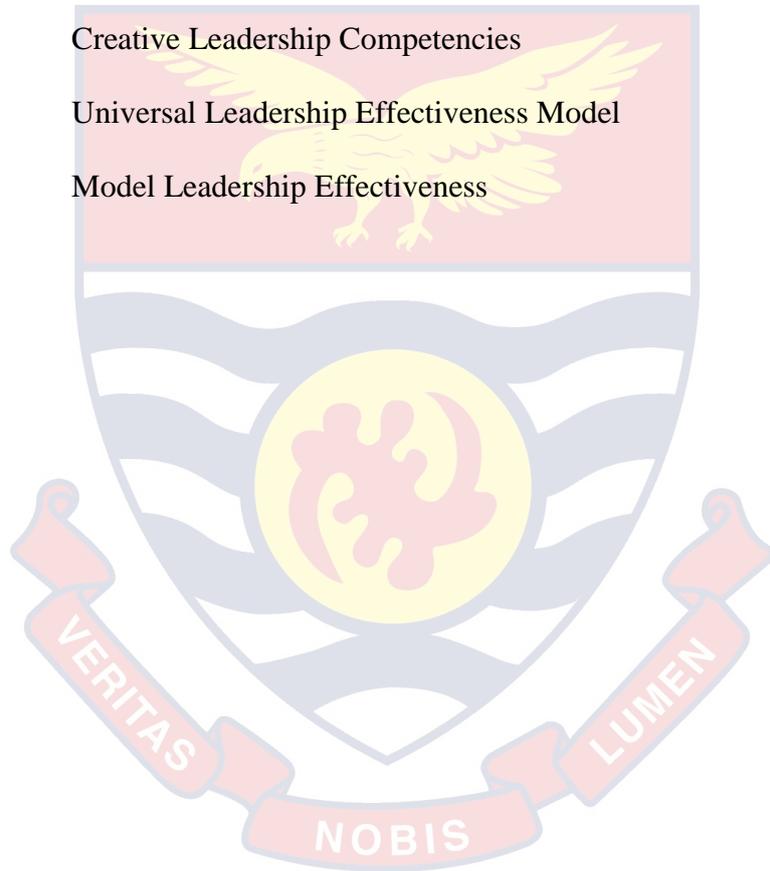
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CHAPTER ONE

INTRODUCTION

Background to the Study

There is a growing concern for leadership effectiveness to update teaching and learning so as to raise standards of performance in all organizations. This concern is demonstrated by the amount of resources of time, efforts and funds expended by government and non-governmental organizations to raise standards of education and so improve performance in academic endeavours. In Ghana, for 2018 budget, the government projected GHS9.3billion (2billion dollars) and for 2019, it was GHS12.9billion (2.8 billion dollars) an increase of 39% over the previous year.

Leadership effectiveness, according to Warner (2013) is “the successful exercise of personal influence by an individual, which results in accomplishing one or several goals as a result of the coordinated effort of those who are led”. Thus in an organization leadership effectiveness is exhibited when the leader sanctions an underperforming employee. Similarly, in the second cycle institutions, leadership effectiveness occurs when the headmaster /mistress is able to successfully implement the policies enacted by the Ministry of Education. These policies run in line with the challenges of rapid globalization. In this regard, the leadership effectiveness of the headmaster or headmistress of schools determines the success or failure of a government policy.

According to Bush and Wood (2005), both practice and theory in education showed that leadership is required, for successful and excellent schools. They emphasized that a leader who has charisma is an influential determinant in

deciding the achievement of an organization. The government and the ministry of education have made a lot of changes to improve education quality. Many reforms were put in place by the educational wing of the government to improve the then current state of education.

Day, Harris, Hadfield, Tolley and Beresford (2002) found that a school's performance is connected to specific attributes and practices in the International Successful School Principalship, Project (ISSPP) involving eight countries including England, Canada and China. This discovery prompted the ISSPP to launch a new "cross country" investigation. According to Leithwood and Day (2007) effective school leadership necessitates additional skills. Their discovery showed that accomplished leaders possess personal and academic values, characteristics for the position and are able to forecast and make useful changes to the context of a specific school as well as the accordance to the needs of such specific school.

In the book: *Five Practices of Exemplary Leadership* by Kouzes and Posner (2002) they stated five main practices for the successful running of schools. These practices were to improve school performance. These practices were:

1. Create the atmosphere for school success
2. Encourage a common goal
3. Make changes to the old ways of success
4. Encourage subordinates to also succeed and
5. Let others be happy to work with you.

Kouzes and Posner (2002) again stated in *High performance schools (HPS)*, some effective leadership practices are

1. welcoming change (challenge the process)
2. giving motivation in achieving common targets (motivating a common aim)
3. making the organization to act (allowing others to act)
4. influencing and implementing (mentoring or initiating the way) and
5. encouraging the organization's efforts (making the heart receptive).

Bethel (2004) mentioned twelve (12) qualities of effective leaders

which are significant. These are:

1. a leader with the right mission,
2. a visionary,
3. standards of ethics and values,
4. agents of change,
5. proactivity and reactivity to the surroundings,
6. risks takers,
7. makers of decisions,
8. prudent use of power,
9. effective communication,
10. groups effective team work
11. confident and an encouragement
12. commitment.

Headmasters or headmistresses, who are desirous to change, understand the running of the school and decide the progress of the school, are the most successful school leaders. These heads ought to be insightful in developing human resources, through in-service training, workshops, seminars, orientation among other forms of training the staff. These heads are

also able to effect changes in school's organization structure. Leithwood et al (2003) proposed some qualities of effective leadership practices for heads who wanted to achieve success in their schools. They provided three basic sets of dimensions:

1. decide the progress of the organization,
2. human resources development and
3. organizational structure.

The headmaster or headmistress who practice leadership effectiveness will have an influence on school progress and students' school and other achievements. Jo et al (2010), state that the headmaster or headmistress emphasized on providing guidelines and students' success in learning for the HPS. 20 HPS principals in United States were used in a study, and the results showed that the principals focused on leadership of teaching and learning as well as leadership of managerial and organizational leaderships.

According to Jo et al (2010) the HSP model they structured and called Double Helix Model stressed on major leadership factors which were the managerial and organizational leaderships. Jo et al (2010) added further that HPS leaders used organizational leadership where the concentration was on helping teachers to teach and students to learn.

A leader, thus, ought to have the qualities of successful leaders and practice excellent leadership roles. Using the structures in the HPS, the transformational leadership skill is the most appropriate. Leithwood et al (2007), conclude that head teachers who excel in leadership qualities also attain success in schools.

Morrison (2008) and Smith (2009) proposed applying HPS in Malaysia with emphasis on school leadership. Being accountable, very active and practicing effective school-based management and performance were additional attributes of the schools. In a HPS, students are also expected to excel in all works of the student life. The HPS aims at graduating students who would fit into international organizations. The HPS and the local, foreign and international schools are well networked. This system also consists of knowing one self, individual learning process, excellent work systems, being equal and empowered.

Research on educational leadership have shown successful and high performing schools thrive on good leadership as a dominant factor. (Simone & Uchiyama, 2003). Leadership in HPS consists of school headship, managerial reform and leadership potentials. In HPS the concept of intelligence associated with emotions and leadership, transformational leadership, teachers' commitment, and the activities of the way of life that are well established. This is in agreement with the ideas that the school requires a good leader to manage it. Lack of leaders who practice leadership effectiveness creates problems for the establishment (Fiedler and Chemers, 1974.; Alimuddin, 2006). School headship is associated with success in schools basically in HPS. Baile and Collinwood (2008) stated that the successful head plays a major role in the progress of schools and universities. Globalization which goes with progress required that the headmaster or headmistress does not focus on leadership for education alone but also in ideal leadership and be able to transform the characteristics of the elements within a school organization so as to move the organizational goals to perfection. Waters, Marzano and McNutty

(2003) support that HPS leaders ought to be abreast with prevailing issues. Such leaders ought to be able to promote mental skills among teachers and support staff. They always promote a way of life that is healthy and continuously monitor and evaluate the role of the school on pupil's performance. Jo, Joseph and Dana (2010), state that headmaster or headmistresses who practice leadership effectiveness are current and very important and have influence for the establishment of HPS.

There are theories and models used in measuring the factors of leadership among school heads, with the effectiveness of the management of educational institutions in its maximum level. One of these models is the 'States Regional Effectiveness Model' inspired by Caldwell (2008). Caldwell's model had eight elements which are leadership pertaining to jobs, a stress on learning and teaching, strategy for stakeholder and partners, common moral purpose, high expectation for all being educated, a stress on day to day improvement and purposive use of funds and personnel. The result from the study showed that State Regional Effectiveness Model was applied by the stakeholders of educational institutions in Victoria that is in Australia. Those who studied the models and theories agreed that all study centres would benefit from common responsibility for all students from sharing of knowledge pertaining to jobs, issue of informing the people and gathering of required data.

The school leader's efforts affects the performance of students and school (Hammond et al, 2005 in the Wallace Foundation Report). This performance is associated with the efforts of the leader through their followers, on the factors and procedures of the institution (Anderson and

Wahlsrom, 2004). Sillins and Mumford (2001) believed that leadership has a way to direct student achievement that is by leadership effectiveness that modifies the teaching of teachers. According to Early et al (2004), 10 schools in the United Kingdom (U.K) were “well-led” because the headmasters solve problems and always go inspecting activities on the school compound. School leaders have a strong supporting teams of senior men, and collaborated with the middle level on the academic hierarchy who act as change providers and can agree and make acceptable changes. Australia for Teaching and school Leadership,(2011) in collaboration with The National Professional Standard for principals realized that the factors for successful leaders being established by way of teaching and learning which leads to production of learners who succeed and are confident individuals who are creative and active knowledgeable people.

Introducing changes and paradigm shifts, HPS outlined a number of factors which include having a focus to succeed, excellent leadership, encouraging atmosphere, maximum appreciable levels of teaching and learning methods. Developing professionally, democratic process in taking decision and a good interpersonal cooperation from all stakeholders both within and without are the other factors that are also prioritized.

Leithwood et al (2003) also argue that progressive schools stress on the process of change in the shaping of the school leaders and that of students’ achievement which are necessary and supportive. The creation of progressive schools do not just occur. Hussein (2008), Razik and Swanson (2001), Day et al (2006) state that the school leader is the major factor that promotes a

progressive school. Many studies agree that the leadership of the headmaster is what distinguishes the progressive school from non-performing school.

The Natural Transformation Plan (2010-2020) concludes that academic performance of students would be better as non-performing leaders are replaced by leaders who practice leadership effectiveness. Based on 70 studies involving 2,194 schools results showed that an increase in the standard deviation (0) increased in the quality of leadership and this led to an improvement in students' academic performance by 10% (Mid Continent Research for Education and Learning Mc Reil). This study therefore helps to predict the performance of the school when changes are continuously applied.

In sustaining administrative leadership in HPS, a continuum of change which has three levels are applicable. There is the ability to know the diversity, associating with its form, appreciating the different abilities and finally making changes. This change takes into consideration the elements of various forms of excellence in the organization. When a phase of change brings a non-performing school to a better condition to achieve HPS level, then the focal point is the effective leadership of the leader.

Can the above statements be attributed to the second cycle institution of Ghana? The first president of Ghana in his effort to produce leaders had the Kwame Nkrumah Ideological Institute established at Winneba. Unfortunately, he emphasized training of leaders for his political expediencies. This emphasis failed when he was overthrown in 1966. Succeeding governments tried to make leadership a wholesale aspect for the nation. Currently, the government is trying free education at the second cycle to enable majority of children (school going age) to access education with the hope that the idea of giving

quality education would produce quality leaders. The quest for quality leaders has led to search where employers would want to recruit workers with ten years' experience in their previous jobs.

The role of the headmaster/mistress in promoting and ensuring excellent academic performance cannot be taken for granted. Maximum encouragement, enabling atmosphere for work, compensation and effective interaction among the headmaster/mistress and staff play necessary role in promoting this function. Headmaster/mistress also needs to plan and organize the school system to enable teachers and students to teach and learn respectively. While some argue that the schools are not performing because the teachers are underperforming, others also argue that the students are underperforming. Generally, parents praise students for good performance and blame teachers when students fail at the final West African Secondary School Certificate Examinations (WASSCE). No empirical evidence supports the ideas put forward by the parents, for the success or failure of the students.

Our cultural background, educational qualifications of the headmaster/mistress and environmental factors do not warrant good academic performance by the students, without the leadership effectiveness by the headmaster/mistress. According to West African Examinations Council (WAEC), 232 schools scored less than 30% passes at the WASSCE in 2010. Similar trends must have occurred between 2010 and 2016 for the then Minister of Education, Prof. Nana Opoku-Agyeman to warn all headmasters who supervised failures at the WASSCE (Larbi ,2016).

It is still not clear how headmasters/mistress enable students to perform at WASSCE. Teachers and the supporting non-teaching staff, have needs that

ought to be satisfied to enable them contribute effectively to students performance. This is based on the realization that as they (teachers and non-teaching staff) support, their personal objectives and goals would be met, otherwise their interest in school activities would wane. Thus, the headmaster/mistress is seen as the pivot around which success or failure is measured by members of the community. Management scholars agree that the failure or success of any organization is largely dependent upon the leadership and style of the leader. Various researchers have written on leadership instead of leadership effectiveness. Hence, this research is to bridge the gap on information on leadership effectiveness.

Statement of the Problem

This research on leadership effectiveness and academic performance seeks to assess the state of leadership effectiveness and academic performance in the Second Cycle educational institutions of the Central and Northern regions of Ghana. It also seeks to analyze the determinants of leadership effectiveness. Evaluation of the relationship between leadership effectiveness and academic performance would also be done for Senior high schools in the Central and Northern regions of Ghana. A model leadership effectiveness would be synthesized for improved academic performance in the Senior High schools of the Central and Northern regions of Ghana.

Leadership effectiveness is a new phenomenon in Africa and consequently in Ghana. On the state of leadership effectiveness and academic performance, literature developed in the United Kingdom (UK) and United States of America (USA) indicate that headmasters or principals are given basic training in school leadership and management to be able to carry out

their tasks effectively (Dean, 1993). This lack of leadership preparation for school headmasters in Ghana is evident from the reports of the Commonwealth Secretariat (1993, 1996). The Commonwealth Secretariat (1996, iii) stated categorically that in Africa, "experienced and skilled teachers are customarily appointed to run complex schools without adequate preparation and back up support". Maden, Lawson and Sweet (1976) believed that the state of leadership effectiveness and academic performance had principals or headmasters who provided a significantly greater amount of support for their teachers. They added that teachers were more task oriented in their classroom approach. This support from headmasters operate in schools where the headmasters practiced democratic style of leadership and not in schools where the headmasters were autocratic. Similarly, teachers are less task oriented in Ghanaian schools as stated by the report of the Commonwealth Secretariat (1996).

Determinants are factors which decisively affect the outcome or nature of something. The American Management Association provided seven success factors or determinants which included action orientation, building trust and demonstrating personal accountability. Kemps (2006) used six (6) key leadership effectiveness factors which included establishing trust and demonstrating integrity, setting clear directions and focusing on results. Alabi and Alabi (2015) researched into a Dean's leadership effectiveness and concluded that certain competences influenced it. These included clearly defined roles and responsibilities, performance management and accountability system. Khuda, Azhar and Shafgat (2014) stated that the determinants of Administrative effectiveness were enriched with desired

personal traits and management skills. They added that the administrator makes a visible plan to achieve the pre-determined objectives of the organization but fails if the organization climate is not supportive (Avolio, 2011; Azhar, 2009; Mandel, 2012; Rubab, 2012). Thus no single determinant significantly affects leadership effectiveness. Again all authors were Europeans and even the Ghanaian writers, Alabi and Alabi wrote on the tertiary level.

On the relationship between leadership effectiveness and academic performance, Crowther, Kaagan & Ferguson (2002); Glatthorn (1990) believed strong instructional and managerial leadership provide direction, coordination and supervision and resourcing for improvement in teaching and learning. Hadre (2009); Hadre, Sullivan and Roberts (2008) proposed that the collaboration of teachers and their families and teachers' efforts at both school and community levels were essential for improving achievement in rural schools. The question here is, would the same cooperation provide urban schools with the same or better improvement in academic performance? Hattie (2009) rather emphasized more on the roles played by responsible teachers and students than that of the principal, in improving teaching and learning and obtaining outcomes. Despite his strong emphasis on the teachers' role in student achievement, he did acknowledge the importance of instructional and community leadership role of the effective principal in school achievement (academic performance). Thus both teachers and principals work together to achieve academic performance. Walker and Dimmock (2002) developed cross-cultural perspectives to influence school leadership and management practices in different cultural contexts. They, however, emphasized the need of

circumspection when culturally appropriate effective leadership practices of one socio-cultural context were introduced in another. Waston, Partington, Gray and Mack (2006) concluded that managerial, instructional and cultural community leadership of the school headmaster were essential factors for the high academic performance of Aboriginal students in Mathematics. Leithwood, Louis, Anderson and Wahlstrom (2004) argued that the greatest contribution of principals to the performance of their teachers and students was their ability to create a meaningful, collaborative culture in their schools. All these authors were from the European areas and wrote for the European world.

For synthesizing a model leadership effectiveness to improve academic performance, Day (2015) developed a model that was both complex and elegant enough to take on the complex tasks of developing leaders for the future. From his model, leadership capability and effectiveness depend on the stage of development of the leader. Extraordinary capability emerges as the creative stage of leadership matures. Other models to make successful leaders and so influence others to achieve better results are servant leadership model, leadership with autocratic model, leadership with Transactional model, leadership which is task-oriented, Transformational leadership model and people-leadership model. All these models were developed by European authors for Europeans schools. Importing them for use in Africa and specifically for Ghana ought to be done with caution.

Knowledge on leadership effectiveness and academic performance at the senior high schools is still lacking. Thus the knowledge gap includes assessing the state of leadership effectiveness and academic performance, the

determinants of leadership effectiveness, the relationship between leadership effectiveness and academic performance and synthesizing a model leadership effectiveness, at the Senior High Schools in the Central and Northern regions of Ghana.

Objectives of the Study

Generally, the study sought to do a comparative analysis of leadership effectiveness in Senior High Schools of the Central and Northern Regions.

The study is geared toward fulfilling the following specific objectives:

1. To assess the state of leadership effectiveness and academic performance in the Senior High Schools of the Central and Northern Regions of Ghana.
2. To analyse the determinants of leadership effectiveness in the Senior High Schools of the Central and Northern Regions of Ghana.
3. To evaluate the relationship between leadership effectiveness and academic performance in the Senior High Schools in the Central and Northern Regions of Ghana.
4. To synthesize a model leadership effectiveness for improved academic performance in the Senior High Schools in the Central and Northern Regions of Ghana.

Research Questions

The following research questions were formulated to guide the study:

1. What is the state of leadership effectiveness and academic performance in the Senior High Schools of the Central and Northern Regions?

2. What are the determinants of leadership effectiveness and academic performance in the Senior High Schools of the Central and Northern Regions?
3. What is the relationship between leadership effectiveness and academic performance in Senior High Schools of the Central and Northern Regions?
4. How is leadership effectiveness and academic performance synthesized in the Senior High Schools in the Central and Northern Regions?

Scope of the Study

The study was about leadership effectiveness and performance of heads of second cycle educational institutions in the Central and Northern Region of Ghana. For the number of Senior High Schools in the Central and Northern Regions this research was for only government assisted ones and also, schools that are very popular and are selected by parents as the first choice for their wards. They also have greater proportion of all teachers in the regions for the size of students and also has committed teachers. The study has only the teachers in the S.H.S as the respondents.

Limitations of the Study

A study on leadership effectiveness and performance would have been conducted on the entire teacher population and all Senior high schools in Ghana. However, time and financial constraints would not make it possible for the entire population in each school to be included. The results of this research would have been better if other Senior High Schools were included. The results would have also helped in the comparison of Private Senior High

Schools and Government - assisted Senior High Schools in leadership effectiveness and academic performance. The leadership effectiveness and performance of rural and the urban senior High Schools could have been compared if the schools were considered along this line as well.

Organization of the Study

The study has chapter one covering the background of the study, the statement of the problem, the objectives of the study, the scope of the study and the limitation of the study.

Chapter two looks at review of related literature. Topics like leadership effectiveness and performance, leadership styles, leadership and motivation, characteristics and qualities of good leadership and academic performance are also looked at.

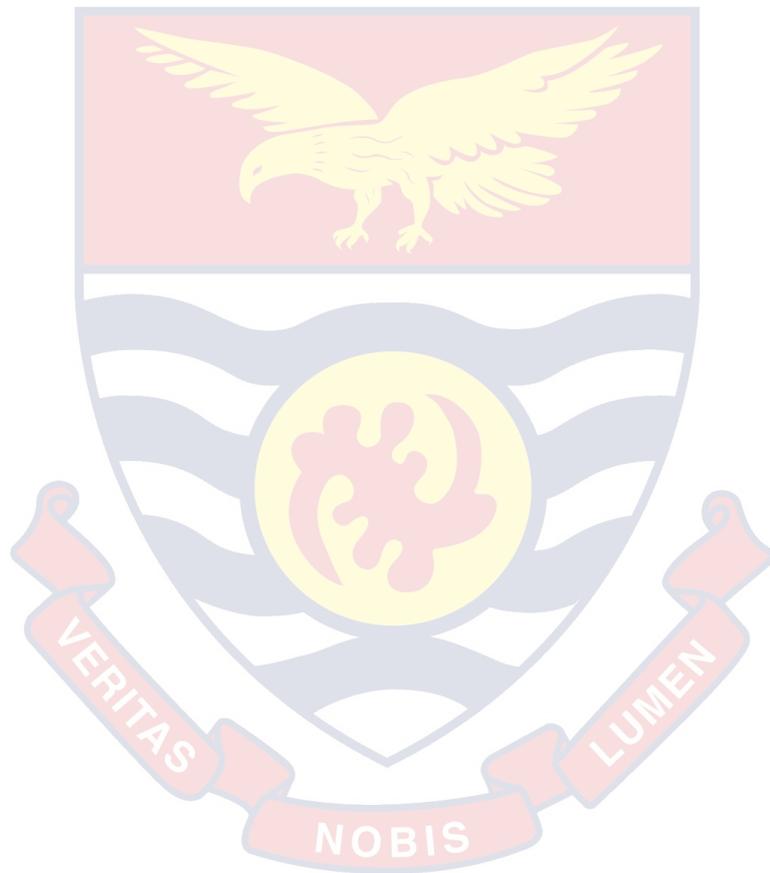
Chapter three deals with methodology which covers research design, population of the study, as well as analysis of data.

Chapter four looks at the assessment of the state of leadership effectiveness and academic performance.

Chapter five looks at the analysis of determinants of leadership effectiveness and academic performance. The method of iteration would be used to determine the most dominant factor.

Chapter six would be the analysis of relationship between leadership effectiveness and academic performance. Chapter seven of this research would provide a model leadership effectiveness and academic performance for the two regions.

Chapter eight, the last chapter, would look at the summary, conclusions and recommendations. The final part would be the suggested area for further research.



CHAPTER TWO

LEADERSHIP EFFECTIVENESS AND ACADEMIC PERFORMANCE IN EDUCATIONAL INSTITUTIONS: A REVIEW OF LITERATURE.

Introduction

The review will cover:

1. The concept of leadership effectiveness.
2. The determinants of leadership effectiveness.
3. The measurement of leadership effectiveness.
4. The relationship between leadership effectiveness and academic performance.
5. Character traits.
6. Improving leadership effectiveness and
7. Empirical evidence of leadership effectiveness.

Leadership effectiveness

In the educational institutions leadership effectiveness is a progressive act of getting the head to collaborate and commit wholly to all the subordinates in achieving the organization's goals (Cole, 2002). Leadership in the school seeks excellent performance, because it does not only supervise teachers' work to be accomplished and who executes them but also seeks to supervise the non-teaching and other aspects like being recognized, rules and regulations, motivation, forcible constraints and payment system (Balunywa, 2000). Thus, leadership includes achieving the tasks, which is the major aim of the organization and the contentment of workers, which is the requirement of human beings (Okumbe, 1998).

Maicibi (2003) stated that the absence of a good style of leadership, high academic standards would be absent in schools. He added that even if the school has all the required instructional materials and financial resources, it will require properly trained teachers to train the children in their use.

Armstrong (2004) in defining leadership stated that it was affecting others, controlling and the recognized position acquired by a leader that enables him or her to effectively transform the organization through providing directions to all workers that are the leading assets of the organization, and supervising the workers to achieve the goals of the organization. The achievement of the goals of the organization can be done through constant reminders to the workers of the aims and objectives of the organization and encouraging the workers to participate in the achieving the aims and objectives of the organization. Such leader is also described by Sashkin and Sashkin (2003) as one with future aspiration.

However, according to Sashkin and Sashkin (2003), leadership that matters does not limit itself only to the bosses such as the chief executive officer or principal/head teacher but involves certain qualities of the leader. It transcends the leader's qualities in which leadership is seen as more of motivating workers to achieve the goals of the organization (Sashkin, 2003). Laz Tzu (as reported in Sashkin, 2003) supports the view that heads who practice leadership effectiveness conform to less work but being more active in getting subordinates to work harder to bring in good results. Academic rigour should not be the only criterion for good performance in any senior high school (S. H. S), but also include the contribution of the non-teaching personnel of the school as well as their emotional and physical needs of the

teachers and that of students. This ought to be the future aspiration of school heads and the desired policy, structure and organization of the school could be directed to the accomplishment of the common future aspiration.

Warner (2013) provided the following as a working definition for leadership effectiveness: ‘the successful exercise of personal influence by an individual which results in accomplishing one or several goals as a result of the coordinated efforts of those who are led’.

According to Cherulnik et al. (2001), leadership effectiveness has to do with how well a leader functions. Thus leadership effectiveness in an organization promotes profit, motivates followers being and keeps the good name. Studies had shown that leaders influence leadership effectiveness (Bono & Ilies, 2006; Gaddis, Connelly & Mumford, 2004). The direction of this influence is however unclear. Either positive or negative effects go to increase or decrease leadership effectiveness.

Perry (2001) and Beaver (2003) stated that poor leadership practices may cause the failure of a business. Beaver (2003) studied the records of 200 bankrupt businesses and concluded that the businesses failed because the leadership lacked knowledge of the businesses. Pellerin (2007) in a study of small businesses found out that 62% of such business failed in the first three years after establishment. He added that 90% of the small businesses collapsed in the ten years of establishment due to poor leadership and management skills (Scheers and Radipere, 2007).

Alidrisi and Mohammed (2017) writing on leadership effectiveness: competencies influence on safety leadership behaviours, stated that leadership effectiveness differs from person to person. They agreed that it depended more

than simply on performing the leadership behaviours. They proposed that leaders must know when and how to execute behaviours beside knowledge (Mumford et al. 2000). These two writers worked on the construction sector. Their aim was to find out the relationship between a single leadership competency, that is, cognitive competency and safety performance indirectly through select leadership behaviours. Their findings included:

1. That influence of safety leadership appears to increase when safety leadership behavior is combined with cognitive competency.
2. That cognitive competency enables leaders to optimize the delegation of responsibility toward their followers, influence followers in identifying safety problems.
3. That involving followers in decision making establishes more effective workforce and
4. That it helps them in raising a high level relationship with their followers, which is characterized by openness, honesty and trust.

Likert (1967) explained that Michigan researchers used clerical workers for their first research. The results showed no significant findings on the clerical staff. They, however, found that supervisors in highly productive sectors behaved differently when compared to supervisors in less productive sector. Katz and Kahn (1952) further explained that supervisors who spent time to plan their job outcomes were associated with higher producing groups. These supervisors who were more concerned with their subordinates tended to develop them for advancement as they demonstrated concerns for personal gains, as well. Based on this, the Michigan researchers, found four major

factors that influenced employee performance and satisfaction (Katz and Kahn, 1952):

1. Differentiation of supervisor's role: managers or supervisors of effective group always perform the top roles while they leave the production or other tasks to their subordinates.
2. Looseness of supervision: subordinates in an effective group are often given adequate room to determine and perform their jobs or tasks.
3. Employee orientation: supervisors of this type of group often have and show interest in their subordinates on individual bases.
4. Group relationship: No exact relationship could be found between morale and productivity. Probably work group satisfaction could affect things like absenteeism and turnover.

The Michigan studies believed that the studies may hold in general, but their level of application to individual situation may be questionable. Katz and Kahn (1952) further explained that the Michigan studies believed in the difficulty of the work done, a contrary result was obtained for employees in a manufacturing company. This new result showed that subordinates could be low or high on one or both dimensions like consideration and initiating structure which might be independent. According to Katz and Kahn (1952) the most effective subordinates in the manufacturing company and employee orientation were considered. On a general view, it seems that effective leaders produced higher results in both production and employee orientations in different degree, depending on circumstance or situation. However, another study on a plastic manufacturing company showed that close supervision might produce quite a number of positive organizational performances (Katz

and Kahn, 1952). Their subordinates saw such managers as being good team leaders and members. These findings show that the effects of both close and loose supervisions are determined by situations at hand.

The Determinants of Leadership Effectiveness

Determinants are factors which decisively affect the nature or outcome of something. The American Management Association collected data on leadership effectiveness in the manufacturing industry of 46 competencies, seven (7) differentiated the top performing leaders. These seven success factors or determinants included:

- Action orientation (executing business objectives)
- Building trust and demonstrating personal accountability (keeping promises and commitments, accepting responsibilities)
- Building teams (encouraging cooperation and coordination within the work unit).
- Flexibility and agility (adjusting one's behavior to changing circumstances, receptivity to change).
- Influence (using techniques that appeal to reason, values or emotion to generate enthusiasm or commitment)
- Communication (effectively conveying ideas)
- Self – confidence (having an accurate view of one's capabilities without being arrogant). As the study showed, the most effective leaders are able to balance execution – oriented behaviours with the interpersonal skills required to build trust and cooperation.

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Kemps (2006) used six (6) key leadership effectiveness factors (LEFS) to steer his organization to bigger profit and ran workshops for other companies to reap bigger profits after training. These six (6) factors are:

1. Establish trust and demonstrate integrity
2. Set clear direction
3. Grow relationships
4. Focus on results
5. Cultivate capabilities and
6. Promote innovation.

These six factors according Kemp's were built on job expectations, performance expectations and daily interactions, working output and day to day communication with one another. These six factors are clearly what school leaders need to run schools for better results. Once trust is established by the head, the teachers would work to their maximum best. Policy guidance from the Ministry of Education, when well followed would set clear directions also for the staff, to follow. Focusing on results, one of the major requirements of heads and the Ministry of Education goes well in line with the head's desire to succeed in running the school. Allowing teachers to cultivate their capabilities, such as joining the crop of examiners for WAEC, in-service training, workshops on subjects, orientations and seminars help to improve leadership effectiveness. The Ghanaian educational set up is now endowed with innovations. Heads are given more students than they can accommodate, and have to innovate by converting any available space into dormitory for the excess after filling the dormitories.

Kemps (2006) under each heading provided further explanations.

Under trust and integrity, the leader is to:

- i) Portray originality and truthfulness.
- ii) Be principled and steadfast in decision making
- iii) Act as he/she says.
- iv) Speak from evidence and experience rather than only opinion and
- v) Safeguard sensitive information.

Under setting clear direction, the head is to:

- i) Make clear, simple and consist goals
- ii) Take drives and ways of providing results
- iii) Enable individuals to see how their efforts directly relates to the school objectives
- iv) Engage the appropriate people to the best chances
- v) Improve poor pay off effects
- vi) Provide solid, clear and compelling oral and written communication and
- vii) Involve and engage others appropriately and effectively on setting directions.

To grow relationships, the head is to:

- i) Actively observe for understanding of the issues and persons
- ii) Consistently show respect and value for others.
- iii) See people as people rather than resources
- iv) Take steps to clarify misunderstanding and repair spoilt relationships.
- v) Demonstrate value for constructive dissent and offering new points of view.

vi) Seek opportunities to build cross functional relationships and network
and

vii) Encourage open communication and inclusion in decisions/ planning.

Under focusing on results, the head is to:

i) Follow progress towards objectives and hold others liable for their
results.

ii) Seek to remove or overcome problems,

iii) Effectively use available resources to illicit success

iv) Follow arranged process to learn from and share success and failure

v) Monitor accomplishment on a regular basis and celebrate successes
and

vi) Align short term and long term goals and align them with the school's
goals.

In cultivating capabilities the head is to:

i) Perfectly examine the work of subordinates/self.

ii) Provide/seek end results through training and learning from experts.

iii) Seek and provide ways for job opportunities.

iv) Train workers to cope with job challenges.

v) Recognize, promote, hire, re-train and engage competent employees
and

vi) Help workers who are underperforming to improve or remove them.

In promoting innovation, the head is to:

i) Search, encourage and take action on new ideas

ii) Motivate and take action on new ideas and approaches

iii) Benchmark current practices against better methods

- iv) Pursue the implications of changes that would affect the organization
- v) Welcome divergent perspectives and diverse views and
- vi) Seek out new ideas and better information.

From the six (6) factors, any head of a school who uses the process is likely to develop an enabling environment which leads to a disciplined atmosphere and consequently better teaching and learning environment. This leads to better results at WAEC, all things being equal. It must also be noted that Kemps six factors go to support the factors proposed by the American Management Association.

Alabi and Alabi (2015) writing on understanding the factors that influence leadership effectiveness of Deans in Ghana used two types of competences: technical and leadership competences. While technical competence has to do with educational certificates, grading and respectful work culture, leadership competences deal with measurable patterns of behaviour necessary for the growth of the organization.

Alabi and Alabi (2015) used a mixed method approach using surveys and interviews. Respondents supplying own answers and in-depth interviews (both face – to – face and telephones) were used to collect data on what Heads of Department and lecturers believe should be the needed attributes of the dean. Their sample frame included the head of the university, his/her deputy, all heads of faculties, all Heads of Department, coordinators for courses taught in the university and all tutors of the university who had served more than two years at the University. In all, 39 participants were involved. Their results showed the following competences influencing a Dean's leadership effectiveness:

- Development of future aspirations and ways of reaching them
- Roles and responsibilities, performance management and accountability system are well structured
- Ability to pass on information efficiently
- Focusing on achievements
- Ability to work well with others
- Monitoring and evaluation
- Taking decisions, discussions, solving conflict and problems
- Document control system
- Structuring of job descriptions, annual work plans and evaluate work of faculty member
- Management systems and focus on improving teaching, learning, research and community service
- Proficiency of members
- Project management skills. Use goals, milestones and control mechanisms to measure and manage performance and
- Management of people

Alabi and Alabi (2015)'s results recommended the deans be appointed not through election or selection but through standard recruitment practices. It also recommended that before a dean takes office he/she is taken through leadership assessment and competences.

Alabi and Alabi's findings collaborate the findings of Kemps and the American Management Association.

Khuda, Azhar and Shafgat (2014) worked on what matters most: Determinants of Administrative Effectiveness. They believed "administration"

is the name of “get the work done” well in time. They stated that the job of the administrator becomes easy and enjoyable when the administrator is enriched with desired personal traits and management skills; otherwise it is full of tension (Tanveer & Khan, 2014). The administrator like the headmaster makes a visible plan to achieve the pre-determined objectives of the organization but fails if the organizational climate is not supportive (Avolio, 2011; Azhar, 2009; Mandel, 2012; Rubab, 2012).

An effective head/principal intends to demonstrate a clear picture of his personality traits to lead his staff so they work with due interest and pleasure (Stronge, 2012). The list of personality traits demonstrated by effective leaders tends to be very long. More than 500 studies using sophisticated techniques reduced these traits to the following: alert to social environment, dependable, dominant, physically, beautiful, ambitious and achievement oriented, gallant, exciting, assertive, cooperative, adaptable to situations, decisive, willing to assume responsibility, energetic, having good sense of humour, persistent, self-confident and tolerant of stress.

A population of five hundred teachers from twenty one randomly selected universities participated in the study. The questionnaire was used to measure the determinants and the head's effectiveness was measured by Leadership Practices Inventory LPI. The SPSS for regression analysis was used for the research questions.

Results from the analysis showed that school climate is a significant ($R^2 = 0.110$, $P < 0.05$) determinant of heads'/principals administrative effectiveness. Again, a personality trait is the strongest ($R^2 = 0.375$, $p < 0.05$) determinant of administrative effectiveness. Using stepwise multiple

regressions, the results showed that personality traits of the administrator alone accounted for 37% of the variances in his administrative effectiveness. When the department climate was included, the variance was raised to 12% as R^2 rose to 0. 454. They concluded that these two determinants is 45% and therefore unknown factors accounted for the remaining 55%. Again, the organizational climate ought to be supportive and attractive to accelerate the teaching – learning process. The teachers ought to cooperate with the head/principal without any tension/conflict among teachers. They should be practically loyal to the school. Finally the head ought to be enriched with the best personal traits in this regard.

Khuda et al (2014) worked on the two determinants that go to support the works of other researchers (American Management Association, Kemps, 2006; Alabi and Alabi, (2015).

Measurement of Leadership Effectiveness

Nielson (2018) provided four (4) ways of measuring leadership effectiveness:

1. Subjective realm
2. Numbers – based metrics
3. Implementation of a leadership index and
4. Leadership potential.

The subjective measurement takes an honest look at the overall morale of the organization. The low or high level of overall morale, in the face of new challenges and obstacles tells how the organization can be measured. Low morale is a good indicator that leadership is not effective. High morale is also a good indicator that leadership is effective.

The numbers – based metrics looks at how organizations are improving. For example, the productivity of each year can be compared and decreasing or increasing trends would tell if the organization is retrogressing or improving, respectively. Other areas of measurement for leaders can be efficiency and mistakes. If workers are making fewer mistakes there is improvement in the organization. Timely correction of mistakes is an indicator of improvement.

Another method of measuring leadership effectiveness is the implementation of a leadership index. An index is a targeted measurement tool that associates complete regarding their managers or leaders. In short, it's an evaluation of the leader using the skills, behaviours and attitudes that are found appropriate for the organization. So, the organization must determine what skills and behaviours are most appropriate to its leaders.

The last measurement of leadership effectiveness is leadership potential. Using a similar index, the organization can measure how leaders are being groomed and encouraged at lower levels. A large number of potential leaders show that leadership is effective in the organization. The fact that a leadership pool is developing on its own tells that leaders are indeed leading effectively.

Although financial performance is an obvious metric for measuring the impact of a chief executive officer (CEO) other factors also come into play. So Riot took over Astra Zeneca as the CEO in October, 2012 and was adjudged the best Business Person of the year by the Sunday Times after two years in the job (2014). Five years later, (2019), the Financial times (FT) reported that So Riot's second quarter results for 2017, showed a fall in total revenue by

10% to about \$5 billion. Using financial performance alone showed So Riot, a failure, even though he had won the best Business Person of the Year.

Paul Kearns the chair of maturity institute (MI) believed that to solve So Riot's problem a broader view of leadership should be done by looking at organizational maturity. The Maturity Institute (MI) uses its OM30 instrument to measure total stakeholder value in a way that combines both financial value and societal value in a single metric. "Any Human Resource (HR) director involved in senior level success needs a much more mature set of tools to do their job effectively", add Kearns.

Leigh Lafever – Ayer, the HR director for UK and Ireland's Rent – A – Car Enterprise, argues that to measure leadership effectiveness very well, there is a need for succession plans that are diverse, inclusive and provides the company sustainability and competitive advantage at the same time. She states that building "an engaged leadership bench" is key to any institution. She adds that "our leaders have a cultural compass based on the founding values of the organization. "She adds further that operational excellence, diversity, inclusion, workplace quality, business ethics, community, charity and environmental sustainability measures ought to be taken to give it a more holistic approach".

Leigh Lafever – Ayer states that a potential pitfall is when HR and leadership are not aligned. She advises that the leader should be clear about his or her leadership competency framework and be certain to engage stakeholders in the framework, hiring and measurement activities. She adds that this takes time, effort and budget but without it, the leader will never be clearly aligned to the aspiration of the organization from a leadership

perspective. Some leaders may achieve objectives and outdo the profit targets, but in so doing leave a trail of destruction in the organization. Hence, there is a strong argument for measuring leadership effectiveness beyond the final results.

Rick Chattel, the managing director of Quantum Performance Development, says that a simple measurement unit for leadership effectiveness is behaviour. Quantum has developed a Behavioural Model, with management level on the horizontal axis and competence on the vertical axis. These behaviours include that of self, other people and the business. Chattel says even though the eight (8) insights may seem inadequate, critically this is at a scale that people can engage with and act upon.

An interesting emerging area of leadership effectiveness measurement centers on values and purpose, says CIPD head of research and thought leadership Ksenia Zheltoukhova. In June 2017, the CIPD published a report on purposeful leadership which explored the link between ethical or values-led leadership and its influence on various employee and organizational outcomes. Zheltoukhova adds that the main measurement of leadership effectiveness must focus on inputs which are values and behaviours and not looking at the outputs of leadership and what the organization seeks to achieve.

Dhar and Mishra (2001) state that some researchers have used a leader's ability to make possible effective group processes, group cohesiveness, group collaboration, motivation and divergence declaration among group members and quality and efficiency of decision making as an indicator of leadership effectiveness. They continued that well organized and effective group management could directly influence outcomes by facilitating

timely and excellence decisions and direction by the leader or indirect outcomes as the leader's actions positively enhance group behaviour. Besides some theorists have also argued that leaders with charismatic and transformational behaviours were the effective ones (Conger, 1998, Bass (1985) and Druckman et al (1997).

Druckman et al. (1997), Kalshoren et al (2011), Komaki (1986), Larson and Callahan (1990), Peters and Austin (1985) and Shipper and Wilson (1992) agree that effective leaders followed five main behaviours or practices:

- a) Modeling the way for others
- b) Inspiring a shared vision.
- c) Challenging the status quo and processes
- d) Empowering and enabling others to act by fostering collaboration and building spirited team and
- e) Encouraging members of the team and celebrating their achievements.

Measurements of leadership effectiveness have been many and diverse.

Examples are as follows:

- 1) Group performance and success of group goals – According to Dhar and Mishra (2001) the most commonly used measurement is assessing group performance and the scope to which the goals and objectives of the group are met. Examples of objective group performance measurements and goals achievement comprise increasing sales, profits or profit margins, revenue, growing market shares and achieving budgeted sales, costs, profit margins, returns on investment and productivity. Subjective measures included evaluation of effectiveness by subordinates, peers and superiors.

- 2) Subordinate leader effectiveness evaluations: This is when researcher investigated subordinate's evaluations of leadership effectiveness by asking followers to assess how well the leader performed and accomplished specific outcome which included:
 - a. The performance of the leader's organization unit.
 - b. The leader's promotion into higher levels in the organization to determine how effective a leader was;
 - c. The follower's satisfaction and commitment and
 - d. Evaluation of leadership effectiveness based on specific abilities identified as necessary for leaders in a specific industry.
- 3) Developed subordinate job satisfaction: Yammarino and Bass (1990) established that subordinate job satisfaction was an indicator to show the leader was effective. They assessed the job satisfaction of subordinates to assess the relative effectiveness of a leader.
- 4) Improved subordinate performance: the leader was effective when he or she was able to influence and raise the performance of subordinates. Some researchers have measured increases in the work of subordinates leading effectively (Yukl et al. (1992); Horrell and Frost (1989) and Podsakoff et al. (1990).
- 5) Improved subordinate satisfaction and performance: some researchers have assessed both increased subordinate satisfaction with the leader and subordinate performance overall as an evaluation of whether a leader was effective or not (Kanter, 1985; Vroom and Yetton, (1973)).
- 6) Advanced subordinate commitment and performance: Various studies on the above, showed improvement in work of the subordinate when followers are

committed to the organization. Those studies had measured a subordinate's commitment to the organization to examine whether a leader was effective (Kanter, (1985): Vroom and Yetton (1973): Kouzes and Posner (2002)).

- 7) Improved decision making: Vroom and Yetton (1973) stated that effective leaders could make excellent decisions and increase their subordinates' commitment. The researchers used these two variables to assess as indicators of a leader who was effective.
- 8) Improved group: Performance was another outcome of a leader's actions that was an indicator of his/her effectiveness. Bennis and Nanus (1985), Bass (1985), Burns (1978) and Conger (1998), Shamir et al. (1993), Tichy and Devanna (1986) and Larson and Callahan (1990) worked on measures of improvements in group performance as an indicator of successful leadership. Specific measures included:
 - a) Financial performance and outcome of the leaders' division
 - b) The ability of the leaders' organizational unit to reach its goals
 - c) Subordinates' organizational citizenship behaviours and
 - d) Employee retention within the group

When subordinates evaluated their leaders the following were the results:

- 1) Subordinates' opinion of and willingness to work for a leader, Ehrhart (2001) developed a six – item scale to measure leadership effectiveness. These were:
 - a. A subordinates' willingness to work at a high level of performance for the leader
 - b. Agreement that they would enjoy working for the leader
 - c. Get along with the leader

- d. Admire the leader
 - e. Find the work styles compatible with the leader and
 - f. Have similar ideals as the leader.
- 2) Overall leader effectiveness: Yukl (1992) developed an assessment which followers used other leaders to compare to their chosen leader.
- 3) Pastoral leadership effectiveness: Carter (2009) related transformational leadership behaviour in pastors to pastoral leadership effectiveness. He developed what he called the pastoral leadership effectiveness survey (PLES) which he asked followers to use to evaluate their pastor based on criteria that the literature had outlined made on effective pastor.
- 4) Comparison of a leader's and follower's assessment of leadership effectiveness: Vechio and Anderson (2009) presented the following for followers to evaluate their leaders:
- a. Satisfaction with the quality of leadership provided
 - b. Assessment of the leader's effectiveness
 - c. Ranking of this leader as compared to an ideal leader
 - d. Aspiration for becoming like the leader and
 - e. Assessment, if the leader assisted the organization to prosper.
- 5) Team leader effectiveness: Gust – Thomason and Yantis (1998) provided a measurement to examine team leader effectiveness within self-managed teams. The study compared the leader's evaluation of his/her own effectiveness in meeting team and organizational goals to the teams' evaluation of the leader's effectiveness.
- 6) Nursing professionals leader effectiveness: Kanste et al. (2009) examined the effects of different leadership behaviours of leaders in the nursing profession

to determine the strength of each leadership style in predicting a subordinate's”

- a. Willingness to exert extra effort
- b. Perceptions of leader effectiveness and
- c. Satisfaction with the leader. The research used a self- report questionnaire, similar to many earlier studies without an objective measure of leader's effectiveness.

7) Humour and leader effectiveness: Priest and Swain (2002) gave a measure where subordinates assessed their leadership effectiveness. The studies challenged followers to use humour and the leader's perceived effectiveness to assess them. Two army trainees samples in the U. S. military Academy were used to assess two individuals, one a good leader and the other, a particularly bad leader, on how humorous the leaders were. Like other studies, Priest and Swain (2002) used a single questionnaire for the subordinate to evaluate the humour and the effectiveness of the leader.

Concluding, Taherdoost et al. (2016) state that;

- 1) Effective leaders have specific attributes that show specific behaviours or styles of leadership
- 2) The effective leader creates the best condition for the organization through skills and processes,
- 3) The significance of business leadership is well expressed in that a good leader can make success of a weak business plan while a poor leader can destroy best plan and
- 4) A consistent talent management programme is needed at all levels to return business value.

Although the above write-ups were for the European world, these useful suggestions could be replicated in the second cycle institutions of Ghana.

The Relationship between Leadership Effectiveness and Academic Performance

Fullan (2002, p. 15) has concluded that “effective school leaders are key to large – scale sustainable education reform”. These concerns may be justified as heads who do not practice leadership effectiveness are likely to head schools of non-committed teachers and as such produce low academic performance with poor results

Strong instructional and managerial leadership provide direction, as well as bringing together, monitoring and evaluation (Crowther, Kaagan & Ferguson, 2002; Glatthorn, 1990) and resourcing for improvement in teaching and learning. Whatever the school headmaster/principal did in the school to enable changes and practice for students to improve learning was referred to as instructional leadership by Halverson, Grig, Prichet and Thomas (2005). Instructional leadership was intertwined with managerial leadership. While instructional leadership focused mainly on direct initiatives that would directly influence the teaching and learning of students, managerial leadership emphasized the responsibilities of maintaining facilities, ensuring student discipline and the usual running of school administrative affairs. This was the view of Jazzar (2004).

Hoyle (2006), whose work complemented that of Jazzar, further, explained the managerial role of the school leader as that which inspired and empowered the personnel through the appropriate use of resources for the welfare of all. Both Jazzar and Hoyle agreed that the managerial functions of

the school leader must serve or enhance his or her instructional role. In fact, they emphasized the instructional leadership role of the school leader and saw it as a major determining factor of academic improvement.

Hadre (2009); Hadre, Sullivan and Roberts (2008), proposed that in the rural schools the collaboration of teachers and their families and teachers' efforts at both school and community levels were essential for improving achievement.. Hattie (2009), another scholar who had written extensively on academic achievement of students, rather emphasized that responsible teacher's influence on student's performance rather than that of the principal.

Hattie (2009) in his meta-analysis on academic achievement however, mentioned that the head through instruction to management of teachers and students is able to influence the school culture. He stressed that teachers and students who knew their tasks collaborated with the head of school in the promoting of academic results. Hattie observed that the different roles played by the head of school, teachers and students in the performance of the school but kept his stress on the teacher, teacher- student relationships and tasks as catalysis associated with change that boost the effort of the head of school in promoting the teaching of the teacher and the learning of students and improving achievement year after year. Hattie (2003) reviewed the work made on the relationship of teachers' influence and students' learning and achievement in developed countries such as US and New Zealand and concluded that excellent teachers are “ the single major factor that determined accomplishment (p. 4). Hattie's meta – analysis confirmed that aside student's own efforts, which makes up “.....50% of the variance of achievement, it was the expert teachers' input”about 30% of the

variance that accounted for the relationship between student learning and achievement” (pp. 1 – 2). Hattie further reported that the principal and the school, had 5 – 10% (pp. 1 – 2) variance of the student’s achievement.

In spite of Hattie’s strong stress on the teacher’s role in the academic performance of students, he did acknowledge the importance of the head combining instructions and school policies bringing the community leadership role in school achievement. Hattie stated that the successful head of school was the one who created “.....a climate of psychological safety to learn a focus of discussion on student learning” (2003, p. 5). Thus, Hattie agreed that the successful head of school has qualities of leadership that promoted an enabling environment. This enabling environment enabled the teacher to teach effectively, and encouraging the students’ fore knowledge with regards to effective learning and accomplishment. Beside Hattie’s conclusion that the expert teacher played an important role in the student’s academic performance, one may submit that the absence of the principal’s excellent instructional and management leadership, the most skilled teacher might fail to produce excellent results let alone teach students effectively.

Again, in some less developed nations, local attributes and cultural practices showed no respect for educational arrangements. The successful leadership of the headmaster/principal is therefore very essential for any excellent training and learning to go on in schools. Thus, the expertise of the teacher in such situation might no longer be “... the single most important factor for achieving excellence in academics (Hattie, 2003, p. 4) as strongly defended by Hattie. Hattie’s (2003) sample was taken from OECD countries and this might hinder comparison to most African countries.

Simply, the effort of teachers in teaching students to achieve academic success could be compared to that of the principals in order to find the relationship between the teacher and the principal. Both the teacher and the principal rely on each other to achieve academic excellence. This statement was clearly stated by the OECD, when it was reported that the presence of good teachers was in fact, the first factor for excellent accomplishment followed by the excellent efforts of the headship (OECD, 2008a, 2008b).

“Instructional Leadership: Integration of community values” by Walker and Dimmock (2002) showed how different cultures portray differences in school management. They agreed that people of the school area, its ways of life and beliefs affected the head of the school and students’ academic progress. The work of Walker and Dimmock showed the effects of the social and local behaviour upon education and need for education in East and South – East Asia, the United States, the United Kingdom and others. Walker and Dimmock further emphasized that in introducing one culturally appropriate effective leadership practices into another culture care ought to be taken.

From their works, Waston, Partington, Gray and Mack (2006) contended that students’ performance among the Aborigines and the black population in West of Australia related to focused heads of schools that harnessed school community values, and the effective team work of students and teachers. Waston and his team realized that “schools where Aboriginal students, as a group, were achieving better in numeracy by external and internal standard were also generally those where numeracy teaching strategies were culturally inclusive/responsive and language focused” (p. 3).

Waston, Partington, Gray and Mack completed their work which showed that high academic performance in Mathematics of Aboriginal students was the result of the infusion of the local method of counting and learning and the inclusion of the local community behaviour of the school head.

Leithwood, Louis, Anderson and Wahlstrom (2004) agreed that the principals created the enabling environment and this is the greatest contribution to the performance of their teachers and students. Leithwood et al stressed that headmasters who are able to direct their schools through collaborating with the way of life of the people and laid down rules inside and outside the school and promote result yielding cooperation with local stakeholders, promote the efficiency of the school.

Norviewu – Morthy (2010) supported this view of the heads promoting school effectiveness when they studied principals/headmasters in rural areas of Ghana. The Australian Council of state organizations and the Australian Parents Councils showed that the partnership of the school and community as the relation that existed between families and school, and between schools and communities for promoting academic excellence and community improvement (Partnerships Bureau, 2008). This collaboration of the school and community was supported by the research of Mazibuko (2005) as well as in his work with Gathu, Mkatshwa and Manyatsi (2008).

Mazibuko and his fellow researchers studied the important efforts of the locals which partnered the school in the effective managing of schools in promoting academic performance in Swaziland. This partnership explained why progressive people, are not made up of people who lived in the locality of the school but are also people who have same inheritance and similar

concerns (Manser & Thomson, (1997); Soanes & Hawker, (2008). Similarly, Glaze, Pervin and Maika (2007) stated that leadership that focused on enhancing the families of the students in promoting learning and achievement of students ought to be knowledgeable in instructional direction.

Educational success in public schooling was not only a logical precondition of skilled school and community leadership, but remained the pivoted factor of the effectiveness of the school and accomplishment of students hence principals/headmasters needed to be schooled into acquiring managerial and teaching-learning skills which was their major finding when schools in the states of Ontario were studied.

Glaze et al. (2007) states that the principal's ability to instruct in numeracy and literacy programmes in and outside classroom hours in collaboration with parents and community was the principal's main aim of students' success. The work of Panizzon and Pegg (2011, 2007) studied improved methods of teaching mathematics, science and ICT in remote rural and urban schools in Australia.

Zhang (2010) as opposed to above suggested that the progress of school process and energizing of community collaboration was the topmost factor for encouraging education in schools in the rural areas and working to improve academic success. The personal skills backed by the organizational abilities of the headmaster could promote the students' academic excellence.

Marzano, Waters and McNulty (2005) studied the relationship between the headmasters' leadership and students' learning and concluded that, after examining 69 studies involving 2802 schools, approximately 1.4 million students and 14,000 teachers, "we computed the correlation between the

leadership behaviour of the principal/headmaster in the school and the average academic achievement of students in the school to be 0.25 (p. 10)”.

Pricewater House Cooper (2007) reviewed the research of Marzaw and other researchers and concluded that leadership effectiveness “.....has a significant impact on both principal/headmaster’s academic and non-academic outcomes. In other words, good leadership and management lead to higher standards for all pupils” (p. 1.). Pricewater House Cooper (2007) cited Leithwood and his colleagues who reported that “as... far as we were aware, in the absence of leadership, there was not a single documented case of a school successfully turning around its pupil’s achievement (p. 11). Leithwood and Mascal (2008) concluded that: “The influence of collective leadership was most strongly linked to student’s achievement through teacher motivation” (p. 554). It was the headmaster’s abilities in leading the school, that was seen as his or her cooperate responsibilities in motivating students, teachers and members of the community as well as promoting students’ excellence in academics. The abilities of the school head was supported by Leithwood’s (2007) earlier research on leadership in education.

The principal’s managerial leadership also comprised managing infrastructural facilities and managing subordinates in the school. The leader who practiced leadership effectiveness ensured that he or she employed the most qualified personnel who assisted and cooperated with management to promote the organization so as to work to make the organization more viable.

Torrington, Hall and Taylor (2005) stated that those who practiced leadership effectiveness know how to manage the desires of the personnel as well as achieving set strategic goals of the institution. Torrington and his team

emphasized that all efficient leaders managed their workers very well. In spite of the importance of the headmaster's role of managing the infrastructural facilities and workers in accomplishing the tasks of the school, most writers cited headmaster's efforts to combine the managerial and training leadership. Progressive heads collaborated with their teachers in dispensing instructional leadership by coming together in mutual cooperation which was part of school management.

Hoerr (1996) stated that as the headmasters collaborated with teachers with regards to their position and authority, the teachers and other staff supported the heads. Hoerr stated further that the head also empowered his or her teachers who also cooperate effectively and this encouraged teachers to be efficient. Hoerr suggested that the major factors of collegial leadership effectiveness were interaction, inter-personal relationship and cooperation of all staff.

Hoerr's (1996) research on the importance of supervisory role of the head was reinforced by adding managerial techniques of trainee teachers who are trained to become future leaders of the schools. Trainee teachers who collaborated effectively during their training also became well-endowed to be efficient as future heads. Campbell – Evans and Maloney (1998) stated in their work on a collaborative teaching model for field experience that trainee teachers improved to become future leaders when they imbibed the training effectively. Their research stressed the need for team work with working rules and regulations in respect of developing the teacher. Headmasters who received no training in managerial and other training in leadership before their being appointed as heads, might have problems such as providing solutions to

problems, collaborating, controlling and encouraging working to promote the welfare of the teaching and non-teaching staff. In fact, Hoyle (2006) warned that school leaders who failed to practice teamwork are more likely to practice autocratic leadership and by so doing get teachers to obey instructions, and work to achieve results, with the leader not helping with their welfare.

Thus, autocratic form of leadership was no longer a useful style for the current headmaster. In order to promote progress, the principals/headmasters ought to be selected from teachers who have undergone proper training in school management and all other aspects of school leadership. Karstanje and Webber (2008) worked on the determinants that ought to characterize the educating and appointment of heads in Eastern Europe. They suggested areas of training on topics that have to do with leading and running a school for future headmasters and this remained a source of inspiration for teachers who want to head schools and perform effectively.

The research of Onguko, Abdalla and Webber (2008) dealt with the preparation of headmaster called principals in Kenya and Tanzania might be lessons worth copying for less developed nations. Leadership through professional learning communities (PLC) was a well-known, current trend in promoting an educational leadership style that directs the teachers and students, and all stakeholders of education to effective learning styles which aims at encouraging high performance. DuFour (2004), stated that the professional learning community had strategies that promote learning which involves the community in supervising school going children. The PLC encouraged teachers not just to teach, but to make sure that students learn. Teachers, non-teaching staff and students, collaborated intensively to promote

learning and assisting each other, as well as being responsible for each students 'achievement. Every successful PLC's had three major goals and one commitment.

The first goal is that PLCs ensured that all students learn effectively. The second goal is that PLCs intensified the culture of teamwork among all players. The third goal is that, PLCs ensured that each student attained results that would be pleasing to all and encouraged all to be hardworking as a team. The PLCs aimed at achieving all the three goals. According to DuFour (2004) PLC's also employed three learning promoting strategies which were common to all PLC's, to ensure a complete educational success of each student. The first strategy was to use clever, dynamic questions that require good answers that employ practical means to enhance the efficient learning of every student. The second strategy was to use exact methodology for knowing students with learning problems and to employ strategies to help solve the problem. The third strategy was to clear all obstacles to progress.

In the same situation, Fullan (2008) emphasized the importance of PLC's when he stated that different ways of life promoted greater student learning. He said, ".....a focusing on learning, a supportive ways of life, collaborative inquiry, active involvement of all stakeholders, a charge to learn always and concentrating on methods to student's academic results (p. 18). Promoting supportive ways to improve the effectiveness of the school depends on the principal's ability to promote the abilities of all workers in the organization. Two other works in school leadership by Fullan's (2004) and school improvement (2006) complemented and developed his position on effective school leadership and academic improvement.

Elmore (2000) who agreed with Fullan's position highlighted some aspects of cooperating ways of life by concluding that the work of administrators was primarily about improving the working abilities of people in the organization, creating a common culture of expectations around the use of those skills and, holding the various pieces of the organization together and producing a relationship with each other, and holding each worker responsible for their contributions to the group result (p. 15). Promoting the usefulness of the PLC's had strengthened educational ideas and rules across the Western world. However, the use of the policies on the guidelines for the PLC's assumed that all community members are of the same level of living and of the same social standing and therefore agree to cooperate. So, this might apply to most western and developed nations but not in Africa with various standard of living among other socio-economic differences.

Character Traits

The statements "He is born to be a leader" or "She is a natural leader" are the opinions of people who take trait perspective toward leadership. From the trait perspective, it is believed that some people are born with special qualities to make them leaders. Consequently, these qualities make them different from nonleaders. Some of the qualities to identify such leaders include unique physical factors, for example, height and personal features such as extraversion. Other characteristics include intelligence and fluency (Bryman, 1992).

According to Stogdill (1948) intelligence, alertness, insight, responsibility, initiative, persistence, self-confidence and sociability were the characteristics of those born to be leaders. Mann (1959) agreed with Stogdill

on intelligence but added that the other characteristics were masculinity, adjustment, dominance, extraversion and conservatism.

Many researchers including Lord, De Vader, and Alliger (1986) found that traits were strongly associated with individuals' perspective of leadership. Similarly, other researchers like Kirkpatrick and Locke (1991) believed that effective leaders are actually distinct types of people in several key respects. Stogdill (1974) provided these ten (10) characteristics for born leaders:

1. drive for responsibility and task completion;
2. vigour and persistence in pursuit of goals;
3. risk taking and originality in problem solving;
4. drive to exercise initiative in social situations;
5. self – confidence and sense of personal identity;
6. willingness to accept consequences of decisions and actions;
7. readiness to absorb interpersonal stress;
8. willingness to tolerate frustration and delay;
9. ability to influence other people's behaviour and
10. capacity to structure social interaction systems to the purpose at hand.

Zaccaro, Kemp and Bader (2004) in their research gave cognitive abilities, extraversion, conscientiousness, emotional stability, openness, agreeableness, motivation, social intelligence, self-monitoring, emotional intelligence and problem solving as characteristics for those born to be leaders.

From the researchers it is seen that various characteristics were given by the researchers, with some characteristics being common and others being different.

Improving Leadership Effectiveness

Leadership effectiveness in whatever organization leads to success in all activities of the organization. This success must be from year to year with improvement in all areas of the organization. In the school sector, the improvement must be in learning and teaching of the students and teachers, respectively. This must then lead to improved results year by year. Percentage passes should increase yearly.

According to Barron, (2006) there are six (6) ways of improving leadership effectiveness.

1. The leader must find great mentors: These mentors should be people who lead successful organizations and have large followers, who are also impacting to other followers. They may not have titles but have people who are motivated to willingly follow them. These mentors are great leaders who truly care about their followers' success and have the guts to tell the followers the truth.
2. The leader must clarify his or her leadership vision: clarifying one's vision enables the leader to determine what areas need improvement and what areas will require more practice. The leader must have a clear vision of a positive future and care deeply about and value staff and clients. This leader must be grateful and generous. He or she must believe in people and the significant contribution they make to achieve the vision of the organization. The great leader must have a strong desire to achieve the client's goals and win. According to Barron, the great leader must be humourous.
3. The great leader must be committed: Great leaders are committed to staying focused on doing the right thing and accomplishing their leadership vision. Operational tasks, even though takes time and effort, great leaders on

accomplishing such tasks get instant gratification. Dealing with people could be frustrating and great leaders have ways of motivating their followers to work willingly and according to laid down procedures.

4. The great leader must build his or her emotional intelligence: According to Barron, emotional intelligence is all about opening the mouth, building strong relationships and achieving the goals of the organization. In leadership business, emotional intelligence is shown by how the followers would choose the particular leader, given other options. A great example is the report, a great leader gets from his or her former follower, when the great leader is transferred to another firm. Another great test for emotional intelligence is whether or not the direct family, friends, boss, peers and direct reports feel comfortable telling the truth about the leader's leadership and communication style. The great leader must collect informed feedback on a regular basis and take actions to improve his or her leadership.
5. The great leader must treat people right: Figuring people out, and treating them like they want to be treated, will be a great part of a leader's success. It must be noted that different people want to be treated differently. It must be noted that those followers in the high performing team, need more praise and recognition. While some followers would work with instructions from the great leader, other workers know what and when to work in time with the great leader's desire.
6. The great leader must learn from his or her mistakes: According to Barron, "the best leaders are the best learners" so a leader, after getting feedbacks on work done, must correct the mistakes he or she committed earlier on. The

great leader must be conversant with correcting mistakes and so keep the company's success on the higher level, year by year.

Theories, cases and models have influenced the current leadership strategies that can be applied in the school set-up. Guidance for leadership effectiveness should focus on the dynamic relationships between leadership values, culture, capabilities and the organizational context. The leader's developmental journey must operate within this dynamic, supported by a high level of self, team and organizational awareness. Leadership effectiveness has clearly reached a critical crossroad, and the most important role of the leader could be described as ensuring a ready supply of replacement leaders to maintain organizational progress in the ever changing educational environment.

The theory of authentic leadership suggested that leadership development or effectiveness occurred when people were able to observe proper pattern of authentic and ethical leader behaviour that promoted open sharing of information and embraced input. This type of leadership was an ongoing process that demanded moments of reflection by both leaders and followers. All parties involved must continually assess their ability to objectively analyze data, their internal moral perspective, their relational transparency to others and their self – awareness. In so doing, individuals would be acting with authenticity and integrity and in turn develop leadership effectiveness.

The theory of complexity leadership challenged the view point that leadership was as hierarchical as the organization in which it existed. It also suggested that leadership could be executed in any interaction and at any level.

This theory stated that the type of leadership was a continuously developed function within complex social systems, also known as complex adaptive system. This function came up as unpredictable agents interact with each other. To achieve maximum performance of agents within an organization, constructive behaviour needed to be constantly observed, acknowledged, evaluated and personified throughout all cross-function levels.

The theory of transactional leadership was based on rewards in exchange for enhanced performance. Leaders motivated followers by tapping into the followers' intrinsic values, for this model. In this wise the followers bought into the leader's mission and vision and felt better to work harder and even at higher levels. These workers are committed to a task which they felt satisfied with their contribution. There was also a sense of collision among their team. These workers also have a deeper level of trust in their leader.

The theory of shared leadership suggested that leadership developed throughout a teams' life span as the team dynamic grew up based on inputs, processes and outcomes. As the culture of the team was formed, reciprocal patterns of interaction emerged and reinforced relationship between members. The objective of this leadership style was to utilize individual's talents, skills and knowledge in a group effort to achieve organizational goals shared leadership ends in emergency of team assets and enhanced knowledge, which could be developed for future improvement.

The theory of servant leadership originated from the writings of Greenleaf (1970, 1977). Most of the writings had been prescriptive, focusing on what and how servant leadership actually is in practice (Van Dierendonck, 2011). This servant leader was to be attentive to the concerns of their

followers, empathize with them and nurture them. They put followers first, empowered them and helped them develop their full personal capacities. They were ethical and led in ways that serve the greater good of the organization, community and society at large (Northouse, 2016).

Servant leaders placed the good of the followers over their own self-interests and emphasized followers' development (Hale and Fields, 2007). They demonstrated strong moral behaviour toward followers (Graham, 1991; Walumbwa, Hartrell and Oke, 2010); the organization and other stakeholders (Ehrhart, 2014). While for some, servant leadership cruised naturally, for others it could be learnt (Spears, 2010). Spears (2002) enumerated ten (10) characteristics in Greenleaf writing as follows:

1. Listening: Servant leaders listened first and so acknowledged the view point of the followers and validated those perspectives.
2. Empathy: Servant leaders “stand in the shoes” of the followers and so make the followers feel unique.
3. Healing: This was making whole. They supported the followers by helping them overcome their personal problems.
4. Awareness: The servant leader is acutely attuned and receptive to the physical, social and political environments.
5. Persuasion: The servant leader depended on persuasion which creates changes through gentle non-judgmental argument.
6. Conceptualization: This referred to a situation where an individual's ability to be a visionary for an organization, provided a clear sense of its goals and direction. The servant leader focused on the “big picture”. They responded to

complex organizational problems in creative ways thus being able to deal with the intricacies of the organization in relationship to its long – term goals.

7. Foresight: This was the servant leader knowing the future. They were able to solve the present and future problems. For Greenleaf, foresight has an ethical dimension since leaders are held accountable for failures.
8. Stewardship: This was taking responsibility for the leadership role. They accepted responsibility to manage the people and organization they lead.
9. Commitment to the growth of people: The servant leader placed a premium on treating each follower as a unique person with opportunities for career development, helping them develop new work skills, taking a personal interest in their ideas, and involving them in decision making (Spears, 2002).
10. Building community: Servant leadership grew the development of community, which was a collection of individuals with shared interests and pursuits and felt a sense of unity and relatedness. Servant leaders thus provided a place where people felt safe and connected to others but are allowed to express their individuality.

Again, correcting the factors that hinder leadership effectiveness could also improve leadership effectiveness. Several studies have revealed some negative personal traits that hinder leadership effectiveness. McCall and Lambardo (1983) in their work found that the negative traits included intimidating and bullying subordinates. They stated that anti-organizational behaviours such as laziness, lack of appropriate management skills, failing to build teams, being unable to think strategically and spending more time on matters outside their work assignment are other negative personal traits that hinder leadership effectiveness.

Lombard et al (1988) in another work stated that the following are negative traits affecting leadership effectiveness

- Inability of build a cohesive team;
- Over – and under – managing;
- Being overly ambitious;
- Not supportive and demanding of subordinates;
- Being overly emotional;
- Being insensitive, cold and arrogant;
- Maintaining poor relations with staff; and
- Overriding personality defects.

Researchers who worked under the Global Leadership and Organizational Behaviour Effectiveness (GLOBE) project, found six attributes as being ruthless, social (self – centered), irritable (malevolent) loner (self-centered), egocentric, non- explicit (face-saver) non– cooperative (malevolent) and dictatorial (autocratic) as being undesirable to outstanding leadership (Den Hartog et al, 1999). In Shackleton’s (1995) view, a leader who learns from his mistakes and adapts to higher position of authority is vital. In the construction industry, Toor and Ogunlana (2008b) state that competent leaders are those who portray communication and teamwork, and showing skills such as flexibility in decision-making, persistent performance, and a good listening ability. According to Schaubroeck et al. (2007) leaders fail when their demands on followers are excessive and remain adamant to the needs of the workers.

Padilla et al. (2007) writing on negative personal attributes of leaders, listed charisma, personalized use of power, narcissism, negative life themes

and an ideology of hate, as the factors. Others writing on negative personal attributes argued that passive management – by – exception (Bass, 1990), impoverished management (Blake and Monton, 1988), Supportive – disloyal and tyrannical leadership (Einarsen et al. (2007) and derailed leadership (McCall and Lombardo, 1983; Lombardo et al. 1988) are the causes that hinder leadership effectiveness.

In their study, Kerr and Jermier (1978) suggested 12 dimensions that neutralize leadership effectiveness as, followers’ ability, experience, training and knowledge; followers professional orientation; follower’s indifference to organizational reward, unambiguous routine, methodologically invariant work tasks providing feedback concerning accomplishment; intrinsically satisfying tasks; organizational formalization; organizational inflexibility, advisory and staff support; closely knit cohesive work groups; organizational rewards not in the leader’s control; spatial distance between superior and subordinate; and the follower’s need for independence.

Dionne et al. (2002) state that neutralizers of leadership create an “influence vacuum” and possess those features that render leadership ineffective.

Bourantas and Papalexandris (1993) in their study of public sector organizations in Greece, assert that factors such as bureaucratic controls, external political influence and limited positive reward power neutralize the leadership effectiveness. Results on similar lines were observed by other studies. (For example, Howell et all. 1986; Dione et al. 2002).

Low and Chuan (2006) worked on the construction firm and found out that team relationship, availability of information, type of client, time

available, salary and complexity of the project were the factors that promoted leadership effectiveness on the part of the project manager. Project size, job satisfaction, project environment, level of authority and availability of materials were the additional factors that promoted leadership effectiveness.

Mustapha and Naoum (1997) working on factors that promoted leadership effectiveness of the site managers, realized personal variables and job conditions correlated significantly with the managerial effectiveness of site managers. However, unlike Low and Chuan (2006), Mustapha and Naoum (1997) did not find – any evidence that project characteristics like building type, complexity and project duration have any significant impact on managerial effectiveness.

Paul and Skitmore (2005) in a later study found that staff cuts, high workload and long working hours hindered the ability and motivation of project managers. This could lead to withdrawal by workers which would reduce output as well as creativity and innovation. Precisely, the working environment in the industry hinders project managers in performing well on construction projects.

Zimmerer and Yasin (1998) examined American project managers and found that desire for power, detailed orientation; highly structured behaviour and charismatic personality were the lowest rated attributes. In order to improve performance in construction projects, it is necessary to eliminate or reduce factors that hamper or hinder leadership effectiveness. Understanding the negative personal attributes and organizational neutralizers can help organizations to undertake corrective measures to improve the performance of project managers.

In the school system, Sergiovani (1984) found that leadership effectiveness of the school head hinged on five leadership forces which are technical, human, educational, symbolic and cultural. He added that for a school to achieve and maintain routine school competence, there must be in existence, technical and human leadership. Although these two factors alone do not promote school excellence, their absence would result in school ineffectiveness and poor morale.

To achieve routine competence Sergiovani (1984) state that educational and symbolic leadership are essential. He added that these forces were strongly associated with excellence in schooling. A head of school who did not use educational and symbolic leadership makes the school ineffective.

Sergiovani (1984), state that the variable that made a difference between the competent and excellent school was the leadership force of culture. He added that culture included the customs and traditions in a school, historical accounts, habits, norms and expectations in a positive form. The principal/head who desires to promote a positive cultural force, encourages a positive and cohesive culture that administration, faculty, students and parents took pride in. The cultural force, according to Sergiovani (1984) was essential to excellence in school but did not have negative impact on routine competence.

Empirical Evidence of Leadership Effectiveness

Leadership effectiveness is an important area in education. In the school system, it goes to improve academic performance when headmasters are able to provide the congenial atmosphere and motivate teachers to work harder. This hard work of teachers trickles on to the students who also learn

better and hence produce better results at the examinations. Many researchers have written and stressed on leadership and effectiveness of the school only in terms of its academic achievement. These researchers went through school factors of effectiveness using the different leadership styles, with reference to gender and the type of institutions be it public or private.

A sample of 300 male and female head teachers, deputy head teachers and senior teachers and students in the province of Punjab in Pakistan was used for research on school achievement. The findings were that the major factor affecting school achievement was the degree to which the head of the school participated and adopted the different leadership style. It was realized that there was a greater association of leadership styles with school effectiveness and there was a number of different leadership styles of head teacher /deputy head teachers on the bases of male and female for government owned and private-owned schools.

According to Ikiara (1999), African countries were changing from state monopoly to capitalism. As such, organizations in Africa were exposed to intense competition particularly from multinational companies which took advantage of economic liberalization programmes. Strategic leadership, therefore, according to Ikiara (1999) looked important because it was more likely to enable Africa companies to integrate effectively in the global economy. Zoogah and Abbey (2008) also confirmed that strategic leadership would help African company to learn and be recognized.

Strategic leaders give strategic direction and motivation that show not only the effective transition of the companies but also progress and development. So, strategic leadership in Africa rather than traditional

leadership seem critical to Africa companies. Research on strategic leadership in Africa are yet to be brought to the level to be appreciated by all. According to Bagah (2014), a critique of the leadership literature in Africa had no empirical and conceptual rigorous studies but descriptive studies of strategic leadership. Lack of rigorous models, lead to non-appreciation of executive behaviours so Bagah (2014) decided to study strategic leadership in African organizations, stressing on Ghanaian organizations while contextualization of strategic leadership within Africa. It helped to understand leadership that goes beyond the level of developed contexts. It would also assist organizations in Africa to develop the requisite competences. Finally discipleship was streamlined and this helped to promote strategic leadership in Africa.

Current research shows a shift from leaders-centric to follower-centric studies for the importance of the role of the followers' contribution to the leadership effectiveness. The traditional role of followers working under the leader is now being subsumed with constructionist view with followers to be abreast with the leaders. According to the latter view, followers and leaders help each other to promote effective outcomes for the relationship (Howell & Mendez, 2008). Some studies showed different ways used by followers to help the leaders.

Consequently, some scholars suggested different forms of followers (Avolio & Reichard, 2008; Chaleff, 2003, Collinson, 2008; Kellerman, 2008) for different types of leaders (Burns, 1978; Hybels, 2002; Luthans & Avolio, 2003; Russel & Stone, 2003). Bagah's research, dealt with virtuous followership. Like virtuous leadership, virtuous followership dwelt on the virtues of the leader. So like the virtuous leader, the followers behaved in the

same virtuous manner. Bagah explained virtuous followership as the process by which a follower, using principles of virtue and values, showed his or her relationship with the leader in an effective way. This, therefore, complemented virtuous leadership (Pearce, Waldan & Sikszenmishaly, 2007) and built on the constructionist view of leaders- follower relations.

This model showed that follower expectancy related strategic leadership effectiveness which is followed by virtuous followership. Two moderators, situational strength and follower development level were also suggested. Situational strength shapes the relationship between follower expectancy and virtuous followership on one hand and that between the latter and the effectiveness of strategic leader. Levels of development of followers moderates the relationship between virtuous and capacities. This view was consistent with the stages of moral development (Kotil-berg, 1973; Piaget, 1932) which proposed moral reasoning as a basis for ethical or virtuous behaviour.

Very few studies on leadership in Africa existed, even though Africans need for effective leadership is tremendous (Ndongo, 1999). In the review, done by Dorfman and House (2004) on leadership in non-western context, they had no methodical studies of leadership in Africa. They, however, found that few African countries showed that leadership is the hands of people collectively. Three problems were identified with their studies. First, sample size was small (7 out of 53 countries) and therefore, not representative. Their classification also seemed different and not consistent with cultural and societal knowledge. Egypt and Morocco were classified as Middle Eastern probably because of the Islamic religion. West Africa had only one

representative (Nigeria) while East Africa had more. The other four countries were from the Southern Africa. Secondly, the authors defined Sub Saharan Africa as black Africa which seems incongruous with African definitions (Awedoba, 2005). More importantly, the greater part of participants exhibited moderate behaviour characteristics (in group collectivism, societal collectivism, institutional collectivism, 4–5 on a scale of 7) which suggested either contamination (participants were not purely African in cultural practices) or non-representative (participants were from urban areas which have modern values rather than rural areas which have traditional values).

Bagah (2014) concluded that virtuous followership had a major role on strategic leadership effectiveness and partial mediation. It accounted for a higher level of variation in the relationship between follower expectancy and strategic leadership effectiveness.

Alexander Kyei Edwards and Samuel Kwadwo Aboagye (2015) wrote on Assessing school leadership challenges in Ghana, using leadership practices inventory. Their study hinged on self – reported leadership potentials. The participants were selected from University of Education, Winneba (UEW) and University of Cape Coast (UCC). Data from the self – reported LPI score showed a strong sense of self belief and the leadership potentials. Gender differences in transformational abilities showed no statistical significance ($t = - 0.93$, $df = 198$, $p = 0.07$) and the same with institutions ($t = - 0.00$, $df = 198$, $p = 0.38$). Edwards and Aboagye (2015), noted that the only statistical differences came from gender groups' report on “Enable others to Act” ($t = - 1.72$, $df = 198$, $p = 0.01$). Their discussions focused on the need for a more futurist thinking, people – focused skills, the

practices of enablement, and the avoidance of discrimination against women in school leadership within Ghana Education Service (GES).

Edwards and Aboagye (2015) made five (5) recommendations for transformational leadership in GES including In-service Training (INSET), leadership contents, a research and development of school leadership made and a national certificate policy. Their findings showed that transformational leadership lead to:

1. Inspire a shared vision
2. Challenge the process
3. Enables others to act and
4. Encourage the hearts of others.

They concluded that in Ghana, the GES ought to act to develop leadership potentials among its human capital. Agenda and policies have to be practical in school achievement. This research was done in 2014. It is seven (7) years now (2021) and nothing of the recommendations has been done by the GES. The researcher believes that this would not be the only research on leadership effectiveness on Ghana with recommendation yet to be implemented.

To discover ways of improving the school system “A nation at risk” (1983) set the nation of America on the research trail. According to “A nation at risk”, principals and superintendents were to play a crucial role in developing schools and provide community support for the reforms. School boards were to provide the professional development and other support required to carry out their leadership role effectively(p. 32). Research for Better schools was the response to the “A nation at risk”. It was commissioned by the Department of Education to engage 571 secondary schools considered

successful. These schools were scattered on the America land, in the urban, suburban, rural; large and small. The successful schools have populations that scored higher marks on standardized tests, lower dropout rates and higher school attendance. The researchers examined the schools and picked out the characteristics common to these effective schools (Huddle, 1986).

Murphy and Hallinger (1985) enumerated the characteristics below for the effective secondary schools;

1. A clear sense of purpose
2. A core set of standards with rich curriculum
3. High expectations
4. A commitment to educate each student as completely as possible.
5. A special reason for each student to attend school
6. A safe orderly environment
7. A sense of community
8. Resiliency and a problem solving attitude.

Out of this research finding, the nation planned of ways of transferring these qualities to the less successful schools. Current research has shown than a necessary element is the building principal. It is believed that a principal who is involved in all aspects of his/her school was capable of transferring the effective school characteristics.

Blank, (1986, p. 4) stated that “in order for a principal to administer an effective school, his job requires combining both as an educator and an administrator, including responsibility for the basic school curriculum”.

To improve the effectiveness of the principal, many centers for training were opened. These centers concentrated on the weak areas of the principal’s

behaviour. These centres helped to rescue the nation at risk, even though at different levels of successes.

One of the studies included over ninety percent of principals of voc-tech centers in Michigan. Information was gathered on the Audit of Principal Effectiveness (APE). The aim was to strengthen the weak areas of the principals. Seminars were held for the principals. The information from the seminars was also useful for the Michigan Area center Administrators' professional organization to prepare speakers and other professional activities.

The Ohio state leadership studies in 1940's under the direction of Dr. Carroll Shortle reviewed an extensive study of leadership behaviours. The initial or original study included 300 B – 29 crew members who described the leader behaviour of their 52 Aircraft commanders. A follow-up was done for 249 aircraft commanders. The result of the studies was isolation of initiating structure and consideration factors of leader behaviour (Halpin, 1957). The two factors were initially considered mutually exclusive. Thus, a leader high on initiating structure was associated with low consideration. Later, this mutual exclusiveness was found wrong; as a leader could be found high on both initiating and consideration factors, high on either one, or low on both. Halpin (1954, p. 3) found that the most effective commanders performed on both factors. Hemphill, (1957) in a study of twenty – two department heads of a liberal arts college, found out that these leaders scored more than average on both dimensions of the initiating structure and consideration factors.

The University of Michigan studies under the direction of Renis Likert conducted a similar research on leadership behaviour, as the Ohio state studies were taking place. Likert employed the dimensions of employee- centered and

job-centered to describe the leadership behaviours. He concluded that the effective leaders were those high on both employee – centered and job-centered behaviours.

However, certain controversies were realized for the behavioural research studies. No single theory could hold true in all situations. In some instances, there was a strong relationship between leadership effectiveness and initiating structure (Korman, 1966; Tompkins 1972; Miles and Perry, 1977). In other studies, the managers who were rated high on both consideration and initiating structure were considered most effective (Hemphil, 1954; Halpin, 1955; Fleishman & Harris, 1962; Anderson, 1966; Fleishman, 1969; Sergiovanni et al, 1969, Burt, 1986). In the 1960's, researchers began looking for another factor that influenced leadership effectiveness

Ron Edmonds (1978) researched into “effective schools for the Urban poor” in the New York office of Education Performance Review. This research was to find out why the schools differed in academic performance. They compared two inner – city New York public schools with poor pupil populations. The researchers selected one high achieving pupils and the other low achieving. The researcher found out that:

1. Factors which made a difference were under the school's control.
2. Administrative behaviour, policies and practices in the schools appeared to have a significant impact on school effectiveness.
3. The more effective schools had an administrative team that was balanced between management and instructional skills.
4. The administrative team in the effective school developed and implemented a plan to deal with reading problems.

5. Professionals in more effective schools had confidence in their ability to impact on student learning.

Maden, Lawson and Sweet (1976) researched into school effectiveness in California. Their results showed that teachers in higher achieving schools:

1. Had principals who provided them with a significantly greater amount of support.
2. Were more task oriented in their classroom approach.
3. Showed more evidence of student monitoring.
4. Had a higher level of access to “outside the classroom” materials.
5. Believed their faculty as a whole had less influence on educational decisions.
6. Rated district administration higher on support services.

Geographical Review

Leadership effectiveness is a new phenomenon in Africa. Literature developed especially in the United Kingdom (UK) and the United States of America indicate that head teachers or principals need basic training in school leadership and management to be able to carry out their tasks effectively (Dean, 1993). This lack of leadership preparation for school heads is evident from the Commonwealth Secretariat reports (1993, 1996). The Commonwealth Secretariat (1996; iii) stated categorically that in Africa, “experienced and skilled teachers are customarily appointed to run complex schools without adequate preparation and back up support”.

In September, 2002, a committee appointed by the President of Ghana, submitted its report on meeting the challenges of Education, in the Twenty first century. The committee under the chairmanship of Prof. Jophus

Anamuah- Mensah focused on education that related to developing the personnel to respond to the needs of the nation's development to cope with globalization. The report of nine chapters, covered Primary level, Secondary/Technical/Vocational Education, Teacher Education, Tertiary Education, Management of Pre-Tertiary Education, Financing of Education, Cross-cutting issues and conclusion.

The committee stated that the philosophy underlying education in Ghana would be the creation of well-balanced (intellectually, spiritually, emotionally and physically) individuals with the requisite knowledge, skills, values and aptitudes for self-actualization and for the socio-economic and political transformation of the nation.

The committee stated that the then structure of Ghana's education should be 6 years primary, 3 years Junior Secondary school (JSS), 3 years Senior Secondary School (SSS) and generally 4 years university education. Other specialized institutions and programmes are nursing, agriculture duration of between 2 and 3 years.

The committee reported the following major defects in the existing structure of education:

- It excludes pre-school education
- It over – emphasizes grammar/general type of education
- Virtually very little attention is given to technical/ vocational education and the large informal sector,
- It provided limited opportunities for transfer within the various streams.

To correct these errors the committee made the following proposals:

- A new basic education structure of 2 years of kindergarten, 6 years primary and 3 years JSS.
- 3 years senior secondary education, leading to post-secondary and tertiary education.
- Parallel technical/ vocational education leading to polytechnics and the world of work and
- Apprenticeship leading to the world of work
- 3 – 4 years tertiary education.

The committee stated further there would be the creation of open community colleges and an Open University to provide avenues for work – study programmes and life – long education. The committee stated further the specialized institutions (post-secondary institutions which are currently not tertiary) under the new structure would be upgraded to award diploma and were to be affiliated to relevant universities and polytechnics. Credit transfer, Distance education, ICT, Special Education and Guidance and Counseling would be critical components of the new structure.

At the basic level, the committee agreed the children would acquire basic literacy, numeracy and problem solving skills as well as skills for creativity and healthy living. This level comprising the kindergarten, primary and junior secondary school, would be free and compulsory. The primary education which goes to consolidate the kindergarten level, would cater for possession of education, knowledge of numbers and solution of problems in addition to Art and Craft, Music and Dance, Physical Education and ICT. The teaching of English and Ghanaian Languages was to emphasize reading, writing, dictation and comprehension. At the lower level, reading, writing, dictation and

comprehension texts should incorporate concepts of Religious and Moral Education, Culture, Science, Hygiene, Agricultural Science, Life Skills and Civics, taught in the combined manner. The committee proposed the learning of French at the JSS level which should be compulsory and was not compulsory at the primary level.

At the JSS level, the committee realized a number of challenges such as:

- Inadequate teaching plans of the teachers especially in the technical and vocational subjects;
- Insufficient supply of workshops, laboratories and libraries:
- Lack of counselling and special needs services;
- No standards of performance to guide teaching and learning.

To correct these short comings the committee put in such measures as:

1. Teaching should be improved to engage qualified teachers especially for English, mathematics, science and the creative arts are supplied:
2. Creative Arts should include Music and Dance, Art, Pre-technical and Pre-Vocational subjects;
3. Teachers should be graduates, with at least first degree;
4. Workshops, laboratories, libraries and teaching/learning materials are to be provided by the G.E.S and the District Assembly,
5. The acquisition of literacy, numeracy and problem – solving skills are emphasized in the curriculum.
6. JSS and SSS within the same area were to share programmes and resources.
7. CRD should link up with University of Cape Coast and University College of Education, Winneba to develop minimum standards of

performance at all level of JSS to guide teaching and learning in the various subjects.

The committee proposed the following to deal with the inefficiencies inherent in this approach:

1. Schools with multi-class teaching should improve conditions of service for those involved in the programme.
2. The GES should supply qualified teachers,
3. Amalgamation of schools should be considered for low enrolment areas.
4. The Central location of schools should be done to serve as many local communities where necessary,
5. House of Chiefs and District Assemblies are to embark on public education to make parents send children to school for the FCUBE to work.
6. District Assemblies are to motivate schools with low enrolment, to help schools engage in enrolment drives.

The committee realized the following problems for the Senior Secondary Schools (SSS).

- Inadequate supply of teaching and learning materials,
- Inadequate school buildings;
- Teachers lacked motivation and commitment;
- No guidance and counselling services;
- Improper supervisory and managerial roles;
- JSS learners lacked learning motivation;
- No academic standard for all subjects.

To help solve these problems, the committee recommended the following:

1. Establishing in each District one model SSS, with well – equipped libraries and workshops especially in community SSS. All other SSS were to be upgraded to the level of the model school after 15 years.
2. The Ministry of Education (MOE) was to create a comprehension strategy to upgrade all community SSS with low enrolment to make them attract students;
3. The MOE was to provide community day schools with hostels and canteens;
4. Scholarship schemes were to be instituted by the District Assemblies and Traditional Councils;
5. Subsidy on payment of fees would be done for community day secondary schools.
6. The 30% quota for the locality as admission should be enforced.
7. The admission to SSS must be computerized.

All these recommendations of the committee for the Basic, Primary and Secondary schools were to help remedy the situation of low performance in the educational sector. No wonder in 2010, WAEC reported that at the WASSCE, 232 schools scored 30% passes.

Norviewu – Motty (2010) observed the same situation of community collaboration with the school to achieve results in his study of effective principals in the rural areas of Ghana. The Australian Council of state organizations and the Australian Parents Councils showed the importance of the collaboration of parents in the community and the school staff in

improving students' academic success. They explained that the collaboration of the management of the school and members of the community as the relation that existed between families and school, and between schools and communities for improving academic excellence and the schooling of students (family – school and community Partnership Bureau, 2008). This position of partnership between families and school was also confirmed by Mazibuko (2005). Again in his work with Gathu, Mkatshwa and Manyatsi (2008) the partnership of the school and the community was supported.

Mazibuko (2008) and his fellow researchers studied the important collaboration of the school management and members of the community in the successful running of schools and promoting academic excellence in Swaziland. This explained why every growing community, did not only have people who were natives of the land with same interests (Manser & Thomson, 1997; Soanes and Hawler, 2008). Similarly, Glaze, Pervin and Maika (2007) stated that leadership that encouraged students and their families and other members of the community to collaborate to promote learning in the school ought to have good knowledge of the instructions needed to run the schools. School management and community leaders trained in leadership are not only the needed factor for improving learning and academic excellence in public schooling but remain the pivot around which school effectiveness and student achievement revolve, hence principals needed to be trained with relevant skills to run schools effectively. Glaze, Pervin and Maika after studying schools in the province of Ontario concluded that it is necessary that heads of schools are trained very well in school management and in giving appropriate instructions.

Alidrisi and Mohammed (2017) writing on leadership effectiveness: competencies influence on safety leadership behaviours, stated that leadership effectiveness varies from one person to another. They proposed that leaders must know when and how to execute behaviours beside knowledge (Mumford et al, 2000). These two writers worked on the construction sector. Their aim was to find out the relationship between a single leadership competency, that is, cognitive competency, and safety performance indirectly through select leadership behaviours. Their findings included:

1. That influence of safety leadership behaviour is combined with cognitive competency.
2. That cognitive competency enables leaders to optimize the delegation of responsibility toward their followers influence followers in identifying safety problems.
3. That involving followers in decision making establishes more effective workforce and
4. That it helps them in raising a high level relationship with their followers, which is characterized by openness, honesty and trust.

These findings pertain to the construction sector. Could these be imported to the educational sector?

Alabi and Alabi (2015) writing on understanding the factors that influence leadership effectiveness of Deans in Ghana stated that leadership effectiveness has continued to raise awareness in non-scholarly and scholarly literature (Waldman, Ramirez, House and Puranam, 2001). They continued that current trends and the effect of worldly issues, makes it necessary for effective leadership and ruling even more relevant in the academic. They

quoted Montgomery (2005) and stated that a two-way trust is very important for leadership effectiveness. Working together, clear directions, clear dialogue, self – belief, support with adequate resources, insisting on excellent academic results, humbleness and managed offensive action against challengers were very important for leadership effectiveness.

Alabi and Alabi (2015) used two types of competences; technical and leadership for their research. Their findings on competences influencing a Dean’s leadership effectiveness were;

1. Future expectation and development of management skills
2. Management and accountability system.
3. Efficient interaction
4. Orientation of goals
5. Cooperative skills
6. Evaluation
7. Dialogue
8. Records keeping
- 9 .Develop and communication job descriptions, annual work plans and appraise performance of faculty member
10. Management systems and focus on improving teaching, learning, research and community service
11. Ability of workers
12. Project management skills. Use goals, milestones and control mechanized to measure and manage performance.
13. Personnel management skills

Their results recommended that deans are appointed by standard recruitment practices, and not to be elected or selected. It also recommended assessment and training in leadership skills for the dean before assumption of position. The question is how far has these recommendations been used? Are these research findings not gathering dust as others were?

Leadership effectiveness in the second cycle educational institutions looked at improving results at WASSCE for the schools. The headmaster who supervises the school must be operating in collaboration with the teachers, some of whom hold positions as Assistant Headmasters, Heads of Departments, Housemasters, form masters and other positions as coordinators for studies, science and maths QUIZ; students, some of whom are prefects in charge of sports, libraries, Dining halls, Protocol, House Prefects, Grounds, among others; the leaders of the non-teaching staff; parents and the members of the communities where the schools are sited.

The determinants of leadership effectiveness are the qualities the teachers admired in the headmasters and consequently motivated teachers to work extra hard for the headmasters. These qualities include the heads being able to follow some set goals (vision) and must possess some strategies to achieve these goals. The heads are to run their schools in a congenial atmosphere, providing necessary equipment and tools and giving clear directions to achieve targets set by school (to score better grades at WASSCE). Other qualities include promoting innovations, building or growing good relationships, focusing on results, demonstrating trust and integrity, organizing in-service training, seminars, workshops, orientation for staff development, providing the social and financial needs of the staff, being a

good listener when communicating with others and being very efficient, reasonable, just, strict and careful.

The measurement of leadership effectiveness looked at the result of the given outcomes that go to enable schools perform academically at WASSCE. The headmaster would therefore have to supervise teaching and learning of teachers and students respectively. Students ought report to classes on time, attend all school functions, attend classes and church services regularly, do their class assignments, homework, projects and all school examinations (final and promotion). The headmasters ought to also ensure that teachers attend classes regularly and punctually. Teachers are to prepare lesson notes and weekly forecasts, give students the required assignment, mark and discuss the marked scripts. Teachers are also to set, mark and discuss examinations scripts on time, so that terminal reports reach the parents earlier. Teachers are to attend all school gathering, including staff meetings, church services, developmental meetings, management meetings as well as welfare meetings. They are also to supervise students to keep the school compounds, dormitories, classrooms and dining halls, clean.

Measurement of leadership effectiveness was based on the number-based metrics in that the scale of extent of use was reclassified into three (3). The scale 1-4 was the lowest, 5-7 was the middle level and 8-10 was the highest level. The best headmasters would be those who are always put on the 8-10 level.

Conceptual Framework

Below is the conceptual framework for leadership effectiveness for this research:

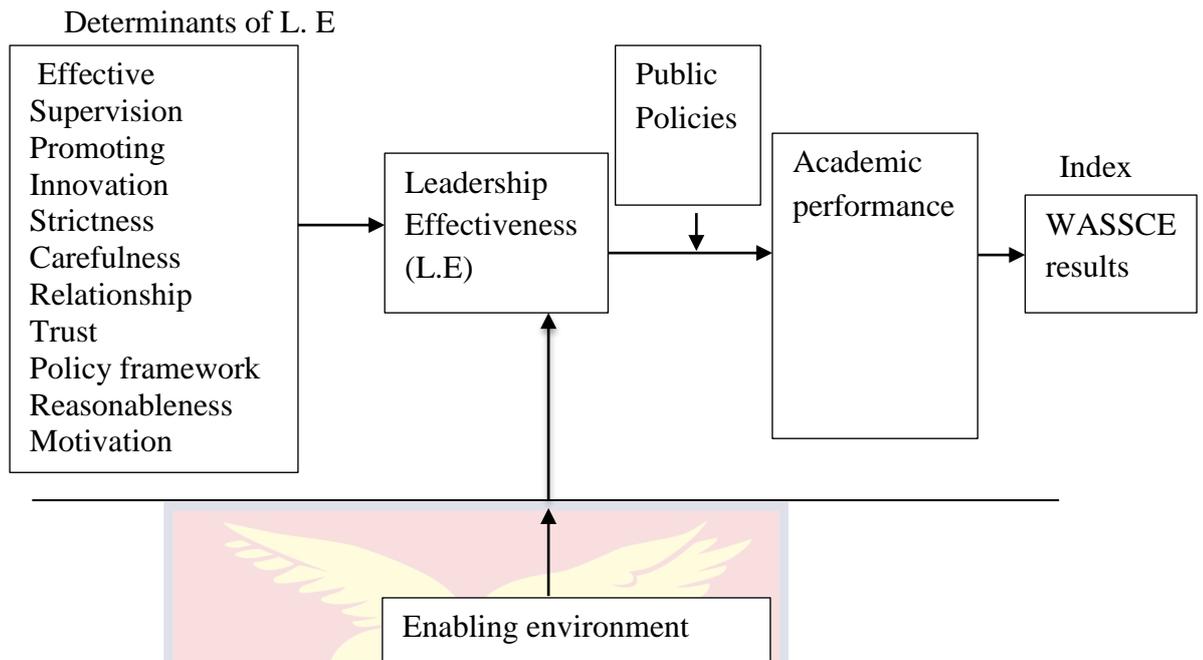


Figure 1: Conceptual Framework
Source: Author's Construct

Leadership effectiveness in the schools improves institutional performance when heads show qualities (called the determinants) that make teachers give off their best. These determinants include trust, integrity, clear goals, growing good relationships, focusing on improved results, cultivating capabilities and promoting innovations. The rest are equipment and tools, providing financial resources, improving students' performance, motivating teachers, in-service training, seminars, workshops etc. effective policy framework and effective organisational structure. Other determinants are effective supervision, regular staff meeting, efficiency of heads, reasonableness of head, justice by heads, strictness of head and carefulness of heads.

Leadership effectiveness in the second cycle educational institutions has been a problematic area. Headmasters are usually chosen from the Assistant Headmasters and Senior Housemasters, after passing interviews conducted by GES for members who have served three years or more at the

rank of Assistant Director I. No special trainings are given to those who later become headmasters (Commonwealth Secretariat, 1993). Without the requisite training the new headmasters have to rely on the subordinates who have stayed longest in the school for directions. Performance at the WASSCE then purely depends on what the teachers are able to cover. Lack of serious supervision, in and out of the classroom, motivating and creating an enabling environment for both teachers and students would then be done through the wrong procedure. Hence achieving the desired quality in education requires some training for these new headmasters.

The headmasters are judged by the results the schools obtained at WASSCE. The WAEC ladder which showed the positions of the schools after the release of WAEC results to schools, have been criticized for disparities in the analysis. If two schools have 25 and 140 students, the positions are determined by the absence of F9 in the entire results. Thus if one student obtains an F9 in the school with 140 students and all students obtained E8 in all subjects in the school with 25 students, then this school is deemed to have performed better than that with 140 students.

Leadership effectiveness according to Warner (2013) is the accomplishment of the set goals of the individual, firm or nation. With the second cycle educational institutions, leadership effectiveness would be the number of passes at WASSCE. The headmasters could collaborate with the teachers to achieve results. The collaboration of the heads and teachers comes from the qualities the headmasters possess which motivate the teachers to work better.

The qualities of the headmasters are the determinants of leadership effectiveness. These qualities (determinants) include establishing trust and demonstrating integrity. In this wise, the headmasters ought to be courageous and respectful on matters of principles. No biasedness ought to be found in him/her in all his/her decisions. He/she ought to safeguard sensitive information and speak from experience rather than opinion.

The headmasters ought to set clear directions by ensuring clarity, simplicity and consistency in setting the goals. He/ She ought to take initiatives and strategies to solve all school problems. The headmasters ought to appoint the right people to the best opportunities and as much as possible eliminate low pay off efforts.

The headmasters in growing relationships ought to actually listen and inquire for understanding of the issues and persons. He/ she ought to consistently demonstrate genuine respect and value for others. They (headmasters) recognize people as individuals rather than resources. They take initiative to clarify misunderstanding and repair damaged relationships. They look out for avenues to create relations that go to help the community and make all willing to contribute to the building of the schools and in taking decision and planning for the schools.

The headmasters focusing on results, ought to tract progress towards objectives and hold others accountable for their results and exhibit great perseverance in removing or overcoming obstacles. They (headmasters) employ a systematic process to learn from teachers and share success and failure. They also recognize achievements on a regular basis and celebrate

success and balance short term and long term goals and align them with the goals of the school.

In cultivating capabilities, the headmasters ought to be consistent and accurate in evaluating the ability of others/ self and give or search for constructive feedback through training and mentoring. They also seek and provide assignments and experiences for career development as well as do self – assessments and to improve personal skills required for employment. They search, replace, engage, train and employ competent employees and look out for poor performing workers who are advised to improve upon their performance at work to or be removed.

The headmasters promote innovations by seeking, encouraging and taking actions on new innovations. They have current practices as benchmarks against better methods. They pursue implications of changes which would affect the schools and welcome divergent perspectives and diverse views and seek out new ideas and better information. The headmasters also ought to inspire actions and be very optimistic to achieve success. They ought to know the traits of group values in a leader and be able to guide another leader from the team. The headmasters ought to be bold and open to all members of staff, students, parents and members of the community. These and other qualities must be transferred or initiated by the followers so that in future the good atmosphere would grow for all to participate.

The measurements of leadership effectiveness were the results of the outcomes of the activities of the students at the final examination when educational institutions are involved. The major aim of the schools are to develop a holistic individual and achieve better results at the WASSCE; thus

the major outcome for measuring leadership effectiveness is the result obtained at WASSCE. The outcome include the teachers and students output. Thus students must attend classes, church, school gatherings on time, regularly and punctually just like teachers. The students ought to also do all class assignments, home works, projects, end of term examinations, mock and final examinations as scheduled and given while the teachers must also give those exercises, mark and discuss marked scripts with students. It is also the duty of the students to dress neatly in the prescribed uniforms at all times except for special occasions like speech day, Matriculation and Awards Night (a special function for would – be leavers of school). The teachers also supervise the students to keep the school compound, dormitories, classrooms, dining halls and the school field neat and clean for use at all times. As dirty environments promote mosquitoes who bites infest students with malaria and thus affect their health, the school authorities in order to control sickness and bad odours on campus, do work extremely hard to promote a healthy environment, to promote a healthy learning atmosphere. The teachers also discuss students' social problems with the management and also do well to resolve students' conflicts. Thus seeing improvement in these outcomes means measuring leadership effectiveness in the second cycle educational institutions.

For this research, the leadership effectiveness indices include the questionnaire, observation, focus group discussions and interviews. The questionnaire which seeks to collect data on the state of leadership effectiveness, the determinants and measurement of leadership effectiveness and model leadership effectiveness, was distributed to 920 teachers. Observation was complemented with interviews and focus group discussions

on the questions designed to confirm answers on the questionnaire. At the end of the third week 890 teachers returned their questionnaires and the other 30 teachers claimed they had misplaced theirs.

The constraints to leadership effectiveness in the second cycle educational institutions include trust and lack of integrity. Thus a leader who was not trusted could not head a school. This is because this type of head would not be supported by teachers and the ultimate aim of achieving examination success would fail. A headmaster who preaches virtue and practices vice would lack full support of good teachers.

Generally in the GES, the headmasters are appointed from the Assistant Headmasters who do not undergo any training to hold the position (Commonwealth Secretariat, 1993). School appointment in this manner would definitely create problems for the schools. The rule of such headmaster would be try and error when matters concerning students and teachers come up. His/her colleagues who have also not gone for any training as headmasters of schools would be the advisors. Honesty which is another quality required from headmasters is also missing in the GES. The headmasters who are honest before their appointment may join the corrupted masses of the school or would be forced out of office by rumours of bad management. The provision of funds for teaching and learning would also be lacking, as funds are channeled into non-academic uses. To check this corrupt practice, periodic auditing is done and the culprits are invited by the Public Accounts Committee (PAC) from time to time to cross check purchases done by the school. In short, the opposite of good qualities of the leader (headmaster) would be the constraints to leaders' effectiveness.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter looks at the methodology for the study on leadership effectiveness and academic performance for second cycle institution- a comparative analysis of the Central and Northern Regions of Ghana. It shall also cover research design, population of the study, data collection, field work and analysis of data.

Research Design

This study is on leadership effectiveness and academic performance in the second cycle institutional of Central and Northern Regions. The descriptive survey method was used for the comparative analysis for the two regions. This descriptive survey has to do with collecting data systematically and presenting results to give a clear explanation of leadership effectiveness and academic performance as regards the headmaster, academic staff, parents, students, opinion leaders among others in the Central and Northern Regions of Ghana. Research design is delineated from study design by the method of randomization.

This study included a cross-sectional approach as data were collected from teachers of the selected schools as well as some student leaders, opinion leaders among others of the selected communities where the schools were sited. So generalization of results might be done with caution from time to time in the history of the school (Sproul, 1988).

According to Robson (2002), a concise definition for the word survey is difficult to give.

He, however, stated that the principal features of survey are;

1. The survey uses stable arithmetic method
2. From a large number of individuals a little sample could be collected and standardized.
3. The little sample could be used to represent the population.

Bryman (1989) provided the following definition, “Survey research entails the collection of data on a number of units and usually at a single juncture in line, with view to collecting systematically a body of quantifiable data in respect of number of variable which are then examined to discern patterns of associations” (p.104).

The benefits of surveys make it appropriate to be applied in the descriptive research of leadership effectiveness and academic performance in second cycle institutions of the Central and Northern Regions of Ghana.

Bryman (1989), stated that the survey has the following benefits:

1. Survey provides a simpler and straight forward step by step method to the study of characters, worth, trust and motions.
2. Again, survey may be changed as needed so that information could be generalized from all respondents which includes the teachers and students for the selected schools for this research.
3. Survey also contains high amount of standardization of data.
4. Often survey provides the simplest method of studying the history of the population.
5. Survey can provide at relatively low cost large amounts of data, in a relatively short time.

6. Survey allows secrecy of respondent, and this encourages truthfulness for sensitive issues.
7. The interviewer can provide better explanations to questions and
8. The interviewer 's presence allows frank and open discussions (and the interviewer can judge the seriousness of the process) (Pp.223-234)

The disadvantages of survey include responses being affected by the memory, knowledge, experience, motivation and personality of the respondents. Again, respondents are biased when their beliefs and attitudes are being discussed and might respond in a way that show them to be good people.

Again, the data may be influenced by the motivation, personality, skills and experience of the interviewer. The interviewer might be biased, when he or she probably unknowingly, influence the responses (for example, through verbal and non-verbal cues indicating correct answers.) data may be influenced by relationship the interviewer has with the respondent for example, whether they are of the same or different class or ethnic background. Respondents who find their answers not being vague would be less forthcoming or open (Robson, 2002, pp. 233-234).

Aside these disadvantages, the survey method was adopted for this study for the simple reason that the sample of teachers have been in their schools for more than three years and therefore can provide better answers about their head master/mistress.

Data Types and Sources

Questionnaires, the instruments of data collection, were administered to 890 teachers in the selected schools of the Central and Northern Regions of

Ghana. The focus group discussion schedule was also used for some teachers, community leaders, students and parents during the focus group discussion. Observation was also employed. The interview guide was used to interview some headmasters, teachers, parents, students and other members of the community including opinion leaders to confirm answers on the questionnaire.

Choice of Sample

All teachers in government assisted second cycle schools that are popular and are chosen as the first choice of any student/parents in the Central and Northern Regions of Ghana constitute the target population. Members of selected schools in the Central and Northern Regions constituted the population from which the results could be generalized for other areas. (Creswell, 2003).

Sample Frame

Since this group was rarely available, the accessible population comprised of teachers who had taught at the school for more than three years in the selected schools in Central and Northern Regions of Ghana. Headmasters and Headmistresses were also interviewed alongside opinion leaders.

Sample Size

A sample is a representative unit of a population. Sampling procedure is the process taken to select samples from a study population. Sampling enables a researcher to use a relatively small number of units in place of the target population, as well as obtaining data are representative of the target population (Sarantakos 1988). Based on number of teachers with three or more years of experience in the schools, a total sample of sixty (60) teachers were

selected from only three (3) Grade A schools in the Northern Region while the Central Region provided 140 teachers from her three (3) schools selected from seven (7) Grade A schools. From the Grade B schools, the Northern Region had six schools and a total of 120 teachers were selected to represent the region, while the Central Region which had 14 Grades B schools, provided 200 teachers for the six(6) selected schools for 10 Grades B schools. For the Grade C schools, the Northern Region which had 33 Grade C schools provided 200 teachers from 10 schools while the Central Region also provided 175 teachers from 10 out of 42 schools. Teachers and school prefects were selected by the simple random technique while opinion leaders were picked by the snowball sampling technique.

Table 1 shows the table of Grade A, B and C schools in Ghana by regions.

Statistics of S.H.S in Ghana, 2017

Table 1: Senior High Schools in Ghana

Regions	Grade A	Grade B	Grade C
Greater Accra	5	14	24
Eastern	8	23	56
Central	7	14	42
Western	3	34	32
Ashanti	8	27	79
Brong-Ahafo	5	12	56
Volta	6	13	65
Northern	3	6	33
Upper East	5	3	19
Upper West	4	3	28
Total	54	329	433

Source: CSSPS Compilation, 2017

To enable comparison between the Central and Northern Region the selected population for Grade A schools was used, that is three (3) for both Central and Northern Regions. For Grade B schools, six (6) schools were selected by lottery method for the Central Region, while the Northern Region had her six (6) schools maintained. For Grade C schools ten (10) each were selected from 42 and 33 schools respectively from the Central and Northern Region by the lottery method. All schools in the Grade B and C were listed one each on a piece of paper.

After writing the names of the schools on paper, folding and placing in a container, the following schools were selected in the Central and Northern Regions for comparisons, three (3) Grade A schools in the Central region and six (6) schools Grade B in the Central region and for ten (10) Grade C schools in both Central and Northern Regions. After each selection, the container was shaken to give all schools equal chance for selection. Table 2 shows the numbers of teachers selected by Grades in the Regions.

Table 2: Numbers selected in the regions.

Regions	Ratio	Population	Number Selected
Central			
Grade A	3/7	315	135
Grade B	6/14 (3/7)	467	200
Grade C	33/42 (11/14)	255	200
Northern			
Grade A	3/7	140	60
Grade B	6/14 (3/7)	280	120
Grade C	33/42 (11/14)	223	175
Total			

890

Teachers and prefects were selected by simple random sampling while opinion leaders were selected by snow balling technique.

Tables 3 and 4 show the final list of selected schools from the two regions for the study.

Central Region

Table 3: Selected Senior High Schools in the Central Region

S/N	Grade A	Grade B	Grade C
1.	Mfantsipim	UPSS	Academy of Christ
2.	Mfantsiman	Ghana National College	Efutu SHS/Tech
3.	St. Augustine's	Mankessim SHS/ Tech	Ekumfi T.I. Ahmadiya
4.		Apam SHS	JEA mills SHS
5.		Swedru SHS	Kwegyir Aggrey SHS
6.		Edinaman SHS	Saltpond Methodist SHS
7.			Aburaman SHS
8.			Gomoa SHS
9.			Mozano SHS
10.			Moree SHS/Tech

Northern Regions

Table 4: Selected S.H.S in the Northern Regions

S/N	Grade A	Grade B	Grade C
	Tamale SHS	Northern Sch. Of Business	Business SHS
	Ghana SHS	Islamic Science SHS	Vitting SHS/Tech
	Tamale Girls SHS	Dawonyo SHS	Precby SHS
		Nalerogn SHS	Ndewura Jakya SHS/Tech
		Yendi SHS	Salaga SHS
		St. Charles SHS	Buipe SHS
			Bimbilla SHS
			Bunkpurugu SHS
			Gambaga SHS
			Walewale SHS

Instrument Preparation

The questionnaire was the instrument used for the study of the selected respondents. Kerlinger (1973) observed that the questionnaire is widely used for collecting data in educational research because it is very effective for securing factual information about practices and conditions of which the respondents are presumed to have knowledge. Questionnaire is a useful and widely used instrument for collecting survey information providing structured and often numerical data. Also, it is useful for the collection of data without the presence of the researcher and it is often comparatively straight forward to analyze (Cohen, Manion & Morrison, 2005).

After intensive review of literature, the questionnaire was designed based on the salient points in the literature review and the research questions formulated. There were both closed-ended and opened-ended type of questions. The questionnaire was divided into five (5) sections. These are as follows;

Section A: Demographic data of respondents

Section B: Assessment of the state of leadership effectiveness and academic performance

Section C: Determinants of leadership effectiveness and academic performance

Section D: Relationship between leadership effectiveness and academic performance

Section E: Model leadership effectiveness and academic performance

Aside the questionnaire, interviews, focused group discussions and observations were also employed.

Pilot Testing

In updating the questionnaire for appropriateness a minor preliminary study was conducted before the main study. According to Fraenkel and Wallen (2000), pilot-testing of the questionnaire could reveal ambiguities, as well as questions that are difficult to give answers to and could also indicate as to the clearness of the instruments for the respondents. Questions which were found ambiguous and those not suitable to the local conditions were reconstructed. Other items which were found to elicit similar responses were either eliminated or restricted. The relevant corrections were made before the final administration.

To ensure validity, instruments were developed under close guidance of the supervisor, intensive consultation of relevant literature and a pilot study carried out to pre-test the instrument. Accordingly, to make the data more valid and reliable and also to avoid ambiguity and unclear statement, the draft questionnaire was first examined with fifty teachers from five (5) second cycle schools selected to respond to the questionnaire. Based on the comments given by these respondents of the piloted schools, some modifications were made on the questionnaire to make it clear and precise for the main respondents so as to obtain the most reliable information. The Cronbach's alpha, a measure of internal consistency was used to test for the reliability of the instrument.

Data Collection

A combination of different methods of data collection was used. Extensive literature searches were undertaken to identify leadership effectiveness and academic performance across the global. Observations of teaching and supervision methods were used. These were supplemented with

detailed interviewing of community leaders, teachers and students, using questionnaire. The questionnaire had five parts.

Section A covered the demographic data of teachers which covered the name of school, sex, number of years the teacher had been in that school and the position of the teacher in the school.

Section B: assessed leadership effectiveness and had questions which included those on the type of leadership style used by the heads of schools and the extent of usage of the leadership on a scale of one (1) to ten (10) with one being the lowest and ten, the highest.

Section C: looked at determinants of leadership effectiveness which sought to answer questions on students' behaviour as well as teachers commitment to improve learning and teaching.

Section D: covered the relationship between leadership effectiveness and academic performance. Teachers answered questions that make the head effective in running the school.

Section E: the final section looked at ways of improving leadership effectiveness in the schools.

The focus group discussion was also used. There was interview of opinion leaders as well.

Data Processing

The data obtained from the questionnaire was cross checked with that of the interview and focus group discussions. No individual interview schedule was rejected. Field observation, impressions and challenges were discussed. Collation and editing of interview schedules were done. Most of the data processing was done using computer based software application of SPSS.

Data were cleaned, edited and coded for the SPSS to produce the statistical output required. Data cleaning is the process of eliminating corrupt or inaccurate records. Data editing involves the review and adjustment of collected data. The purpose is to maximize the usefulness of data and make clear for understanding data collected. Coding of data is an essential part of quantitative data analysis that ultimately determined the themes that will be analyzed. It is after coding that the required statistical analysis is done.

Data Analysis

Data obtained from questionnaire were analyzed thematically and the matrix used is presented in Table 5.

Table 5: Data Analysis Matrix

Specific Objectives	Framework of Analysis	Techniques of Analysis
To assess the state of leadership effectiveness	Description	Scenario building Descriptive statistics
To analyze determinants of leadership effectiveness	Correlation	Multiple regression chi-square
To evaluate the relationship between L.E. and academic performance	Correlation	Correlation coefficient
To synthesis L.E. for improved academic performance	Synthesis	Modeling

Both qualitative and quantitative data analyses were done according to the themes of the research questions. Responses from the various categories of

respondents were discussed systematically in line with research objectives and questions.

Various models were studied including that by Stogdill (1948) on leadership process. The model embodied self-confidence, drive, leadership motivation, positive/negative affectivity, emotional intelligence as traits of the leader. The model is represented in Figure 2:

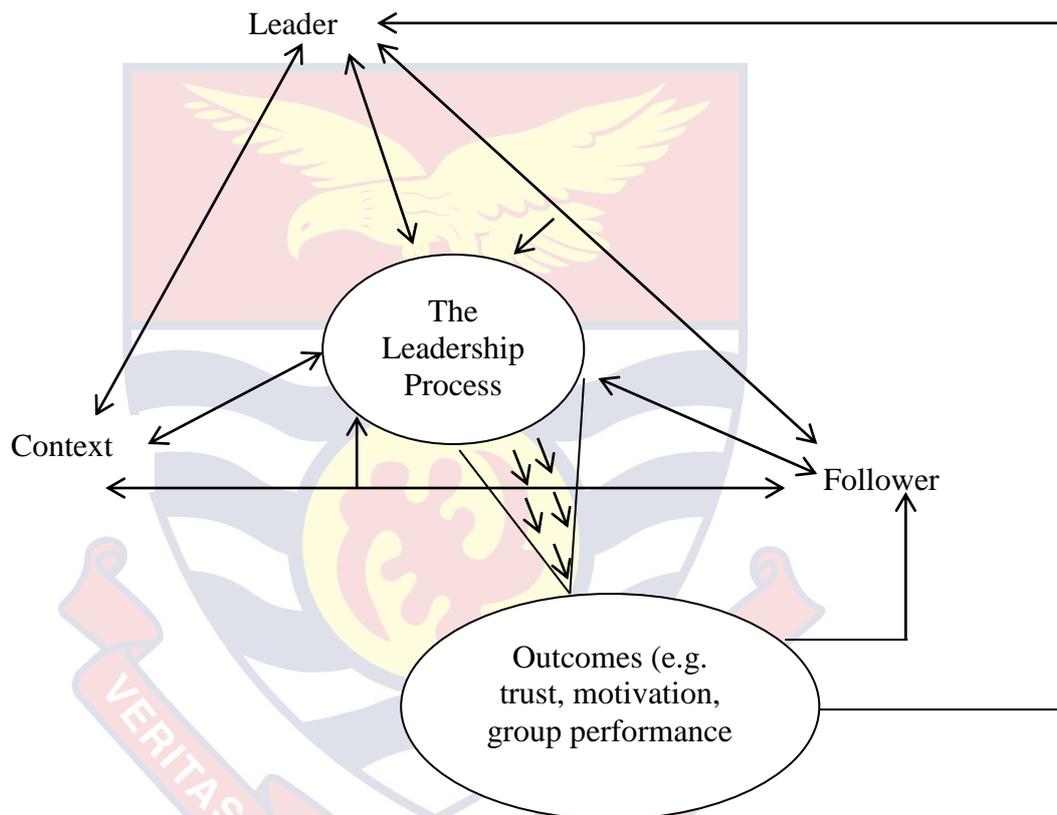


Figure 2: Leadership-follower Model

According to Pierce and Newstrom (2006) the discussion of traits leads further into the leadership process which provides elaborated understanding of the leader. While Stogdill (1948) suggested that leadership unfolds as working relationships, Kirkpatrick and Locke (1991) emphasized that possessors of leadership traits are more likely to engage in the behaviours associated with leadership.

This model by Stogdill (1948) was modified by Salancik and Pfeffer (1977) as shown in Figure 3:

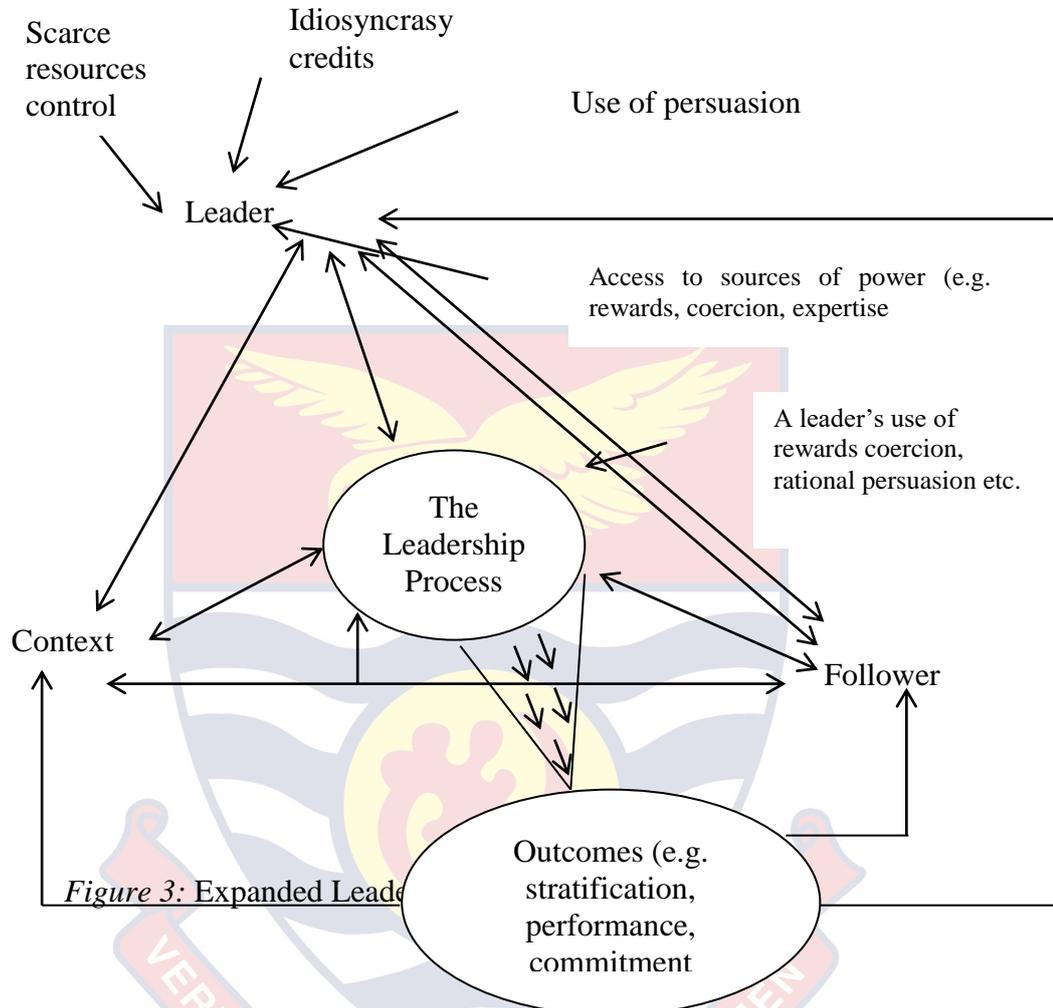


Figure 3: Expanded Leadership Process Model

Salancik and Pfeffer (1977) named it the expanded leadership process. They took into consideration the situation facing the group and what enabled the group to answer the question, “who will be the leader”? They proposed that such leaders used rewards, coercion and rational persuasion to get the followers to work better and this in the school system enabled better results at the final examinations.

As leadership developed other models based the previous ones developed in time with the names given to the new theories. For example, the

theoretical model of leadership process by Williams and Hazer (1986) is as shown in Figure 4:

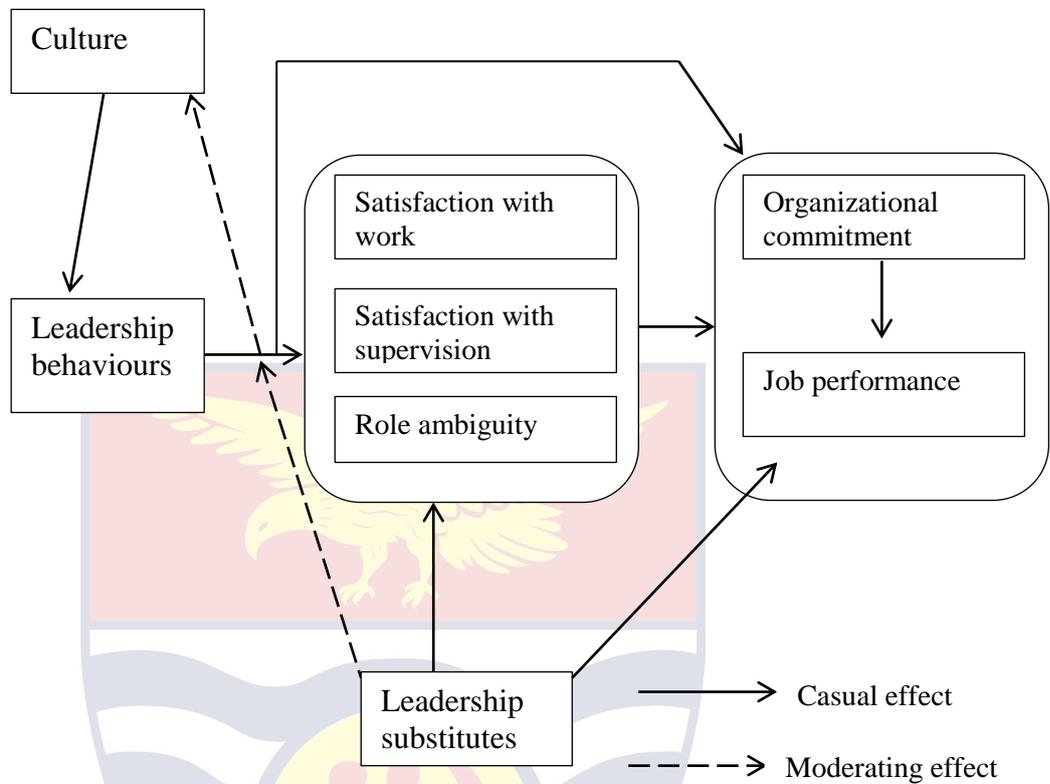


Figure 4: Theoretical Model of Leadership Process

This model shows job satisfaction and role ambiguity as mediators, which are the most immediate results of a leader's behaviour. Job satisfaction and role ambiguity affects organisational commitment as well as job performance. It also shows that job performance is directly influenced by organisational commitment.

The skills approach of leadership provided the model in Figure 5:

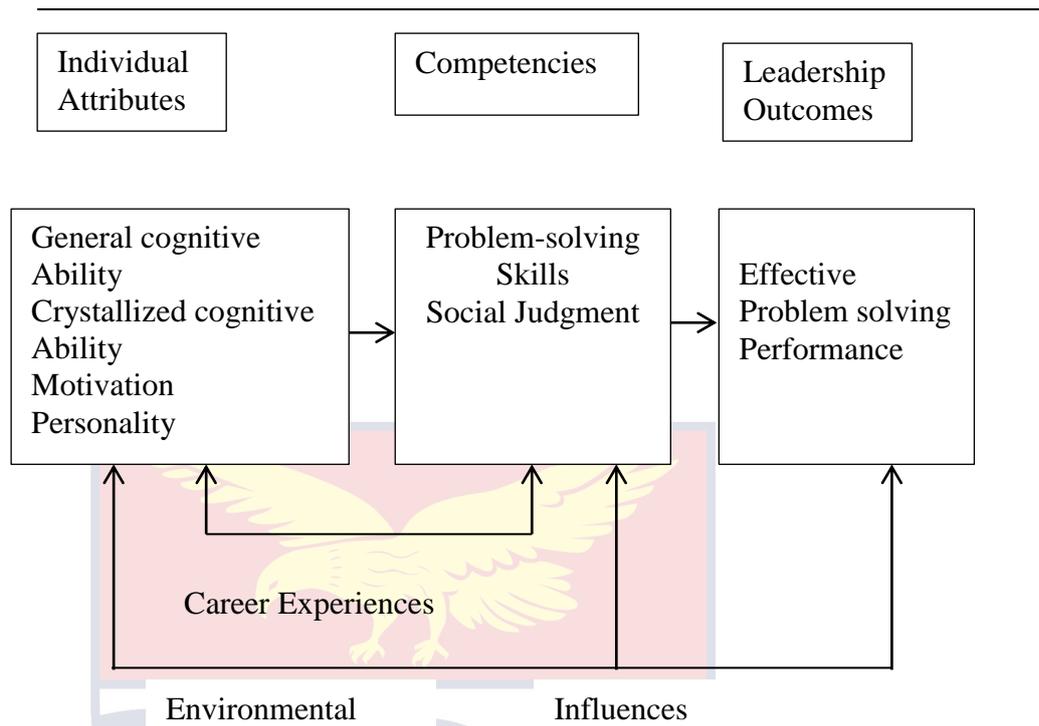


Figure 5: Skills Model of Leadership

Source: Adapted from “Leadership skills for a changing world solving complex social problem by M.D. Mumford, et al (2000).

At the heart of this model are three competencies: problem-solving skills, social judgment skills and knowledge. These are the central determinants of effective problem solving and performance. Individual attributes, career experience and environmental influences have impact on leader competences. The outcome of job experience and training makes the leader a better problem solver and more effective leader.

A model of leadership effectiveness was developed by Douglas Day (2015) which is both intricate enough for the complicated job of building leaders for the future. Day used a circle with horizontal axis defined by task and relationship and the vertical axis representing the stage of a leader’s development. This circle divided into four-quadrant grid displays universal model of leadership. Figure 6 is a representative diagram of the model:

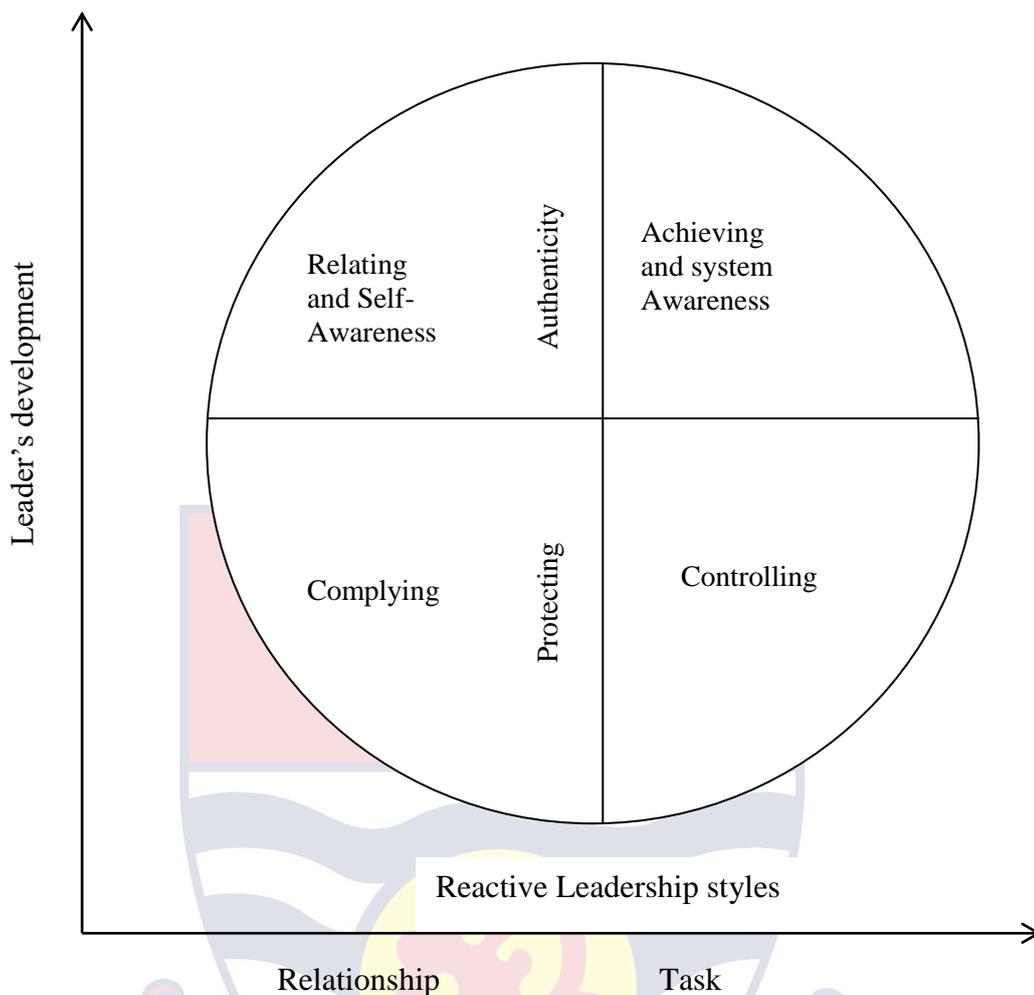


Figure 6: Creative Leadership Competencies

From Day's model, it is explained that leadership capability and effectiveness depend on the level of growth of the leader. As the creative stage of leadership matures extraordinary capability emerges.

Complying is reactively people oriented while controlling has to do with reactively task driven people. At the centre of complying and controlling is protecting. Above the circle is a creative leadership competency and below the circle is a reactive leadership style. Furthermore, the leader could manage people creatively in a way that engages, empowers and brings out the best in them. Again that leader could engage people reactively such that people may be heart-centred but gives up to much power in service of being liked and

accepted. A leader could manage tasks creatively by being purpose driven and vision focused to achieve effective execution on results and systemic improvement. Again, a leader could manage task reactively by over-controlling and driving the organization and people beyond sustainable limits. Other ten models to make one a successful leader and so influence others to help achieve better results are:

1. Servant leadership model
2. Leadership with Autocratic model
3. Leadership with Transactional model
4. Leadership which is task-oriented
5. Transformational leadership model
6. People-leadership model
7. Leadership models called Transformational
8. Leadership called Laissez-faire model
9. Leadership with Democratic model and
10. Leadership with Bureaucratic model

All these models have their advantages as well as disadvantages when applied in running schools that desire to achieve better academic performance.

The formulae needed under the chi-square include

$$1). \quad X^2 = \sum \left(\frac{f_o - f_c}{f_c} \right)^2 \text{ where}$$

f_o = observed frequency

$$f_c = \frac{CR \times RT}{GT} \text{ where } CR \text{ is Colum total}$$

RT = Row total and GT is Grand total

2). The coefficient of correlation, r_{xy}

$$= \frac{N\sum XY - \sum X \sum Y}{[\sum X^2 - (\sum X)^2][\sum Y^2 - (\sum Y)^2]} \text{ where}$$

N is the number of observation

$\sum XY$ is the sum of the product of X and Y

$\sum X$ is the sum of X

$\sum Y$ is the sum of Y

$\sum X^2$ is the sum of the squares of X

$\sum Y^2$ is the sum of the squares of Y

Squaring R_{xy} gives the coefficient of determination

Data Description

This research seeks to apply both qualitative and quantitative techniques to assess, analyze and synthesize issues relating to leadership effectiveness and academic performance.

Bryman (2012), states that quantitative research lays emphasis on quantification in the collection and analysis of data which entails a deductive approach with relationship between theory and research with emphasis on testing of theories. Again, it incorporates the practices and norms of natural scientific model and of positivism in particular and embodies a view of social reality as an external, objective reality.

Bryman (2012) continues that in contrast, qualitative research emphasizes words rather than quantification in the collection and analysis of data which uses an inductive approach to the relationship between theory and research. Here, emphasis is on generation of theories. Again, qualitative research rejects the practices and norms of the natural scientific model and of positivism and sees individuals interpreting their social world. Qualitative

research also embodies the process of dealing with social reality as changes occur in individual's creation.

In comparing the leadership effectiveness and academic performance in the central and northern regions, it must be noted that education in Ghana began at cape coast with the castle schools, before it gradually went to the centre of Ghana and then to the northern part of Ghana (Kwamena-Poh & McWilliam, 1975). It therefore pre-supposes that the central region places ahead in educational or institutional issues when compared to any region in Ghana.

In assessing the state of leadership effectiveness and academic performance in the two regions, Tables 6 & 7 show the choice of leadership styles:

Table 6: Choice of leadership styles in Central region

Leadership style	Number	Percentage (%)
Laissez-faire	21	4
Transformational	49	9
Autocratic	76	14
Democratic	394	73
Total	540	100

Table 7: Choice of leadership styles in Northern region

Leadership style	Number	Percentage (%)
Laissez-faire	6	2
Transformational	53	15
Autocratic	25	7
Democratic	266	76
Total	350	100

To compare the regions, Table 5 was used for chi-square. The chi-square table was prepared and the observed values were calculated and the calculated value was compared to the table values at 95% level of significance. At three degrees of freedom (see appendix D. (1)), the calculated values 24.170 was more than the table value of 7.82. Since $\chi^2_c > \chi^2_t$, the null hypothesis was rejected, and the alternate hypothesis was accepted that there is difference in the state of leadership effectiveness in the two regions.

Aside the leadership style chosen by the heads, the ten leading factors for assessing leadership effectiveness and academic performance were also compared for the two regions. For these factors, teachers' choices to answering the questionnaire were grouped into three (3) rankings of 1-4, the lowest; 5-7, the middle and 8-10, the highest rank. Below are the ten most prominent factors that were assessed for comparison for the two (2) regions; by Grades. [A, B and C] Following is the list of the ten most prominent factors:

Right procedure for students' admission

Assistant headmasters were involved in the daily running of the school

Improved student performance was an outcome of leadership style

Student prefects help in daily running of the school

Leaders of non-teaching staff are involved in the daily running of the school

Involvement of members of Disciplinary Committee in the daily running of school

Good relationship is an outcome of leadership style

Improved teaching methods as an outcome of leadership style

Heads followed the right procedure for procurement

Heads use disciplinary powers

Right procedure for student admission – Grade A

The tables of choices for teachers in the two (2) regions are as in Tables 8 & 9:

Table 8: Choice of Teachers in Central region – Grade A

Rank	1 – 4	5 – 7	8 – 10	Total
Number	6	66	63	135
Percentage	4	49	47	100

Table 9: Choice of Teachers in Northern region – Grade A

Rank	1 – 4	5 – 7	8 – 10	Total
Number	15	20	19	54
Percentage	28	37	35	100

From Table 7& 8, while only 4% chose the rank 1 -4, 28% chose the same rank in the Northern region. While 49% chose the rank 5 – 7 in the Central region, 37% chose it in the Northern region and for the rank 8-10, it was 47% and 35% for the Central and Northern regions, respectively. In order to compare as to whether there is any difference in the procedure for student admission in the two (2) regions, the chi-square was used. The observed values were calculated and compared to the table value at 95% level of significance and two (2) degrees of freedom (see appendix D.(2)). The calculated value of 21.6249 was compared to the take value of 5.99. Again, the calculated value was greater than the table value, so the null hypothesis was rejected and alternate hypothesis accepted. So, again there is difference in the procedure for student admission. Headmasters confirmed that the procedure differed for the number that got enrolled in the High Schools of the South, which included the Central region. In some schools in the Northern

region, the headmasters agreed that they had to coerce some parents to release their children to school.

Assistant headmasters were involved in the daily running of the school.

Tables 10 & 11 show the choices of teachers for the two (2) regions.

Table 10: Choice of teachers – Central region – Grade A

Rank	1 – 4	5 – 7	8 – 10	Total
Number	10	42	82	135
Percentage	6	32	61	100

Table 11: Choice of teachers – Northern region – Grade A

Rank	1 – 4	5 – 7	8 – 10	Total
Number	8	20	26	54
Percentage	15	37	48	100

From Tables 10 & 11, 6% and 15% of teachers chose the rank 1-4 in the Central and Northern regions, respectively and for the rank 5-7, the Central region had 32% of teachers choosing it while 37% of teachers in the Northern region, chose it. For the highest rank of 8-10, 61% and 48% of teachers in the Central and Northern regions, respectively, chose it.

To compare as to whether there is difference in the Assistant headmaster's involvement in the daily running of the schools, the chi-square table was prepared (see Appendix D. (3)) and the observed values calculated. The calculated value of 3.5844 was put side by side to the table value of 5.99, at 95% level of significance and two (2) degrees of freedom. Since the calculated value is less than the table value, the null hypothesis is accepted. Thus, there is no difference in the Assistant headmasters' involvement in the

daily running of the schools, in the two (2) regions. Some headmasters stated that the Assistant Headmasters had their roles stipulated for them hence no difference in their work both in the Central and Northern regions of Ghana.

Improved student performance was an outcome of leadership style

Tables 12 & 13 represent the choices of teachers for improved student performance as an outcome of leadership style.

Table 12: Choice of Teachers – Central region – Grade A

Rank	1 – 4	5 – 7	8 – 10	Total
Number	28	52	55	135
Percentage	20	39	41	100

Table 13: Choice of Teachers – Northern region – Grade A

Rank	1 – 4	5 – 7	8 – 10	Total
Number	12	20	22	54
Percentage	28	37	41	100

From Tables 12 & 13, on improved performance as an outcome of leadership style, 20% and 28% of teachers in the Central and Northern regions respectively chose the lowest rank 1-4 while 39% in the Central region and 37% of teachers in the Northern regions selected the middle rank of 5-7. For the highest rank, 41% each in both regions chose it.

To enable comparison to be made for the two (2) regions, as to whether there is any improved difference in students’ performance as an outcome of leadership style, the chi-squared was used. The observed values and the calculated values were obtained and compared to the table value (See Appendix D (4)). The calculated value of 0.1882 was put side by side to the

table value of 5.99 at 95% level of significance and two (2) degrees of freedom. On comparison, the calculated value was lower than the table value. So, the null hypothesis that there is no difference in the two (2) regions for improved performance as an outcome of leadership style was accepted. According to some Headmasters, once teachers complete the syllabi for each subjects, students are likely to produce better academic result hence there is similar improved academic results in the two regions.

Student prefects help in daily running of the school

Tables 14 & 15 show the choices of teachers for the two (2) regions for the involvement of student prefects in the daily running of the schools in the Central and Northern regions.

Table 14: Choice of teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	20	54	61	135
Percentage	15	40	45	100

Table 15: Choice of teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	12	23	19	54
Percentage	22	43	35	100

Using Tables 14 & 15, 15% of teachers in the Central region and 22% of teachers in Northern regions, selected the lowest rank of 1-4. 40% of teachers in the Central region and 43% of teachers in the Northern region, picked the middle rank of 5 – 7 while 45% of teachers in the Central region and 35% of teachers in Northern region picked the highest rank of 8 – 10.

To find out whether there is any difference in the involvement of student prefects in the daily running of the schools, in the two (2) regions, the chi-square table was prepared and the observed values obtained. (See Appendix D. (5)). The calculated value of 2.3664 was compared with the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Thus, the null hypothesis that there is no difference in the involvement of student prefects in the daily running of the schools, was accepted. Some headmasters confirmed that student prefects have the code of ethics to follow hence the same results of their involvement in the running of the schools both in the Central and Northern regions of Ghana.

Leaders of non-teaching staff are involved in the daily running of the school

Teachers in the two (2) regions selected ranks for the involvement of non-teaching staff in the daily running of the schools. Tables 16 & 17 show the choices for the two regions:

Table 16: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	20	43	72	135
Percentage	15	32	53	100

Table 17: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	10	29	15	54
Percentage	18	54	28	100

From Tables 16 & 17 for the two (2) regions, 15% of teachers in the Central region and 18% of teachers in Northern region chose 1 -4 while 32% of teachers in the Central region and 54% of teachers in Northern region, picked the middle rank of 5 – 7. 53% of teachers in the Central region and 28% of teachers in the Northern region, selected the highest rank of 8 – 10.

To compare for the two (2) regions as to whether the non-teaching staff's involvement in daily running of the school differed, the chi-squared table and observed values were prepared and calculated (See Appendix D (6)). The calculated value of 11.9009 was compared with the table value of 5.99 at 95% level of significance and at two (2) degrees of freedom. Since the calculated value exceeded the table value, the null hypothesis was rejected. Hence, the alternate hypothesis that there is difference in the involvement of non-teaching staff in the daily running of the schools was accepted. Thus the activities of the leaders of the non-teaching staff differ in the schools of the Central and Northern regions of Ghana. During the interview section, some headmasters confirmed that the likely difference in the involvement of non – teaching staff in the Central and Northern region might result from more connections to the chiefs in the North than in the Central region. The non – teaching staff leaders are more dynamic and could influence decisions in the school due to their connections with the chiefs.

Involvement of members of Disciplinary Committee in the daily running of the schools

Tables 18 & 19 show the choices of teacher in the two (2) regions for the involvement of members of the Disciplinary committee in the daily running of the schools.

Table 18: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	19	58	56	135
Percentage	16	43	41	100

Table 19: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	12	23	19	54
Percentage	22	43	35	100

From Tables 18 & 19, 16% and 22% of teachers in the Central and Northern regions, respectively selected the lowest rank of 1 – 4 while 43% each in the two (2) regions, selected the middle rank of 5 – 7. For the highest rank, 41% of the teachers in the Central region and 35% of the teachers in the Northern region selected it.

To compare as to whether there is difference in the involvement of members of Disciplinary committee in the daily running of the schools, the chi-square table and observed values were prepared and obtained (See Appendix D (7)). The calculated value of 1.51 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since the calculated value was less than the table value, the null hypothesis was accepted. Hence, there is no difference in the involvement of the members of the Disciplinary committee in the daily running of the schools. The similarity in the involvement of the Disciplinary Committee for the daily running of the schools, according to some headmasters might be due to the use of the same code of conduct from the Ghana Education Service.

Good relationship is an outcome of leadership style

Teachers in the two (2) regions selected the following ranks for good relationship as an outcome of leadership style. Tables 20 & 21 show the choices.

Table 20: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	86	49	135
Percentage	0	64	36	100

Table 21: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	39	15	54
Percentage	0	72	28	100

From Tables 20 & 21, no teacher selected the lowest rank of 1 – 4 in both regions. However, 64% of teachers in the Central region and 72% of teachers in Northern region chose the middle rank of 5 – 7. 36% of the remaining teachers in the Central region and 28% of teachers in the Northern region chose the highest rank of 8 – 10.

To compare as to whether there is any difference in good relationship as an outcome of leadership style, in the two (2) regions, the chi-squared table and observed values were prepared and calculated, respectively (See Appendix D (8)). Comparing the calculated value of 1.0744 with that of the table value of 5.99 at 95% level of significance and two (2) degree of freedom, the null hypothesis is accepted. Hence, there is no difference in good relationship as an outcome of leadership style, in the two (2) regions. During interview session,

the headmasters agreed that growing good relationship helped them to secure their jobs as they also use their links to speak for them when troubles come up. Similarly, links downwards, helped to secure the support of the subordinates who work harder to promote better academic results. The headmasters of the Northern region also agreed that their counterpart in the Southern sector also use their links to secure their job too and link up with their subordinates to improve academic results.

Improved teaching methods as an outcome of leadership style

Teachers of the two (2) regions chose the three different ranks in the manner as displayed in Tables 22 & 23:

Table 22: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	70	65	135
Percentage	0	52	48	100

Table 23: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	33	21	54
Percentage	0	61	39	100

From Tables 22 & 23, no teacher in the two regions chose the lowest rank of 1 – 4. However, 52% of teachers in the Central region and 61% of teachers in the Northern region chose the middle rank of 5 – 7 while 48% of teachers in the Central region and 39% of teachers in the Northern region chose the highest rank of 8 – 10.

To enable comparison as to whether improved teaching method as an outcome of leadership style, differs in the two regions, the chi-square table and observed values were prepared and calculated (See Appendix D (9)). The calculated value of 1.51 was put side by side to the table value of 5.99. Since, the calculated value is less than the table value, the null hypothesis that there is no difference in improved teaching method as an outcome of leadership style, was accepted. Hence, there is no difference for the two regions when teaching method was assessed. The headmasters confirmed that teaching methods are the same for the two regions. This they claimed resulted from teaching going with their counterpart to mark the examination scripts of the students they teach. The marking schemes enable the teachers to apply the same methods in teaching, according to the headmasters, hence no difference in the teaching methods in the two regions.

Heads followed the right procedure for procurement

Teachers in the two (2) regions selected the middle and highest ranks to assess heads that followed the right procedure for procurement. Tables 24 & 25 show the choices of teachers:

Table 24: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	73	62	135
Percentage	0	54	46	100

Table 25: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	37	17	54
Percentage	0	69	31	100

From Tables 24 & 25, no teacher in the two regions selected the lowest rank of 1 – 4. 54% of teachers in the Central region and 69% of teachers in the Northern region chose the middle rank while 46% of teachers in the Central region and 31% of teachers in the Northern region chose the highest rank of 8 – 10.

To enable comparison between the two regions as to whether there is difference in how the heads followed the right procedure for procurement, the chi-square table and observed values were prepared and obtained (See Appendix D (10)). The calculated value of 4.16 was put side by side to the table value of 5.99. Since the calculated value is lower than the table value, the null hypothesis was accepted. Hence, there is no difference in the method of procurement for the two regions. According to the headmasters, they all use the same procurement procedures hence, they are in support of the no difference in the procurement procedures.

Heads use disciplinary powers

Tables 26 & 27 show the way the teachers selected the three different ranks to assess the use of disciplinary powers by the heads, in the two (2) regions.

Table 26: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	87	48	135
Percentage	0	64	36	100

Table 27: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	39	15	54
Percentage	0	72	28	100

For the two (2) regions, no teacher chose the lowest rank of 1 – 4 as depicted by the Tables 26 & 27. 64% of teachers in the Central region and 72% of teachers in the Northern region chose the middle rank of 5 – 7. 36% of teachers in the Central region and 28% of teachers in the Northern region chose the highest rank of 8 -10.

To compare the use of disciplinary powers by the heads in the two regions, as to whether there is any difference, the chi-square table and observed value table were prepared and obtained (See Appendix D (11)). The calculated value of 0.9678 was compared to the table value of 5.99. Since the calculated value was less than the table value, the null hypothesis was accepted. Hence, there is no difference in the way the heads used disciplinary powers in the two regions. The correlation method was used to compare the terms used for the analysis (See Appendix D (12)). The coefficient of determination, 44% was obtained.

For Grade B schools, similar tables were obtained and similar results were obtained from the chi-square analysis. The correlation table (See

Appendix D (12)) was used for the general comparison. The coefficient of determination was 55%.

For Grade C schools, the choices of teachers for the factors for assessing leadership effectiveness and academic performance were similar to that of Grades B and A. For the general result on comparing the two regions, the correlation method was used for all the twenty-three factors (from literature). The correlation coefficient of 68% was obtained (See Appendix D (13)). From it, the coefficient of determination was 46%.

Combining the three Grades A, B and C, the correlation coefficient of 74% was obtained for the factors for assessing leadership effectiveness and institutional performance. The coefficient of determination, 30% was obtained for squaring the 74%.

The second specific objective was to analyze the determinants of leadership effectiveness and academic performance. From the literature, twenty-one (21) factors were selected. These factors were re-grouped into seven factors for each batch. These factors were designated as follows:

- X₁ = Trust
- X₂ = Integrity
- X₃ = Clear goals
- X₄ = Good relationships
- X₅ = Focusing on improved results
- X₆ = Cultivating capabilities
- X₇ = Promoting innovations as first batch
- X₈ = Equipment and tools
- X₉ = Providing financial resources

- X₁₀ = Improving students' performance
- X₁₁ = Motivating teachers
- X₁₂ = In-service training seminar etc.
- X₁₃ = Effective policy framework and
- X₁₄ = Effective organisational structure as second batch
- X₁₅ = Effective supervision
- X₁₆ = Regular staff meeting
- X₁₇ = Efficiency of head
- X₁₈ = Reasonableness of head
- X₁₉ = Justice by head
- X₂₀ = Strictness of head
- X₂₁ = Carefulness of head as the third batch
- L.E = Leadership effectiveness

Using the significant level of each factor, that is $P < 0.05$, trust, good relationship and innovation were selected from the first batch of regressed factors. For the second batch, motivation of teachers and effective policy framework were selected after the regression. The third batch, carefulness, reasonableness, supervision and strictness were selected.

After these three (3) batches the selected factors were redesignated as follows:

- X₁ = Trust
- X₂ = Good relationships
- X₃ = Providing innovations
- X₄ = Motivation
- X₅ = Effective policy framework
- X₆ = Effective supervision

X₇ = Reasonableness

X₈ = Carefulness

X₉ = Strictness

These nine (9) factors were regressed and dropped one after the other. These nine (9) factors were compared for the two (2) regions using chi-square method. The choices of teachers for the two regions were placed in chi-square and observed values obtained.

Innovation

Table 28: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	53	161	321	353
Percentage	10	30	60	100

Table 29: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	43	149	163	355
Percentage	12	52	46	100

Tables 28 & 29 show the original and the observed values for the chi-squared calculations. Using the observed value and table values, the calculated value of 17.4549 was put side by side to the table value of 5.99 at 95% of significant level and two (2) degrees of freedom. Since the calculated value was greater than the table value, the null hypothesis was rejected. So, there is difference in providing innovations in the two regions. (See Appendix D (14)). During the interview session, the headmasters agreed that innovation might change in the two regions as each headmaster might use different ways to innovate. For example, some schools use their libraries and science

laboratories to accommodate students when the Free Education began in 2017. Others stated that they innovate to motivate teaching for better results. For example, some heads offer meat parcels to teachers for the weekends.

Effective Supervision

Tables 30 & 31 shows the original and observed values of the choices of teachers on effective supervision:

Table 30: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	193	342	535
Percentage	-	36	64	100

Table 31: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	202	153	355
Percentage	-	57	43	100

From Tables 30 & 31, no teacher from the two (2) regions chose the lowest rank of 1 – 4. However, 36% of teachers in the Central region and 57% of teachers in the Northern region chose the middle rank of 5 - 7 while 64% of teachers in the Central region and 43% of teacher in the Northern region chose the highest rank of 8 – 10.

To compare effective supervision in the two regions, chi-square and observed values were prepared and obtained (Appendix D (15)). The calculated value of 37.9297 was put side by side with the table value of 5.99. Since the calculated value was greater than the table value, the null hypothesis was rejected. Hence, there is difference in the supervision style in the two (2)

regions. During the interview session, headmasters believed some teachers supervised better than others and this might account for the difference in supervision between the two regions. They added that the more teachers are motivated the better the supervision.

Strictness

Teachers in the two (2) regions selected the ranks as in Tables 32 &33:

Table 32: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	43	171	321	535
Percentage	8	32	60	100

Table 33: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	71	131	153	355
Percentage	20	37	43	100

From Tables 32 &33, 8% of teachers in the Central region and 20% of teachers in the Northern region chose the lowest rank of 1 – 4. 32% of teachers in Central region and 37% of teachers in the Northern region chose the middle rank of 5 – 7 while 60% of teachers in Central region and 43% of teachers in the Northern region picked the highest rank of 8 – 10.

Comparing the two (2) regions as to whether there is difference in the head being strict, the chi-square table was prepared and the observed value calculated (See Appendix D (16)). Comparing the calculated value of 39.3818 and the table values of 5.99 at 95% level of significance and two (2) degrees of freedom, the null hypothesis is rejected. Hence, there is difference in the

level of strictness in the two (2) regions. Headmasters in some schools agreed that strictness differ from school to school, hence the difference in strictness in the two regions. Some heads in the Northern region stated that strictness in “foreign lands” ought to be looked at carefully. Consultations at times have to be done with chiefs and opinion leaders of the communities for final decisions to be arrived at.

Carefulness

Being careful, an attribute of the headmaster, was selected as in Tables 34 & 35 by the teachers:

Table 34: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	53	134	348	535
Percentage	10	25	65	100

Table 35: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	71	106	178	355
Percentage	20	30	50	100

Teachers in the two (2) regions selected the rank of 1 – 4. 10% of teachers in the Central region and 20% of teachers in the Northern region selected it. 25% of teachers in the Central region and 30% of teachers in the Northern regions selected the middle rank of 5 – 7. 65% of teachers in the Central region and 50% of teachers in the Northern region chose the highest rank of 8 – 10.

To compare the regions, on heads being careful and whether there is difference in the two (2) regions, the chi-square table and the observed value (See Appendix D (17)) were prepared and calculated. The calculated value of 26.334 was compared to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since the calculated value exceeds the table value, the null hypothesis was rejected. The alternate hypothesis is accepted, that is, there is difference in heads being careful in the two regions. Some headmasters agreed that in some schools headmasters operate fully on their own while in others consultations ought to be done to exonerate headmasters from attacks from the communities. Hence, it is not surprising that there is difference in carefulness in the two regions.

Trust

Trust according to teachers help, them to give of their best. Tables 36 & 37 show the choices of teachers in the two (2) regions:

Table 36: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	231	124	355
Percentage	-	44	56	100

Table 37: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	231	124	355
Percentage	-	65	35	100

From Tables 36 & 37, no teacher chose the lowest rank of 1 – 4 in the two (2) regions. However, 44% of teachers in the Central region and 65% of

teachers in the Northern region selected the middle rank while 56% of teachers in the Central region and 35% of teachers in the Northern region selected the highest rank of 8 – 10.

Comparing the two (2) regions as to any difference in the heads being trusted, the chi-square table was prepared and the observed value was calculated (Appendix D (18)). The calculated value of 40.4638 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since the calculated value was greater than the table value, the null hypothesis was rejected. Hence, there is difference in the headmasters being trusted in the two regions. Headmasters interviewed agreed that trusting them might differ in the two regions for the links they have. They added that what a colleague could do in the South could not be done in the North without consultations.

Good Relationship

According to teachers, growing good relationship was for the headmasters to show among staff and the community. Tables 38 & 39 show the choice of teachers in the two (2) regions.

Table 38: Choice of Teachers – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	225	310	535
Percentage	-	42	58	100

Table 39: Choice of Teachers – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	209	146	355
Percentage	-	59	41	100

From Tables 38 & 39, no teacher in the two (2) regions selected the lowest rank of 1 – 4 while 42% of teachers in the Central region and 59% of teachers in the Northern region chose the middle rank of 5 – 7. 58% of teachers in the Central region and 41% of teachers in the Northern region chose the highest rank of 8 – 10.

To enable comparison, the chi-square table was prepared and the observed values calculated. The calculated value of 25.0183 was compared with the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since the calculated values exceed the table values, the null hypothesis was rejected. Hence, there is difference in the headmaster growing good relationships in the two regions. Some headmasters agreed that growing relationships could also differ in the regions for the connections they (headmasters) have. Linking to a supposed enemy of the school makes the head an enemy to the friends of the school.

Effective Policy Framework

Teachers in the two (2) regions selected the three ranks as obtained in Tables 40 & 41:

Table 40: Choice of Teachers – Effective Policy – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	86	449	535
Percentage	-	19	84	100

Table 41: Choice of Teachers – Effective Policy – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	153	146	355
Percentage	-	43	57	100

From Tables 40 & 41, no teacher chose the lowest rank of 1 – 4, in the two (2) regions while 19% of teachers in the Central region and 43% of teachers in the Northern region chose the middle rank of 5 – 7, 84% of teachers in the Central region and 57% of teachers in the Northern region chose the highest rank of 8 – 10.

To enable comparison as to whether there is any difference with the application of effective policy framework in the two (2) regions, the chi-square table was prepared and the observed values calculated (See Appendix D (20)). The calculated value of 85.2489 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since the calculated value was greater than the table value, the null hypothesis was rejected. Hence, there is difference in enforcing the effective policy framework in the two (2) regions. Some headmasters confirmed that in enforcing policy framework in the schools, there were likely to have differences in the two regions as decisions could be put aside due to communal interferences which is more in the Northern region.

Reasonableness

Tables 42 & 43 show the choices of teachers with regards to their heads being reasonable

Table 42: Choice of Teachers – Reasonableness – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	16	155	364	535
Percentage	3	29	68	100

Table 43: Choice of Teachers – Reasonableness– Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	28	135	192	355
Percentage	8	38	54	100

From Tables 42 & 43, 3% of teachers in the Central region and 8% of teachers in the Northern region chose the lowest rank of 1 – 4 while 29% of teachers in the Central region and 38% of teachers in the Northern region chose the middle rank of 5 – 7. 68% of teachers in the Central region and 54% of teachers in the Northern region chose the highest rank of 8 – 10.

The chi-square table was prepared and the observed values were calculated, to enable comparison as to whether there is any difference in heads being reasonable, in the two (2) regions. The calculated value of 21.9845 was put side by side to the table value of 5.99, at 95% level of significance and two (2) degrees of freedom (See Appendix (21)). Since the calculated value exceeded the table value, the null hypothesis was rejected. Hence, the alternate hypothesis was accepted. Hence, there is difference in the headmasters being reasonable in the two (2) regions. Some headmasters in the Northern region

confirmed the difference in their being reasonable to interferences from the local chiefs and opinion leaders.

Motivation of teachers

Teachers in the two (2) regions selected the three (3) ranks as depicted in Tables 44 & 45; for the factor of motivation of teachers:

Table 44: Choice of Teachers – Motivation – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	219	316	535
Percentage	-	41	59	100

Table 45: Choice of Teachers – Motivation – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	-	248	107	355
Percentage	-	70	30	100

From Tables 44 & 45, no teacher in the two (2) regions chose the lowest rank of 1 – 4 while 41% of teachers in the Central region and 70% of teachers in the Northern regions, chose the middle rank of 5 – 7. 59% of teachers in the Central region and 30% of teachers in the Northern region selected the highest rank of 8 – 10.

For comparison, on motivation of teachers in the two (2) regions, the chi-square table was prepared and the observed values calculated (See Appendix D (22)). The calculated value of 81.1423 was put side by side to the table value of 5.99, at 95% level of significance and two (2) degrees of freedom. Since the calculated value exceeds the table value, the null hypothesis is rejected. Hence, there is difference in the way the headmaster

motivate the teachers, in the two (2) regions. Some headmasters agreed that motivation takes different forms in the two regions, hence the difference in the two regions.

The third specific objective which is the relationship between leadership effectiveness and institutional performance was analyzed using 21 factors. The ten (10) most dominant factors were discussed as below for the Grade A schools. These are

- Teachers set examination questions on time
- Teachers' regularity to classes
- Teachers' punctuality to classes
- Teachers' contributions of ideas at meetings
- Teachers' supervision of students to obey rules and regulations
- Teachers marking of examination scripts on time
- Teachers' supervision of students to maintain good sanitation
- Teachers' discussion of students' examination scripts
- Students attended all school functions
- Teachers resolve students' conflict effectively

Teachers set examination questions on time

Teachers in the two (2) regions selected the three ranks as in Tables 46 & 47:

Table 46: Choice of Teachers – Exams. Questions – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	50	85	135
Percentage	0	37	63	100

Table 47: Choice of Teachers – Exams. Questions – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	31	23	54
Percentage	0	58	42	100

From Tables 46 & 47, no teacher chose the lowest rank of 1 – 4 while 37% of teachers in the Central region and 58% of teachers in the Northern region selected the middle rank of 5 – 7. 63% of teachers in the Central region 42% of teacher in the Northern region chose the heist rank of 8 – 10.

To enable comparison on differences if any for the two (2) regions on teachers setting examination questions on time the chi-square table was prepared and the observed values calculated (See Appendix D (23)). The calculated value of 6.88 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees to freedom. Since the calculated value exceeds the table value, the null hypothesis was rejected. Hence, there is difference in setting examination questions with regards to time. Headmasters confirmed that timing could bring about the difference in setting examination questions as they (Headmasters of Northern schools) have to wait for students to report for classes to begin. They agreed that their counterparts in the South (including the Central region) begin classes two or more weeks before them.

Teachers' regularity to classes

Tables 48 & 49 show the choices of teachers in the two (2) regions, for teachers' regularity to classes:

Table 48: Choice of Teachers – Teachers’ regularity – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	63	72	135
Percentage	0	47	53	100

Table 49: Choice of Teachers – Teachers’ regularity – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	31	23	54
Percentage	0	58	42	100

From Tables 48 & 49, no teacher in the Central and Northern regions selected the lowest rank of 1 – 4. However, 47% of teachers in the Central region and 58% of teachers in the Northern region selected the middle rank of 5 – 7 while 53% of teachers in the Central region and 42% of teachers in the Northern region selected the highest rank of 8 – 10.

Comparison, as to whether, there is any difference in teachers’ regularity to classes, for the two (2) regions was done using the chi-square table and the observed value (See Appendix D (24)). The calculated value of 1.684 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. The null hypothesis, that there is no difference in teachers’ regularity to class, in the two (2) regions is accepted, since the calculated value is less than the table value. This regularity to classes was confirmed by the headmasters who reported that teachers were duly monitored to attend classes as they (teachers) sign in to teach and sign out to end their lessons.

Teachers' Punctuality to classes

Teachers in the two (2) regions selected from the three (3) ranks to support that teachers were punctual to classes. Tables 50 & 51 show the choices of teachers:

Table 50: Choice of Teachers – Teachers' punctuality – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	63	72	135
Percentage	0	47	53	100

Table 51: Choice of Teachers – Teachers' punctuality – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	28	26	54
Percentage	0	52	48	100

From Tables 50 & 51, no teacher in the two (2) regions selected the lowest rank of 1 – 4. However, 47% of teachers in the Central region and 52% of teachers in the Northern region chose the middle rank of 5 – 7 while 53% of teachers in the Central region and 48% of teachers in the Northern region selected the highest rank of 8 – 10.

To enable comparison for the two regions as to any difference in teachers' punctuality to classes, the chi-square table and the observed values were prepared and calculated, respectively (See Appendix D (25)). The calculated value of 0.4138 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since the calculated value is less than the table value, the null hypothesis that, there is no difference in teachers' punctuality to classes, is accepted. The punctuality of

teachers to classes was confirmed by the headmasters. According to the headmasters teachers always aim to complete the term's syllabi, hence their punctuality to classes.

Teachers' contributions of ideas at meetings

Teachers in the two (2) regions selected the three (3) ranks to place teachers' contribution at the staff meetings, as in Tables 52 & 53:

Table 52: Choice of Teachers – Teachers' ideas – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	28	107	135
Percentage	0	21	79	100

Table 53: Choice of Teachers – Teachers' ideas – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	32	22	54
Percentage	0	59	41	100

No teacher in the two (2) regions selected the lowest rank of 1 – 4. 21% of teachers in the Central region and 59% of teachers in the Northern region chose the middle rank of 5 – 7. 79% of teachers in the Central region and 41% of teachers in the Northern region chose the highest rank of 8 – 10.

To enable comparison as to whether there is any different in contributions made at staff meetings in the two (2) regions, the chi-square table was constructed and the observed values were calculated (See Appendix D (26)). The calculated value of 27.3971 was put side by side to the table value of 5.99, at 95% level of significance and two (2) degrees of freedom. Since the calculated value was greater than the table values the null hypothesis

is rejected. Hence, there is difference in teachers' contribution of ideas at staff meetings in the two (2) regions. According to some headmasters ideas contributed at meeting might differ for the difference in agenda for meetings.

Teachers' supervision of students to obey rules and regulations

Teachers in the two (2) regions selected the three (3) ranks to place teachers' supervision of students to obey school rules and regulation, as in Tables 54 & 55:

Table 54: Choice of Teachers – Teachers' supervision – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	40	95	135
Percentage	0	30	70	100

Table 55: Choice of Teachers – Teachers' supervision – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	28	26	54
Percentage	0	52	48	100

No teacher in the two (2) regions selected the lowest rank of 1 – 4. 30% of teachers in the Central region and 52% of teachers in the Northern region chose the middle rank of 5 – 7 while 70% of teachers in the Central region and 48% of teachers in the Northern region chose the highest rank of 8 – 10.

To compare for differences, if any in the teachers' supervision of students to obey rules and regulations in the two (2) regions, the chi-square table was prepared and the observed values were calculated (See Appendix D (27)). The calculated value of 8.8859 was put side by side to the table value of

5.99 at 95% level of significance and two (2) degrees of freedom. The null hypothesis is rejected because the calculated value exceeds the table value. The alternate hypothesis that, there is difference in the way the teachers supervise students to obey school rules and regulations is accepted. According to some headmasters supervision might differ for the difference in behaviour of students. The Northern students were seen as being too aggressive and hence required more supervision than their counterparts down south.

Teachers marking of examination scripts on time

Teachers in the two (2) regions placed the factor, teachers mark examination scripts on time, in the three (3) ranks as in Tables 56 & 57:

Table 56: Choice of Teachers – Teachers – Exam. Scripts – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	50	85	135
Percentage	0	31	63	100

Table 57: Choice of Teachers – Teachers – Exam. Scripts – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	28	26	54
Percentage	0	52	48	100

No teacher in the two (2) regions selected the lowest rank of 1 – 4; from the two (2) tables. 31% of teachers in the Central region and 52% of teachers in the Northern region chose the middle rank while 26% of teachers in the Central region and 48% of teachers in the Northern region chose the highest rank of 8 – 10.

To enable comparison, for the two regions, for any difference in the way the teachers mark examination scripts on time, the chi-square table was constructed and the observed values were calculated (See Appendix D (28)). The calculated value of 3.8136 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since the calculated value is less than the table value, the null hypothesis is accepted. Hence, there is no difference in the way the teachers marked examination scripts on time, in the two (2) regions. The difference in timing is due to the time difference in reporting to school.

Teachers’ supervision of students to maintain good sanitation

Tables 58 & 59 show the choices of teachers on the factor of teachers supervising students to maintain good sanitation in the two (2) regions:

Table 58: Choice of Teachers – Good sanitation – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	45	90	135
Percentage	0	33	67	100

Table 59: Choice of Teachers – Good sanitation – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	29	25	54
Percentage	0	54	46	100

From Tables 58 and 59, no teacher in the two (2) regions selected the lowest rank of 1 – 4. However, 33% of teachers in the Central region and 54% of teachers in the Northern region chose the middle rank of 5 – 7 while 67% of teachers in the Central region and 46% of teachers in the Northern region chose the highest rank of 8 – 10.

The chi-square table and the observed values were prepared and calculated, respectively (See Appendix D (29)), to enable comparison of teachers supervising student in maintaining good sanitation. The calculated value of 6.9002 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since, the calculated value is greater than the table value, the null hypothesis is rejected. The alternate hypothesis, that is, there is difference in the way teachers supervised students to maintain good sanitation, in the two (2) regions, was accepted. The difference in supervision to maintain good sanitation, according to some headmasters from the North stem from the type of sanitation facilities available in the schools. Again the behaviour of students with regards to usage of the facilities could also account for the difference.

Teachers’ discussion of students’ examination scripts

Teachers in the two (2) regions placed the factor teachers discuss students’ examination scripts, in the three (3) ranks as depicted in Tables 60 & 61:

Table 60: Choice of Teachers – Discussing Exam Scripts– Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	34	101	135
Percentage	0	25	75	100

Table 61: Choice of Teachers – Discussing Exam Scripts – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	14	40	54
Percentage	0	26	74	100

From Tables 60 & 61, no teacher chose the lowest rank of 1 - 4, in the two (2) regions. 25% of teachers in the Central region and 26% of teachers in the Northern region chose the middle rank of 5 - 7 while 75% of teachers in the Central region and 74% of teachers in the Northern region chose the highest rank of 8 – 10.

The chi-square table was constructed and the observed values were calculated (See Appendix D (30)) to enable comparison as to any difference in the way teachers discuss examination scripts, in the two (2) regions. The calculated value of 0 was put side by side to the table value of 5.99, at 95% level of significance and two (2) degrees of freedom. The null hypothesis is accepted as the calculated value is less than the table value. Hence, there is no difference in the way teachers discuss examination scripts, in the two regions. Headmasters confirmed that there is no difference in discussing examination scripts as teachers follow the laid down rules of using the first week to discuss marked scripts.

Students attended all school functions

On the issue of students’ attendance at all school functions, teachers placed their choices in the two (2) regions as in Tables 62 & 63:

Table 62: Choice of Teachers – School Functions – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	63	72	135
Percentage	0	47	53	100

Table 63: Choice of Teachers – School Functions – Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	30	24	54
Percentage	0	56	44	100

From Tables 62 & 63, no teacher in the two (2) regions selected the lowest rank of 1 – 4. 47% of teachers in the Central region and 56% of teachers in the Northern region chose the middle rank of 5 – 7 while 53% of teachers in the Central region and 44% of teachers in the Northern region chose the highest rank of 8 – 10.

The chi-square table was constructed and the observed values were calculated (See Appendix D (31)), to enable comparison of students attending all school functions, in the two (2) regions. The calculated value of 0.6652 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. The null hypothesis is accepted as the calculated value is less than the table value. Hence, there is no difference of students attending all school functions in the two (2) regions. The attendance at all school gathering was improving in the two regions as teachers supervised effectively and as students decide to collect all needed information from the school administration so as not to be punished for missing information.

Teachers resolve students’ conflicts effectively

Tables 64 & 65 show the choices of teachers in resolving conflicts effectively, in the two regions:

Table 64: Choice of Teachers – Students’ Conflicts – Central region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	51	84	135
Percentage	0	38	62	100

Table 65: Choice of Teachers – Students’ Conflicts– Northern region

Rank	1 – 4	5 – 7	8 – 10	Total
Number	0	25	29	54
Percentage	0	46	54	100

From Tables 64 & 65, no teacher in the two (2) regions chose the lowest rank of 1 – 4. 38% of teachers in the Central region and 46% of teachers in the Northern region chose the middle rank of 5 – 7 while 62% of teachers in the Central region and 54% of teachers in the Northern region chose the highest rank of 8 – 10.

Comparing the two (2) regions for teachers solving students’ conflicts effectively, the chi-square table was constructed and the observed value were calculated (See Appendix D (32)). The calculated value of 0.9539 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. The null hypothesis is accepted because the calculated value is less than the table value. Hence, there is no difference in the way teachers resolve students’ conflict in the two (2) regions. Some headmasters agreed that same code of conducts were used in the schools and so there should be no difference in resolving students’ conflicts.

After this analysis, the correlation analysis was used for all the 24 factors used at the beginning. Using the correlation formula, the correlation

coefficient of 51% was obtained. The coefficient of determination of 26% was obtained (See Appendix D (33)).

Grade B Schools

Similar tables and results of chi-square were obtained for the Grade B schools. The correlation analysis was used for the 24 factors and a coefficient of correlation of 73% was obtained. A coefficient of determination, the square of the coefficient of correlation, was obtained. This value of determination was 53% (See Appendix D (34)).

Grade C Schools

Similar tables and values for the chi-square were obtained for the Grade C schools. The correlation analysis was used for the 24 factors as used in the Grades A and B schools. The value of coefficient of correlation of 66% was obtained. From this (66%), the coefficient of determination was obtained (44%) (See Appendix D (35)).

Combined Grades

The correlation analysis of the highest value for the extent of usage of the rank from one (1) to ten (10), was applied and the formula for the correlation used. The coefficient of correlation of 63% was obtained. The coefficient of determination of 40% was obtained (See Appendix D (36)).

CHAPTER FOUR

ASSESSING THE STATE OF LEADERSHIP EFFECTIVENESS AND ACADEMIC PERFORMANCE

Introduction

Leithwood et al (2007) Simone & Uchiyama (2003), Morrison (2008), Smith (2009), Jo et al (2010) among other researchers believe that in assessing the academic performance of any school, headship or leadership is the most important determinant that makes school successful and helps to achieve high performance.

Day, Harris, Hadfield, Tolley and Beresford (2002) took a study in the International Successful School Principalship Project (ISSPP) involving eight countries including England, Canada and China, found that school's success is made possible by specific leadership traits and practices.. It is thus expected that effective school leaders should head the schools in the Central and Northern regions, to make them successful. In comparing the two regions also, the writing of Ghanaian educational gurus such as Antwi (1973) and McWilliam and Kwamena-Poh (1975) cannot be taken for granted as they state that education began at the Southern sector including Central Region. It is expected that in assessing the state of leadership effectiveness and academic performance, the school of Central Region would have better heads who would produce better academic performance than the schools of the Northern region.

For assessing the state of leadership effectiveness and academic performance, 24 factors were used. The ten (10) most dominant factors are discussed below:

Leadership Styles in Schools

Tables 66 & 67 show the choice of teachers for leadership styles of headmasters/mistress.

Table 66: Choice of leadership styles

Leadership style	Central	Northern	Total
Laissez-faire	21 (4%)	6 (2%)	27
Transformational	49 (9%)	53 (15%)	102
Autocratic	76 (14%)	25 (7%)	101
Democratic	394 (73%)	266 (76%)	660
Total	540	350	890

While 21 and six (6) teachers agreed that their headmasters/mistresses use Laissez-faire style of leadership in the Central and Northern regions respectively, 49 and 53 teachers selected the Transformational style of leadership for the headmasters/mistress of Central and Northern regions, respectively. 76 and 25 teachers selected the autocratic style of leadership for the Central and Northern region respectively. 394 and 266 teachers agreed that their headmasters/mistress employed the democratic leadership style in the Central and Northern regions, respectively, of Ghana. However, for all the groupings, the teachers selected from 5 to 10 using the scale of the extent of usage.

During discussion, headmasters and teachers agreed that the heads who used laissez-faire method of leadership, exhibited care-free style in managing the school-calling meetings at their own discretion only to relay information to staff and allowing the staff to report on issues if any. According to the teachers, such heads never took decisions to influence the disciplinary rules of

the school but always asked what the codes dictated. These heads according to teachers never enquired about teachers who absented themselves from school.

Teachers who stated that their heads used transformational style of leadership stated that their heads influenced their teachers by their own lifestyle and appeared to be loved by the staff. These heads called meetings as planned on the term's calendar and managed affairs of the school to show the best aspects of the educational principles. Decision at meetings pleased all staff and disciplinary measures deterred students from misbehaving. With such heads the work of teachers was thoroughly supervised with assistance from Assistant head masters/mistress, senior Housemasters, prefects and teachers on duty as well as other teachers. Such schools reaped better results at the WASSCE.

For heads who employed the autocratic style of leadership, teachers were emphatic that in their schools teacher worked out of fear of being sanctioned. Teachers absented themselves at their own risks. According to the teachers, they worked harder when the heads were in school and relaxed during their absence. Meetings with the staff only become information deliverance to the staff. Very few teachers who happened to be in the good books of these heads contributed to staff discussions. Discipline among students was high for the "military style" of decisions from the heads. Students like the teachers worked according to the dictates of the heads to avoid sanctions. Examination results from WASSCE appear better than that of the heads who used the laissez-faire style of leadership.

According to teachers whose heads used the democratic style of leadership, the atmosphere in the schools is very good for both teachers'

teaching and students' learning. Meetings are held according to arrangements on the term's calendar. Teachers contributed freely at the meetings presided over by the heads. Discipline in such schools created enabling atmosphere for both teachers and students. Activities on the campus portray teamwork by all stakeholders – teaching and non-teaching staff and students. Academic performance improved by the years.

Calculating the observed values and using the formula for calculating the calculated value, the table value of 7.82 at 95% level of significance and three (3) degrees of freedom, was compared with the calculated value of 24.1821. Since $X_c^2 > X_t^2$, we reject H_o and accept H_1 .

Therefore, there is difference in the style of leadership between the Central and Northern regions of Ghana. Some headmasters agreed that differences in leadership styles might come from students' behaviour and for entrenchment in position.

Right Procedure for Student Admission

Tables 67 & 68 show the classification 1-4, 5-7 and 8-10 for the analyses of the ten dominant factors that portrayed the assessment of the state of leadership effectiveness and academic performance for the Grade A schools we have the following;

Table 67: Choice of teachers for right procedure to admission

Regions	1-4	5-7	8-10	Total
Central	6(4%)	66(49%)	63(47%)	135
Northern	15(28%)	20(37%)	19(35%)	54
Total	21	86	82	189

From Table 67, four (4) percent and 28 percent selected the range, 1-4, the lowest to show that their heads used the right procedure to admit students to the schools for the Central and Northern regions of Ghana, respectively. 49% of teachers in the Central region and 37% of teachers in the Northern region chose the middle class of 5 - 7 while 47% of teachers in the Central region and 35% of teachers in the Northern region selected the range 8-10.

During discussions, the headmasters and teachers stated that the heads used the list provided by the Ministry of Education from the computerized school selection and placement system (CSSPS) Board and that the protocol admission were also applied for through CSSPS Board, as addition to the original list from CSSPS. Teachers, who helped with the admission of students, stated that for those who did not come to the school were replaced through permission from the CSSPS Board. They added that teachers, who wanted admission for their wards, were allowed to add their request to the protocol list to the schools. So the previous system where heads added to the list at their own discretion was now a thing of the past.

Compliance with the order from the Ministry of Education through the CSSPS Board in fact showed heads as honest and involving the staff in admission of students reflected team work. Teachers who helped in printing out letters of admission, teachers who helped in directing students to their various dormitories and teachers who directed students to their various programmes as well as the teachers who helped in orientating the students did so, to help the school achieve the goals of her vision. Dhar and Mishra (2001) stressed on group performance and success of group goals. This helped to support this research finding that the heads complied with the Ghana

Education Service under whose umbrella the CSSPS Board operated. The teachers and other staff came together to support the heads to achieve group performance and success of group goals which summarized the vision of the school. Dhar and Mishra (2001) confirmed that group performance and goal achievement comprised increased sales, profits, revenue, growing market share and achieving budgeted sales, costs, profits margins, returns on investment and productivity. These elements listed above by Dhar and Mishra (2001) could be said to be success at the final examination which the teacher projected in the classroom. Assignments such as homework, projects, class tests, mock examinations and terminal examinations prepared the students for the final examinations by WAEC. Thus compliance with instructions from superiors was confirmed by Dhar and Mishra (2001), Bennis and Nanus (1985); Bass (1985), Burns (1978) and Conger (1998) Shamir et al (1993). Tichy and Devanna (1986) and Larson and Callahan (1990) worked on measures of improvement in group performance as an indicator of successful leadership. Now comparing the Central and Northern regions using the chi-square to see any difference in admission procedures, Table 68 is used:

Table 68: Choice of teachers on admission of students

Regions	1-4	5-7	8-10	Total
Central	6	66	63	135
Northern	15	20	19	54
Total	21	86	82	189

The calculating value of 21.6249 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since the calculated value is greater than the table value the null hypothesis is rejected.

Hence, the alternate hypothesis is accepted. Hence, there is difference in the procedure for admission of students in the two regions. Some headmasters agreed that the difference in admissions in the two regions could stem from the fact that only local inhabitants choose the Northern schools while many students choose the Central region schools from all over the other regions. Whilst students crowd the Central region schools, the same cannot be said of the Northern schools. While the Central region schools have less time to submit their list of admission to the CSSPS Board, the Northern Regions are given more time, as students take time to fill the Northern schools, after missing chances elsewhere. Hence, admission procedures vary in the two regions.

Assistant Headmasters’ involvement in daily running of schools.

Assistant headmasters were involved in the daily running of the schools. Using the ranges 1-4, 5-7 and 8-10 for classification of choices by teachers in the Central and Northern regions, Table 69 shows the choices of teachers;

Table 69: Assistant Headmasters

Region	1-4	5-7	8-10	Total
Central	10(6%)	43(32%)	82(61%)	135
Northern	8(15%)	20(37%)	26(48%)	54
Total	18	63	108	189

From the analyses, all 54 teachers in the Northern region agreed that the assistant headmaster helped in running of the school. In the Central region, only two (2) out of the 135 teachers opposed this viewpoint. From the table above, 61% of teachers in the Central region and 48% of teachers in the

Northern region chose the highest grade, 8-10. 32% of teachers in the Central region and 37% of teachers in the Northern region selected the middle class, 5-7. For the lowest class, 1-4, six (6%) percent of teachers in the Central region and 15% of teachers in the Northern region chose the range.

During discussions, the headmasters and teachers agreed that the Assistant Headmasters worked as heads in the absence of the heads and were assigned schedules as the heads of domestic, academic and administration. According to the teachers, the Assistant Headmaster in charge of Domestic supervised the accommodation of students and staff and activities of the dining hall and any other assignments given to him/her by the headmaster. The Assistant Headmaster in charge of academic supervised all examinations and all academic work in the schools. They also added any other assignments their heads gave them. The Assistant Headmaster in charge of Administration supervised the work of the non-teaching staff as regards their leave schedules and also looked after the transport sector of the schools. He/she also undertook other assignments as given by the heads. Any of these, according to the teachers, could act as the secretary to the school Board of Governors.

As to the roles of the Assistant Headmaster the teachers stated:

1. They assisted the heads in running the schools
2. One of them was the secretary to the school board
3. They took charge of the transportation sector in the school
4. They took care of the work of the non-teaching staff
5. They supervised the meetings of the Disciplinary Committee.
6. They worked on the academic time tables of schools
7. They supervised the extra-curricular activities in the schools

8. They supervised the Procurement committees of the schools
9. They chaired and supervised some committees in the schools
10. They helped in the activities of the speech day by committees.

According to the teachers, the Assistant Headmasters were seriously involved in daily running of the schools and reported to the headmaster daily.

The work of the Assistant Headmasters was confirmed in the work of Edwards and Aboagye (2015) who recommended that the headmasters led to “enable others to act”. This was delegation of power which was also stressed by Avolio & Reichard (2008), Chaleff (2003), Collison (2008) and Kellerman (2008) who advocated for different types of followers. Bagah (2014) in his studies stressed on virtuous followership, where followers used principles of virtue and values.

Kemps (2006) called this “growing relationship” and Ehrhart (2001) stated that measuring leadership effectiveness should include “a subordinate’s willingness to work at a higher level of performance for the leader (headmaster)”. Thus, the Assistant Headmasters/mistresses worked to help the vision of the school become a success. Their effort ought to be appreciated by the heads so that the Assistant Headmasters are encouraged to do more. As Bagah (2014) stated the followers ought to use virtues and values that promoted success for the schools. Yukl et al (2000) listed 14 categories of leadership effectiveness which included delegation. Thus, the Assistant Headmasters were part of the team that helped with delegation of powers. Hence, other writers supported the view that the Assistant Headmasters/mistresses were involved in the daily running of the schools.

Comparing the Central and Northern Regions as to whether there is no difference between the regions, as to the work of the Assistant Headmasters/mistresses, Table 70 is used, applying the chi-square:

Table 70: Choice of teachers on Assistant Headmasters

Region	1-4	5-7	8-10	Total
Central	10	43	82	135
Northern	8	20	26	54
Total	18	63	108	189

From calculations, the calculated value of 3.5844 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. The calculated value being less than the table value statistically permits that the null hypothesis is accepted. Hence, there is no difference in the work of the Assistant Headmasters in the two regions. This, according to some headmasters is emphatically because the Assistant Headmasters have their jobs and responsibilities all written in the code of Ethics for the GES.

Improved student performance was an outcome of leadership style

Improved student performance, according to teachers is an outcome of leadership style of heads of schools. Only two (2) and three (3) teachers in the Northern and Central regions respectively disagreed with this statement. 123 and 52 teachers in the Central and Northern regions respectively agreed that improved student performance was an outcome of leadership style. Table 71 is the table of choice for teachers in the two regions.

Table 71: Choice of teachers for improved students' performance

Regions	1-4	5-7	8-1	Total
Central	28(20%)	52(39%)	55(41%)	135
Northern	12(28%)	20(37%)	22(41%)	54
Total	40	72	77	189

From Table 71, 20% of teachers in the Central region and 28% of teachers in the Northern region chose the range 1-4, the lowest. For the middle class, 39% of teachers in the Central region and 37% of teachers in the Northern region selected it while 41% from each region selected the highest range 8-10.

During discussions, headmasters and teachers supported their view that the correct leadership style (democratic) gives teacher the motivation to discuss freely and so extend such atmosphere to the classroom. They are able to mark worked scripts, discuss and correct wrong answers and so make students very aware to learn to pass all class tests and homework. In so doing this motivation is transferred to the final examinations at WAEC. Teachers stated that when the leadership style (democratic) suits the teachers they are enabled to supervise students better as the head is on their side in case of any trouble encountered during supervision. They agreed that their heads got less burdened as teachers involved themselves more and better in all extracurricular activities.

According to Bennis and Nanus (1985), Dhar and Mishra (2001), Bass (1985), Burns (1978), Conger (1998), Konzes and Posner (2007), Shamir et al (1993) and Tichey and Devanna (1986), the most common outcome measure

to evaluate an effective leader was examining the consequence of a leader's action.

Tablerdoost et al (2016) provided a table with significant leader outcome which included the performance of the leader's organizational unit and improved group performance. Thus improved student performance which happened to be the main objective of the school would be used to evaluate the head's performance. Dhar and Mishra (2001) added that some researchers have used a leader's ability to make possible effective group processes, group cohesiveness, group collaboration, motivation and divergence declaration among group members and quality and efficiency of decision making as an indicator of leadership effectiveness. They continued that well-organized and effective group behavior promoted good students' performance. Leithwood et al (2016) explained that school leadership had a pivot on moving people, teachers, parents and staff through practical influence. In a broader sense, the results of leadership had effect on people, school, culture and educational attainments of children. Hence, all these writers supported the view that students' performance outcomes form part of the heads assignments.

Table 72 shows the choices of teachers, to find if there is any difference between the two regions when it comes to students' performance being an outcome of leadership style.

Table 72: Students' performance

Region	1-4	5-7	8-10	Total
Central	28	52	55	135
Northern	12	20	22	54
Total	40	72	77	189

From the observed table and the chi-square table, the calculated value of 0.1882 was put side by side to the calculated value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_c^2 < X_t^2$, we accept the H_0 . Hence, there is no difference in the students' performance being an outcome of leadership style in the Grade A schools of the two regions. Improved students' performance, according to most researchers stems from the type of leadership, a school has. Since the heads are effective and practice democracy as a leadership style, teachers work to promote the teaching in schools and this consequently help to improve student's academic performance. The collaborative effort of teachers, students helps to achieve academic performance. Some headmasters agreed that teachers were eager to join the Waec marking teams hence the improvement in both teaching and learning methods.

Student prefects help in daily running of the school

Teachers in both regions agreed that student prefects help in the running of the schools. While only one (1) and four (4) teachers in the Northern and Central regions, respectively, opposed this view point, 53 and 131 teachers of the Northern and Central regions, respectively, supported the view that student prefects help in the daily running of the schools. Table 73 is the choice of teachers for the ranges

Table 73: Choice of teachers for involvement of student prefects

Region	1-4	5-7	8-10	Total
Central	20(15%)	54(40%)	61(45%)	135
Northern	12(22%)	23(43%)	19(35%)	54
Total	32	77	80	189

From Table 73, 15% of teachers in the Central region and 22% of teachers in the Northern region chose the lowest class of 1-4, while 40% of teachers in the Central region and 43% of teachers in the Northern region chose the middle class of 5-7. 45% of teachers in the Central region and 35% of teachers in the Northern region selected the top class of 8-10.

During the discussion period, the headmasters and teachers stated that the prefects also supervised their colleagues in the classrooms, dining hall and dormitories just like the teachers. The students hold positions as members of the school disciplinary committee, dining committee, members of the choir and band in the schools. They form part of sports, academic, domestic, grounds among other positions.

For the roles of the prefects, the teachers stated that:

1. They supervised students in the classrooms, dining halls and dormitories
2. They reported recalcitrant students to the administration
3. They form part of the dining committee (two representatives)
4. They are part of the sports committee (two representatives)
5. They organize the protocol activities of the schools
6. They help in organizing students for sporting activities
7. They help in promoting the health services of the schools

8. They help in organizing students for speech day activities
9. They assist the Assistants headmasters with their schedules and
10. They report the activities of the school to the head.

These duties were confirmed by some headmasters. Thus, they form part of the team that helps in the daily running of the schools.

Peters and Austin (1985) and Shipper and Wilson (1992) agree that effective leaders followed five (5) behaviours or practices which included empowering and enabling spirited teams. Thus school prefects were empowered and enabled by the school management to act on behalf of the school. Hence Peters and Austin and Shipper and Wilson supported the view that student prefects helped in the daily running of the schools.

Yukl et al (2000) among their fourteen categories of leadership effectiveness included developing and mentoring. The school management would be seen as mentoring the school prefects for future leadership positions. So, Yukl et al also supported that school prefects help in the daily running of the schools.

Maicibi (2003) contended that absence of proper leadership style, leads to poor performance in schools. He added that even if the school has all the required instructional materials and financial resources, it would not be able to use them effectively, if the students were not directed in their use, or if the teachers who are to guide in their usage are not properly trained to use them effectively, the result would not be favourable. Thus student prefects ought to be trained so that in the absence of teachers, they managed the school.

Alidrisi and Mohammed (2017) among their findings in a research on leadership effectiveness, stated that cognitive competency enabled leaders to

optimize the delegation of responsibility toward their followers, influence followers in identifying safety problems. Thus Alidrisi and Mohammed also supported that student prefects help in daily running of the school, by way of delegating responsibilities by the headmasters/mistresses.

Using the chi-square to find out if there is any significant difference in the two regions for teachers' selection of prefects helping in the daily running of the schools,

H_0 : There is no significant difference in the two regions for prefects help in the daily running of the school

H_1 : There is a significant difference in the two regions for prefects' help in the daily running of the school.

Table 74 shows the choices of teachers for student prefects in the running of the schools.

Table 74: Choice of teachers for student prefects

Region	1-4	5-7	8-10	Total
Central	20	54	61	135
Northern	12	23	19	54
Total	32	77	80	189

From the chi-square table and observed values, the calculated value of 2.3664 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_C^2 < X_t^2$, we accept the null hypothesis that there is no difference in the two regions with student prefects helping in the daily running of the schools.

Headmasters agreed that school prefects have their roles well defined in all schools, so no wonder there is no difference in the way the school prefects handle their daily chores. Team work is one factor, practiced by the prefects. They organize the students' representative council week to raise funds to help in the activities of students such as the Award Night, entertaining guest schools and at times support the Domestic activities by buying scrubbing materials for the school. These prefects work in league with their colleagues in other schools and thus could organize similar programmes. These could also account for the "no difference" in the activities of the prefects.

Leaders of non-teaching staff are involved in the daily running of the school

Teachers were of the view that leaders of the non-teaching staff help in the day to day running of the school. Only one (1) and five (5) teachers in the Northern and Central regions, respectively, opposed this view. 130 teachers' in the Central region and 53 teachers in the Northern region supported that the leaders of the non-teaching staff help in the daily running of the schools. Table 75 shows the numbers of teachers for their choice of the ratings.

Table 75: Choice of teachers on involvement of non-teaching staff in the daily running of the school

Region	1-4	5-7	8-10	Total
Central	20 (15%)	43(32%)	72(53%)	135
Northern	10(18%)	29(54%)	15(28)	54
Total	30	72	87	189

From Table 75, 15% teachers' in the Central region and 18% of teachers in the Northern region chose the lowest class of 1-4. 32% teachers'

in the Central region and 54% of teachers in the Northern region ranked their head masters in the middle class of 5-7 while 53% teachers' in the Central region and 28% of teachers in the Northern regions placed their headmasters in the highest class of 8-10.

During the discussions, the headmasters and teachers stated that the leaders of the non-teaching had a representative on the school Board. They also supervised the non-teaching in their works and reported the problems of maintenance of school equipment and tools. They also keep the school clean by sweeping and weeding the school compound. Their outfit was where the schools appointed the labourers, cleaners, plumbers, carpenters, welders and conservancy labourers. Their outfit also provided the cooks, the matrons, kitchen hands and the security men. These helped in the daily chores of the schools and so is part of the team that helped the administration in running the schools daily. The non-teaching staff is led by the school bursar.

Yammarino and Bass (1990) established that the satisfaction of the subordinates on a job was an indicator to show the leader was effective. Subordinates in a school included the leaders of non-teaching staff. Their job satisfaction was displayed by the cleanliness of the schools, the readiness of the kitchen staff to provide meals at the right times for students as well as the readiness of the staff to repair damaged furniture. Hence Yammarino and Bass supported that the leaders of the non-teaching staff were involved in the daily running of the schools.

Ehrhart (2001) developed six – item scale which included “agreement that subordinates enjoy working for the leader”. Subordinates who worked for the headmasters/mistresses included teachers, leaders of the non-teaching

staff, students, parents and members of the community. Hence Ehrhart supported the view that leaders of the non-teaching staff helped in the daily running of the schools.

Bill Gates commented that as “we look ahead unto the next century, leaders will be those who empower others”. Good leaders aside inspiring their employees empower them by building trust, encouraging and being open to creative pollutions. Thus the leaders of the non-teaching staff were empowered by the headmasters to supervise the non-teaching staff to provide essential services for the schools and hence helped in the daily running of the schools.

From the observed values and the chi-square table, the calculated value of 11.9009 was compared to the table value of 5.99.

Table 76 shows the choices of teachers as regards the involvement of leaders of non-teaching staff in the running of the schools.

Table 76: Involvement of non-teaching staff

Region	1-4	5-7	8-10	Total
Central	20	43	72	135
Northern	10	29	15	54
Total	30	72	87	189

From table at 2 degrees of freedom and 95% level of significance, $X_C^2 > X_t^2$, where $X_t^2 = 5.99$. So we reject the H_0 and accept H_1 which says there is difference in leaders of non – teaching staff between the two regions. For the work of the non-teaching staff, there is difference in the two regions. Headmasters confirmed that the difference in the two regions is due to the fact that the non-teaching staff do not collaborate with others in other regions.

They only come together when they meet in their schools and when their leaders are invited to National meetings under Teachers and Educational Workers Union (TEWU). So, it is emphatic that the difference would occur as each group of non-teaching staff work according to their own rules.

Members of the disciplinary committee are involved in the daily running of the schools

Teachers agreed that members of the Disciplinary Committee help in the daily running of the schools while only six (6) teachers in the Central region disagreed with the members of Disciplinary committee helping in the daily running of the schools, all 54 teachers in the Northern region and 129 teachers in the Central region agreed that the Disciplinary committee help in the daily running of the school. Table 77 shows the choices of teachers for the classification of the extent of use of statement by the headmasters/mistress.

Table 77: Involvement of Members of Disciplinary Committee

Region	1-4	5-7	8-10	Total
Central	19 (16%)	58(43%)	56(41%)	135
Northern	12(22%)	23(43%)	19(35%)	54
Total	31	81	75	189

From Ttable77, 16% and 22% of teachers in the Central and Northern regions, respectively choose the lowest class, 1-4, for their headmasters/mistresses. 43% of teachers in the Central and Northern regions selected the middle class while 41% and 35% of teachers in the Central and Northern regions respectively ranked the headmasters/mistresses at the highest level of 8-10.

During the periods of discussions, headmasters and teachers agreed that the members of the Disciplinary committee supervised the discipline in the school in bringing the recalcitrant students to obey the school rules and regulations. These members in a way according to the teachers promoted an enabling atmosphere for teaching and learning as with discipline, teachers and students do not misbehave. Too much time is not used to correct students' misbehaviour in classes. According to the teachers the membership of the Disciplinary committee consisted of one Assistant Headmaster, usually that in charge of Administration, heads of department, two other teachers and two representatives of students.

And for the roles of the Disciplinary committee the teachers stated that:

1. They worked to control recalcitrant students
2. They resolved students' conflicts
3. They directed the headmasters in decision – making
4. They offered sound advice to the school in disciplinary issues
5. They took suitable action towards students' misconduct.
6. They collaborate with the teaching staff to help run the schools

These roles were confirmed by the headmasters. According to the teachers since these members are part of the school administration, they also helped in the running of the schools. This research found also that delegating powers and responsibilities in schools was important. Thus members of the Disciplinary Committee (DC) were part of the team of management who carried out their duties all with the view of making the school; a place with enabling environment for learning and teaching.

Sashkin and Sashkin (2003) stated that as a visionary leader, the followers are initiated to achieve goals of the organization. Lav Tzu supported this view (as reported in Sashkin, 2003). Thus the DC was empowered or initiated by the headmaster to promote the conducive atmosphere for teaching and learning by controlling students' misbehaviour in the schools.

John Kotter (2003) defined leadership as the development of vision and strategies, the alignment of relevant people behind the strategies and the empowerment of individuals to make the vision happen, despite obstacles. So leaders in education, the headmasters are to influence their teachers and non-teaching staff to achieve better results in examinations.

Taherdoost et al (2016) writing on leadership effectiveness and its effects on organization outcomes, added that followers' satisfaction and commitment, advanced subordinate performance, increased subordinate performance, advanced subordinate commitment and performance, subordinate commitment to organizational goals and willingness of subordinate to take on additional responsibilities and improved group performance, as part of assessing leadership effectiveness. Thus the work of the subordinate was important for the leader. Thus members of the DC help in the daily running of the school as supported by some writers, above. Members of the Disciplinary committee are all members of the schools and include the Assistant Headmaster in charge of Domestic Affairs as chairman, some teachers, two (2) representatives of the student body and a representative of the non-teaching staff and hence are all members of Ghana Education Service (GES).

Table 78 shows the choices of teachers for the involvement of the Disciplinary Committee.

Table 78: Involvement of DC

Region	1-4	5-7	8-10	Total
Central	19	58	56	135
Northern	12	23	19	54
Total	31	81	75	189

Comparing the calculated value of 1.51 to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom, $X_c^2 < X_t^2$. so we accept the null hypothesis that “there is no difference in the work of the Disciplinary committee” in the two regions.

There is again no difference in the work of the Disciplinary Committee in the two regions, for the decisions they take are guided by the rules of the Ministry of Education through GES. Headmasters agreed that the no difference in the two regions might stem from the use of same rules from the GES.

Good relationship is an outcome of leadership style

Teachers were of the view that good relationship was an outcome of leadership style adopted by the headmasters/mistresses. 128 teachers in the Central region and all the 54 teachers in the Northern region supported this statement. Only seven (7) teachers in the Central region did not agree that good relationship is an outcome of leadership style. Teachers were in agreement to this statement when they grouped around five (5) to the maximum point of ten (10) as to the extent of usage. Table 79 is the table for the ranges.

Table 79: Choice of teachers on good relationship

Region	1-4	5-7	8-10	Total
Central	0	86 (64%)	49 (36%)	135
Northern	0	39 (72%)	15 (28%)	54
Total	0	125	64	189

From Table 79, 64% and 72% of the teachers selected the middle range of 5-7 in the Central and Northern regions, respectively, while 36% and 28% chose the highest rank of 8-10 in the Central and Northern regions, respectively, to support the extent to which the leadership style of the headmasters help in promoting good relationship.

During discussions, the teachers whose heads employed democratic style of leadership confirmed emphatically that this style of leadership bringing all staff and students on board the decision-making process of the schools, led to good relationship which promoted good teaching and learning activities and finally led to good academic and sports results. The teachers added that the good relationship led to mutual respect among staff and students. This then promoted discipline and created a congenial atmosphere for teaching and learning. Teachers believed that style of leadership when combined with the transformational style would promote the best atmosphere for teaching and learning.

Agezo (2010) wrote on “female leadership and school effectiveness in Junior High Schools in Ghana. The findings were that the schools had shared visions and missions that were articulated by the principals and stakeholders. These shared visions and missions only worked when headmasters and teachers had good relationship in order to get the school improving. Teachers

generally supported their headmasters who provided for their needs and were lenient with them, especially those headmasters who operated the democratic leadership style.

Kemps (2006) stated growing relationships as part of the six key leadership effectiveness factors (LEFs). Under this, Kemps stated that the headmasters ought to actively listen and inquire for understanding of the issues and person, consistently demonstrating genuine respect and value for others and seeking opportunities to build cross functional relationships and networks. Putting these together, leader must grow good relationship. Hence, Kemps supported the view that the leader ought to grow good relationship.

Catey Hill (2009) wrote on what makes an effective leader. She gave sixteen points to make the most effective leadership. These included recognizing and encouraging employees and building team. One of the biggest motivations for employees was recognition for their good work and encouragement along the way. Building team meant the leader worked effectively with his or her team and not alone. The leader also had to exhibit leadership traits.

A good leader, according to Catey, is usually passionate about the organization and his or her work exuded confidence in his/her abilities could organize and make sense of complex situations, maintained high standards and inspired others to do same, could motivate and inspire employees and was generally seen as a person of vision. Hence, Catey supported the view of leaders or headmasters of schools exhibiting good relationships. Thus like Catey, other writers like Agezo and Kemps, supported the view of headmasters exhibiting good relationships.

Table 80 shows the choices of teachers for good relationship.

Table 80: Choices of teacher on good relationships

Region	1-4	5-7	8-10	Total
Central	0	86	49	135
Northern	0	39	15	54
Total	0	125	64	189

Since $X_c^2 < X_t^2$, we accept the null hypothesis, H_0 , that there is no difference in good relationship as outcome of leadership style in the two regions. Building good relationship in the two regions require the same procedure. This is because, the headmasters in building good relationship among teachers, non-teaching staff, students and the community would definitely help promote the congenial atmosphere for both teaching by the teachers and learning by the students. This statement was confirmed by the headmasters. Any behaviour different from building good relationship would disorganize the schools. Hence any headmaster wishing to leave a good name in any school would build good relationship. Hence, headmasters who practice the democratic style of leadership would perform better than those who practice the autocratic style of leadership.

Improved teaching method as an outcome of leadership style

Teachers agreed that improved teaching method was an outcome of leadership style. Only four (4) teachers each in each region disagreed to the idea. 131 and 50 teachers in the Central and Northern regions respectively agreed to the statement. The extent to which improved teaching is an outcome of the leadership style of the headmasters/mistresses was rated between five (5) and the maximum point of 10.

Table 81 is the choices of students for improved teaching methods:

Table 81: Choices of teachers for improved teaching methods

Region	1-4	5-7	8-10	Total
Central	0	70 (52%)	65 (48%)	135
Northern	0	33 (61%)	21 (39%)	54
Total	0	103	86	189

While 52% and 61% of teachers in the Central and Northern regions, respectively, selected the middle class of 5-7, 48% and 39% of teachers in the Central and Northern regions, respectively, chose the highest class of 8-10 as the extent to which improved teaching was an outcome of leadership style.

During discussions, some headmasters and teachers stated that, with the democratic style of leadership, the teacher is motivated to improve his/her teaching methods. According to the teachers, the idea of preparing weekly forecasts and lesson notes enabled teachers to correct errors made before. The teacher works with his or her plan and this aided in completing much ground of the syllabi and this assisted in improving results at WASSCE. According to the teachers, the leadership style is extended to the students, thus encouraging them (students) to put in more effort during teaching and learning periods. Ultimately, improved result was envisaged at the end of the students' stay on campus. Some teachers advocated that with the democratic style of leadership, unlike the autocratic style, teachers were free to explain themselves in case they are absent from any school functions or classes. The approach to the questioning of the teachers makes him/her relaxed and therefore, tells the truth instead of concocting lies to free him/herself.

The headmasters/mistresses have the obligation of supervising that improved teaching worked in the schools. The headmasters/mistresses ought to mobilize teachers through in-service training, workshops, projects orientations and seminars to help improve the teaching methods. By so doing, students were provided with good learning materials in preparation for the final examinations by WAEC. This was confirmed by some headmasters.

Kemps (2006) stated that the leader ought to focus on results by tracking progress towards objectives and hold others accountable for their results. If the statement to focus on results was to hold, then the teaching method ought to improve to give better results at WASSCE.

Kemps again stated that leaders ought to promote efficiency by assessing consistently and accurately the performance of others/self. This statement buttressed the need to improve teaching methods in the second cycle educational institutions in Ghana. Thus Kemps supported the need for improved teaching methods in Ghana's second cycle educational institutions.

Alabi and Alabi (2015) writing on understanding the factors that influenced leadership effectiveness supported Honston and Dockstader (2002) in agreeing that the quality of leadership ought to raise standards of people, socio-economic capital of the organization. They added that every leader who wanted to give quality leadership ought to have a future goal, mobilize resources to achieve that goal and use the resources prudently to achieve and improve upon what was achieved (Zhu, Chew and Sprangler, 2005). In the school situation, raising standards of people would mean improving standards in the teaching method and ensuring that the standards are sustained year after

year. Hence, Alabi and Alabi and other writers like Kempes supported that improved teaching method ought to prevail in the school.

To compare for any difference in improving teaching methods, Table 82 is the choices of teachers.

Table 82: Choices of teachers on improved teaching methods

Region	1-4	5-7	8-10	Total
Central	0	70	65	135
Northern	0	33	21	54
Total	0	103	86	189

Comparing the calculated value of 1.51 with that of the table value of 5.99 at 95% level of significant and two (2) degrees of freedom, $X_c^2 < X_t^2$. So we accept the null hypothesis, H_0 , that there is no difference in improved teaching method as an outcome of leadership style in the two regions. Headmasters agreed that the teaching methods do not differ simply for the collaboration in the schools for the format in the preparation of lesson notes and weekly forecast preparation. While some schools invite experts to take teachers through the formats, other schools use the experienced and long service old members of staff to help new teachers through the orientation period. Hence, the same formats are used by teachers in all schools.

Heads followed the right procedure for procurement

Procuring with the right procedure by the headmasters /mistresses was supported by the teachers. While only two (2) and eight (8) teachers in the Northern and Central regions, respectively believed their heads used wrong procedure to procure, 53 and 127 teachers in the Northern and Central regions respectively supported the view that their headmasters/mistresses used the

right procedure to procure goods and other items for the schools. Teachers rated the headmasters/mistresses from six (6) to ten (10) on the extent to which the headmasters/mistresses used the right procedure to procure goods and other items.

Table 83 shows the choices of teachers for right procedure to procure:

Table 83: Choices of teachers for right procedure to procure

Region	1-4	5-7	8-10	Total
Central	0	73(54%)	62(46%)	135
Northern	0	37(69%)	17(31%)	54
Total	0	110	79	189

From Table 83, while 54% of teachers in the Central region and 69% of teachers in the Northern region selected the middle class of 5-7, 46% of teachers in the Central region and 31% of teachers in the Northern region chose the highest class of 8-10.

During discussions, the headmasters and teachers stated that the headmasters/mistresses went strictly by the procurement order or process. The headmasters/mistresses advertised their needs through their school procurement committees in the newspapers of the country and in some cases added the radio stations. A time limit is given, for suppliers to apply. The suppliers applied to supply through the procurement forms bought from the procurement committees of the schools. The Tender committee, usually chaired by the Assistant Headmasters in charge of domestic, goes through all the applications to select those the schools settled on in terms of quality and prices. The suppliers are invited to observe the Tender Committee selection. Those who won the tender were given dates to supply to the schools. According to the teachers no other suppliers were allowed to by-pass the

procurement process. So, teachers agreed that this was the only procedure the heads used to procure goods and other services for the schools.

The GES introduced the procurement system in the 90's and no school could by-pass this process. Currently, with the system of free education at the second cycle educational institutions, everything is brought from Accra, using the same procurement procedure. Suppliers only supplied to schools after GES has approved of it, in Accra. This statement was confirmed by the headmasters.

Kemps (2006) stated in his research on his firms that leader sought to promote innovations by seeking, encouraging and taking actions on new ideas. The procurement process was innovation introduced in the procurement process of the schools. Previously, the schools bought from sources they knew without filling any forms from the procurement Agency. Currently, the new trend was for the headmasters/mistresses to obtain their supplies directly from Accra without their involvement in the procurement process.

Hill, C (2009) in his research stated that the leader ought to know the industry. The leader ought to know the industrial trends, major players, market places and other relevant information for the industry in which he worked. This according to Hill meant the headmasters/mistresses of schools ought to know the procurement processes and so know the suppliers and the tendering process and the selection of the suppliers. Thus Hill supported that the headmasters/mistresses of schools used the right processes for procurement. Hence, Hill and Kemps supported the idea that headmasters/ mistresses use the right procedure to procure goods and services for their schools.

Comparing the calculated value of 4.16 and the table value of 5.99 at 95% level of significance and two (2) degrees of freedom, $X_C^2 < X_t^2$. So we accept the null hypothesis that there is not difference in the use of procurement procedures in the two regions of Ghana. According to some headmasters the procurement procedure remains same in all schools as all schools followed the same procedure. Currently, the schools only receive goods and other items from the GES, Headquarters in Accra. The schools have no role to play apart from sending the number of students on enrolment to Accra. Thus, the no difference in procurement procedure is an obvious expectation.

Heads use disciplinary powers

Majority of teachers were of the view that the headmasters/mistresses use disciplinary powers. This is to enhance the enabling environment for teaching and learning. As many as 52 teachers in the Northern region were emphatic on the point and 124 teachers in the Central region also agreed to the statement. The extent to which teachers agreed to the statement ranged from five (5) to ten (10). Table 84 is the choice of teachers for disciplinary powers.

Table 84: Choice of teachers for disciplinary powers

Region	1-4	5-7	8-10	Total
Central	0	87(64%)	48(36%)	135
Northern	0	39(72%)	15(28%)	54
Total	0	126	63	189

From Table 84, 64% of teachers in the Central region and 72% teachers in the Northern region selected the middle class of 5-7 and the remaining 36% of teachers in the Central region and 28% of teachers in the

Northern region chose the highest class of 8-10 as to the extent that the headmasters use disciplinary powers in the schools.

During discussions, headmasters and teachers explained that schools where leadership refused to sanction staff, students never have any good final year examination results. This according to the teachers, was because where no sanctions are given for offences, students misbehaved more and abandoned their books and resorted to wasting their time on the non-academic aspects and fooling in the schools. Teachers emphasized that students engaged in going to town without exeats (written permission), running home without the permission from school authorities and engaged in smoking and drinking from time to time. The teachers also added that where no sanctions operated in the schools, students engaged in immorality in the form of lesbianism and gayism. This results in few female students dropping out of school to attend to their pregnancies. Sanctions from the G.E.S. are too soft to serve as deterrent to students. Currently there is the “Safe school” system where students are not caned in the schools. Headmasters confirmed the statements about gayism and lesbianism.

Disciplinary powers enabled the schools to control the students from misbehaving. The school rules and regulations operated such that students stayed clear of troubles. These rules and regulations were made into booklets and supplied to students during the orientation time in the first year. A breach of common sense is a breach of school rule has been a guiding principle for all students. Thus students who violated school rules have themselves to blame.

Economy (2013) listed seven (7) traits of highly effective leaders which included being decisive and sticking to his decisions. This means

disciplinary powers could be such that once it is taken, the decision remained unchanged. Hence, Economy supported the idea that school leaders or headmasters/mistresses should use disciplinary powers.

Owens, (2015) wrote on four (4) traits for an effective leader which included decisiveness. As Zonger and Folkman discovered in their research that “displaying fearless loyalty to doing what is right for the organization”, helps the organization to progress. In other words, good leaders make important decisions based on what’s best for the organization and they make them confidently.

Alabi and Alabi (2015) stated that the competences influencing a Dean’s leadership effectiveness included decision-making, negotiation, conflict management and problem solving. These sum up to disciplinary power which the school headmasters/mistresses exercised over time. Hence Alabi and Alabi supported the use of disciplinary powers in our second cycle educational institutions of Ghana.

Hence, Economy, Owens and Alabi and Alabi supported that school headmasters and headmistresses should display disciplinary powers. Comparing the two regions in terms of disciplinary powers, the null hypotheses, H_0 is there is no difference between the two regions when disciplinary powers are used in schools and the alternate hypothesis, H_1 is there is difference between the two regions when disciplinary powers are used in schools.

Comparing the calculated value of 0.9678 and the table value of 5.99 at 95% level of significance and two (2) degrees of freedom, $X_C^2 < X_t^2$. So we accept the null hypothesis H_0 , that there is no difference with the use of

disciplinary powers in the Central and Northern regions second cycle educational institutions.

Table 85: Summary of Hypothesis

Items	Hypothesis	Accepted
	Relation	Hypothesis
Right Procedure for students Admission	$X^2_c > X^2_t$	H ₁
Assistant Headmasters in daily running of schools	$X^2_c < X^2_t$	H ₀
Improved students' performance	$X^2_c < X^2_t$	H ₀
Student prefects in daily running of schools	$X^2_c < X^2_t$	H ₀
Non-teaching staff in daily running of schools	$X^2_c > X^2_t$	H ₁
D.C in daily running of schools	$X^2_c < X^2_t$	H ₀
Growing good relationship	$X^2_c < X^2_t$	H ₀
Improved teaching methods	$X^2_c < X^2_t$	H ₀
Right procedure to procure	$X^2_c < X^2_t$	H ₀
Heads use disciplinary powers	$X^2_c < X^2_t$	H ₀

From this summary, right procedure for students admission and non-teaching staff involvement in the daily running of the schools, showed differences in the two regions. The rest showed no difference in the two regions.

Concluding on the analyses for the Grade A schools, delegation of powers was most important as it showed up in different forms for student prefects, non-teaching staff leaders, disciplinary committee members and the assistant headmasters/mistresses in their contributions to the daily running of the schools. Thus the assessment of the state of leadership effectiveness and academic performance required more learning to reach the optimal level. Comparing the Central and Northern regions using the chi-square, the null hypothesis of no difference was rejected, showing there is difference in the state of leadership effectiveness in the regions. Also for the ten (10) dominant

factors analyzed only two; admission of students and the work of the non-teaching staff leaders showed differences between the two regions.

Using the choice of teachers for the maximum point of ten (10) to compare the two regions, Table 86 gives the details:

Table 86: Choice of the maximum point for Grade A schools

Items	Central (Y)	Northern (X)
Team achievement	17	11
Affection for staff	22	2
Use of disciplinary powers	15	9
Incentives to motivate teachers	14	2
Good relationship as outcome	19	6
Improve teaching method	17	6
Improve student performance	16	6
Clear direction	13	7
Needs of staff	19	9
Efforts to satisfy teachers	14	2
Appropriate techniques	14	4
Gathering necessary additional data	19	7
Free flow of information	17	6
Delegation of powers	19	9
Increased involvement of teachers	17	2
Right procedure for admission	18	6
Right procedure for recruitment	16	13
Right procedure for procurement	19	13
Funds readily available	20	4
Assistant heads' involvement	20	19
Teachers involvement	18	9
Students prefects' involvement	16	7
Leaders of non-teaching involvement	19	6
Members of disciplinary committee	19	6

Using the correlation method, the coefficient of correlation obtained is 21%.

Squaring for the coefficient of determination, (40%), there is a significant gap of 60% of the unexplained variables. Hence, in the Grade A schools, there is an unexplained gap of 60% between the two (2) regions.

Squaring for the coefficient of determination, $R^2_{xy} = 44\%$. This means only 44% of the variables in x is explained by the variables in y. so 56% of the variables remain unexplained. Thus, there is a significant difference between x and y, the Central and Northern regions, respectively, in the assessment of the state of leadership effectiveness and academic performance.

Results from comparing Grade B schools

While the Central region has 14 Grade B schools, the Northern region has 6 Grade B schools. The lottery method was used to select six (6) schools from the Central region. To enable comparisons of the Grade B schools, the choice of teachers for the maximum point was used. Table 87 is the choice for the maximum point.

Table 87: Choice of the maximum pint for Grade B schools

Items	Central (Y)	Northern (X)
Team achievement	12	10
Affection for staff	34	25
Use of disciplinary powers	32	22
Incentives to motivate teachers	19	12
Good relationship as outcome	22	13
Improve teaching method	33	24
Improve student performance	42	33
Clear direction	25	23
Needs of staff	33	22
Efforts to satisfy teachers	43	21
Appropriate techniques	22	12
Gathering necessary additional data	33	21
Free flow of information	23	21
Delegation of power	35	23
Increased involvement of teachers	26	23
Right procedure for admission	33	16
Right procedure for recruitment	34	26
Right procedure for procurement	28	23
Funds readily available	33	26
Assistant heads involvement	28	22
Teachers' involvement	31	26
Student prefects' involvement	26	23
Leaders of non-teaching	32	13
Members of disciplinary committee	34	26

Using the formula for correlation this gives 74%. Squaring for the coefficient of determination, $R^2_{xy} = 55\%$. This means 55% of the variables in x is explained by variables in Y, leaving 45% of unexplained variables. Hence, there is a significance difference between the two regions.

Results from comparing Grade C schools

The lottery method was used to select ten (10) schools from each region from 42 in the Central region and 33 schools in the Northern region. The correlation coefficient and the coefficient of determination R_{xy} and R^2_{xy} , respectively were employed to compare the Central and Northern regions. Summarizing for the Grade C, schools, using the maximum point, Table 88 was obtained. Using x for Central region and y for Northern region, the correlation table follows after.

Table 88: Choice of the maximum point for Grade C schools

Items	Central (Y)	Northern (X)
Team achievement	31	16
Affection for staff	23	20
Use of disciplinary powers	35	26
Incentives to motivate teachers	22	15
Good relationship as outcome	31	25
Improved teaching method	37	28
Improved student performance	29	24
Clear direction	33	23
Needs of staff	22	17
Efforts to satisfy teachers	36	23
Appropriate techniques	32	28
Gathering necessary additional data	27	21
Free flow of information	33	20
Delegation of power	26	23
Increased involvement of teachers	32	18
Right procedure for admission	28	24
Right procedure for recruitment	24	16
Right procedure for procurement	33	25
Funds readily available	30	23
Assistants heads involvement	27	21
Teachers involvement	22	13
Leaders of non-teaching	27	22
Members of disciplinary committee	32	21

Using the correlation formula the coefficient of correlation is 68%. The coefficient of determination, $R^2_{xy} = 46\%$. This means only 46% of the variables in x are explained by variables in y. Hence 54% of the variable remain unexplained. Hence, there is a significance difference in the two regions.

Results from comparing the combined Grades

Based on the combined grades of A, B and C the results showed that teachers in the Central region selected the maximum point of 10 more than the teachers in the Northern region. Team achievement, affection for the staff, use of disciplinary power and use of array of incentives to motivate teachers to do their best showed more in Central region than the Northern region.

Effective leadership resulting in good relationship among headmasters/mistresses and staff, improved teaching methods, improved student performance, giving out clear instructions, providing for staff needs, using appropriate techniques to motivate teachers and not procrastinating in gathering additional data, put the Central region ahead of the Northern region.

Free flow of information, delegating powers in decision-making, increased involvement of teachers and students in decision-making, using the right procedure to admit students, recruitment of teachers, procedure to procure and making funds readily available for teaching and learning, all placed the Central region ahead of the Northern region.

When daily running of the schools was discussed using the questionnaire, observation, focus group discussion and interviews, the Central region again came up better than the Northern region. Assistant headmasters/mistresses, teachers, students prefects, leaders of the non-

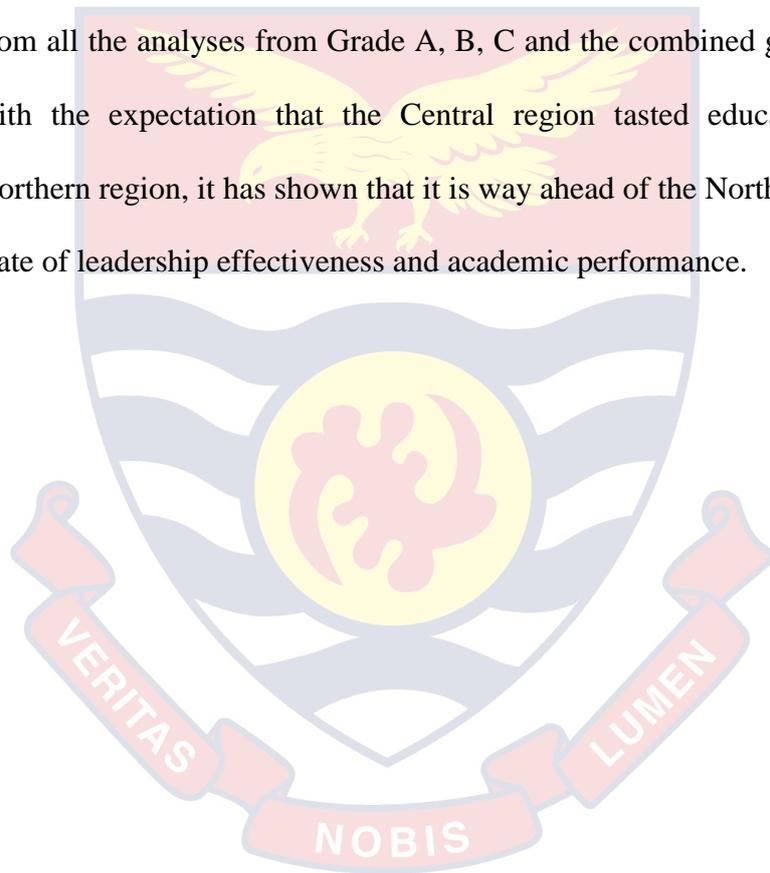
teaching staff and members of the disciplinary committee were more involved in their schools in the Central region than in the Northern region. Below is the table depicting the choice of teachers when the scales of rating for the extent of usage of the items were analyzed. Table 89 shows the choice for the maximum point on the scale in percentages.

Table 89: Teachers who selected the maximum point

Items	Central (Y)	Northern (X)
Team achievement	36	17
Affection for staff	39	19
Use of disciplinary powers	31	18
Incentives to motivate staff	24	12
Good relationship	33	28
Improved student performance	22	13
Giving clear direction	23	14
Perceiving the needs of staff	35	17
Organizing efforts to satisfy staff	30	17
Employing appropriate techniques	36	19
Gathering necessary additional data	27	15
Free flow of information	27	18
Delegating powers in decision-making	42	27
Involvement of teachers and students	32	20
Admission of students	35	19
Recruitment of teachers	36	25
Right procedure for procurement	37	21
Making funds readily available	38	21
Assistant heads in daily running	39	27
Teachers in daily running of schools	34	20
Prefects in daily running of schools	23	17
Leaders of non-teaching in daily running	28	13
Disciplinary committee in daily running	28	20

Using the correlation formula, the coefficient of correlation of 75% was obtained. Squaring, the coefficient of determination, r^2_{xy} is 30%. This means only 30% of the variables in x is explained by the variables in Y. this leaves a huge 70% of unexplained variables. Hence, there is a significant difference between the two regions.

Concluding, the assessment of leadership effectiveness and academic performance in the Central region is way ahead of that of the Northern region, from all the analyses from Grade A, B, C and the combined grades. So in line with the expectation that the Central region tasted education before the Northern region, it has shown that it is way ahead of the Northern region in the state of leadership effectiveness and academic performance.



CHAPTER FIVE

DETERMINANTS OF LEADERSHIP EFFECTIVENESS

Introduction

This chapter looks at the determinants of leadership effectiveness, analysis from 21 factors. These factors were regressed in groups of seven. After the three (3) initial regressions, the dominant factors determined by the quantum of its positive coefficients were put together. These dominant factors were then regressed for the most dominant factor. After a factor is dropped and regressing the remaining factors continued till the last factor is also dropped. Below is the final result using:

X_1 = Trust

X_2 = Integrity

X_3 = Clear goals

X_4 = Good relationships

X_5 = Focusing on improved results

X_6 = Cultivating capabilities

X_7 = Promoting innovations as the first batch

X_8 = Equipment and tools

X_9 = Providing financial resources

X_{10} = Improving students' performance

X_{11} = Motivation of teachers

X_{12} = In-service training, seminars etc.

X_{13} = Effective policy framework and

X_{14} = Effective organizational structure as second batch

X_{15} = Effective supervision

X_{16} = Regular staff meeting

X_{17} = Efficiency of head

X_{18} = Reasonableness of head

X_{19} = Justice by head

X_{20} = Strictness of head and

X_{21} = Carefulness of head as the third batch

L.E = Leadership effectiveness

Analysis

When the first batch was regressed, the equation obtained was: L.E. = $2.710 + 0.028X_1 - 0.167X_2 - 0.047X_3 + 0.034X_4 + 0.246X_5 - 0.265X_6 - 0.04X_7$.

From the coefficients, trust, relationship, innovations showed positive result, which means as these factors improve, leadership effectiveness also improves. From the coefficients, promoting innovations was the most dominant factors of the seven factors; following by growing relationships and promoting trust as the third most dominant factor. Integrity, focusing on results, building capabilities and setting clear goals showed negative relationships. These mean that as these factors improve leadership effectiveness declines. Among the negative factors when ranked in order of magnitude are clear goals, focusing on results, integrity and building capabilities.

From the second batch of factors, the regressed equation was: L.E = $-0.161 X_8 - 0.032 X_9 - 0.0114 X_{10} + 0.099 X_{11} - 0.092 X_{12} + 0.011 X_{13} - 0.016 X_{14}$. From the second batch, the most dominant factor is motivation of teachers to improve teaching for better students' performance at the WASSCE. This is followed by effective policy framework. The rest showed negative

coefficients. In order of rank, there is effective organizational structure, finance, organizing regular staff meetings, students' performance and provision of equipment and tools. These negative factors show that as they improve leadership effectiveness declines and as these factors decline, leadership effectiveness improves.

The third batch gave the equation, $L.E = 0.324x_{15} - 0.102x_{16} - 0.412x_{17} + 0.762x_{18} - 0.98x_{19} + 0.129x_{20} + 0.80x_{21}$. From the equation, carefulness, reasonableness, supervision and strictness are the main positive factors affecting leadership effectiveness. These factors mean that improving carefulness, reasonableness, supervision and strictness would also improve leadership effectiveness.

Being just, holding regular meetings and being efficient are the negative factors affecting leadership effectiveness. This means as these factors improve, leadership effectiveness declines.

From the three batches, the positive factors were selected for the iteration. These factors, trust, good relationships, promoting innovations, providing motivation, effective policy frame work, effective supervision, being reasonable, strict and careful were regressed and below is the equation. $L. E. = 2.236 - 0.023x_1 - 0.034x_2 + 0.135x_3 - 0.131x_4 - 0.055x_5 + 0.134x_6 - 0.092x_7 + 0.057x_8 + 0.108x_9$ where x_1 represents trust; x_2 , good relationships; x_3 , providing innovations; x_4 , motivation; x_5 , effective policy framework; x_6 , effective supervision; x_7 , being reasonable; x_8 , being careful and x_9 , being strict.

Innovation

From the coefficients, the most dormant factor is proving innovations. This is

followed by effective supervision, being strict, being careful, trust, growing relationships, effective policy framework; being reasonable and motivation in that order.

Providing innovations go to improve leadership effectiveness. In Ghana, when the government gave headmasters more students than they could accommodate, headmasters had to use all other available rooms as “dormitories”, in 2018 to the present. Government intension to provide free secondary education had to provide more space for pupils up to aggregate 52. Libraries, dining halls, science laboratories were all converted to “dormitories” in order to accommodate students who cannot be accommodated in the main dormitories. Comparing the two regions, the Northern and Central, using the chi-square, the null hypothesis, H_0 : There is no difference in providing innovations in the two regions and the alternate hypothesis, H_1 : There is difference in providing innovations in the two regions. Table 90 shows the choices of teachers for innovations:

Table 90: Choice of teachers for innovations

Regions	1-4	5-7	8-10	Total
Central	53 (10%)	161 (30%)	321 (60%)	535
Northern	43 (12%)	149 (52%)	163 (46%)	355
Total	96	310	484	890

The Calculated value of 17.4549 was compared to the table value of 5.99. Since $X_c^2 > X_t^2$, the null hypothesis is rejected, so there is difference in providing innovations in the two regions. The differences in providing innovations show that the Central region, the cradle of education, has more

structures than the Northern region to accommodate more students. Records show that more students rush for schools in the Central region than the schools of the Northern region. Headmasters agreed that difference in providing innovations could be because the schools in the Central region have more facilities than that of the Northern region. Some headmasters in the Northern region also suggested that old students in the schools of the south were more supportive than those in the North.

Effective supervision

Effective supervision is done by the headmasters for both teachers and students, according to teachers involved in this work. Apart from going round the school by the headmasters, attendance books are also provided for teachers to sign when they report to school and when they are about to leave school, after classes. Students are also monitored by teachers, checking before teaching and confirming their absence in the class attendance books as noted by the class captains. Table 91 is the choice of teachers for effective supervision.

Table 91: Choice of teachers for effective supervision

Regions	1-4	5-7	8-10	Total
Central	-	193 (36%)	342 (64%)	535
Northern	-	202 (57%)	153 (43%)	355
Total	-	395	495	890

Comparing calculated value of 37.9297 to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom, $X_c^2 > X_t^2$. So we reject H_0 and accept H_1 which is, there is difference in effective supervision in the two regions. Some headmasters agreed that the difference in effective supervision

could stem from experience over longer years. Schools in the Central region have been through different experiences, so that they possess better ways of resolving problems than their counterpart in the Northern region. Experiences in wars up North are absent in the Central region. Thus in the North, the students are more susceptible to warfare and hence more aggressive than students in the Central region. This statement was supported by some headmasters in the Northern region. Hence supervising students in the North would be more difficult than supervising students in the Central region. Hence, there would be difference in the style of supervision in the two (2) regions.

Head Being Strict

Being strict, the third most dominant factor, according to the teachers, help to shape the discipline in the school and so help to improve teaching and learning. The headmaster being strict, the teachers claim made the teachers and students very alert and not to misbehave as any offence go with equal punishment. They (teachers) agree that, once they spear head action against recalcitrant students, they (students) are particularly careful to stay above reproach. Table 92 shows the choice for teachers for the chi-square analysis:

H_0 : There is no difference in the headmasters being strict in the two regions and H_1 : There is difference in the headmasters being strict in the two regions.

Table 92: Choices of teachers for heads being strict

Regions	1-4	5-7	8-10	Total
Central	43 (8%)	171 (32%)	321 (60%)	535
Northern	43 (20%)	131 (37%)	153 (43%)	355
Total	114	302	474	890

Using the chi-square table and observed values, the calculated value of 39.3813 was compared with the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_c^2 > X_t^2$, the H_0 is rejected and H_1 is accepted. Hence, there is difference in the headmasters being strict in the two regions. Some headmasters confirmed that there is difference about the heads being strict in the two regions due to the nature of students in the two regions. One set of students has seen and experienced local battles and so enter school and look more aggressive in behaviour than their counterpart down South (Central region). Managing the aggressive students is more difficult than managing the calm students, according to some headmasters in the North.. Hence, there is difference in being strict in the two regions.

Head Being Careful

Being very careful is an attribute teachers stated for their headmasters. This, according to teachers would put the heads above reproach and so punish offending teachers and students without the offenders finding fault with the heads. They (teachers) stated that if for any particular offence by teachers would come up with challenges for the offending teachers referring the heads to that same issue. Thus, carefulness must be ensured by the head to have no challenges from staff when they are to be sanctioned.

Similarly, heads are careful not to go against all government educational policies with the free education. Headmasters are to only admit from the list provided by the government through CSSPS. The heads are only to send reports back to the CSSPS office when students reject the offer of placement in the schools. Below is the choice of teachers for the heads being

very careful. Using H_0 : There is no difference in being very careful in the two regions and H_1 : There is difference in being very careful in the two regions.

Table 93 is the choice of teachers for headmasters being very careful:

Table 93: Choices of teachers-Being very careful

Regions	1-4	5-7	8-10	Total
Central	53 (10%)	134 (25%)	348 (65%)	535
Northern	71 (20%)	106 (30%)	178 (50%)	355
Total	124	240	526	890

From the observed table and formula for calculating chi-square, the calculated value of 26.334 was obtained. This is put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_c^2 > X_t^2$, the H_0 is rejected and H_1 , accepted. Hence, there is difference in the headmasters being very careful in the two regions. Headmasters agreed that the conclusion that there is difference in being careful in the two (2) regions stems from the fact of differences in students' behaviours in the two (2) regions. Students in the Northern schools are more aggressive than their counterparts in the Central region schools. Again, appeal to authority, especially their chiefs is more in the Northern region than in the Central region. That is, there is more interference in school administration up North than in the Central region. According to some headmasters in the North, students resort to using the chiefs to appeal to a reduction in sanctions for breaching school rules in their schools more than in the Central schools. Hence there is difference in the act of being careful in the two (2) regions.

Trust

Trust on the part of the headmaster helps teachers and students to give of their best knowing that the heads would listen to their complaints. Teachers and students feel comfortable to express their views on any issues at stake. Similarly, students and teachers extend this trust to one another. For trust the heads display genuineness and truthfulness. Such heads are bold and respectful on matters of principles and do what he/she says will do. This allows the heads to communicate to the subordinates from what they have seen and worked with rather than only what people say and prevent damaging outburst. This trust spreads to all workers in the school, and this creates an atmosphere of better teaching and learning methods that go to help improve academic results.

Using chi-square analysis for differences or otherwise in the regions, H_0 : There is no difference in the headmasters being trusted in the two regions and H_1 : There is difference in the headmasters being trusted in the two regions. Table 94 shows the choice for the teachers for the heads being trusted.

Table 94: Choices of teachers – Being trusted

Regions	1-4	5-7	8-10	Total
Central	-	235 (44%)	300 (56%)	535
Northern	-	231 (65%)	124 (35%)	355
Total	-	466	424	890

Using the chi-square formula, the calculated value of 40.4638 was obtained. The table value of 5.99 at 95% level of significance and two (2) degrees of freedom was compared to the calculated value. Since $X_c^2 > X_t^2$, H_0 is

rejected and H_1 is accepted. Hence, there is difference in the headmasters being trusted in the two regions. According to some headmasters this problem emanates from students' behaviour and affiliations. Students affiliated to the chiefs are treated differently from those without. This mistrust on the part of the teachers stretches on to the heads, for fear of creating problems for the heads, when they (teachers) punish such students. A case in point was when a teacher was asked by the Headmaster of Adisadel College to apologize to a student who had been punished by the teacher. The teacher apologized only for all other teachers to decide not to punish offending students. This nearly destroyed academic standards in the school. WAEC had to warn the school to come up or be graded a B school. The situation was restored when the headmaster died and a new one came to put teachers' "problem" on hold (Adisadel, 1995). Hence, trust for heads would be different in the two regions.

Good Relationship

Good relationship according to teachers is for the heads to show among staff and the community. The heads seek and work for understanding for the issues and persons that come their way. Heads also respect and value their subordinates. They lead discussions to clarify misunderstanding and resolve conflicts between workers. The heads are open to varying views of opinions. They seek opportunities to show good relationships to all people both within the organization and outside and allow all people to participate in discussions of the organization as regards to decisions and planning. These styles of growing relationships grow among teachers and students and so create an enviable atmosphere that promote better teaching and learning, all going to boost academic performance in the schools.

Using the chi-square analysis to find out whether or not there is difference in growing good relationships in the two regions, H_0 : There is no difference in the headmasters growing goods relationships in the two regions and H_1 : There is difference in the headmasters growing good relationships in the two regions. Table 95 shows the choice for teachers for growing good relationships.

Table 95: Choice of teachers – Growing Good relationships

Regions	1-4	5-7	8-10	Total
Central	-	225 (42%)	310 (58%)	535
Northern	-	209 (59%)	146 (41%)	355
Total	-	434	456	890

Using the formula for chi-square, the calculated value of 25.0183 was obtained and put side by side to the table value of 5.99 at 95% level of significance and two (2) degree of freedom. Since $X_c^2 > X_t^2$, the H_0 is rejected while the H_1 is accepted. Hence, there is difference in headmasters growing relationships in the two regions. The difference in the heads growing good relationships in the two regions, point to the fact that students' behaviour would create a divided set of parenthood. Some headmasters added that those who were punished would never be on good terms with them. Their parents take it that they have been denied justice; so being on good terms with the heads would mean being friends with the "enemy". Such behaviours would make it hard to have the headmasters growing good relationships. Hence, there would be difference in the growing relationships, in the two (2) regions.

Effective Policy

Effective policy framework, according to teachers, operates in the schools. Students have their code of discipline in the form of booklets which they receive during their period of orientations. Students read these rules and regulations very careful as “a breach of common sense, is a breach of schools rules”. Recalcitrant students are thus punished when they flout the rules. Teachers have their code of ethics and service of conditions to guide them. A drunk teacher has himself to blame as this is a breach of common sense. Teachers are therefore guided in their behaviour on the school compound. There are periods for casual leave, sick leave, and maternity leave among others for teachers to enjoy. However, few teachers enjoy these leaves. Only the ladies enjoy the maternity leaves after getting pregnant. This leave they enjoy six weeks to birth and six weeks after giving birth. Teachers, however enjoy the ten (10) day casual leave only when they lose their parents, spouse and children. These rules and regulations guide both teachers and students to create a good atmosphere on campus for all to enjoy. This leads to better teaching and learning which improve academic results in the schools

. Using the chi-square to find out as to whether there is a difference or otherwise in effective policy framework in the two regions. H_0 : There is no difference in effective policy framework in the two regions and H_1 : There is difference in effective policy framework in the two regions. Table 96 shows the choice for teachers in the two regions for effective policy framework.

Table 96: Choice of teachers – Effective policy

Regions	1-4	5-7	8-10	Total
Central	-	86 (19%)	449 (84%)	535
Northern	-	153 (43%)	146 (57%)	355
Total	-	239	651	890

The calculated value of 85.2489 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_c^2 > X_t^2$, the H_0 is rejected and H_1 is accepted. Hence there is difference in effective policy framework in the two regions. Headmasters were quick to state that differences in policy framework in the two (2) regions come from interference with school administration. The chiefs, the opinion leaders of the community and members of the Board of Governors as well as the P.T.A executive members are the main sources of interference in the schools. They lobby the headmaster to pardon some offending students and at time break the trust and teamwork in the school. Hence, there is difference in the policy framework in the two (2) regions.

Heads Being Reasonable

Teachers agreed that their heads were reasonable with issues concerning staff and students of the schools. The headmasters provide the needs of the staff and students and also motivate both staff and students. The headmasters reasoned with staff when issues come up. The teachers are very happy with decisions taken by their headmasters after they (teachers) have made their inputs to the issue. The teachers also pointed out that decisions from the Disciplinary Committee and Guidance and Counselling Unit are

usually discussed with the headmasters and both parties come to happy compromise. For any decision the headmasters want to change, they provided tangible reasons for them. Staff meetings end up on happy notes as the headmasters freely and openly discuss issues amicably. Latecomers are given the chance to state their reasons which are usually countered on friendly lines. Teachers are therefore happy to work to improve learning in the classrooms. Students are free to approach teachers for explanation and less endowed students are given more time to improve on results of the schools.

Using chi-square analysis to compare as to whether there is any difference in the headmasters being reasonable in the two regions, H_0 : There is no difference in the headmasters being reasonable in the two regions and H_1 : There is difference in the headmasters being reasonable in the two regions. Table 97 shows the choice of teachers on the headmasters being reasonable.

Table 97: Choice of teachers – Reasonableness

Regions	1-4	5-7	8-10	Total
Central	16 (3%)	155 (29%)	364 (68%)	535
Northern	28 (8%)	135 (38%)	192 (54%)	355
Total	44	290	556	890

Using the chi-square formula, the calculated value of 21.9845 was obtained. The table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_c^2 > X_t^2$, the H_0 is rejected and H_1 accepted. Hence there is difference in the headmasters being reasonable in the two regions. Teachers and some headmasters confirmed that the difference in the reasonableness of the heads in the two (2) regions, emanate from interferences

from the community. Teachers added that students' behaviours portray the heads as being unreasonable to some parents when peeved and being reasonable to some parents when pleased by some decisions by the heads. Hence, there is difference in the heads being reasonable in the two regions.

Motivating of Teachers

Motivating teachers to improve on their teaching methods goes a long way to improve students' academic performance. The motivation can empower the teachers to give of their best and do extra teaching for the weaker students. Teachers are generally disturbed by poor performance of students and so would work extra hard to get the weaker ones also on board, even without motivation. Teachers used to be motivated by the Parents- Teacher Association (PTA) through cash payments. However, with free education, these motivational levies are cancelled as parents are encouraged to pay no fees or levies to any school. Some teachers are, however, motivated by the friendly approach of their headmasters and therefore are encouraged to work even harder without cash rewards. Gone are days when teachers enjoyed free housing, electricity and transportation in and out of school compound as motivation. These teachers who are not accommodated by the school pay for accommodation, electricity and transport. The excuse for payment of transport is to buy fuel to power the vehicles. Teachers these days pay for the use of school bus for funerals of parents, spouses and children, should they happen to teach far away from their hometowns. For electricity the teachers have either pre-paid or postpaid meters which they buy credits for or read for them to pay for during the end of the months.

Using the chi-square analysis, to find whether there is any difference in the headmasters' motivation of teachers in the two regions, H_0 : There is no difference in the headmasters' way of motivation in the two regions and H_1 : There is difference in the headmasters' way of motivation in the two regions. Following is Table 98 showing the choice of teachers on motivation.

Table 98: Choices of teachers – Motivation

Regions	1-4	5-7	8-10	Total
Central	-	219 (41%)	316 (59%)	535
Northern	-	248 (70%)	107 (30%)	355
Total	-	467	423	890

Using the chi-square formula, the calculated value of 81.1423 was obtained. The table value of 5.99 at 95% level of significance and two (2) degrees of freedom was compared to the calculated value. Since $X_c^2 > X_t^2$, the H_0 is rejected and H_1 is accepted. There is difference in headmasters' way of motivating teachers to teach better. The difference in motivation of teachers in the two (2) regions could be accounted for by the benevolence of the parents involved. Some headmasters stated that, now that the P.T.A levy for motivation is cancelled, the benevolence of parents may determine how teachers are motivated. While foodstuffs are presented to teachers as motivation in the Northern region schools, the same cannot be said of the Central region schools. Currently in most schools in Central region schools the benevolence of the Old students help the schools. These old student levy themselves and send to the schools as their contributions to motivate teachers.

Hence, there is difference in the motivation of teachers in the two (2) regions for some reasons.

Iteration

With the nine main factors of trust, growing relationship, providing innovation, providing motivation, effective policy framework, effective supervision, being reasonable, being careful and being strict, each factor is dropped one after the other.

Dropping trust

Dropping trust, the new equation in order of merit is $L.E = 2.283 + 0.123X_6 + 0.119X_3 + 0.117X_9 + 0.052X_8 - 0.042X_2 - 0.045X_5 - 0.099X_7 - 0.1143X_4$. Comparing with the former equation, effective supervision (X_6) reduced by 1.1%, providing innovation (X_3) reduced by 1.6%, being strict (X_9) increased by 0.9%, being careful (X_8) reduced by 0.5%, growing relationship (X_2) reduced by 0.8%, effective policy framework (X_5) reduced by 1%, being reasonable (X_7) reduced by 0.7%, and motivation (X_4) reduced by 1.2%.

Providing innovation which was the major dominant factor dropped to the second place when trust was dropped from the regression. Effective supervision because the major dominant factors followed by being strict in the third place as before. Being careful retained the fourth position as before. Growing relationship which was sixth in the first regression before dropping trust, moved to the fifth position while effective policy framework which was seventh in the previous regression moved closer to the sixth position. Being reasonable also moved closer to the seventh position from the eighth position in the previous regression. After dropping trust, motivation retained the last

position as in the previous regression. Effective supervision provided 12.3%, innovation provided 11.9%, being strict provided 11.7% and being careful provided 5.2% of the factors that make up leadership effectiveness and academic performance. Together, these four (4) factors provided 41.1% of factors making up the leadership effectiveness and academic performance.

Dropping Good Relationship

When growing good relationship was dropped the new equation in order of merit is $L.E = 2.228 + 0.135x_6 + 0.119x_3 + 0.109x_9 + 0.057x_8 - 0.028x_1 - 0.055x_5 - 0.095x_7 - 0.141x_4$.

Comparing with the initial equation, effective supervision increased by 1.2%, providing innovations remain the same at 0.110; being strict reduced by 0.8%, being careful increased by 0.5%; trust reduced by 13.6%, effective policy framework reduced by 1%, being reasonable increased by 0.4% and motivation increased by 0.2%. On dropping growing good relationship, effective supervision maintains the major dominant factor position; providing innovations also remains at the second position; being strict maintains the third position, being careful also remains at the fourth position; trust replaced growing relationship at the fifth position; effective, policy framework also remained at the sixth position, with being reasonable at the seventh position and motivation at the last position. Effective supervision contributed 13.5%, providing innovation contributed 11.9%, being strict contributed 10.9% and being careful contributed 5.7% to the factors making leadership effectiveness and academic performance. Altogether, these four (4) factors provided 42% of the factors contributing to leadership effectiveness and academic performance.

Dropping Motivation

When motivation was dropped from the regression the new equation in order of merit is $LE = 2.166 + 0.129x_6 + 0.113x_9 + 0.109x_3 + 0.053x_8 - 0.037x_1 - 0.0862 - 0.102x_7 - 0.635$. From this equation and the original equation (coefficients) effective supervision reduced by 0.5%, being strict increased by 0.5%; providing innovation reduced by 26%, being careful reduced by 0.4%; trust also reduced by 1.4%; growing relationships also decreased by 5.3%; being reasonable decreased by 1% and effective policy reduced by 57.5%.

This new equation on dropping motivation shows effective supervision still being the major dominant factor, followed by being strict which has come from the third position. Providing innovation which was second when growing relationship was dropped from the regression drops to the third position. Being careful remains at the fourth position, trust remains at the fifth position; growing good relationship comes to the sixth position; being reasonable remains at the seventh position and effective policy framework replaced motivation which was dropped in the regression at the last position. From this equation, on dropping motivation, effective supervision contributed 12.9%, being strict contributed 11.3%, providing innovation contributed 10.9% and being careful contributed 5.3% to making leadership effectiveness and academic performance, real. These four factors have contributed 40.4% to leadership effectiveness and academic performance.

Dropping Effective Supervision

On dropping effective supervision the new equation in order of merit is

$$L.E = 2.335 + 0.319x_3 + 0.110x_9 + 0.056x_8 + 0.003x_1 - 0.040x_2 - 0.045x_5 - 0.091x_7 - 0.122x_4 .$$

Comparing with the original equation's coefficients providing innovations increased by 0.4%; being strict increased by 0.2%; being careful reduced by 0.1%; trust increased by 2.6%; growing relationships reduced by 0.6%; being reasonable increased by 0.1% and motivation increased by 0.9%.

On dropping effective supervision, providing innovations moves to be the major dominant factor, followed by being strict; being careful; trust, growing relationship, effective policy framework; being reasonable and motivation in that order. From the equation, providing innovations contributed 31.9%, being strict contributed 11.0%, being careful contributed 5.6% and trust contributed 0.3% to making leadership effectiveness and academic performance complete. Altogether, these four (4) factors contributed 48.8% to the factors that make leadership effectiveness and academic performance complete.

Dropping Effective Policy Framework

Dropping effective policy framework, the new equation in order of merit is $L.E = 2.116 + 0.310x_6 + 0.121x_3 + 0.107x_9 + 0.060x_8 - 0.026x_1 - 0.034x_2 - 0.096x_7 - 0.136x_4 .$

Comparing the coefficients with the original equation when all the factors were regressed; effective supervision reduced by 0.4%; providing innovation also reduced by 1.4%; being strict decreased by 0.1%; being careful increased by 0.3%, trust reduced by 0.3%; growing relationship

remains the same (-0.034); being reasonable reduced by 0.4% and motivation reduced by 0.5%.

Dropping effective policy framework the factors in order of coefficients show effective supervision, providing innovations, being strict, being careful, trust, growing relationships, being reasonable and motivation in that order. From the new equation on dropping effective policy framework, effective supervision contributed 31%, providing innovation contributed 12.1%, being strict contributed 10.7% and being careful contributed 6%. Altogether these four (4) factors contributed 59.8% to making leadership effectiveness and academic performance.

Dropping Providing Innovations

When providing innovations is dropped from the regression, the new equation in order of the size of the coefficient is $L.E = 2.311 \times 0.136 \times 6 \times 0.11 \times 9 + 0.053 \times 8 + 0.037 \times 2 - 0.017 \times 1 - 0.038 \times 5 - 0.085 \times 7 - 0.109 \times 4$. Comparing the coefficients with that of the original equation, effective supervision increased by 0.2%; being strict increased by 0.2%; being careful decreased by 0.4%; trust increased by 0.6%; effective policy framework also increased by 1.7%; being reasonable increased by 0.7% and motivation increased by 2.2%.

Again, on dropping providing innovations, the factors followed in the order, effective supervision; being strict; being careful; growing relationships; being strict; being careful; growing relationships; trust; effective policy framework; being reasonable and motivation. From the new equation, on dropping providing innovation, effective supervision contributed 13.6%, being strict contributed 11%, being careful contributed 5.3% and growing good

relationship contributed 3.7% to making leadership effectiveness and academic performance. Altogether, these four (4) factors contributed 33.6% to making leadership effectiveness and academic performance.

Dropping Being Careful

Dropping being careful, the equation in order of size of coefficient is $L.E = 2.258 + 0.134 \times_6 + 0.133 \times_3 + 0.123 \times_9 - 0.023 \times_1 - 0.036 \times_2 - 0.058 \times_5 - 0.073 \times_7 - 0.129 \times_4$.

Comparing the coefficients with the original ones, effective supervision remains the same, providing innovations decreased by 0.2%; effective policy framework reduced by 0.3%; being reasonable increased by 1.9% and motivation increased by 0.2%.

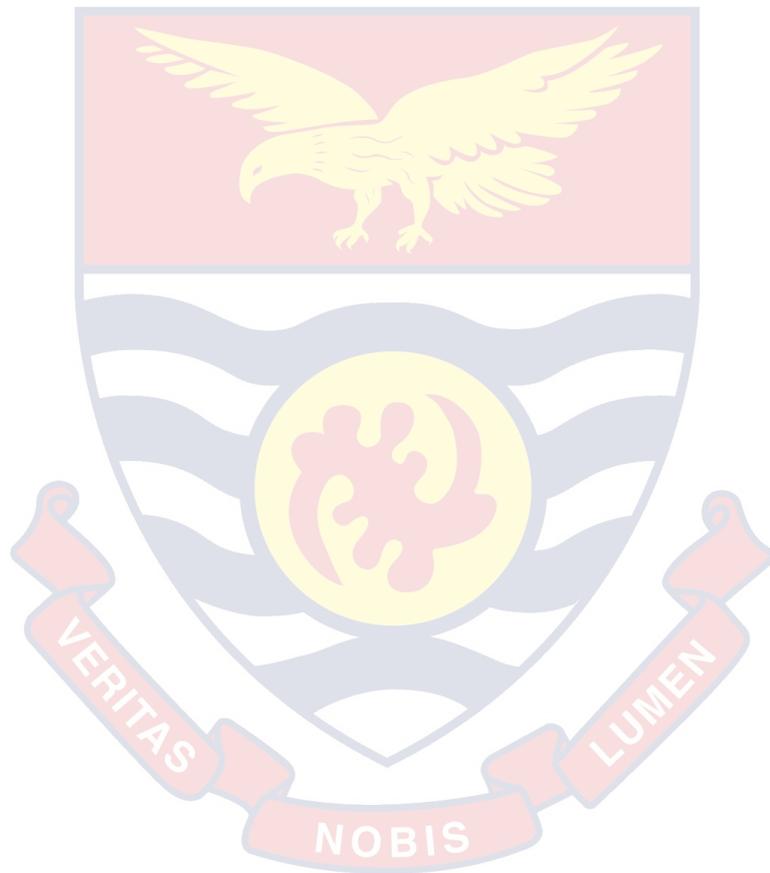
Dropping being careful, the factors follow the order with reference to coefficients; effective supervision; providing innovation; being strict; trust; growing relationships; effective policy framework; being reasonable and motivation. The new equation on dropping being careful show effective supervision contributing 13.4%, providing innovation contributing 13.3% and being strict contributing 12.3%. Altogether, these three (3) factors contributed 38.7% to the factors that make leadership effectiveness and academic performance.

Dropping Being Strict

On dropping being strict, a new equation is obtained in order of the size of coefficients as $L.E = 2.269 + 0.137 \times_3 + 0.136 \times_6 + 0.084 \times_8 - 0.024 \times_1 - 0.037 \times_2 - 0.049 \times_7 - 0.053 \times_5 - 0.136 \times_4$.

Comparing with the original equation, growing innovation increased by 0.2%, effective supervision increased by 2.7%; trust decreased by 0.5%;

Thus from the table effective supervision is the major dominant factor (it takes six out of eight places in the first position, providing innovations takes the second position; being strict, the third position; being careful at the fourth position; growing relationships and trust, at the fifth position; effective policy framework at the sixth position; being reasonable, the seventh position and motivation at the eight position.



CHAPTER SIX

RELATIONSHIP BETWEEN LEADERSHIP EFFECTIVENESS AND ACADEMIC PERFORMANCE

Introduction

Hussein (2008), Razik and Swanson (2001) Day et al (2006), stated that leadership is the major element to consider when a successful and a high performing schools are to be established. The National Transformation Plan (2010 – 2020) stipulated that successful schools show quality performance when headed by people who practice leadership effectiveness. Cherulnik et al (2001) state that leadership effectiveness has to do with how well a leader functions. Perry (2001) and Beaver (2003) stated that poor leadership practices may causes failure of a business.

Thus an effective leader would promote academic performance while a poor leader would dissipate the little academic performance the school has. Comparing for the two regions, the Central and Northern on the relationship between leadership effectiveness and academic performance, it is expected that the Central region, the cradle of education, would be ahead of the Northern region. The relationship between leadership effectiveness and academic performance would be based on the outcomes of teachers and students.

These activities included attendance to classes on time, attending all school gatherings, partaking in class assignments, attending church service and wearing of prescribed uniform on the part of the students. For the teachers the outcomes included preparation of lesson notes, giving questions, marking and discussing the marked scripts. The chi-square shall be used for

comparison of the outcomes and the correlation analysis of the maximum value of ten (10) shall be used for confirmation of the chi-square.

The analysis shall be done according to the Grades, A, B, C and the combined output be used for the final analysis.

Results from Grade A schools

Twenty-four (24) outcomes were analyzed but the ten (10) most dominant factors are discussed in this research.

Teacher set examination questions on time

It is the teachers' duty to set examination questions on time for the examination board to prepare the process of examination on time. Table 100 is the choice of teachers for teachers setting examinations questions on time.

Table 100: Choice of teachers on setting exams

Region	1-4	5-7	8-10	Total
Central	0	50(37%)	85(63%)	135
Northern	0	31(58%)	23(42%)	54
Total	0	81	108	189

From Table 100, no teacher in both the Central and Northern regions, chose the lowest class, 1-4. 37% of teachers in the Central region and 58% of teachers in the Northern region chose the range 5-7 while 63% of teachers in the Central region and 42% of teachers in the Northern region selected the highest class, 8-10.

During discussions, headmasters and teachers stated that setting questions on time also enabled the teachers to prepare their marking schemes on time. This according to the headmasters and teachers, helped teachers to complete the course work up to the limit as set in the examination questions.

According to the teachers, the syllabi has been planned so that teachers complete their syllabi by December, proceeding the year of examinations by WAEC. The headmasters confirmed that teachers ought to complete their syllabi for good academic results. The setting of questions, according to teachers ought to follow the WAEC format so that students become used to the setting of questions at the final WAEC periods. The headmasters confirmed that examination questions set by teachers ought to follow Waec pattern. Hence, they (headmasters) did provide answer booklets and graph sheets replicating the Waec patterns. Teachers agreed that students who usually practiced with WAEC questions have fewer problems passing the WAEC paper, than those who used the school examinations only. Headmasters agreed that teachers who needed past questions are given the school files containing the Waec question for use during revision periods. Setting questions on time enabled teachers to prepare both the questions and marking schemes on time. With the early setting of questions, the school would be in a better position to complete topics not yet covered in the classroom. The activities of the teachers would generally come from the style of leadership the headmasters/mistresses display. The democratic style of leadership usually promoted the conducive atmosphere for the school. According to Cole (2002) leadership is motivating subordinates to work to achieve results. So even if an institution has all the financial resources to excel, it may fail abysmally if the leadership did not motivate others to accomplish their task effectively. With the educational set up, setting questions on time promoted educational success.

Perry (2001) and Beaver (2003) stated that poor leadership practice might cause the failure of a business. Beaver (2003) studied the records of 200 bankrupt business and concluded that the business failed because the leadership lacked knowledge of the business. In the classroom situation the headmasters/mistresses generally failed for bringing novices in the business of teaching to fore front because they happened to be in their good books.

Alidrisi and Mohammed (2017) found in their research that cognitive competency enabled leaders to put their subordinates into position of trust and to work diligently for them, and they also influence followers in identifying safety problems. Similarly the headmaster/mistress of the school ought to display cognitive competency so that questions set by teachers would match that of WAEC.

Warner, (2013) defined leadership effectiveness as the successful exercise of personal influence by an individual, which resulted in accomplishing one or several goals of the coordinated efforts of those who are led. In the classroom the headmasters/mistresses exercise influence over the teachers and one of the goals of the school would be the involvement of teachers in setting questions on time. The goals of the schools included getting students to learn and work harder to achieve best results. Thus some writers like Perry, Beaver, Alidrisi and Mohammed as well as Warner, supported the view that teachers set questions on time.

Using the chi-square formula the calculated value of 6.88 was obtained. This was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_c^2 > X_f^2$, we reject the null hypothesis H_0 , that there is no difference in time for setting examination

question and accept the alternate hypothesis H_1 , that there is difference in setting examination questions. So between the Central and Northern region, there is difference in the time examination questions are set. If there is difference in setting questions in the two (2) regions, then while the school terms are the same, then probably the timing may be different as schools go on holidays on the same day. The difference in setting of questions in the two regions could stem from timing for covering examination questions, according to headmasters in the North who stated that the school term began earlier in the South than the North. They (headmasters) have to wait for students to report to school before classes began in the North. They (headmasters) confirmed that they are always two or three weeks behind schools in the South when school terms begin.

Teachers' regularity to classes

From the analysis, teachers selected from range seven (7) to ten (10) for both regions. 53% and 42% of teachers in the Central and Northern regions selected the highest class of 8-10 while the remaining 47% and 58% selected the middle range of 5-7. Table 101 shows the choice of teachers for teachers' regularity to classes.

Table 101: Teachers' regularity to classes

Regions	1-4	5-7	8-10	Total
Central	0	63(47%)	72(53%)	135
Northern	0	31(58%)	23(42%)	54
Total	0	94	95	189

During interviews and discussions headmasters and teachers stated that, the regularity to classes enabled them to complete their syllabi and so was

enforced by the Assistant Headmaster/mistress in charge of Academic Affairs. At times the headmaster/mistress went round to supervise as teacher taught the students, according to the teachers. Teacher sought to stay away from classes with permission especially when they (teachers) fell sick or had one or two family problems to solve. According to the teachers, time lost for classes, were made up during holidays or after classes. Some headmasters confirmed that teachers who sought permission to attend to some personal problems had to make up for lost times.

Teachers agreed that class registers had columns for teachers to sign after classes. These columns are checked for attendance daily by the Assistant headmaster/mistress in charge of Academic Affairs. These checks and balances enabled teachers to be regular as well as punctual for classes. Class captains according to the teachers, helped in recording the names of absentee students and teachers in the attendance books at close of day. Weekly reports are given to the Assistant headmaster by the form masters who collaborate with the class captains to prepare reports on the classes. Headmasters confirmed the use of the attendance books and reports submitted by Assistant Headmasters.

Regularity to classes helped teachers to cover the greater part of the syllabus, all things being equal. Research has shown that between 1990 and 2010, 80% of the final year questions by WAEC, came from the first and second year syllabi of WAEC and 20% from the third year syllabi. So teachers who knew this research usually treated the first two years fully and studied the pattern of questions for the third year to cover their syllabi. This was

confirmed by the headmaster of Mfantshipim School whose teachers took the research for the setting of questions by Waec.

Marzaw et al (2005) examined the relationship between the qualities of headship of the principal and student's academic performance. After examining 69 studies involving 2802 schools, approximately 1.4 million students and 14,000 teachers, they claimed that the correlation between the leadership behavior of the principal in the school and the average academic achievement of students in the school to be 0.25 (p. 10). This study would not have achieved this results had the principals been absent (or irregular) at school supervision.

Leithwood and Mascal (2008) confirmed that the principal's style of leadership which was translated by his ability to motivate his teachers and students as well as influencing the community helped in making students perform at examinations. This meant the principals were regular at the task of promoting students achievements.

Torrington et al (2005) in their study state that the successful leader knew how to manage vision of the personnel as well as how to achieve set mission of the institutions. These researchers believed that all efficient leaders were effective human resources operators. Resource managing involved punctuality and regularity at the business sites. The headmasters/mistresses ought to be regular at the work sites to get workers doing their best. Hence, headmaster/mistresses ought to be regular at the schools and by so doing be measured in the schools' activities as effective leaders.

Hence, writers like Marzaw, Waters and McNulty, Leithwood and Mascal, Torrington, Hall and Taylor supported that leaders including

headmaster and teachers ought to be regular at the work places so as to supervise, teach and guide the students to better academic performance.

Comparing regularity of teachers in the Central and Northern region, the null hypothesis, is H_0 : there is no difference in regularity of teachers to classes in the two regions and the alternate hypothesis is: H_1 : there is difference in regularity of teachers to classes in the two regions.

Using the chi-square formula, the calculated value of 1.684 was obtained. This was compared with the value from the chi-square table of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_C^2 < X_t^2$, we accept the null hypothesis H_0 that there is no difference in regularity of teachers to classes. Hence, regularity to classes by teachers is the same in the two regions. This is because the schools follow the same supervision formats.

Teachers' punctuality to classes

Teachers in the two regions agreed that teachers were punctual to classes. They ranked this statement from seven (7) to the highest point of ten (10). Table 102 shows the choice from the ranking for the punctuality of teachers to classes:

Table 102: Selection for teachers' punctuality

Regions	1-4	5-7	8-10	Total
Central	0	63(47%)	72(53%)	135
Northern	0	28(52%)	26(48%)	54
Total	0	91	98	189

From Table 102, no teacher selected the lowest range of 1-4, 47% of teachers in the Central region and 52% of teachers in the Northern region

selected the middle range of 5-7 while 53% of teachers in the Central region and 48% of teachers in the Northern regions, chose the highest range of 8-10.

During discussions and interviews, headmasters and teachers stated that the time tables had been planned for each teacher to have his/her turn during the teaching periods. Punctuality to classes, thus, helps teachers to cover their syllabi for the three years of second cycle schools, according to the teachers. They stated that the three years for second cycle education was cut short by late reporting to school in October (instead of September) and writing the final year examinations from February (instead of June). Thus, teachers who were not punctual had to find time, outside the teaching periods to cover the syllabi, as discussed by the teachers. So according to the teachers, careful planning of the syllabi added to punctuality to classes, helped teachers to complete their syllabi. Headmasters confirmed that planning was necessary to complete the syllabi and public and mission school holidays were used by teachers to cover lost periods.

Punctuality enabled teachers to use their forty minutes allotted to each period better. Teachers who came in late and left before the end of the forty minutes had added burdens to his or her work. He or she had to find time, outside the teaching periods to make up for the lost time. These loss of time generally occurred when supervision by the headmaster and assistant headmasters are relaxed. Teachers knowing their heads would be going round to monitor teachers, made good use of their times. Some teachers at times covered up for their colleagues how were absent from school by taking up their periods.

According to Antwi (1972), it has to be emphasized that the crucial level at which formal education has quantitatively or qualitatively added to the development process varied from country to country. It was the view of scholars, business thrived under effective leaders who collaborate with their workers and so ensured regularity and punctuality at work places. This matter of punctuality has resulted in signing of the attendance registers in most work places. These books are monitored seriously, with the managers ruling lines above the name of the worker who reported after 8:00am in the morning and 5:00pm after work. Punctuality at work place has now improved as desired by the leaders of the organizations. In the school system, the attendance books were with the class captains, who recorded the names of students who were absent from classes for the teachers who taught the classes to sign; and noted the list of absentees. Teachers who were not punctual to classes, at times had to explain to the Assistant Headmaster in charge of Academic Affairs. Time lost had to be replaced after classes, on holidays and other sporting days.

Thus to the organizations as well as the schools productivity matched with punctuality at work places and in the schools. Punctuality in schools, helped teachers to complete the syllabi and have more time for revision of their lessons taught, previously. The teacher who took part in revision with the students, all things being equal, obtained better results at the final year examinations than those who did no revision with classes.

Hence punctuality was an important factor in the organizations or schools and was part of factors which were used to measure leadership effectiveness in the schools.

Using chi-square to find if any, the difference in punctuality to classes in the two regions, the null hypothesis, H_0 : There is no difference in punctuality to classes in the two regions, and the alternate hypothesis, H_1 : there is difference in punctuality to classes in the two regions.

Using the chi-square formula calculated value of 0.4138 was obtained. This was compared with the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_C^2 < X_t^2$, we accept the null hypothesis, H_0 , that there is no difference in punctuality to classes in the two regions. Hence, for punctuality to classes in the two regions, the teachers behaved the same way. Punctuality is the same in the two (2) regions for the same rules and regulations govern the schools operating throughout Ghana. Headmasters who contributed for punctuality being same in the two region, agreed that teachers were always eager to complete their syllabi in schools.

Teachers contributed ideas during staff meetings

Teachers believed that they contributed ideas during staff meetings. For this statement, teachers selected from range six (6) to the highest point, ten (10). Table 103 shows the choice by teachers for contributing ideas at meetings.

Table 103: Teachers' choice for ideas contributed at meetings

Regions	1-4	5-7	8-10	Total
Central	0	28(21%)	107(79%)	135
Northern	0	32(59%)	22(41%)	54
Total	0	60	129	189

From Table 103, no teacher selected the lowest range of 1-4 in both regions 21% of teachers in the Central region and 59% of teachers in the

Northern region selected the middle range of 5-7 while 79% of teachers in the Central region and 41% of teachers in the Northern region chose the highest range, 8-10.

During discussions, headmasters and teachers agreed that the democratic style of leadership adopted by the headmasters allowed contribution of ideas from teachers during staff meetings. According to the teachers, at staff meetings the agenda was given on the notice boards and teachers who had questions noted them in their note books and asked their questions or contributed to the discussions. Teachers added that they contributed ideas after each items at meetings. Teachers who had positions on the management team such as heads of department usually reported on the departments, according to the teachers. The heads of department reported on the progress being made in the departments. They gave the headmaster any new discoveries in their teaching. Some headmasters confirmed that teachers willing gave them information on recalcitrant students and at times reported on colleagues who also misled students into smoking and other bad behaviours. The headmasters confirmed that such teachers were duly counselled or transferred as they (headmasters) deemed fit.

Contributions of ideas at meetings enabled the heads to be filled in, with activities in the schools. Housemasters/mistresses reported on activities at the dormitories, the heads of departments with activities in the departments and the assistant headmasters reported on their schedules as given to them.

The Assistant Headmaster in charge of Domestic Affairs reported on activities in the dormitories, dining hall and the dispensary while the Assistant Headmaster in charge of Administration reported on the non-teaching staff and

the transport section of the school. The Assistant Headmaster in charge of Academic Affairs reported on activities in the classroom which included quizzes, class works, home works and other assignments as given by the teachers. Matters on excursions, which required transportation, had to be reported on by the Assistant Headmaster in charge of Administration, after discussion with the Assistant Headmaster in charge of Academic Affairs. Headmasters confirmed that the management meeting had lots of issues concerning improvement in the school to be dealt with. It involved all socio-economic activities in the school.

Alidrisi and Mohammed (2017) in their findings stated that involving followers in decision making established more effective workforce. This statement supported the findings that teachers contributed ideas at staff meetings and supported the Disciplinary committee. Taherdoost et al (2016) stated as an outcome to assess leadership effectiveness that improved decision making and increased subordinates' commitment to decisions be looked at. Thus, Taherdoost supported the view that teachers contributed ideas at staff meeting as revealed in this research.

In Kemps' research he stated that the heads grow good relationships which included encouraging open communication and inclusion in decision/planning. This meant involving subordinates in decision making or planning. The statement was in support of this research's findings that teachers contribute ideas during staff meetings.

Economy, (2013) also stated that leaders have communications with their employees. By so doing the leaders got to know what was going on in the organization on his hind side. Hence, Economy supported the view that

teachers contributed ideas at staff meetings and in other places where their inputs are needed.

Hence, Alidrisi and Mohammed, Taherdoost, Kemps and Economy among other writers supported that teachers contribute ideas at staff meetings. Comparing the two regions, using the chi-square for any differences, the null hypothesis, H_0 : There is no difference between the regions for ideas contributed at meetings: and the alternate hypothesis, H_1 : There is difference between the two regions for ideas contributed at meetings.

Using the chi-square formula, the calculated value of 27.3971 was put side by side to the table value of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_C^2 > X_t^2$, we reject the null hypothesis and accept the alternate hypothesis, H_1 which state that there is difference in contribution of ideas at staff meetings between the two regions. There is difference in ideas contributed at staff meetings in the two regions, simply because the issues for discussion may be different and the type of leadership style may also be another factor. Where the leadership practices autocracy staff hardly contribute ideas at meeting. Meetings turn to be information from the head to staff in the autocratic-led schools. Headmasters agreed that contributions at meetings might differ as each school had her own issues to look at. In the North for example, the heads agreed that meeting were at times censored by teachers who happen to be political party agents. The headmasters, therefore, have to be careful with pronouncement against political parties.

Teachers supervision of students to obey rules and regulations

Teachers agreed that they supervised students to obey the rules and regulations of the school. Teachers supported by selecting the range six (6) to

be maximum of ten (10). Table 104 shows the choices of teachers for teachers supervising students to obey rules and regulations.

Table 104: Selection of teachers – obeying rules and regulations

Regions	1-4	5-7	8-10	Total
Central	0	40(30%)	95(70%)	135
Northern	0	28(52%)	26(48%)	54
Total	0	98	121	189

From Table 104, no teacher chose the lowest ranking of 1-4. 30% of teachers in the Central region and 52% of teachers in the Northern region selected the middle ranking of 5-7, 70% of teachers in the Central region and 48% of teachers in the Northern region chose the highest ranking of 8-10.

During interviews and discussions, headmasters and teachers stated that they supervised and shared the rules and regulations embodied in the school rules booklets to students during their orientation periods. They then supervised the reading of the rules to the students in batches for smaller assembly halls during the orientation periods of the first years. By so doing, teachers remind students who default about the sections the students had broken and so punish the students. While some weeded others collected cooking bowls from the various tables in the dining hall. According to the teachers, it was stated to the students that “a breach of common sense, is a breach of school rules”. This kept students on track and so few students are punished for breaking school rules. Hence teachers supervised students to obey rules and regulations of the schools. Teachers usually supervised students to obey rules and regulation of the school using the school prefects at times. Happening after light out at 10:00pm were reported by the prefects to

the headmasters/mistress through the housemasters/mistress, after rising bell at 5:00am. These supervisions are seen as delegation of responsibilities as it was the headmasters' major role to carry out supervision. Interactions between teachers and students summed up to communications. Headmasters confirmed that teachers supervised the students to read the school rules and regulations during the period of orientation for the first year students. Newly posted teachers are also taken through some form of orientation by heads of department for the subject areas. This the headmasters confirmed helped students and newly posted teachers to know about the schools, better.

Bimpeh, (2012) interviewed a sample of 312 teachers and ten headmasters and assistant headmasters. His finding showed interpersonal and communication factors, intellectual and work management factors, purposeful, inclusion and values driven factors and gender factors. Hence Bimpeh supported the view that teachers supervised the students to obey school rules and regulations and communicated the end results to the headmaster/mistress of schools.

Morgan in his work stated that a leader ought not to be too busy. This is because, the leader should never be too busy for a task that require their attention. Of course, successful leaders know how to delegate certain task to their team but have time for emergency cases. Thus Morgan was in support of the idea that teachers supervised students to obey rules and regulations of the school. The leaders ought to be ready to run the school or organization and never took time off to allow serious communications to go undiscussed.

Okumbe (1998) stated that leadership effectiveness involved the workers working to satisfy the aims of the organization (the vision of the

organization) and the provision of the needs of the workers, which was the human resource requirement. Employment satisfaction generally went with communications between leader and subordinates. Hence, Okumbe also supported that teachers supervised students to obey school rules and regulations, as stated in this research.

While Maicibi (2003) suggested that lack of proper leadership style, led to poor performance in schools, Sashkin and Sashkin (2003) believed that articulation of the vision and mission of the organization at every moment and influencing the staff to define their power to have this vision, was called visionary leadership. Lav Tzu (as reported in Sashkin, 2003) supported that leadership effectiveness had to do with the leader doing little work as he delegates and supervises and getting the workers to do more work. Quality in academic performance in any senior high school should not be measured only in terms of results from the final examinations, but also on activities that had to do with training of learning skills and physical training. Thus the need for communication, after supervision was very important as shown in this research, as one of the dominant factors (teachers supervised students to obey school rules and regulations).

Hence writers including Bimpeh, Okumbe, Maicibi, Sashkin and Sashkin supported that teachers supervised students to obey school rules and regulations.

Using the chi-square formula, the calculated value of 27.3971 was put side by side to the value from the chi-square table of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_C^2 > X_T^2$, we reject the null hypothesis and accept the alternate hypothesis, H_1 that there is difference in

teachers supervising students to obey school rule and regulations in the two regions. According to some headmasters, the difference in supervision of students to obey rules and regulation could come from interferences from opinion leaders and chiefs in the local set up. Some headmasters agreed that local interference was more in the North than in the Central region and this could account for the difference in the two regions.

Teachers mark examination scripts on time

For the statement that teachers mark examination scripts on time, teachers selected the rank from five (5) to ten (10). Table 105 shows the choices of teachers for teachers marking examination scripts:

Table 105: Choice of teachers on marked scripts

Regions	1-4	5-7	8-10	Total
Central	0	50(31%)	85(69%)	135
Northern	0	28(52%)	26(48%)	54
Total	0	78	111	189

From Table 105, no teacher in the two regions chose the lowest rank of 1-4. However 37% and 52% of teachers in the Central and Northern regions, respectively, chose the middle rank and 63% and 48% of teachers in the Central and Northern regions, respectively, chose the highest rank 8-10.

During discussions and interviews, the headmasters and teachers confirmed that marking and entering scores on time enabled them to send reports to parents on time. This also enabled parents to talk to their wards before they reported back to schools. While some parents helped their wards who failed in some subjects with part time teachers or extra classes' arrangement with teachers, others discussed arrangements with teachers.

Others, whose children performed well, still encouraged their wards to perform better still the following term. According to the headmasters and teachers sending report on time also enabled the schools to meet and discuss the terminal reports on time. Students are discussed and house masters, Guidance coordinators and form masters prepare and compile the lists of students to be advised. According to the teachers a time table for completing marking and discussion of terminal reports was usually put on the staff notice board before the last day of examination. So marking examination scripts and entering scores on time helped the schools greatly.

Teachers marked examination scripts on time and sent reports to parents who discussed their wards' performance with them. By so doing, students got to know their performance before coming to school while some parents arranged vacation classes for their wards others did arrange teachers in school for extra classes during school times. This was one of the major academic tasks of the school and like the organization, a major task in production.

Singer (1964) wrote that it was only where the working force at all levels was sufficiently literate, educated, trained and mobile to take advantage of new advances and techniques and organization of production, that the creations of a built-in industry of progress became possible. Similarly in the school systems, students were taken through the process to make them sufficiently literate, educated and trained. They (students) became mobile with time in the school, being promoted from one class to another and so progressed to take advantage of new advances in techniques. These marked scripts included those for promotion examinations without which the products

of the school could not be said to be complete. It was only when students passed from the second cycle to the tertiary level that the leaders of the second cycle levels could say they have completed the second cycle level production. Hence Singer, indirectly connected the marking of examination scripts to work in the organization.

Ishumi (1983) pointed out that discussion on resource development had concentrated on the tertiary level. He added that an integrated and well-balanced approach to human resource development called for equitable investment in both the formal and non-formal educational sectors. This according to Ishumi pointed to the second cycle level as well as the basic level, as needing further boost. Developing the human resources at the second cycle meant training the students for future life. The training of the students included teachers marking the examination scripts of the students. Hence Ishumi supported the view, indirectly, that marking their scripts was an important part of the production cycle of the second cycle schools.

Hence, some writers including Singer and Ishumi indirectly supported that teachers marked the examination scripts of students, which enabled the students to perform better at the WAEC examinations.

Using the chi-square formula, the calculated value of 3.8136 was put side by side to the value from the chi-square table of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_C^2 < X_t^2$, we accept the null hypothesis that, there is no difference in teachers marking examination scripts on time in the two regions. Teachers spend the same time for examination and hence mark and post reports at the same time, so there is no difference in the marking of examination scripts in the two regions. Headmasters confirmed

that the no difference in marking examination questions could emanate from the use of similar marking schemes as all schools have adopted the Waec method of marking.

Teachers' supervision of students in maintaining good sanitation

Teachers agreed that they supervised students in maintaining good sanitary conditions in the schools and this statement was ranked from five (5) to ten (10). Table 106 shows the responses of teachers for supervising students in maintaining good sanitation.

Table 106: Choice of teachers on good sanitation

Regions	1-4	5-7	8-10	Total
Central	0	45(33%)	90(67%)	135
Northern	0	29(54%)	25(46%)	54
Total	0	74	115	189

From Table 106, no teacher in the Central and Northern regions chose the lowest rank, 1-4. However, 33% of teachers in the Central region and 54% of teachers in the Northern region selected the middle rank of 5-7 and 67% of teachers in the Central region and 46% of teachers in the Northern region chose the highest rank, 8-10.

During discussions and interviews, the headmasters and teachers stated that housemasters, supervised by senior housemasters directed the students to clean the toilets, bathhouses and the dormitories. On the school compounds teachers supervised students to sweep and pick litters around. Teachers also supervised the class captains to prepare duty rosters for sweeping of the classrooms. According to the teachers they prepared duty rosters with the help of the house prefects, for the sweeping of the dormitories in the schools. First

year students sweep the dormitories, classrooms and the school compounds. Second year students remove cobwebs and clean louvre blades in the dormitories and classrooms. The third year students are the supervisors for the dormitories and classrooms. The Administration block was also part of a particular dormitory's work. According to the teachers, dormitories that come last in inspections on Saturdays are to scrub the dining hall and clean the louvre blades also. Hence, teachers acting as form masters, housemasters and the senior housemasters supervised students to keep the schools, clean.

Teachers working as housemasters/mistresses, senior house masters/mistress and students working as dormitory captains and house prefects work to ensure the school is kept hygienic and clean. Students, therefore, work to keep the school clean and neat. The atmosphere in the school should be so hygienic that visitors who enter the school feel good and praise the administration of the school. Headmasters confirmed that teachers supervised students to keep the school campus neat and clean. Some headmasters like that of Mfantipim, Cape Coast confirmed that the dormitories named after some famous men, competed in cleanliness for a shield. The top house in cleanliness for the term wins the Asafo shield.

According to Cherulnik et al (2001) leadership effectiveness in an organization promoted profit motivated followers-being and kept the good name. Keeping the good name of an organization was taken as the holistic activities of the organization. This included the sanitary conditions of the organization. Hence, companies spent money to keep the compound smelling good. It is to keep organization clean that the organizations employs cleaners, sweepers, labourers as well as sanitary labourers. Thus, Cherulnik et al (2001)

supported the view that teachers supervise students to keep the school in good sanitary conditions.

Kemps (2006) in his exposition stated that in cultivating capabilities, the leader identified, repositioned, hired, oriented and engaged high performing employees. These hired employees include sanitary labourers. Thus Kemps supported the idea that teachers supervised students to maintain good sanitary conditions of the schools.

Yammarino and Bass (1990) suggested that leaders developed subordinates' job satisfaction. This indirectly included the job of conservancy labourer who when left out of control would create a bad atmospheric condition and probably cause an outbreak of disease in the organization. These two men agreed that looking after employees well, motivated workers to work harder. Hence Yammarino and Bass, supported the idea that teachers supervised students to keep the school in good sanitary conditions.

Hence writers like Cherulnik et al, Kemps, Yammarino and Bass supported the view that teachers supervise students to keep the school in good sanitary conditions.

Using the chi-square formula, the calculated value of 6.9002 was put side by side to the value from the chi-square table of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_c^2 > X_t^2$, we reject the null hypothesis and accept the alternate hypothesis that, there is difference between the two regions for teachers supervising students to maintain good sanitary conditions in the schools. According to some headmasters, this is because there are different types of sanitary conditions in the two regions. While the Central region schools use water closets (wc), the Northern region schools use

Pit Latrines. Maintaining these structures require proper care. It demands the teamwork of all stakeholders. Hence, these differences in structure could account for the difference in the sanitary conditions of the two regions.

Teachers' discussion of students' examination scripts

Teachers stated that they discuss students' examination scripts and ranked this statement from six (6) to ten (10). Table 107 is the choice of teachers for discussing students' examination scripts.

Table 107: Choice of teachers for discussing examination scripts

Regions	1-4	5-7	8-10	Total
Central	0	34(25%)	101(75%)	135
Northern	0	14(26%)	40(74%)	54
Total	0	48	141	189

From Table 107, no teacher from the two regions chose the lowest rank of 1-4. However, for the middle rank, 5-7, 25% of teachers in the Central region and 26% of teachers in the Northern region chose it and 75% of teachers in the Central region and 74% of teachers in the Northern region selected the highest rank of 8-10.

During discussions and interviews, headmasters and teachers stated that this process is very important for students to know their shortcomings in answering questions and so correct them. These periods are usually after school re-opens and generally in the first week. The discussions are done period by period and within the first week teachers may plan to complete the questions for discussion. According to the teachers this exercise is part of the lesson notes and is stated in the lesson notes as such. Teachers who completed their discussions within the week, began their syllabi for the term. So,

discussing students' examinations after marking was part of the revision lessons for students and hence necessary for the schools.

The exercise of discussing students' examination questions after marking is very important for students. Teachers direct students how to answer examination questions. In the organizations, this stage in the production line is when the engineers go in to correct some defective items produced in the company. Thus correcting the wrongs of the company's production should be an important part of the production process. Headmasters agreed that teachers held subject seminars to help students to correct errors in answering examination questions with or without motivation.

Maicibi (2003) stated that leaders ought to team up with the staff to share this vision. This means correcting the wrongs while carrying out the vision of the organization. If one or two strategies go wrong along the line, the company has all within her means to correct the wrongs and carry on with the work to produce more. So Maicibi was in support of teachers discussing examination questions after marking as this is one of the processes of production in the schools.

Hill, (2009) wrote on effective leadership and stated that leaders recognized and encouraged employees. One of the biggest motivations for employees is recognition for their good work and encouragement along the way. This recognition and encouragement of worker would include the teachers. Indirectly Hill, supported that teachers discuss marked examination scripts with students so as to straighten ideas for writing the final examinations.

Hourston, (2013) in writing about truly effective leadership style stated that a leader ought to be follower-focused. She stated that the best leaders are human and socially conscious. Paying attention to the contributions of employees and giving the team room to innovate is the best way to lead into a more resilient future. Inferring from Hourston, the leader should encourage the conservancy labourer to innovate. For example, beginning with picking of the toilet can to the flashing toilets or water closet (wc) facilities, the conservancy labourer has reduced job. He now wipes water from the broken parts of the wc

Hence, Hourston, Hill and Maicibi supported that teachers discuss marked examination scripts to enable students to perform better at WAEC examinations.

Using the chi-square formula, the calculated value of 0 was obtained. The table value of 5.99 at 95% level of significance and two (2) degrees of freedom was compared to the calculated value. Since $X_c^2 < X_t^2$, we accept the null hypothesis that there is no difference in teachers discussing examination scripts in the two regions. Hence, teachers in the two regions showed the same commitment in discussing examination scripts of the students. There is no difference in discussing examination scripts, because the terms' calendar is the same for all second cycle schools. All schools go through this practice of discussing examination scripts, so as to help students perform better at the WASSCE. Some headmasters confirmed that teachers led students through marked scripts to correct errors in answering questions. They agreed that teachers used the first week when school reopens to do this exercise.

Students attend all school functions

On students' attendance to school functions the teachers rated the statement from range five (5) to ten (10). Table 108 is the choices of teachers for students attending all school functions:

Table 108: Teachers' choice – school functions

Regions	1-4	5-7	8-10	Total
Central	0	63(47%)	72(53%)	135
Northern	0	30(56%)	24(44%)	54
Total	0	93	96	189

From Table 108, no teacher chose the lowest rank of 1–4, in the Central and Northern regions of Ghana. 47% of teachers in the Central region and 56% of teachers in the Northern region chose the middle range of 5-7 and 53% of teachers in the Central region and 44% of teachers in the Northern region selected the highest range of 8-10.

During discussions, headmasters and teachers agreed that students attended all school gatherings. They added that except for the few who were sick and at the sick boys, students' attendance at school functions have improved tremendously, with house masters doing their supervision very well. However, they stated that at times few students who absented themselves from school gathering without permission were punished, to weed or collect cooking bowls from the dining tables to the school kitchens. These sanctions, according to teachers were yielding good results. Thus school functions are very well attended by students.

Students attending all school functions could be likened to the company workers attending meetings. The organizations are likened to the

school with the managers likened to the headmasters and the senior staff workers likened to teachers and the students likened to the workers. Students attending all school functions means they receive all the necessary information for the daily running of the school. Headmasters confirmed that students' attendance to school functions has seen tremendous improvement. This they attributed to effective supervision by housemasters, senior housemasters, Assistant headmasters and other teachers.

Economy, (2013) stated seven (7) traits of highly effective leaders and included communication between employees and managers. Apart from one-on-one discussions, meetings between employees and managers form part of communication. Thus, Economy in a way supported that students attended all school functions.

Hill, (2009) in writing on effective leadership stated that a leader ought to make one's meeting work. The meetings should be productive and bring in concrete actions. Hill was advocating for leadership that took their meetings as a tool to straighten what was not going well with the company as well as praised and recognized workers who worked harder. Hence, Hill agreed that students attended all school functions as the organizations took it to praise and correct, hard workers and bad employees, respectively.

Hence, Economy and Hill supported that students attended all school functions as a way of showing the relationship between leadership effectiveness and academic performance.

Using the chi-square formula, the calculated value, X_c^2 of 0.6652 was obtained and compared to the table value X_t^2 , of 5.99 at 95% level of significance and two (2) degrees of freedom. Since $X_c^2 < X_t^2$, we accept the null

hypothesis that there is no difference in students attending all school functions in the two regions. Thus in the two regions, the students' way of attending school functions is the same. Attending all school gatherings being the same in the two regions may probably come from the students' desire to get all facts needed for their preparation towards WASSCE. Acquiring all the needed facts help the students to pass better at the WASSCE. These passes only come about when the heads are in direct control of the schools. Some headmasters commented that similar rules operate in schools when attending school function come up.

Teachers resolved students conflict effectively

This statement was ranked by teachers from range five (5) to the maximum point of ten (10). Table 109 is the choices by teachers for resolving students' conflicts:

Table 109: Choice of teachers – students' conflict

Regions	1-4	5-7	8-10	Total
Central	0	51(38%)	84(62%)	135
Northern	0	25(46%)	29(54%)	54
Total	0	76	113	189

From Table 109, no teacher in the two regions ranked this statement in the lowest of 1-4. 38% of teachers in the Central region and 46% of teachers in the Northern region chose the middle range of 5-7 while 62% of teachers in the Central region and 54% of teachers in the Northern region selected the highest range of 8-10.

During discussions and interviews, the headmasters and teachers stated they resolved conflicts such as fights, borrowing monies and refusing to pay

back, petty quarrels and bullying of students. The teachers worked to get students to apologize to the offended. The teachers stated that the school counselors were used in cases they found difficult to resolve. These petty conflicts were not reported to the administration. Because of the secrecy of the resolutions, students felt very comfortable when not reported to the administration. Because of the secrecy of the resolutions, students felt very comfortable to report such petty squabbles to their teachers. Students trusted such teachers with secrets concerning issues such as gayism and lesbianism. In some cases the teachers added, such students were counseled and monitored so as to get them relieved of the problems of gayism and lesbianism. So, teachers resolved students' conflict effectively by posing as "parents" to the students.

In resolving student conflict effectively, teacher operated as judges and helped students to settle petty squabbles. In the organizations also, the departments are there to resolve workers conflicts. Some headmasters agreed that some teachers resolved, students' conflicts better than they (headmasters) would do for lack of time.

Economy, (2013) in his seven (7) traits of effective leadership stated that the leader ought to have integrity as worker displayed honesty, fairness, candidness and forthrightness and treat everyone in the same way. To treat all workers in the same way means resolving all conflicts among workers. Hence, Economy supported that teachers resolve all students conflict effectively. Again, he stated that the leader should support and facilitate the team. Support from the administration made it safe and less risky to tell the truth and to speak up. Facilitating the team, means resolving workers conflict as one of the

basic factors, hence Economy supported that teachers resolve students' conflict effectively.

Alabi and Alabi (2015) quoted Montgomery (2005) who stated that a two – way trust is an important factor for leadership effectiveness. Team work, specific aims, equally clear interactions, self-esteem, support system with enough resources, desire for good performance, gentleness and peaceful approach towards the opposition are very important for leadership effectiveness. Controlled aggression would mean resolving conflicts. Thus, Alabi and Alabi support that teachers resolve students' conflicts.

Yukl (1992) listed fourteen (14) categories of leadership effectiveness that included managing conflict and team building. If managers or headmasters, according Yukl et al are to resolve conflicts and enable workers or teachers provide team building, then they support that teachers resolve conflicts effectively.

Owens (2005) provided the following as key behaviors for effective leadership: being able to motivate people, having future aspiration, truthfulness and respectfulness, ability to decide quickly and ability to solve problems. So, Owens supported that the schools handle crises and resolve conflicts.

Edwards and Aboagye (2015) made five (5) recommendations for transformational leadership which lead to encouraging the hearts of others. Encouraging the hearts of others means pleasing others who have conflicts to deal with – that is conflict resolutions. Hence Edwards and Aboagye also support conflict resolution.

Hence, writers like Economy, Alabi and Alabi, Yukl et al, Owens and Edwards and Aboagye, supported conflict resolution as one important aspect of showing the relationship of leadership effectiveness and academic performance in second cycle institutions in Ghana.

Using the chi-square formula, the calculated value of 0.9539 was obtained. The chi-square table value of 5.99 at 95% level of significance and two (2) degrees of freedom was compared to the calculated value. Since $X_C^2 < X_t^2$, we accept the null hypothesis that, there is no difference between the two regions for resolving students conflict effectively. Thus in resolving conflicts of students, teachers in the two regions work the same way. This is because the same rules and regulations operate the same way in the two (2) regions according to some headmasters. Teachers acting as parents help students see each other as brothers and sisters. This control over students' activities helps schools to experience the calmness the schools expect under good leaders. This shows the relationship between leadership effectiveness and academic performance.

Using correlation analysis to confirm the differences, the maximum points of ten (10) was correlated as in Table 110:

Table 110: Choice of maximum point of 10 on rating scale

Items	Central (Y)	Northern (X)
Students attend classes on time	17	13
Students attend all school functions	27	4
Students attend classes regularly	29	11
Students always do their class assignments	15	15
Students wear prescribed uniform	19	7
Students appear neat always	23	14
Students attend church service regularly	21	18
Teachers are punctual to class	24	24
Teachers are regular to class	26	25
Teacher prepare lesson notes	26	19
Teachers give requisite assignments	19	17
Teacher mark assignments promptly	17	15
Discussion of marked assignments	24	19
Set examination questions on time	43	19
Teachers mark examination scripts	33	22
Teacher discuss students examinations	40	32
Teacher report to examination centre	12	10
Teachers resolve students conflict	27	22
Teachers attend all school gathering	21	19
Teacher contribute ideas during meetings	47	22
Teacher supervise sanitary conditions	33	15
Teachers attend developmental meetings	23	19
Teachers supervise students to obey rules	39	24

Using the correlation formula, the coefficient of correlation, $R_{xy} = 0.51$ which is 51%. Squaring for the coefficient of determination, $R^2_{xy} = 26\%$. This shows a gap of 74% of unexplained data. Hence this shows a significant difference between the two regions when leadership effectiveness is measured. This goes to confirm that there is difference in the relationship between leadership effectiveness and academic performance in two (2) regions.

Comparing results for Grade B schools

The six (6) Grade B schools in the Northern regions were compared to six (6) chose from 14 Grade B schools in the Central region. The coefficient of correlation and the coefficient of determination, r_{xy} and r^2_{xy} , respectively

would be used to compare Grade B schools. From results, in the Table 111 similar results were obtained.

Table 111: choice of the maximum point by teachers – Grade B

Items	Central (Y)	Northern (X)
Students attend classes on time	16	13
Students attend all school functions	25	9
Students attend classes regularly	49	21
Students always do their class assignments	25	15
Students wear prescribed uniforms	41	18
Student appear neat always	32	14
Students attend church service regularly	26	18
Teachers are punctual to class	58	34
Teachers are regular to class	45	28
Teacher prepare lesson notes	38	12
Teachers give requisite assignments	23	16
Teachers mark assignments promptly	45	24
Discussion of marked assignments	44	23
Set examination questions on time	55	25
Teachers mark examination scripts	35	26
Teachers discuss students examinations	52	33
Teacher report to examination centre	36	29
Teacher discuss students social problems	34	22
Teachers resolve students conflict	32	28
Teachers attend all school gathering	20	11
Teacher contribute ideas during meetings	33	20
Teacher supervise sanitary conditions	32	24
Teachers attend developmental meetings	32	21
Teachers supervise students to obey rules	33	23

Using the correlation formula, the coefficient of correlation is 73%. Squaring for the coefficient of determination $R^2_{xy} = 53\%$. This means 53% of the variables in x are explained by variables in Y. Thus (100-53), 47% of the variables are unexplained. Hence, there is a significant different between the two regions. This value of 53% goes to confirm that there is difference in the relationship between leadership effectiveness and academic performance in the two (2) regions.

Comparing results for Grade C schools

The two regions have ten (10) schools selected from 42 and 33 schools in the Central and Northern regions, respectively. The results of the coefficient of correlation, r_{xy} and the coefficient of determination, r^2_{xy} were used to compare the Grade C schools.

Table 112: Choice of selection of the maximum point - C

Items	Central (Y)	Northern (X)
Students attend classes on time	37	22
Students attend all school functions	32	13
Students attend classes regularly	35	30
Students always do their class assignments	34	18
Students wear prescribed uniforms	23	21
Students appear neat always	42	22
Students attend church service regularly	29	16
Teachers are punctual to class	41	26
Teacher are regular to class	35	31
Teacher prepare lesson notes	37	22
Teachers give requisite assignments	38	26
Teacher mark assignments promptly	41	23
Discussion of marked assignments	33	19
Set examination questions on time	42	23
Teacher mark examination scripts	42	33
Teachers discuss students examinations	37	29
Teachers report to examination centre	43	37
Teachers discuss students' social problems	21	12
Teachers resole students' conflicts	34	15
Teachers attend all school gatherings	32	20
Teachers contribute ideas during meetings	30	21
Teachers supervise sanitary conditions	27	18
Teachers attend developmental meetings	34	22
Teachers supervise students to obey rules	25	21

Using the formula for correlation analysis, the coefficient of correlation, R_{xy} , is 66%. Squaring the coefficient of correlation to obtain the coefficient of determination, R^2_{xy} , the value is 44%. This means, there is a gap of 56% of the variables unexplained. Hence, there is a significance difference between the two regions in showing the relationship between leadership effectiveness and academic performance.

Comparing the combined Grades

Combining the nineteen (19) schools in each region, the results showed similar values as in the Grade A schools. For certain items the Central region showed values ranging from 70% to 88%: student doing their assignments (79%), teachers giving requisite assignments (87%), teachers discussing examination questions after marking (75%), teachers contributing ideas at meetings (71%) and teachers supervising students to obey rules and regulations (70%) for the ranges 8 to 10. In the Northern region, however, the choice from the ranges 8 to 10 for most items began from 40% to 74%: for example, students attending classes on time (44%), students attending all school functions (42%), students wearing prescribed uniforms (41%), teachers being punctual to classes (48%), teachers being regular to class (42%), teachers giving requisite assignments to students (51%), discussing of assignments (50%), teachers setting examination questions (42%), teachers marking examination questions (48%), discussing examination questions (74%) and reporting to examination centre on time (48%).

Thus the Central region showed higher values for the outcomes for showing the relationship between leadership effectiveness and academic performance using the ranges 8 to 10 on the rating scale. Similarly at the maximum point of 10, the Central region showed higher values than the Northern region. For the Central region, percentages ranged from 20 to 40. For example, students attending all school functions (27%), students attending classes regularly (20%), neatness on part of students (23%), students attending Sunday church services regularly (21%), teachers being punctual to classes

(24%), teachers being regular to classes (21%) and teachers setting examination questions (43%).

For the Northern region, only eight (8) items had the maximum point selected with percentages ranging from 20 to 32. These included teachers regularity to classes (25%), the teachers marking examination questions on time (23%), teachers discussing examination questions (32%) and teachers supervising students to obey rules and regulations (24%).

Table 113 is the table of values for correlation for comparing the combined Grades A, B and C schools.

Table 113: Choice of selection of the maximum point – Combined Grades

Items	Central (Y)	Northern (X)
Students attend classes on time	23	6
Students attend all school functions	38	13
Students attend classes regularly	38	21
Students always do their class assignments	25	16
Students wear prescribed uniforms	28	15
Students appear neat always	32	17
Students attend church service regularly	25	17
Teachers are punctual to class	41	28
Teacher are regular to class	35	28
Teacher prepare lesson notes	35	18
Teachers give requisite assignments	27	23
Teacher mark assignments promptly	34	21
Discussion of marked assignments	34	20
Set examination questions on time	37	22
Teacher mark examination scripts	37	27
Teachers discuss students examinations	42	31
Teachers report to examination centre	36	31
Teachers discuss students' social problems	22	15
Teachers resole students' conflicts	31	22
Teachers attend all school gatherings	24	17
Teachers contribute ideas during meetings	37	21
Teachers supervise sanitary conditions	31	19
Teachers attend developmental meetings	30	21
Teachers supervise students to obey rules	36	23

Using the correlation formula, the coefficient of correlation, $R_{xy} = 0.63$, that is 63%, the coefficient of correlation. The coefficient of

determination is $r^2_{xy} = 40\%$. This means only 40% of the variables in X are explained by variables in Y. Thus 60% of the variables remained unexplained. Hence, this 40% goes to confirm that there is difference in showing the relationship between leadership effectiveness and academic performance in the two (2) regions.

Summarizing, using the ten (10) dominant factors and applying chi-squared for the two (2) regions Table 114 was obtained:

Table 114: Result of Hypothesis testing

Items	Hypothesis Relation	Accepted Hypothesis
Teachers set examination Questions	$X_c^2 > X_t^2$	H ₁
Teachers' regularity to classes	$X_c^2 < X_t^2$	H ₀
Teachers' punctuality to classes	$X_c^2 < X_t^2$	H ₀
Teachers' contribute ideas at staff meetings	$X_c^2 > X_t^2$	H ₁
Teachers' supervise students to obey rules	$X_c^2 > X_t^2$	H ₁
Teachers mark examination scripts	$X_c^2 < X_t^2$	H ₀
Teachers supervise students for good sanitation	$X_c^2 > X_t^2$	H ₁
Teachers discuss students examination scripts	$X_c^2 < X_t^2$	H ₀
Students attend all school functions	$X_c^2 < X_t^2$	H ₀
Teachers resolve students' conflict	$X_c^2 < X_t^2$	H ₀

From the ten (10) factors only four (4); teachers setting examination questions on time, teacher contribute ideas at staff meetings, teachers supervise students to obey rules and regulations and teachers supervised students to maintain good sanitary conditions, show difference in the two regions. These four (4) factors operated differently to show that the heads of schools operated differently for these four (4) factors. The teamwork in the schools differed for these four (4) factors. Teachers could set questions but not at the same time in the two (2) regions. Ideas contributed at meeting also vary

in the two regions. Supervising student to obey rules and regulations differ in the two (20 regions for the different kinds of behaviour displayed by students in the two (2) regions. Supervising students to maintain good sanitary conditions also differed for the type of sanitary facilities in the two regions.

For the six other factors, the same measures operated in the two regions. Hence, the quality of the headmasters stands tall when it comes to showing the relationship between leadership effectiveness and academic performance.



CHAPTER SEVEN

MODEL LEADERSHIP EFFECTIVENESS

Introduction

Leadership effectiveness is the accomplishment of the set goals of the individual, firm or nation. Leadership effectiveness in the second cycle educational institutions has the accomplishment of academic performance at WASSCE as the major outcome. The headmaster plans together with the management staff, teachers, parents, community members and they work to obtain good results at WASSCE. The headmaster ought to combine their democratic leadership style with the transformational leadership style. This in effect brings the headmasters to listen more to their staff and together create a congenial atmosphere to enable the school perform better at WASSCE.

The factors called determinants that promote leadership effectiveness in schools are the qualities that the teachers appreciate and therefore motivate them to work towards achieving better results at WASSCE. These factors (determinants) influence leadership effectiveness. For this research, the researcher proposes using the determinants of leadership effectiveness buttressed by the strengthening of poor leadership effectiveness to develop a model leadership effectiveness.

Model Leadership Effectiveness

Anderson, Bob and Adams, Bill (2015) provided the universal model of leadership effectiveness. They believed the complex realities of the world's business environment required that leaders accelerated the pace to develop in line. This pace of development ought to go at same pace with global change. This was the leadership Agenda for most organizations/schools. The training

of the leaders fall short of the challenges. In developing qualities for leading people very good theory and research results are gathered and applied to achieve the desired goals.

According to Anderson and Adams, the field of leadership theory and research was fragmented and after 30 years of trying to integrate them, the two men developed the universal model of leadership. This model was both complex enough and elegant enough to take on the complex task of developing leaders for the future.

Anderson and Adams, drew a circle, and divided it into four equal parts along the centre vertically and horizontally and labelled the y-axis as stage of maturity of the leader and the horizontal axis as task and relationship. Studies had confirmed that the output of the successful leader could be dependent on how well they managed task and relationships. Thus leaders who managed those two variables very well were very effective. Tasks and relationship are the only factors that show how a leader is effective.

This four-quadrant grid portrayed the universal model of leadership. According to this model, the leader could lead people to become creative in a way that engaged, empowered and brought the best out of them.

Again, the leader could also manage his people to become reactive in a way that might be people and learning centred, but gave up too much power in service so as to be liked and accepted by the subordinates. A leader could do his work in a creative manner by being purposeful and aiming at the future well-being of the organization and in a sustainable manner.

A leader could also do his task in a reactive manner such that the workers work beyond sustainable limits by being over- controlled.

Using the original model, Anderson and Adams created the leadership circle profile (LCP), which provides the leader with how well or not he is working and therefore enables him to adjust his methods to come in line with the organization's aims and objectives. 18 key creative leadership competencies which were well researched into to correlate strongly to leadership effectiveness ($r=0.93$) and business performance ($r = 0.61$) were shown on the top half of the LCP in the outer circle. An array of 11 Reactive leadership styles that implied the creative competencies and thus were strongly universe to leadership effectiveness ($r = 0.68$) and business performance ($r = -0.32$) were shown at the bottom half of the LCP in the outer circle.

Eighteen competencies was grouped into five categories in the inner circle in the top half of the model. These competencies encompass the best leadership theory and research to emerge over the last century. These five (5) categories had relating and self-awareness on the left or relationship side of the circle and achieving and systems awareness on the right or task side were arranged along the relationship-task axis. Authenticity was in the center of the circle as it was played an important role in establishing leadership effectiveness for the individual and the group.

The lower part of the circle was arranged as explained below: reactively people oriented are shown on the lower left below relating. Controlling was on the lower-right below achieving because controlling was reacting task driven. At the centre was Protection. Arranging the elements this way of mapping the inner cycle dimensions was the factor around which the model revolved.

According to Anderson and Adams, the highest level of maturity of the leader obtained above was made interviewing 50,000 managers from the world as to the type of leadership that would promote the business of any organization to prosper in the market place now and into the future. The resulting optimal leadership profile had strong scores in the top half and low scores in the bottom half. The scores in the LCP depended on the distance of the point to the middle of the circle. Highest scores are in the form of percentages and this is in relation to the work group, extended far out from the centre. Low scores in the LCP originate from the middle of the circle. Leaders with the highest level of leadership were highly creative with low reactive scores. It has firm and unshakable Task-Relationship abilities. Different people of the world might have similar positions when the maximum level of leading people are considered.

Anderson and Adams emphasized that their research showed proper and stable ways of showing leaders who practice influencing others to help achieve results and this was highly dependent upon the stage of development of the leader, providing the first position on the inner circle for leadership effectiveness. As the creative stage of leadership matures, extra ordinary ability also shows up and this has two arms of efficiency and awareness, the inner and the outer games, mastery and maturity. The universal model of leadership combined the best of laid down rules and ways of managing organization who are improving from training they received on leadership.

The findings proved that training of leadership effectiveness was for a life time. The process of developing extraordinary leadership and extraordinary persons were the same. Efforts ought to be long-term and

systematic, individual and collective. Efforts to develop leaders ought to combine the inner and outer games of leadership, otherwise the leader is not likely to succeed. The process of building extraordinary leaders, who were capable of successfully leading in today's complex global business environment, ought to place equal emphasis on developing efficiency and awareness. Both the inner and outer games ought to be improved together. It was the laid down principles of developing individuals and group to position.

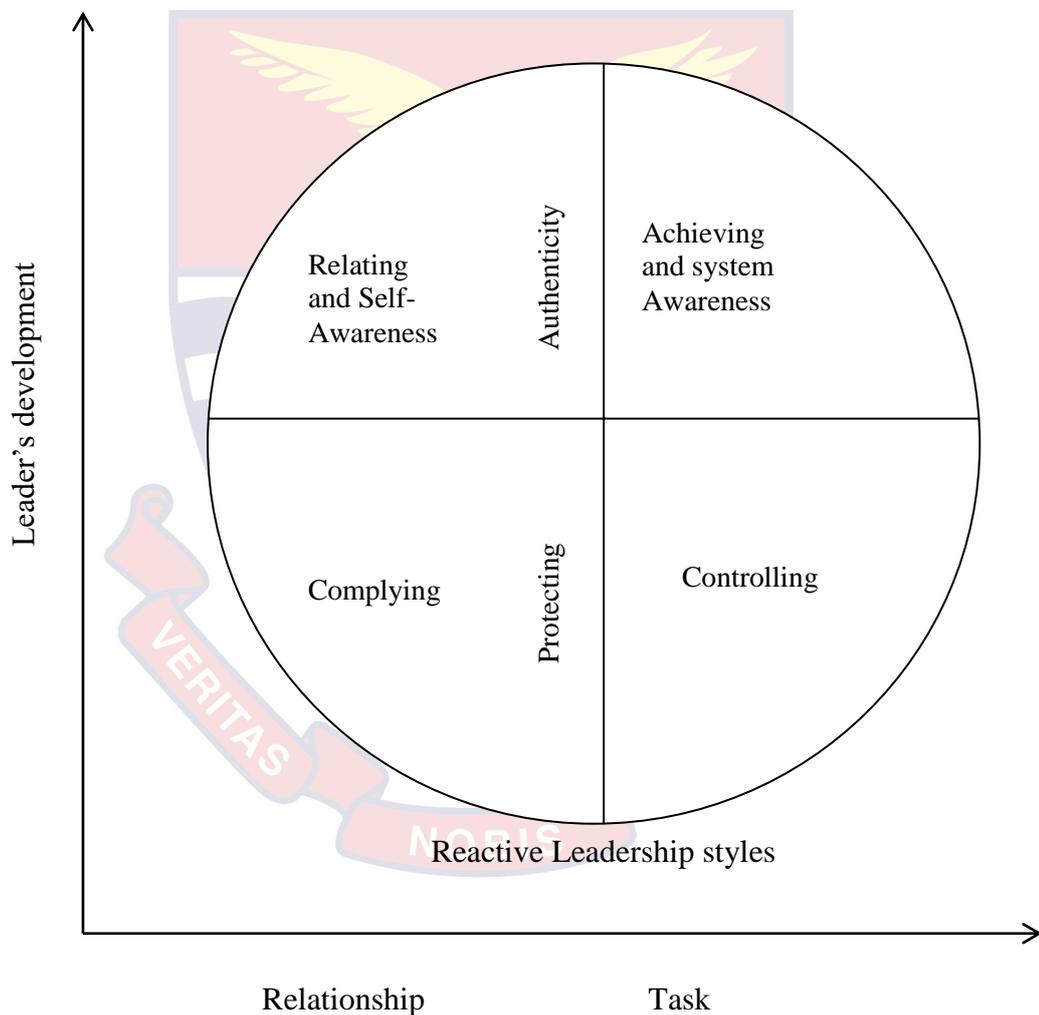


Figure 7: Creative Leadership Competencies

Desmidt, Bernard wrote on three perspectives of developing leadership effectiveness.

1. “Whole brain” leadership: In the ‘80’s and 90’s effective leadership emanated from technical left brain leadership skill. Many thinkers believe that business analysis, financial literacy, planning, process improvement, systems thinking and work flow management comprised leadership. These, however, were not enough to engage followership. Since the mid 1990’ the thinking has shifted emotional “right brain” traits, like creativity, empathy, humility and intuition. For the success of organizations, Desmidt suggested that the “left brain” leadership be replaced with “whole brain” leadership. Daniel Pink in his book, “A Whole New Mind” stated emphatically that the “left brain” capabilities, if not changed could not stand to portray creativity, intuition, humility, and emotional intelligence that would lead him to success.
2. Leadership was about change. Desmidts stated that management is about stability and obtaining results for now, whereas leadership is about change and achieving greater results beyond now. Desmidt used a four-step change model to display constructive change. He stated that the leader should be aware of the situation to be addressed, the opportunities for improvement or the dissatisfaction with the status quo. Awareness, according to Desmidt, preceded change. The second step was the leader’s understanding of the new thinking, mindsets and beliefs that he needed to adopt in order to change the situation.

Our thinking determines our behavior. Thus, changing our behavior requires adopting different thinking patterns beliefs and mindsets. Once one changed

his thinking, one could adapt his behaviour and by so doing, achieve the desired outcome.

3. Desmidt stated his third perspective as leadership is principle centered. He stated that the four principles of effective leadership represented the mindsets, language, skills and behavior of effective leadership. He added that these four principles should be applied at all times and in all places. According to Desmidt any leader who modeled these principles would enable him to succeed as a leader. He concluded that if leaders helped others to follow the four principles it would entrench leadership as an organization capability, enabling all to succeed.

Hence, the leadership effectiveness model was to help those who are performing poorly or help those who are doing well but could do better in future. So, a leader is one who along with his entire team takes the project to a new level. There were different leadership effectiveness model which can help one take the right path to achieve the success ladder and improve the business reputation.

Various models of leadership effectiveness have been developed by various writers. There were ten (10) important leadership models that made one a successful leader. In 1970, the servant leadership model was published and was quite popular. Businessmen followed the directions provided in the model to better their investment. In the model, one has to focus on the needs of their subordinates before one considered his or her needs. The job of the one following this model was to acknowledge the perspectives of other people and supporting them in achieving their goals in the right manner.

In this model, the leader involved the followers in decisions, where the followers' opinion mattered. The better the teamwork the better it led to innovation. Such leadership model totally depended on how the leader behaved with the team members for the long time. This model did not work in structured environment. Such leaders have to work hard to earn respect.

There was also the Autocratic model which showed tremendous progress among different customers. It was one of the types of transactional leadership where the leader has a good power and control over his/her team. With this type of model, staff members have limited option to suggest or comment on what it would be best for the team. Such model gave incredible results such as easy decisions making and efficient solutions. It provided high chances of absenteeism with a good turnover of the staff. Applying this model among members of the business require unskilled native job. Thus it can be applied in crises situations that required quick solutions. Such models are applied in the military where top commanders made complex decisions. This allowed the troop to focus performing the tasks allotted and mission to be achieved. With such one applied it when harsh decisions were made for the betterment of the organization.

There was also the transactional model where the follower was rewarded for performing certain tasks to perfection. Failure to perform to perfection leads to punishment for the follower. Both the manager and the team members opted for goals which they work harder to achieve. Transactional leadership included more managerial powers. In this wise, the manager reviewed the result, trained the employee and then provided rewards when the desired benefits are attained. This reward could be anything from

bonus to increment in wages or salaries which would motivate the worker to perform better in the organization.

This type of model worked better with senior members and staff. This form of leadership model has two ways of communication and appears to be the best option, so far. To achieve effective result, the leader needs to create a strong emotional bond with the organization members and follow the agenda that people came first before anything else.

There is also leadership which is Task-oriented which is a little different from autocratic leadership. This model requires the worker to complete the tasks and demands that the worker be alert and active. The followers should participate and complete their desired leadership roles in the right manner. The organizational leader ought to manage and monitor the work to transform the performance standards.

There is also the leadership which is like the transformational model. In this model, the leader ought to encourage the workers to be energetic. The focus of this model is for the leaders to motivate the employees to move forward the right goals. The model creates team spirit, commitment and excitement which prove to be lot more beneficial to the organization. Between the transformational and charismatic leaders, the difference is the intention. While the charismatic leader focuses on themselves and may not change other things, the transformational leader transforms the team and organization. This model has its advantages overcoming the drawbacks.

There is people- leadership model which focuses on supporting, organizing and creating the people in the team. This model requires participation of both the leader and the employees. Followers are encouraged

by the leader to team up strongly to achieve the goals. This is completely opposite to leadership which is task oriented. This form of model requires the leader's total involvement. He advises and assists the team members as needed. The leader in this model ought to carry a friendly approach and pay attention to the employees involved in the tedious tasks. The outcome of the project depends solely on the decisions of the charismatic leaders. When their decisions are positive, it becomes beneficial to the organizations. It can also be expedient to rely on others for good advice. People who take up such leadership role have to be committed to the organization to guide employees in the way it is planned by the leader.

Under leadership model called Transformational, the leaders have to be well schooled, highly qualified and be able to inspire workers. This model is mostly used in the business situations. This model has right goals set by the leader and this promises good productivity and better results. Followers who are not right may create misunderstanding. Organizations going by this model fuse it with the transactional model for maximum benefits.

Under the leadership called Laissez-faire model, followers were free to operate as they wish. In this model, the manager has no much control over the workers. This type of leadership model has workers completely using the freedom they have, no matter their position in the organization, whether trainee or manager. The leader employing such model has to monitor the performance and from time to time provides feedback to the subordinates regularly.

Under leadership with a democratic model, members or subordinates have their opinions heard in the final decisions of the organization. Thus the

followers are allowed to provide the creativity and talents they possess for organization growth. Under the democratic model, subordinates are provided with job satisfaction and this leads to better productivity. This model's only hindrance is when quick decisions are needed for any critical issue or where the manager needs quick solution to problems of the project.

Another popular leadership model is the Bureaucratic model, which is more applicable in both small and large scale businesses. Although this model has safety risks, results have been positive. These leaders make rigid rules and ensure that their followers apply or work according to the rules. This model is applied when the tasks are associated with toxic substances, machinery or any sort of dangerous height. Companies employing extreme flexibility or creativity do not have to employ this model, as it requires clear directions and management.

From these models, employee motivation and needs are valued by the leader. For successful business implementation valuing employee's needs is very important. These models so far have given positive result to business of different sectors. Its implementation can be monitored by the revenue the organization generates after following any of the models. Any leaders employing such models have to organize departmental meetings, focus groups and one-to-one meetings for the workers. This enables the leader to appreciate what the subordinates hold as his values, vision and goals for the business in the right possible manner.

However, for the research, the model leadership effectiveness looks at the determinants that promote effectiveness and shape up the weakness of the leadership effectiveness.

Various writers have provided various factors as determinants of leadership effectiveness. Kemps (2006) provided six (6) key leadership effectiveness factors which are to establish trust and demonstrate integrity. Other factors are to set clear directions, grow relationships, focus on results, cultivate capabilities and promote innovation.

Under trust and integrity, the leader displays authenticity and honesty. He takes decisions in matters of principle and does what he or she says would do. The leader speaks from what he or she has seen and worked with rather than other people's opinion. The leader safeguards disturbing discussions.

To provide clear directions, the leader ensures clarity, simplicity and consistency in setting goals. He takes initiatives and strategies and enables individuals to see how their efforts directly related to the organizational objectives. The leader also deploys the needed people at the right places and eliminates low pay off efforts. This leader provides exact and compelling oral and written information and involves and engaged others in the right places and efficiently in making goals.

To grow relationships, the leader actively listens and inquires for understanding of issues and persons. He consistently demonstrates genuine respect and value for others and sees people as individuals rather than resources. The leader takes the resolution for misunderstanding and resolve conflicts. He demonstrates value for unstructured dissent and suffering point of view and seeks opportunities to build cross functional relationships and networks. He encourages open communication and inclusion in decision/planning.

On focusing on results, the leader tracks progress towards objectives and holds others accountable for their results. He exhibits great perseverance in removing or overcoming obstacles and effectively employs available resources to ensure success. He uses a systematic process to learn from and shares success and failure and he recognizes achievement on a regular basis and celebrates successes. The leader balances both short and long term goals and aligns them with organizational goals.

In cultivating capabilities, the leader consistently and accurately assesses the performance of others/ self. He provides/ seeks constructive feedback through coaching and mentoring and seeks/provides assignments and experiences from career development. He self-assesses and develops personal capabilities to meet job challenges and identifies, repositions, hires, orients and engages qualified personnel. He identifies workers who are not performing and works to help them improve or remove them.

To promote innovation, the leader seeks, encourages and works on new ideas and rewards. He benchmarks current practices against better methods and pursues the implications of changes that will affect the organization. He welcomes divergent perspectives and diverse views and seeks out new ideas and better information.

Montgomery (2005) stated that a two-way trust is important for leadership effectiveness. Teamwork, clear objectives, equally clear communication, self-belief, back-up with adequate resources, insistence on good performance, humility and controlled aggression towards the opposition are the other factors important for leadership effectiveness.

Yulk et al (2004) listed fourteen (14) categories of leadership effectiveness. These are planning and organizing, problem solving, clarifying, informing, monitoring, motivating, consulting, recognizing, supporting, managing conflict and team building, networking, delegating, developing and monitoring and rewarding.

Alabi and Alabi (201) stated the competences influencing a Dean's leadership effectiveness are; future aspirations and ways of improving the organization. Other competences are condition of service, performance, monitoring and evaluation system, correct information, results of goal-oriented, team skills, follow-through and follow-up, decision-making, negotiation, conflict management and problem solving. Other competences are quality assurance and documentations and record management, develop and communication job descriptions, annual work plans and appraise performance of faculty members, management systems and focus on improving, teaching, learning, research and community service, competence of members, project management skills-using goals, milestones and control mechanisms to measure and manage performance as well as human resource management skills.

Bryman (2012) in a research on leadership effectiveness listed four (4) most prominent aspects of leadership roles which are that the leader ought to be visionary, an internal advocate (promoting the department to internal audiences), an external liaison (advancing the department through contacts with external constituencies) and treating faculty members with respect.

The leader ought to have the ability to say 'no' when necessary and be enthusiastic for the department, able to handle difficult people, possess a

strategic vision for department. The leader ought to be able to foster a collegial department, distribute faculty work equitably and personal carriage, especially the possession of the key attributes of integrity, honesty and fairness.

From above, it is realized that different writers listed different factors for leadership effectiveness. These factors or determinants when coupled with the solution to the weaknesses of leadership effectiveness would definitely, all things being equal ensure good results of leadership effectiveness.

For the schools, the headmaster would achieve their visions and educational or academic results would improve for the better and thus enable the country to produce better replacements for the aged who leave schools, offices and industries on retirement.

The weaknesses of leadership effectiveness as stated by Morgan include:

1. **Leaders leading without love:** According to Rick Warren, leadership without love is manipulation. Simply put, leadership through fear and force never lasted in the long run. According to a research conducted by the Hay Group on leadership effectiveness for over 500.00 leaders, they realized that up to 70% of a team's climate is determined by the leader. Leaders creating high performing climates have broader range of styles in which authoritative, affiliative, democratic and coaching were dominant. With all range of leadership styles, without love for the subordinates, the leadership would fail to achieve unity and so fail to increase productivity and in the schools, without love from the headmasters, the staff would be divided as those who found favour with the headmasters work better and those who do not receive love from the headmasters opposed all decisions from the headmasters. By so

doing, the process of discipline would be brought down and academic performance would consequently come down.

Thus the leader showing love to the staff promotes discipline and invariably helps to raise academic standards in the schools.

2. **The leader's failure to serve:** strong leaders do what needs to happen. They do not refuse a task because of their position or title. They lead through serving which sets ultimate example for those they lead. According to Greenleaf (1970, 1977), the servant leadership dwells on serving the subordinates. The servant leader is to be attentive to the concerns of their followers, empathize with them and nurture them. They put their followers first, empower them and help them to develop their full personal capacities. They are ethical and lead in ways that serve the greater good of the organization, community and society at large (Northouse, 2016).

Spear (2013) among his ten (10) characteristics for the servant leader, stated that the leaders support the followers by helping them to overcome their personal problems. This obviously has to do with serving. In the school systems, the leadership who serve better has the support of the staff which in turn, encourage the staff to put in their best to help raise standards like hygiene, social and academic pursuits. The servant leaders help to build community. They share interest and pursuits and feel a sense of unity and relatedness. Thus they provide a place where people feel safe and connected to others but are allowed to express their individuality. Hence, the headmasters, who serve better, provide the enabling atmosphere for the staff and this trickles down to the students, who are then taught better to produce better academic results at WASSCE.

3. **Leader with bad attitude:** Attitude, according to research, is contagious. The leader who has bad mood and drips with negativity gradually develops a team with the same attitude. According to Perry (2001) and Beaver (2003), poor leadership practices cause the failure of business. Beaver (2003) studied the records of 200 bankrupt businesses and concluded that the businesses failed because the leadership lack knowledge of the businesses. Pellerin (2007) in a study of small business found out that 62% of such businesses failed in the first three years after establishment. He further stated that 90% of such business collapsed in the ten years of establishment. These failures are due to poor leadership and management skills (Scheers and Radipere, 2007).

Alidrisi and Mohammed (2017) worked on competencies that influence safety leadership behaviours. They agreed that it depended more than simply on performing the leadership behaviours. They proposed that the leaders ought to know when and how to execute behaviours besides knowledge (Mumford et al, 2000).

In the school set-ups, a headmaster who displays bad attitudes to work has the support of lazy teachers who do no better work in the school. These teachers serve as spies for the head, who is always fed with lies. These spies create a haven for themselves and report on teachers who perform better and speak to correct the wrongs of the heads. Such systems do not produce any meaningful results for the schools. Bad attitude to work on the part of the head would be emulated by the lazy teachers who report to classes only when they hear of action by the heads during supervision. Thus heads with bad attitude to

work must do well to change, so that the staff would emulate the good deeds and work to raise standards in the school.

4. **Leaders being too busy:** A strong leader should never be too “busy” for a task that requires their attention. Of course, successful leaders know how to delegate certain tasks to their team but have time for emergency cases. According to Kemps (2006), a leader ought to establish trust and demonstrate integrity. Such a leader displays authenticity and honesty in the place. He demonstrates courageous and respectful stands on matters of principles and so undertakes his work perfectly and never seem too busy to operate when and where needed. He also does what he says. He speaks from evidence and experience and does not rely on opinion.

To speak from evidence requires one’s presence in the workplace at all times and doing one’s job at all times. Thus, there would be no room for being too busy to depend only on opinions of other workers.

Peter Economy (2013) also stressed on the need for a leader not to be “too busy” when he asked leaders to support and facilitate the team. Supporting and facilitating the team requires a leader who is always at post and on the job. Thus the leader would not be “too busy” in supporting and facilitating the team.

Catey Hill (2009) suggested that the leader should be prepared for commitment to his vision, collaboration, planning and practice to follow on assignments and directions. Thus such a leader would not be “too busy” to follow on his vision. The commitments of the leader put him in a position to work at all times and employs delegation of responsibilities from time to time.

The leader has to follow up on every assignment that was delegated to the subordinate.

In the school system, the headmaster being “too busy” to perform would have partial support from staff. Thus to achieve his vision of promoting the school and producing holistic students, the heads ought to be ready to perform their duties at all times, except in sickness. Leadership by example is an adage teachers admire so much and this works in all schools. Where the heads perform creditably well, the staff also gives of their best. Achieving good results, therefore, stems from the head’s responsibility with their work and so gets the staff to work harder for students also to perform.

5. Leaders who expected results from what they knew instead of what they did: Writers agreed that college degrees and fancy job titles were no guarantee to success. A stronger leader should be knowledgeable.

According to Okumbe (1998) leadership includes the achievement of the tasks, which is the objective of the organization and the provision of the needs of the workers, which is the development of the working class. Thus from Okumbe, leaders expect results from what they did and not what they knew.

Balunywa (2000) stated that leadership pursued quality academic results in schools, because it did not only supervise the work to be done by both teachers and students and who to execute the jobs. Leaders also worked to make sure that workers who excelled were appreciated and those who failed were reprimanded. The leader also looked at the level of salaries for each worker and worked to improve the conditions of workers as well as

cooperation of workers. Again, Balunywa (2000) made it clear that it was the accomplishment of the tasks by the leader and not what he knew.

According to Taherdoost et al (2016), effective leaders made success of weak business plan. Thus effective leaders ought to be developed using a consistent latent management programme. In effect, Taherdoost also supported that leaders take part in the tasks of the organizations and expect results out of their performance and not what they knew.

In the school system, the heads rely on performance of the tasks (teaching and learning) and not what they know. Hence, the heads take time to scrutinize the lesson notes of teachers and also the methodologies employed by teachers. Thus the heads perform the tasks assigned to them as heads. It is in accomplishing the tasks that results are reaped in examinations. Thus heads would expect results from the task undertaken and not what they know.

6. **Leaders relied on titles to lead:** A true leader does not need a title to earn the respect of his team. Leaders who overtly focused on their title to earn the respect of his team have little else to stand on. In any job situation, competence in the job is the first requirement. Thus, the lecturer may know his subject and deliver to perfection.

According to Cherulnik et al (2001), leadership effectiveness is all about how well the leaders functions. Thus in organization, leadership effectiveness promotes profit, motivated followers-being and keeps the good name. Studies have shown that effective leaders influence leadership effectiveness (Baba & Jlies, 2006; Gaddis, Connelly & Mumford, 2004). Thus Cherulnik et al agreed that leaders perform to keep their companies sustained. He did not even mention the use of title.

Catey Hill (2009) also supported that leaders exhibit leadership traits by being passionate about the organization and exude confidence in his abilities. The leaders organize and make sense of complex situations maintain high standard and inspire others to do the same. They motivate and inspire employees and are generally seen as persons of vision. Here, again, Hill never mentions titles in the organization or the leadership traits expected of leaders.

In the school system, only competent teachers pass interviews and are promoted to head schools. Titles are never employed by the heads to promote teachers to positions such as Senior Housemasters/mistress, Heads of Departments, Guidance coordinators and finally Headmaster/mistress. Though in the school system, only those on the rank of Deputy Director are appointed as Headmasters. So, titles do not matter in the appointment of persons, it is competence that mattered most.

7. Leaders who buried their heads in the sand: A leader who does not deal with reality leads to failures in the organization. These leaders know what is going on but pretend not to see this reality. They expect some work from other people to achieve the success needed. Thus the reality is lost as no one else performs the tasks to achieve success. Thus, real leaders perform to make things real.

Kemps (2006) stated that leadership effectiveness thrives on clear directions. The leader sets clear, simple and consistent goals. The leader takes initiatives and puts in place strategies to improve the organization. The leaders also enable individuals to see how their efforts directly relate to the organizational goals or objectives. The leaders deploy the right people to the best opportunities. He eliminates low pay off efforts and provides consistent,

clear and compelling oral and written communication. He involves and engages others appropriately and effectively on setting directions. According to Kamps, leaders have to face reality to achieve his goals or objectives.

Catey Hill (2009) also believes the leader has to develop a vision and social goals. Workers know the group's vision and that of the individuals. These visions are promoted by the leaders who see reality in the vision and works to achieve the goals of the organization. So Hill does not agree that the leaders should bury his head in the sand.

Rebecca Hourston (2013) wrote on seven (7) steps to a truly effective leadership style. She mentions the leaders ought to be true to himself. These leaders ought to have genuine passion and pride to create a fast-track to building connection and trust. Integrity, authenticity and walking one's talk are the cornerstone to building great internal and external relationships. These factors have to do with reality as the leader strives to achieve success. Thus, Hourston is stressing on working on reality and not burying one's head in the sand.

In the school system, every aspect of teaching and learning has to do with reality. There are no abstract aspects of teaching or learning as students are taken through reality (methodologies) that make teaching easier. Hence, heads have to work harder to achieve real results.

8. **Leaders feared to create leaders:** Too many leaders are afraid to create leaders, simply because they fear to lose their positions to someone else. This scarcity minded thinking causes leaders to lose sight of what is important and needed by the organization. It is only great leaders who create more leaders.

Kotter (2002) defined a leader as one with a vision, strategies to achieve the vision, and was able to employ his followers to achieve the vision, despite all obstacles and was able to groom new leaders to take over the role of leadership. Kotter believes the current leader must train more leaders for the future leadership.

Hoerr (1996) believed that training teachers in collegial leadership skills promotes the success of the instructional role of school leader. He added that such trained teachers become the future school leaders. Team building skills acquired by teachers during their training enables them to become more effective leaders in the future.

Harbison et al (1964) stated that acceptance has been given to education as an investment in human capital. Economists agree that schooling and training boost consumers' lifetime earnings, their social skills, perceptive powers, task-performance levels, ability to communicate and opportunities for advancement. All these are to train more leaders, contrary to leaders who refuse to grow leadership.

Singer (1964) supported the importance of human resource development. He argues that it is only when the workforce at all levels was sufficiently literate, educated, trained and mobile to take advantage of new advances in techniques and organization of production that the creations of a built industry of progress become possible.

Harbison et al, and Singer supported the view of training more leaders as opposed to the deficiencies to leadership effectiveness where leaders failed to create leaders.

In the school system, schools have succession plans developed by the old students and the missions that partnered the government. This tells us that training more leaders goes to help the schools. Non-mission and community schools rely on the government for the supply of headmasters/mistresses. The old students of such schools do lobby for old students to head their schools. Thus the school system trained successors of the heads and that make teaching and learning enhanced as no struggles are encouraged between aspiring candidates for leadership.

9. Leaders lacked enthusiasm to lead the followers: Giving instruction to followers is one thing and follower complying with such dictates from the leader is another thing. Great leaders are often enthusiastic about their organizations and so work to get his/her team to follow up.

Ocheta (2007) blamed Africa's poor economic development on the weak leadership. He stated further that Africa leaders lacked the capacity (enthusiasm) to adapt or translate ideas acquired through learning to address Africa's development challenges. Any of such leaders may be seen as being mere heads of state. Their followers take up the development projects to make gains for themselves. No wonder the renovation of three classroom unit blocks cost GH¢180 million while putting up the same three classroom unit block cost GH¢200 million, in Ghana.

Agezo (2010) researched on female principal leadership practices that are considered crucial in the effectiveness and improvement of schools and school administration in Ghana Junior Schools. Agezo realized that the heads created a work environment that encouraged creative thinking designed and implemented new and cutting edge programmes and challenged the status quo.

These challenges come from enthusiastic leaders who work to improve the system that came to meet. They are encouraged to advice their goals and thus team up with their followers to reach the goals.

Christian Boateng (2012) wrote and suggested that leadership programmes be designed for the preparation and in-service training of vocational technical leaders. The principals are perceived to be effective in the overall performance of their leadership style using a combination of transformational and transactional leadership style in the execution of their duties.

Boateng stated that the heads exert their influence inside the institutions better than outside. They are more enthusiastic with their work inside the school. He advised that principals capitalize on their influence outside of the institutions to build partnership, mobilize ideas, resources and support for the programme and products of the polytechnics, thus furthering the objective of vocational technical education in the country.

In the schools, heads who are enthusiastic about their work have support from the more hardworking teachers. In so doing, the disciplinary measures improved so also the teaching and learning leading to better academic performance at WASSCE.

10. Leaders who delegated responsibility also with the task:

Leaders who do so never achieve any success for at the time of expectation the subordinates fail to work. Delegation was part of any efficient leader's day. The problem is when the leader does not do any follow up to check the execution of the duty by the followers.

Sashkin (2003) supported that achieving results through followers require more than the leader's personality. Lav Tzu (as recorded in Sashkin, 2003) concurred that leaders who practiced leadership effectiveness work less or become great. He supported that followers are involved in the tasks of the company and the leaders follow up to supervise that the job has been done to satisfaction.

Northouse (2007) defined leadership as a process whereby an individual influences a group of individuals to achieve a common goal. Achieving the common goal requires supervision of the followers. That is getting the followers to work to completion of any tasks they are assigned to. Thus the leader seeks to see the accomplishment of all given tasks by the followers.

Alidrisi and Mohammed (2017) opined that in the construction sector, the leader works to raise a high level relationship with their followers. This relationship is characterized by openness, honesty and trust. With openness, honesty and trust, the leader would gain the maximum support from subordinates, all things being equal all jobs would be executed to the very end.

Thus Alidrisi and Mohammed believe building a high level relationship with their followers enables the leader to delegate responsibility and to follow up to see the completion of the tasks assigned to the followers.

In the school system, the heads delegated responsibilities to trusted teachers. These trusted teachers perform to perfection, to remain in the good books of the heads. The heads supervise, at times through the assistant headmaster/mistress. Thus heads always got the jobs done to completion when they delegate responsibilities. So putting the determinant and the suggested

improvement to the problems of leadership effectiveness together, the model leadership effectiveness is designed as in Figure 9;

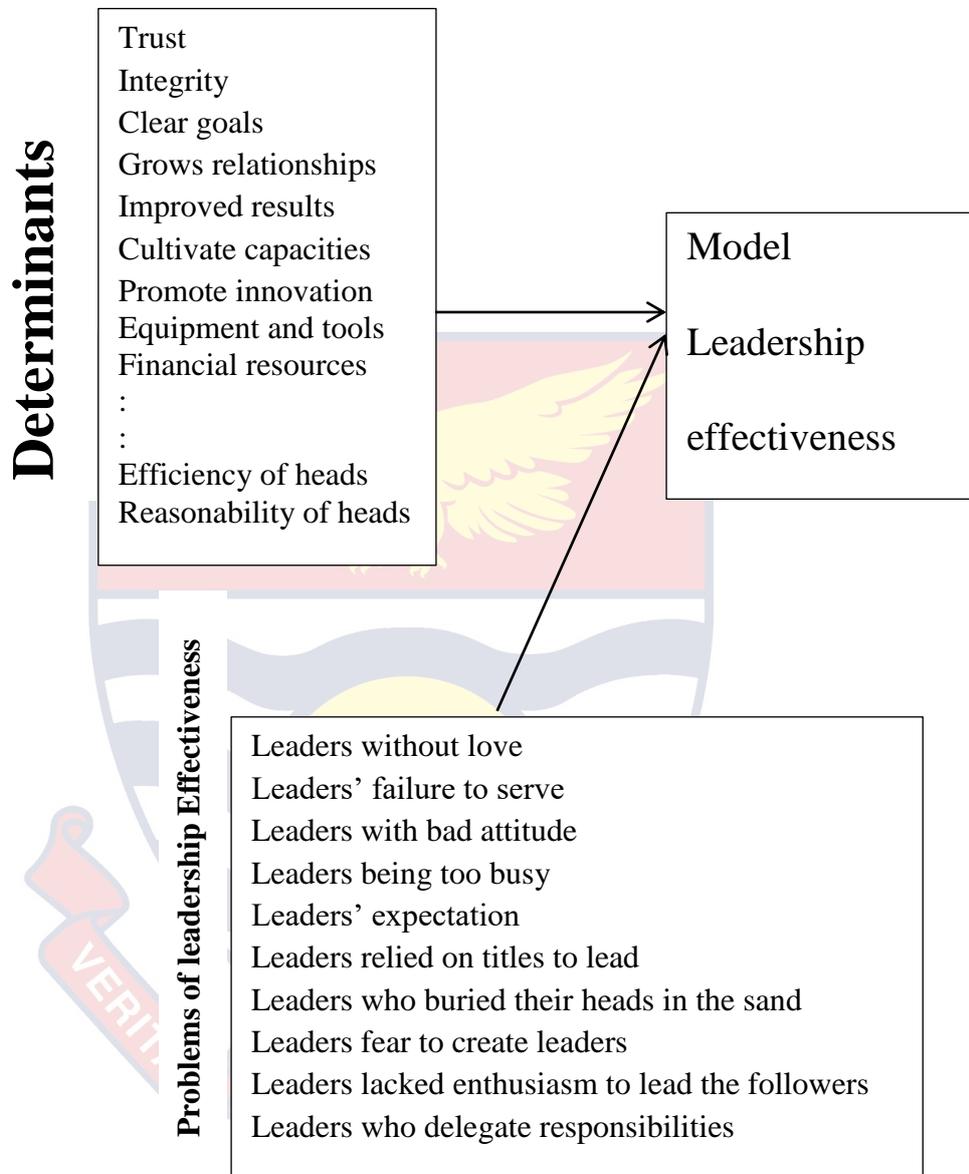


Figure 8: Model Leadership Effectiveness

Sources: Research Result

CHAPTER EIGHT

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter covers summary of the findings from the analyses, the conclusions distilled from the summaries and the recommendations that flow from the conclusions.

Summaries of Findings

The findings according to the specific objectives are as follows:

The assessment of the state of leadership effectiveness and academic performance in the two regions hinged, on the democratic style of leadership. The level of leadership effectiveness is at the lowest level and yet to be developed, as few headmasters have received training as headmasters especially in financial management (Commonwealth Secretariat, 1993). However, some schools in the Northern region used the autocratic style of leadership, to protect their headship. Teachers, students, the leaders of the non-teaching staff, in the democratic style of leadership areas all take part in decision-making processes of the schools, unlike those in the autocratic style of leadership areas. The heads who employed democratic style of leadership in their schools believe in team achievement, have a great deal of affection for staff and cared for the needs of staff, students and the schools. The heads put in measures to improve the schools conditions so as to promote leadership effectiveness.

In showing the relationship between leadership effectiveness and academic performance the outcomes of teachers and students activities showed improvement. Teachers put in their maximum effort to ensure a good

learning atmosphere while students took serious notes of lessons, class assignments, homework and project works. The spiritual aspect of attending church services also showed improvement.

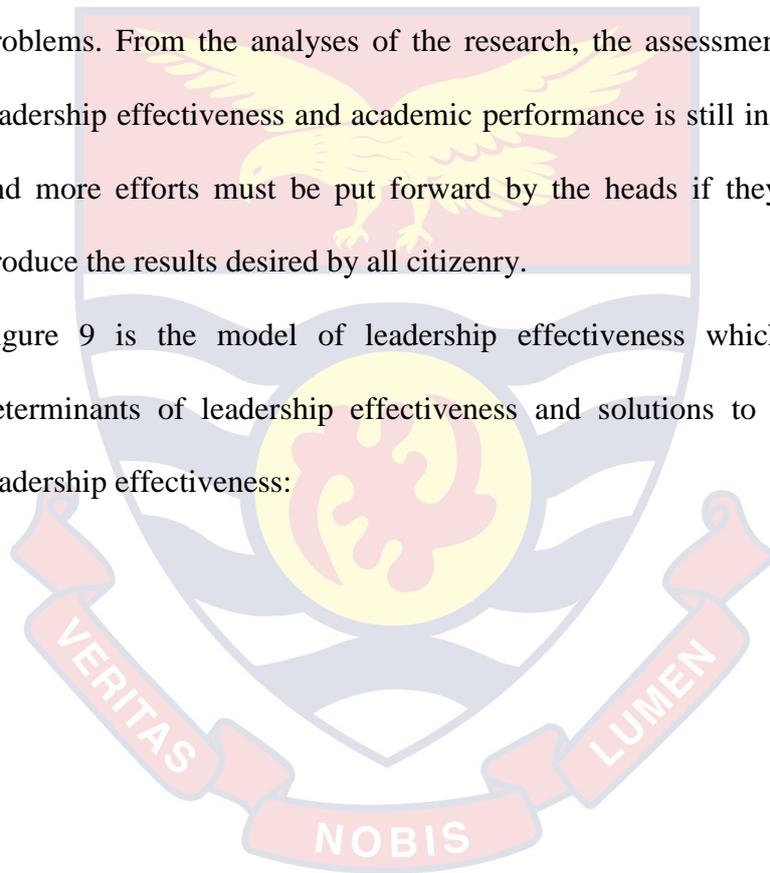
The determinants of leadership effectiveness which generally hinged on the activities of the heads, according to the research analysis showed improvements. Twenty-one factors were regressed in batches of seven and using $P < 0.05$, nine major factors were selected. These nine factors were dropped one after the other, while the remaining eight factors were regressed. Different equations were obtained. The regression of the nine factors dropping each factor, one after the other show effective supervision, providing innovations, being strict; being careful; growing good relationships, trust; effective policy framework, being reasonable and motivation in order of sizes of coefficients as being the major dominant factors.

In showing the relationship between leadership effectiveness and academic performance, the outcomes of teachers and students activities showed improvement. Teachers put in their maximum effort to ensure a good learning atmosphere, while students took serious notes of lessons. Teachers working under democratic heads performed better than teachers who worked under heads who used the autocratic style of leadership. For most of the activities of teachers and students most teachers chose the highest grade of 8 – 10. This means in the range of 80% to 100%.

The model leadership effectiveness would promote better leadership styles in the schools and so go to improve academic performance. This model uses the dominant factors of determinants of leadership effectiveness and put in measures to correct the factors which promoted poor leadership

effectiveness. Combining the two sets of factors, the model leadership effectiveness is obtained. On ways of improving leadership effectiveness teachers during interviews and focus group discussion suggested periodic appraisal, on the job training, signing performance contract, expanding the concept of school leadership, adjusting policy and working conditions, special car loans. These they believe would take off some burden off the heads so that they concentrate on the school work as the ministry takes care of their problems. From the analyses of the research, the assessment of the state of leadership effectiveness and academic performance is still in the infant stages and more efforts must be put forward by the heads if they would want to produce the results desired by all citizenry.

Figure 9 is the model of leadership effectiveness which combined the determinants of leadership effectiveness and solutions to the problems of leadership effectiveness:



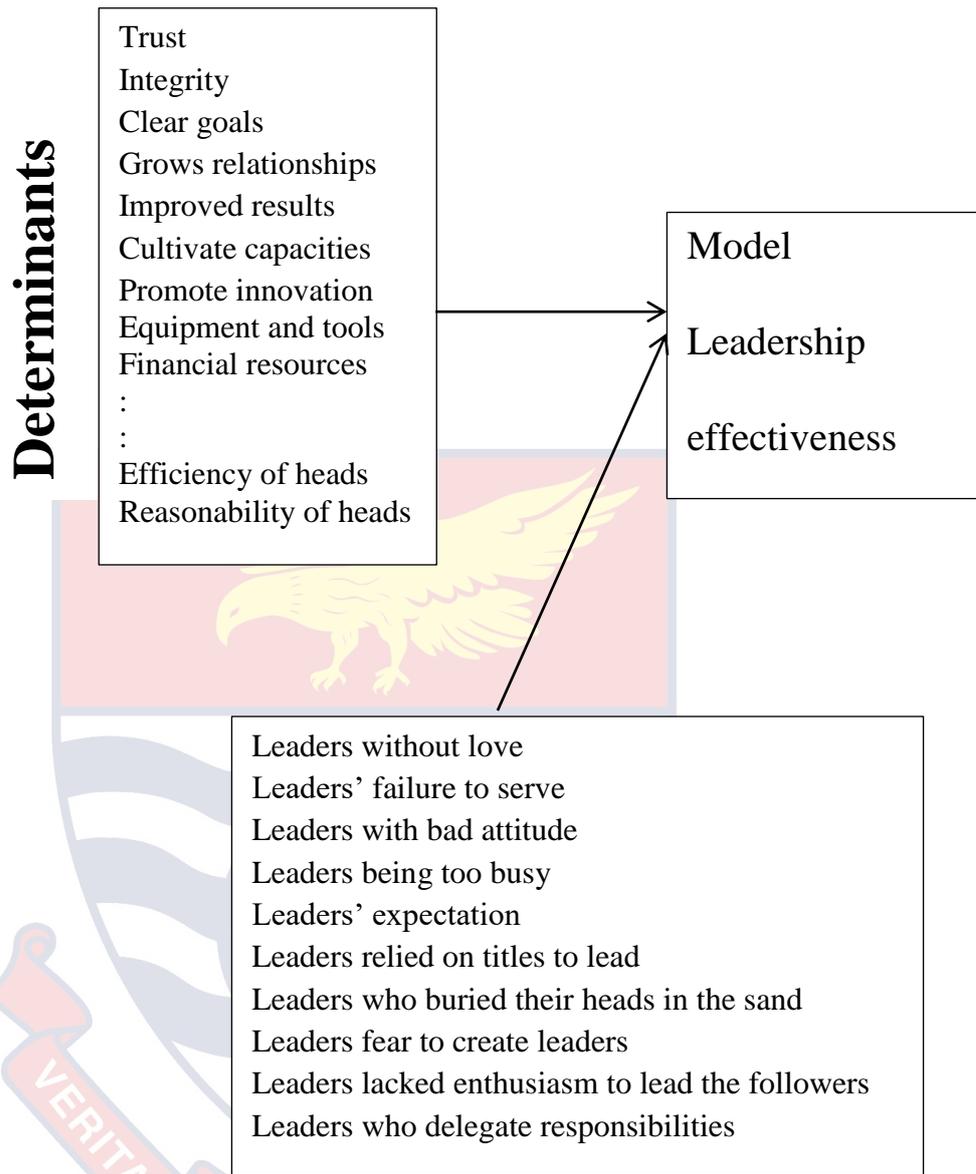


Figure 9: Model Leadership Effectiveness

Conclusions

The analyses showed similar trends of results for the Grades A, B and C schools. In all results, the Central region was ahead of the Northern region as more teachers in the Central region chose the highest ranking of 8-10, to assess their heads. The chi-square analysis in most cases rejected the null hypothesis that there is no difference in the two regions for the alternate hypothesis, H_1 : there is difference in the two regions.

The following conclusions were drawn from the research:

- The democratic style of leadership is used in the schools.
- Team achievement is ensured in all schools.
- Teachers' outcomes have improved.
- Effective supervision is the most dominant factor in leadership effectiveness.
- Students' outcomes are on the ascendency.
- Heads ensure better collaboration with staff, students, parents and community.

Recommendations

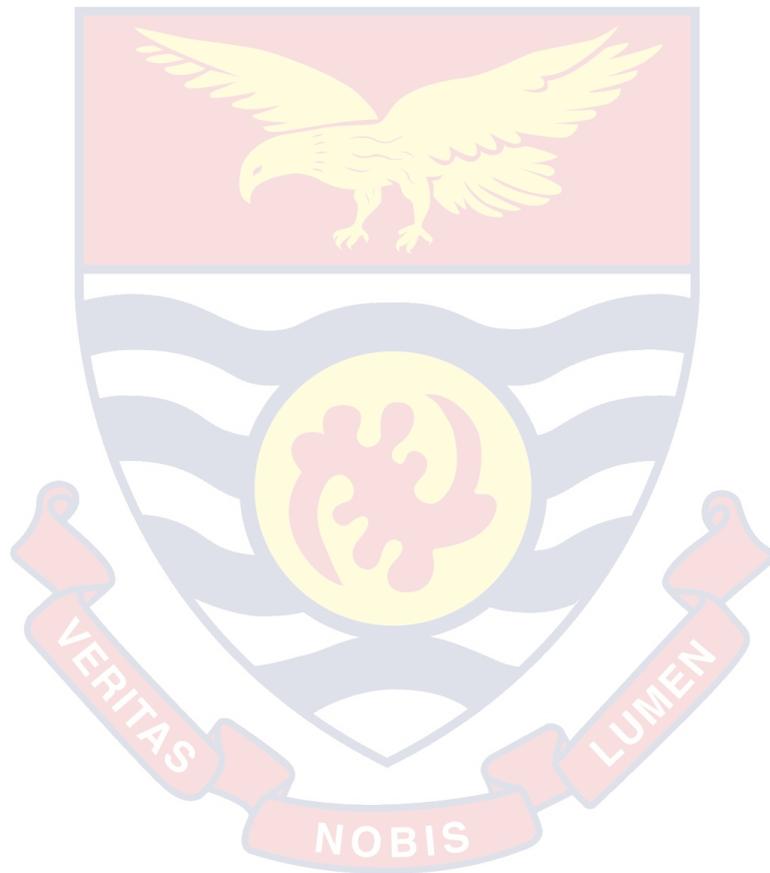
It is recommended that further research is done into other areas of leadership effectiveness, especially, that of leadership outcomes in the educational sectors-basic, second and tertiary cycles schools.

Below are the recommendations:

1. The democratic and transformational styles of leadership should be promoted by the Ghana Education Service.
2. Teachers should be motivated in cash and in kind by the government, in order to improve teaching and learning.
3. Headmasters should be encouraged by GES to employ team achievement in the schools.
4. Headmasters and the management teams are to provide congenial atmosphere for teaching and learning.
5. Headmasters should grow good relationships among staff at all times.

Area for Further Research

It is recommended that further research be done on other factors of leadership effectiveness, so as to improve leadership effectiveness, since this is the first of its kind on leadership effectiveness in the second cycle



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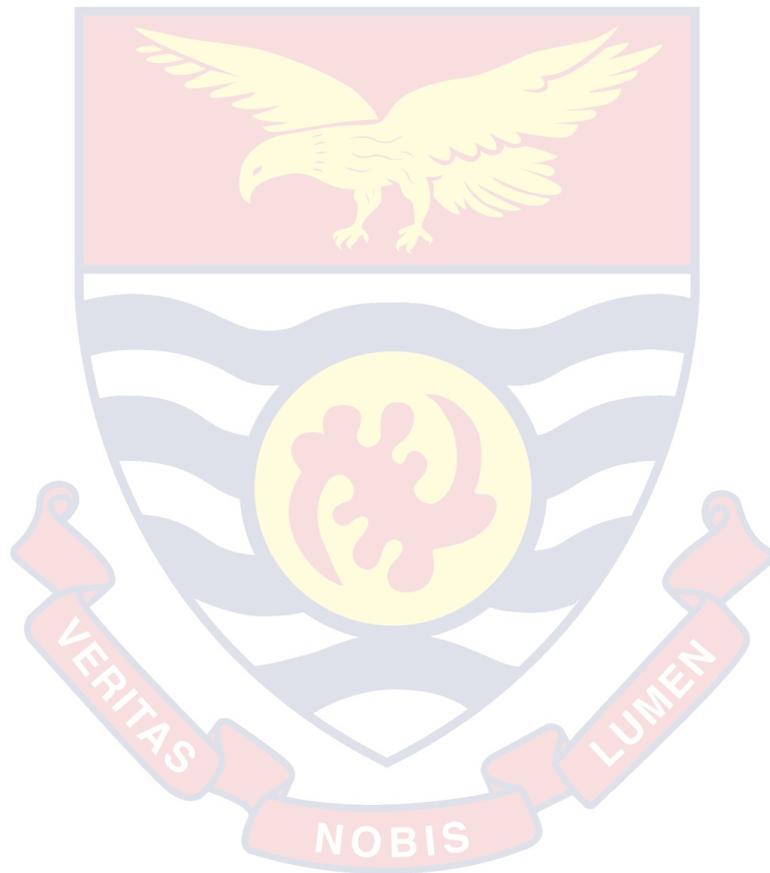
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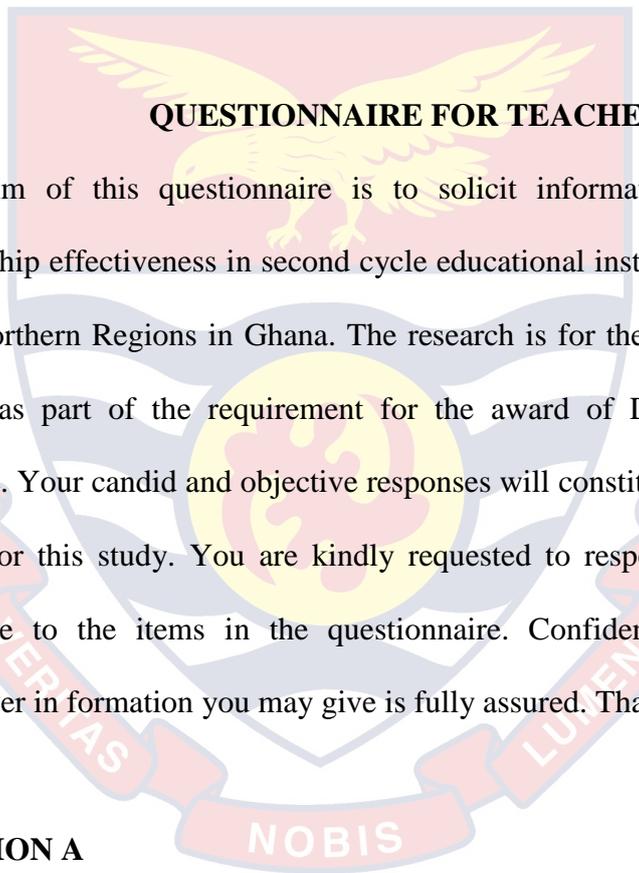
APPENDICES

APPENDIX A

INSTITUTE OF DEVELOPMENT AND TECHNOLOGY

MANAGEMENT

**LEADERSHIP EFFECTIVENESS IN SECOND CYCLE ACADEMIC
INSTITUTIONS – A COMPARATIVE ANALYSIS FOR CENTRAL
AND NORTHERN REGIONS OF GHANA**



QUESTIONNAIRE FOR TEACHERS

The aim of this questionnaire is to solicit information with regards to leadership effectiveness in second cycle educational institutions in the Central and Northern Regions in Ghana. The research is for the purpose of writing a thesis as part of the requirement for the award of Doctor of Philosophy Degree. Your candid and objective responses will constitute a strong empirical basis for this study. You are kindly requested to respond as objectively as possible to the items in the questionnaire. Confidentiality in respect of whatever information you may give is fully assured. Thank you.

SECTION A

Demographic Data

Please provide answers to the following questions about yourself

1. Name of School:
2. Sex: Male () Female ()
3. How many years of experience do you have in the teaching field?
.....

4. How many years have you taught in this present school?
5. What is your rank in the teaching field?
6. What is your position in your department?

SECTION B

The State of Leadership Effectiveness

The following questions relate to the state of leadership effectiveness in second cycle schools. You are please required to tick ($\sqrt{\quad}$) the option which is applicable to you. Using a scale of 1 to 10 you are please to state the extent to which your options can be appraised. Please note that 1 is the lowest and 10, the highest score.

1. What type of leadership style is practiced by your head of school?
A. Autocratic style () B. Democratic style () C. Laissez-faire ()
D. Transformational style ()
2. To what extent is the leadership style in question 1 used?
3. My school head believes in team achievement. True () False ()
4. To what extent is the above true or false?
5. My head has a great deal of affection for his/her staff.
True () False ()
6. Please indicate the extent to which question 5 is applicable?
7. My head uses disciplinary powers. True () False ()
8. To what extent is question 7 true or false?
9. My head uses an array of incentives to motivate teaches to perform at their best. True () False ()
10. Please indicate the extent for question 9.....

11. Is good relationship an outcome of the leadership style? Yes () No ()

12. To what extent is good relationship an outcome?

13. Is improved teaching method an outcome of leadership style?

Yes () No ()

14. Please rate the extent to which improved teaching is an outcome

15. Is improved student performance an outcome of the leadership style?

Yes () No ()

16. Please to what extent is improved student performance an outcome of the leadership style?

17. Does your head give clear direction? Yes () No ()

18. To what extent does your head give clear direction?

19. Does your head perceive the needs of staff? Yes () No ()

20. To what does your head perceive the needs of Staff?.....

21. Does your head organize efforts towards the satisfaction of staff needs?

Yes () No ()

22. Please rate the extent for question 21.

23. Does your head employ appropriate techniques to motivate teachers?

Yes () No ()

24. Please rate the extent for question 23.

25. The head does not procrastinate of spend too much time gathering necessary additional data. True () False ()

26. Please rate the extent for question 25.

27. The head believes in free flow of information. True () False ()

28. To what extent do you rate question 27?

29. The head delegates powers in decision making True () False ()

30. Please rate the extent for question 29.
31. There is increased involvement of teachers and students in decision-making process. True () False ()
32. Please rate the extent for question 31.
33. The head follows the right procedure for admission of students.
True () False ()
34. Please indicate the extent for question 33.
35. The head follows the right procedure for recruitment of teachers
True () False ()
36. Please rate the extent for question 35.
37. The head follows the right procedure for procurement.
True () False ()
38. To what extent do you rate question 37?
39. The head makes funds readily available. True () False ()
40. Please rate the extent for question 39
41. Are the Assistance Headmasters involved in the daily running of the School?
Yes () No ()
42. Please rate the extent for question 41.
43. Are teachers involved in the daily running of the school?
Yes () No ()
44. Please what extent is question 43 True or false?
45. Are students prefects involved in the daily running of the School?
Yes () No ()
46. Please to what extent is question 45 true or false?

47. Are leaders of the non-teaching Staff involved in the daily running of the School? True () False ()

48. Please rate question 47.

49. Are members of the Disciplinary Committee involved in the daily running of the School? True () False ()

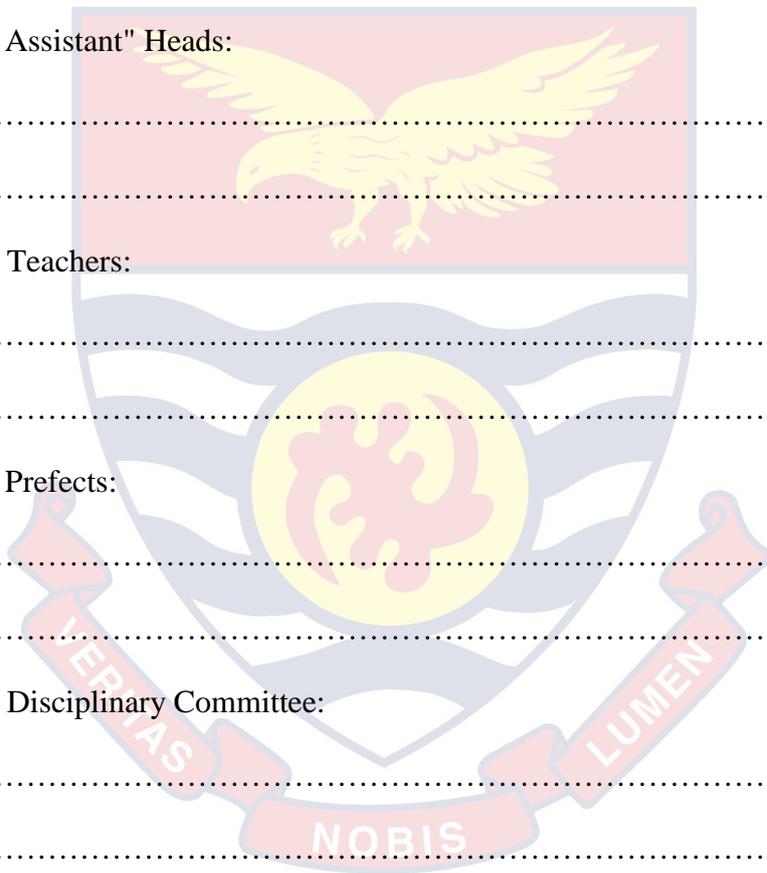
50. To what extent do you rate question 49?

51. Please indicate the roles of the following in the: school:

a) Assistant" Heads:

.....

.....



b) Teachers:

.....

.....

c) Prefects:

.....

.....

d) Disciplinary Committee:

.....

.....

SECTION C

Determinants of Leadership Effectiveness

The following questions relate to the determinants of leadership effectiveness in second cycle educational institutions. Kindly tick (V) the option applicable to you. Please indicate also the extent to which your choice can be evaluated using a scale of 1 to 10 where 1 is the lowest and 10 is the highest.

52. My head establishes trust. True () False ()
53. Please indicate how large or small question 76 can be measured.....
54. My head demonstrates integrity. True () False ()
55. Please score for question 78
56. My head sets clear goals. True () False ()
57. Please score for question 80.....
58. My head grows relationships. True () False ()
59. In your opinion what do you score for question 82?.....
60. My head focuses on improved results. True () False ()
61. What do you score for question 84.....
62. My head cultivates capabilities. True () False ()
63. How do you rate question 86
64. My head promotes innovations. True () False ()
65. Please score for question 88.....
66. My head provides equipment and tools to improve teaching and learning. True () False ()
67. Please score for question 90.....
68. My head provides the financial resources to run the day to day activities of the school. True () False ()
69. Please how do you rate question 92?.....
70. My head works relentlessly to improve students' performance by focusing on the quality of instructions. True () False ()
71. Please score for question 94
72. My head motivates teachers to improve on their performance. True () False ()

73. Please score for question 96.....
74. My head organizes in-service training, seminars, workshops and orientation for teachers as a form of staff development.
True () False ()
75. Please rate question 98.....
76. There is an effective policy framework (students code of discipline, etc.) to monitor the conduct of student behaviour. True () False ()
77. Please score for question 100
78. Effective organizational structure is followed in disseminating information in my school. True () False ()
79. How do you rate question 102.....
80. There is an effective supervision of both students and teachers work by my head. True () False ()
81. Please rate question 104.....
82. My head organizes staff meetings regularly. True () False ()
83. How do you rate question 106.....
84. My head is very efficient. True () False ()
85. Please rate question 108.....
86. My head is very reasonable. True () False ()
87. Please score for question 110
88. My head is just. True () False ()
89. Please rate question 112.....
90. My head is very strict True () False ()
91. Please score for question 114
92. My head is very careful. True () False ()

93. Please rate question 116.....

SECTION D

The relationship between Leadership Effectiveness and Academic Performance

The following statements relate to the relationship between leadership effectiveness and academic performance in second cycle educational institutions. Kindly rate your school Head's effectiveness as shown in each statement by choosing from a scale of 1-10 where 1 is the lowest and 10 is the highest.

1. Students attend classes on time.....
2. Students attend all school functions:
3. Students attend classes regularly:
4. Students always do their class assignments:
5. Students wear prescribed uniform to school:
6. Students appear neat always:
7. Students attend Sunday Church Service regularly:
8. Teachers are punctual to class:
9. Teachers are regular to class:
10. Teachers prepare their lesson notes before teaching:
11. Teachers give the requisite assignments to students:
12. Teachers mark assignments given to students promptly:
13. Teachers discuss marked assignments with students:
14. Teachers set examination questions on time:
15. Teachers mark examination scripts and enter scores on time:
16. Teachers discuss students examinations after marking:

17. Teachers report to examination centre on time:
18. Teachers discuss students' social problems with management:.....
19. Teachers resolve students' conflict effectively:.....
20. Teachers attend all school gathering:.....
21. Teachers contribute ideas during staff meeting:.....
22. Teachers supervise students in maintaining good sanitary conditions in the school:
23. Teachers attend developmental meetings regularly:.....
24. Teachers supervise students to obey rules and regulations of the schools:

SECTION E

Ways of improving Leadership Effectiveness

The following questions relate to the ways of improving leadership effectiveness in second cycle educational institutions in Ghana. Kindly tick (V) the option appropriate to you and score each question, using a scale of 1 to 10 where 1 is the lowest and 10 is the highest.

25. There should be a provision of high quality training for aspiring school leaders. True () False ()
26. Please rate your answer to question 118.....
27. Leaders should be appraised periodically. True () False ()
28. Please score for question 120
29. Leaders should be given on the job-training. True () False ()
30. Please score question 122.....
31. School heads should sign performance contract. True () False ()
32. Please rate your answer to question 124.....

33. Policy makers need to expand the concept of school leadership. ?

True () False ()

34. Please score question 126.....

35. Policy makers need to adjust policy and working conditional accordingly.

True () False ()

36. Please rate your answer to question 128.....

37. Special pension benefits should be given to school heads.

True () False ()

38. Please score question 130.....

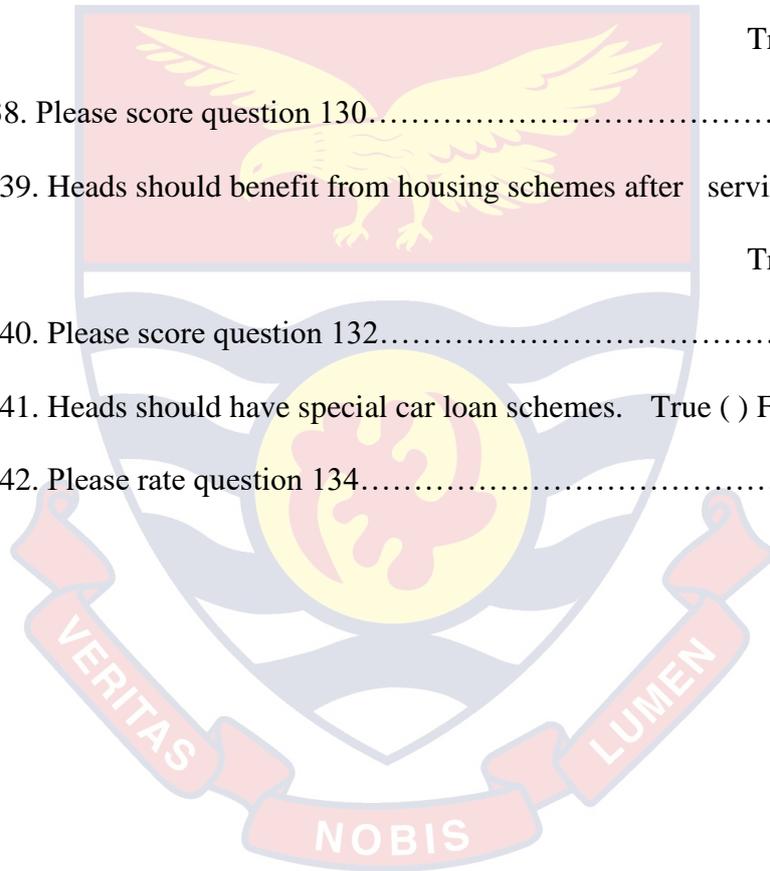
39. Heads should benefit from housing schemes after serving schools.

True () False ()

40. Please score question 132.....

41. Heads should have special car loan schemes. True () False ()

42. Please rate question 134.....



APPENDIX B

INSTITUTE OF DEVELOPMENT AND TECHNOLOGY

MANAGEMENT

LEADERSHIP EFFECTIVENESS AND ACADEMIC

PERFORMANCE IN SECOND CYCLE EDUCATIONAL

INSTITUTIONS IN THE CENTRAL AND NORTHERN REGIONS OF

GHANA

FOCUS GROUP DISCUSSION FOR TEACHERS AND

HEADMASTERS/MISTRESSES

The aim of this discussion is to solicit information with regards to leadership effectiveness in second cycle educational institutions in the Central and Northern Regions of Ghana. The research is for the purpose of writing a thesis as part of the requirement for the award of Doctor of Philosophy Degree. You are kindly requested to respond as objectively as possible to the questions. Confidentiality in respect of whatever information you may give is fully assured. Thank you.

1. Please kindly tell me something about your work as a teacher in this school.
2. How would you describe the leadership style in your school?
3. How would you measure the leadership effectiveness with regards to students performance in your school?
4. What do you think is being done that has helped to promote better academic performance of the students?
5. In what ways has the school changed under the present leadership?
6. What suggestions do you have for improving the leadership effectiveness of your school?

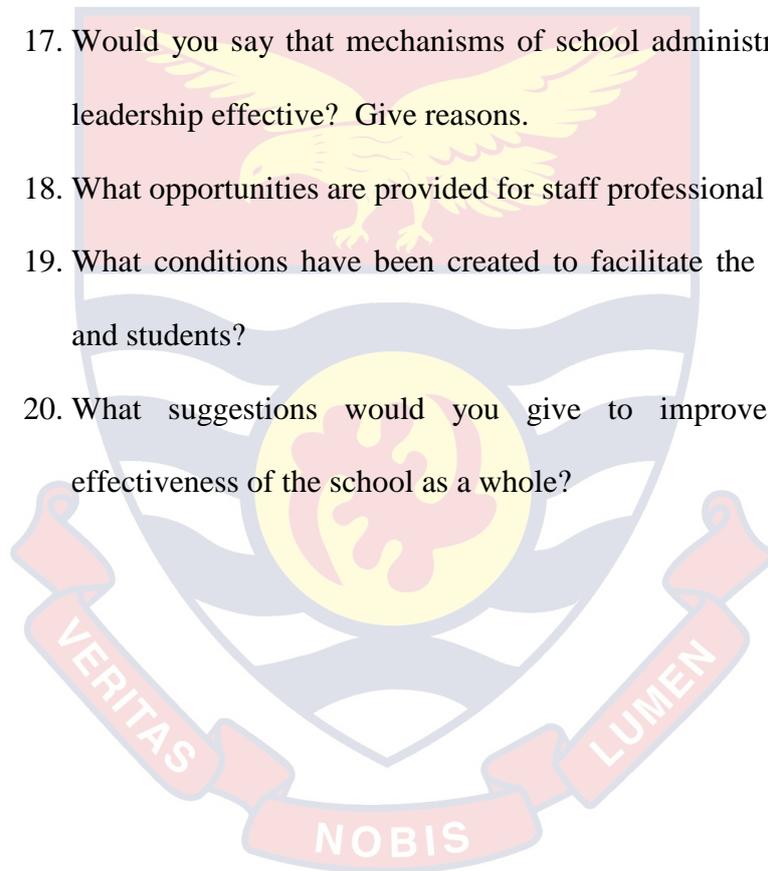
APPENDIX C

INTERVIEW GUIDE FOR HEADMASTERS, TEACHERS, STUDENTS AND PARENTS

The aim of this interview is to solicit information with regards to leadership effectiveness and Academic Performance in second cycle educational institutions in the Central Region of Ghana. The research is for the purpose of writing a thesis as part of the requirement for the award of Doctor of Philosophy Degree. You are kindly requested to respond as objectively as possible to the questions. Confidentiality in respect of whatever information you may give is fully assured. Thank you.

1. Sex: Male() Female ()
2. How many years of experience do you have in the teaching field?
.....
3. How many years have you taught in this present school?
4. What is your rank in the teaching field?
5. How would you describe the style of leadership of your school?
6. Would you say you are proud of the leadership style? Give reasons.
7. What are the leadership outcomes?
8. What are the processes involved in decision making?
9. In what ways does the school supply the necessary resources and funding for teaching and learning activities?
10. How are teachers' and students' work supervised in your school?
11. On the whole, would you say that the leadership style in your school is effective? Give reasons
12. How does your school maintain student discipline in the school?

13. In what ways does the school make use of the examination results in the administration?
14. How is the collaboration between teachers, other staff and students in the teaching and learning process?
15. What measures have been put in place to make teachers committed to their work?
16. How are parents involved in administration of the school?
17. Would you say that mechanisms of school administration have made leadership effective? Give reasons.
18. What opportunities are provided for staff professional growth?
19. What conditions have been created to facilitate the work of teachers and students?
20. What suggestions would you give to improve the leadership effectiveness of the school as a whole?



APPENDIX D
CALCULATIONS

Table 113: Choice of teachers – leadership style

Leadership style	Central	Northern	Total
Laissez – faire	21	6	27
Transformational	49	53	102
Autocratic	76	25	101
Democratic	394	266	660
Total	540	350	890

Table 114: observed values – leadership style

Leadership style	Central	Northern	Total
Laissez – faire	$\frac{27 \times 540}{890} = 16$	$\frac{27 \times 350}{890} = 11$	27
Transformational	$\frac{102 \times 540}{890} = 62$	$\frac{102 \times 350}{890} = 40$	102
Autocratic	$\frac{101 \times 540}{890} = 61$	$\frac{101 \times 350}{890} = 40$	101
Democratic	$\frac{660 \times 540}{890} = 400$	$\frac{660 \times 350}{890} = 260$	660

$$\text{Calculating } X_C^2 = \sum \left[\frac{(21-16)^2}{16} + \frac{(6-11)^2}{11} + \frac{(49-62)^2}{62} + \frac{(53-40)^2}{40} + \frac{(76-62)^2}{61} + \frac{(25-40)^2}{40} + \frac{(394-400)^2}{400} + \frac{(266-260)^2}{260} \right]$$

$$X_C^2 = \sum \left[\frac{25}{16} + \frac{25}{11} + \frac{169}{62} + \frac{169}{40} + \frac{225}{61} + \frac{225}{40} + \frac{36}{61} + \frac{36}{260} \right]$$

$$X_C^2 = \sum [1.1905 + 4.1667 + 3.4490 + 3.1887 + 2.9605 + 9.000 + 0.0914 + 0.1353]$$

$$X_C^2 = 24.1821$$

From table $X_t^2 = 7.82$ at 95% significance level and at 3 degree of freedom.

Table 115: Observed values – Admissions

Regions	1-4	5-7	8-10	Total
Central	$\frac{21 \times 135}{189} = 15$	$\frac{80 \times 135}{189} = 61$	$\frac{21 \times 135}{189} = 15$	135
Northern	$\frac{21 \times 54}{189} = 6$	$\frac{86 \times 54}{189} = 25$	$\frac{21 \times 54}{189} = 6$	54
Total	21	86	82	189

Finding X_C^2 :

$$X_C^2 = \sum \left[\frac{(16-5)^2}{6} + \frac{(15-6)^2}{15} + \frac{(66-61)^2}{66} + \frac{(20-25)^2}{20} + \frac{(63-59)^2}{63} + \frac{(19-23)^2}{19} \right]$$

$$X_C^2 = \sum \left(\frac{81}{6} + \frac{81}{15} + \frac{25}{66} + \frac{25}{20} + \frac{16}{63} + \frac{16}{19} \right)$$

$$X_C^2 = \sum (13.5 + 5.4 + 0.3788 + 1.25 + 0.2540 + 0.8421)$$

$$X_C^2 = 21.6249$$

At 95% significant level and (v-1) (c-1) degrees of freedom, (2-1) (3-1) = 1(2)

= 2, table value $X_t^2 = 5.99$

Table 116: Observed values – Assistant Headmasters

Region	1-4	5-7	8-10	Total
Central				
Northern				
Total				

$$\text{Calculating } X_C^2 = \sum \left[\frac{(21-16)^2}{21} + \frac{(6-11)^2}{6} + \frac{(49-62)^2}{49} + \frac{(53-40)^2}{53} + \frac{(76-62)^2}{76} + \frac{(25-40)^2}{25} + \frac{(394-400)^2}{394} + \frac{(266-260)^2}{266} \right]$$

$$X_C^2 = \sum \left[\frac{25}{21} + \frac{25}{6} + \frac{169}{49} + \frac{169}{53} + \frac{225}{76} + \frac{225}{25} + \frac{36}{394} + \frac{36}{266} \right]$$

$$X_C^2 = \sum [1.1905 + 4.1667 + 3.4490 + 3.1887 + 2.9605 + 9.000 + 0.0914 + 0.1353]$$

$$X_C^2 = 24.1821$$

At 95% significance level and (r-1) (c-1) degrees of freedom, that is (2-1) (3-1) = 1 (2) = 2 degrees of freedom. $X_t^2 = 5.99$

Table 117: Observed values – students’ performance

Region	1-4	5-7	8-10	Total
Central	$\frac{40 \times 135}{189}$ = 29	$\frac{135 \times 72}{189}$ = 51	$\frac{135 \times 77}{189}$ = 55	135
Northern	$\frac{40 \times 54}{189} = 11$	$\frac{54 \times 72}{189} = 21$	$\frac{54 \times 77}{189} = 22$	54
Total	40	72	77	189

Age 95% level of significance and (r-1) (c-1) degrees of freedom: (2-1) (3-1) = 1(2) =2, and calculating the X^2

$$X_C^2 = \sum \left[\frac{(28-29)^2}{28} + \frac{(12-11)^2}{12} + \frac{(52-51)^2}{52} + \frac{(20-21)^2}{20} + \frac{(55-55)^2}{55} + \frac{(22-22)^2}{22} \right]$$

$$X_C^2 = \sum \left(\frac{1}{28} + \frac{1}{12} + \frac{1}{52} + \frac{1}{20} + \frac{0}{55} + \frac{0}{22} \right)$$

$$X_C^2 = 0.0357 + 0.0833 + 0.0192 + 0.05$$

$$X_C^2 = 0.1882$$

From table, at 2 degrees of freedom, $X_t^2 = 5.99$

Table 118: Observed values – student prefects

Region	1-4	5-7	8-10	Total
Central	$\frac{32 \times 135}{189}$ = 23	$\frac{135 \times 77}{189}$ = 55	$\frac{135 \times 80}{189}$ = 57	135
Northern	$\frac{32 \times 54}{189} = 9$	$\frac{77 \times 54}{189} = 22$	$\frac{80 \times 54}{189} = 23$	54
Total	32	77	80	189

Calculating X_C^2

$$X_C^2 = \sum \left[\frac{(20-23)^2}{20} + \frac{(12-9)^2}{12} + \frac{(54-55)^2}{54} + \frac{(23-22)^2}{23} + \frac{(61-57)^2}{61} + \frac{(19-23)^2}{19} \right]$$

$$X_C^2 = \sum \left(\frac{9}{20} + \frac{9}{12} + \frac{1}{54} + \frac{1}{23} + \frac{16}{61} + \frac{16}{19} \right)$$

$$X_C^2 = [0.45 + 0.75 + 0.0185 + 0.0435 + 0.2623 + 0.8421]$$

$$X_C^2 = 2.3664$$

At 95% level of significance and (r-1) (c-1) degrees of freedom (2-1) (3-1) = 1

(2) = 2 the table value $X_C^2 = 5.99$

Table 119: Observed values – non teaching Staff

Region	1-4	5-7	8-10	Total
Central	$\frac{32 \times 135}{189} = 21$	$\frac{135 \times 72}{189} = 51$	$\frac{185 \times 87}{189} = 62$	135
	$\frac{54 \times 30}{189} = 9$	$\frac{54 \times 72}{189} = 21$	$\frac{54 \times 87}{189} = 25$	54
Northern				
Total	30	72	87	189

At 95% level of significance and (r-1) (c-1) = (2-1) (3-1) = 1(2) = 2 degrees of freedom, calculating

$$X_C^2,$$

$$X_C^2 = \sum \left[\frac{(20-21)^2}{20} + \frac{(10-9)^2}{10} + \frac{(43-51)^2}{43} + \frac{(29-21)^2}{29} + \frac{(72-62)^2}{72} + \frac{(15-25)^2}{15} \right]$$

$$X_C^2 = \sum \left(\frac{1}{20} + \frac{1}{10} + \frac{64}{43} + \frac{64}{29} + \frac{100}{72} + \frac{100}{15} \right)$$

$$X_C^2 = [0.05 + 0.1 + 1.4884 + 2.2069 + 1.3889 + 6.6667]$$

$$X_C^2 = 11.9009$$

Table 120: Observed values – D.C

Region	1-4	5-7	8-10	Total
Central	$\frac{31 \times 135}{189} = 22$	$\frac{81 \times 135}{189} = 58$	$\frac{135 \times 75}{189} = 54$	135
Northern	$\frac{54 \times 31}{189} = 9$	$\frac{54 \times 81}{189} = 23$	$\frac{75 \times 54}{189} = 21$	54
Total	31	81	75	189

$$X_C^2,$$

$$X_C^2 = \sum \left[\frac{(19-22)^2}{20} + \frac{(58-58)^2}{58} + \frac{(56-54)^2}{56} + \frac{(12-9)^2}{12} + \frac{(23-23)^2}{23} + \frac{(19-21)^2}{19} \right]$$

$$X_C^2 = \sum \left(\frac{9}{20} + \frac{0}{58} + \frac{4}{56} + \frac{9}{12} + \frac{0}{23} + \frac{9}{19} \right)$$

$$X_C^2 = [0.4737 + 0 + 0.0714 + 0.75 + 0 + 0.2105]$$

$$X_C^2 = 1.51$$

At 95% level of significance of $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, the table value $X_t^2 = 5.99$.

Table 121: Observed values – Good relationships

Region	1-4	5-7	8-10	Total
Central	0	$\frac{125 \times 135}{189} = 58$	$\frac{135 \times 75}{189} = 54$	135
		$\frac{54 \times 125}{189} = 35$	$\frac{75 \times 54}{189} = 21$	54
Northern	0			
Total	0	125	75	189

Using 95% level of significance and $(r-1)(x-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, the table value, $X_t^2 = 5.99$

Calculating the X_C^2 :

$$X_C^2 = \sum \left[\frac{25}{21} + \frac{25}{6} + \frac{169}{49} + \frac{169}{53} + \frac{225}{76} + \frac{225}{25} + \frac{36}{394} + \frac{36}{266} \right]$$

$$X_C^2 = \sum [1.1905 + 4.1667 + 3.4490 + 3.1887 + 2.9605 + 9.000 + 0.0914 + 0.1353]$$

$$X_C^2 = 24.1821$$

Table 122: Observed values – improved teaching calculating the observed values

Region	1-4	5-7	8-10	Total
Central	0	$\frac{103 \times 135}{189} = 74$	$\frac{86 \times 135}{189} = 61$	135
		$\frac{54 \times 103}{189} = 29$	$\frac{86 \times 54}{189} = 25$	54
Northern	0			
Total	0	103	86	189

Calculating the X_C^2 :

$$X_C^2 = \sum \left[\frac{(70-74)^2}{70} + \frac{(33-30)^2}{33} + \frac{(65-61)^2}{65} + \frac{(21-25)^2}{21} \right]$$

$$X_C^2 = \sum \left(\frac{16}{70} + \frac{9}{33} + \frac{16}{65} + \frac{16}{21} \right)$$

$$X_C^2 = [0.2286+0.2727+0.2462+0.7619]$$

$$X_C^2 = 1.5094$$

$$X_C^2 = 1.51$$

At 95% level of significance and $[(r-1) (c-1) = (2-1) (3-1) = 1(2) = 2$ degrees of freedom, the table value, $X^2 = 5.99$

Table 123: Observed values – right procedure

Region	1-4	5-7	8-10	Total
Central	0	$\frac{110 \times 135}{189} = 79$	$\frac{135 \times 79}{189} = 56$	135
Northern	0	$\frac{110 \times 54}{189} = 31$	$\frac{79 \times 54}{189} = 23$	54
Total	0	110	79	189

Calculating the X_C^2 :

$$X_C^2 = \sum \left[\frac{(73-79)^2}{73} + \frac{(37-31)^2}{37} + \frac{(62-56)^2}{62} + \frac{(17-23)^2}{17} \right]$$

$$X_C^2 = \sum \left(\frac{36}{73} + \frac{36}{37} + \frac{36}{62} + \frac{36}{17} \right)$$

$$X_C^2 = [0.4932+0.9730+0.5806+2.1176]$$

$$X_C^2 = 4.1644$$

$$X_C^2 = 4.16$$

At 95% level of significance and $(r-1) (c-1) = (2-1) f(3-1) = (1) (2) = 2$ degrees of freedom, the table value, $X_f^2 = 5.99$

Table 124: Observed values – disciplinary powers

Region	1-4	5-7	8-10	Total
Central	0	$\frac{135 \times 126}{189} = 90$	$\frac{63 \times 136}{189} = 45$	135
Northern	0	$\frac{54 \times 126}{189} = 36$	$\frac{63 \times 54}{189} = 18$	54
Total	0	110	63	189

Calculating the X_C^2 :

$$X_C^2 = \sum \left[\frac{(87-90)^2}{87} + \frac{(39-36)^2}{39} + \frac{(48-45)^2}{48} + \frac{(15-18)^2}{15} \right]$$

$$X_C^2 = \sum \left(\frac{9}{87} + \frac{9}{39} + \frac{9}{48} + \frac{9}{15} \right)$$

$$X_C^2 = [0.1034 + 0.0769 + 0.1875 + 0.6000]$$

$$X_C^2 = 0.9678$$

At 95% level of significance and $[(r-1) (c-1) = (2-1) (3-1) = 1(2) = 2]$ degree of freedom, the table value, $X_t^2 = 5.99$



Table 125: Correlation of state of leadership effectiveness

X	X ²	Y	Y ²	XY
17	289	11	121	187
22	484	2	4	44
15	225	9	81	135
14	196	2	4	28
19	361	6	36	114
17	289	6	36	102
16	256	6	36	96
13	169	7	49	91
19	361	9	81	171
14	196	2	4	28
14	196	4	16	56
19	361	7	49	133
17	289	6	36	102
19	361	9	81	171
17	289	2	4	34
18	324	6	36	108
16	256	13	169	208
19	361	13	169	247
20	400	4	16	80
20	400	19	361	380
18	324	9	81	162
16	256	7	49	112
19	361	6	36	114
19	361	6	36	114
ΣX = 417	Σ X² = 7365	ΣY = 171	Σ Y² = 1591	ΣXY = 3015

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{[\sum X^2 - (\sum X)^2][\sum Y^2 - (\sum Y)^2]}$$

$$= \frac{24(3015) - (417)(171)}{\sqrt{[24(7365) - (417)^2][24(1591) - (171)^2]}}$$

$$= \frac{723360 - 71307}{\sqrt{[176760 - 173889][38184 - 29241]}}$$

$$= \frac{1053}{\sqrt{(2871)(8943)}} = \frac{1053}{\sqrt{25675353}}$$

$$= \frac{1053}{5067.085257}$$

$$= 0.2078117787$$

$$= 0.21(2dp)$$

Table 126: Correlation for Grade B schools

X	X ²	Y	Y ²	XY
12	144	10	100	120
34	1156	25	625	850
32	1024	22	484	704
19	361	12	144	228
22	484	13	169	286
33	1089	24	576	792
42	1764	33	1089	1386
25	625	23	529	575
33	1089	22	484	726
43	1849	21	441	903
22	484	12	169	286
33	1089	21	441	693
23	529	21	441	483
35	1225	23	529	805
26	676	23	529	598
33	1089	16	256	528
34	1156	26	676	884
28	784	23	529	644
33	1089	26	676	858
28	784	22	484	616
31	961	26	676	806
26	676	23	529	598
32	1024	13	169	416
34	1156	26	676	884
ΣX = 703	Σ X² =	ΣY = 507	Σ Y² = 11421	ΣXY = 15669

$$\begin{aligned}
 r_{xy} &= \frac{n\sum XY - (\sum X)(\sum Y)}{[\sum X^2 - (\sum X)^2][\sum Y^2 - (\sum Y)^2]} \\
 &= \frac{24(15669) - (703)(507)}{\sqrt{[24(22307) - (703)^2][24(11421) - (507)^2]}} \\
 &= \frac{376056 - 356421}{\sqrt{[535368 - 494209][274104 - 257049]}} \\
 &= \frac{19635}{\sqrt{(41159)(17055)}} = \frac{19635}{\sqrt{701966745}} \\
 &= \frac{19635}{26494.65503} \\
 &= 0.7410928724 \\
 &= 0.74(2dp)
 \end{aligned}$$

Table 127: Correlation for Grade C schools X_C^2

X	X ²	Y	Y ²	XY
31	961	16	256	496
23	529	20	400	460
35	1225	26	676	910
22	484	15	225	330
31	961	25	625	775
37	1369	28	784	1036
29	841	24	576	696
33	1089	23	529	759
22	484	17	289	374
36	1296	23	529	828
32	1024	28	784	896
27	729	21	441	567
33	1089	20	400	660
26	676	23	529	598
32	1024	18	324	576
28	784	24	576	672
24	576	16	256	384
33	1089	25	625	825
30	900	23	529	690
27	729	21	441	567
22	484	13	169	286
27	729	22	484	594
32	1024	21	441	672
32	1024	27	729	864
ΣX = 704	Σ X² = 21120	ΣY = 519	Σ Y² = 11617	ΣXY = 15515

Calculating the correlation coefficient; R_{xy} using the formula:

$$r_{xy} = \frac{n\sum XY - (\sum X)(\sum Y)}{[\sum X^2 - (\sum X)^2][\sum Y^2 - (\sum Y)^2]}$$

$$= \frac{24(15515) - (704)(519)}{\sqrt{[24(21120) - (704)^2][24(11617) - (519)^2]}}$$

$$= \frac{372360 - 365376}{\sqrt{[506880 - 495616][278808 - 26936]}}$$

$$= \frac{6984}{\sqrt{(11264)(94473)}} = \frac{6984}{10315.57114}$$

$$= 0.6770347376$$

$$= 0.68(2dp) = 68\%$$

Table 128: Correlation for combined grades

X	X ²	Y	Y ²	XY
36	1296	17	289	612
39	1521	19	361	741
31	961	18	324	558
24	576	12	144	288
33	1089	28	784	924
22	484	13	169	286
23	529	14	196	322
35	1225	17	289	595
30	900	17	289	510
36	1296	19	361	684
27	729	15	225	405
27	729	18	324	486
42	1764	27	729	1134
32	1024	20	400	640
35	1225	19	361	665
36	1296	25	625	900
37	1369	21	441	777
38	1444	21	441	798
39	1521	27	729	1053
34	1156	20	400	680
28	784	17	289	476
$\Sigma X = 684$	$\Sigma X^2 = 22917$	$\Sigma Y = 404$	$\Sigma Y^2 = 8170$	$\Sigma XY = 13534$

Using the correlation formula for the coefficient of correlation, $r_{xy} =$

$$r_{xy} = \frac{N \Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{[N \Sigma x^2 - (\Sigma x)^2][N \Sigma y^2 - (\Sigma y)^2]}}$$

$$= \frac{24(13534) - (684)(404)}{\sqrt{[24(22917) - (684)^2][24(8170) - (404)^2]}}$$

$$= \frac{284214 - 276336}{\sqrt{[176760 - 173889][38184 - 29241]}} = \frac{7878}{\sqrt{[13422][8354]}}$$

$$= \frac{7878}{10589.02205} = 0.7439780523 = 0.74 (2. d. p). = 74\%.$$

Table 129: Observed values innovations

Regions	1-4	5-7	8-10	Total
Central	$\frac{96 \times 535}{890} = 58$	$\frac{310 \times 535}{890} = 186$	$\frac{484 \times 535}{890} = 291$	535
Northern	$\frac{96 \times 355}{890} = 38$	$\frac{310 \times 355}{890} = 124$	$\frac{484 \times 355}{890} = 193$	355
Total	96	310	484	890

Calculating $X_c^2 = \sum \left[\frac{(53-58)^2}{53} + \frac{(43-38)^2}{43} + \frac{(161-186)^2}{161} + \frac{(149-124)^2}{149} + \frac{(321-291)^2}{321} + \frac{(163-193)^2}{163} \right]$

$$X_c^2 = \left[\frac{25}{53} + \frac{25}{43} + \frac{625}{161} + \frac{625}{149} + \frac{900}{321} + \frac{900}{163} \right]$$

$$X_c^2 = 0.4717 + 0.5814 + 3.8820 + 4.1946 + 2.8637 + 5.5215$$

$$X_c^2 = 17.4549$$

From tables, the table value at 95% level of significance and $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, X_t^2 is 5.99.

Table 130: Observed values – Effective supervision

Regions	1-4	5-7	8-10	Total
Central	-	$\frac{395 \times 535}{890} = 237$	$\frac{495 \times 535}{890} = 298$	535
Northern	-	$\frac{395 \times 355}{890} = 158$	$\frac{484 \times 355}{890} = 197$	355
Total	-	395	495	890

Calculating $X_c^2 = \sum \left[\frac{(193-237)^2}{193} + \frac{(202-158)^2}{202} + \frac{(342-298)^2}{342} + \frac{(153-197)^2}{153} + \frac{(321-291)^2}{321} \right]$

$$X_c^2 = \left[\frac{1936}{193} + \frac{1936}{202} + \frac{1936}{342} + \frac{1936}{153} \right]$$

$$X_c^2 = [10.0311 + 9.5842 + 5.6608 + 12.6536]$$

$$X_c^2 = 37.9297$$

At 95% level of significance and $[(r-1)(c-1) = (2-1)(3-1) = 1(2)]$ degrees of freedom, the table value, $X^2_t = 5.99$.

Table 131: Observed values strictness

Regions	1-4	5-7	8-10	Total
Central	$\frac{114 \times 535}{890} = 69$	$\frac{302 \times 535}{890} = 182$	$\frac{474 \times 535}{890} = 285$	535
Northern	$\frac{114 \times 355}{890} = 45$	$\frac{302 \times 355}{890} = 120$	$\frac{474 \times 355}{890} = 189$	355
Total	114	302	474	890

Calculating $X^2_c = \sum \left[\frac{(43-69)^2}{43} + \frac{(71-45)^2}{71} + \frac{(171-182)^2}{171} + \frac{(131-120)^2}{131} + \frac{(321-285)^2}{321} + \frac{(153-189)^2}{153} \right]$

$$X^2_c = \left[\frac{676}{43} + \frac{676}{71} + \frac{121}{171} + \frac{121}{131} + \frac{1296}{321} + \frac{1296}{153} \right]$$

$$X^2_c = [15.7209 + 9.5211 + 0.7076 + 0.9237 + 4.0374 + 8.4706]$$

$$X^2_c = 39.3818$$

At 95% level of significance and $[(r-1)(c-1) = (2-1)(3-1) = 1(2)] = 2$ degrees of freedom, $X^2_t = 5.99$

Table 132: Observed values – being very careful

Regions	1-4	5-7	8-10	Total
Central	$\frac{124 \times 535}{890} = 75$	$\frac{240 \times 535}{890} = 144$	$\frac{526 \times 535}{890} = 316$	535
Northern	$\frac{124 \times 355}{890} = 49$	$\frac{240 \times 355}{890} = 96$	$\frac{526 \times 355}{890} = 210$	355
Total	124	240	526	890

Calculating $X^2_c = \sum \left[\frac{(53-75)^2}{53} + \frac{(71-49)^2}{71} + \frac{(134-144)^2}{134} + \frac{(106-96)^2}{106} + \frac{(348-316)^2}{348} + \frac{(178-210)^2}{178} \right]$

$$X^2_c = \left[\frac{484}{53} + \frac{484}{71} + \frac{100}{134} + \frac{100}{106} + \frac{1024}{348} + \frac{1024}{178} \right]$$

$$X_c^2 = [9.1321 + 6.8169 + 0.7463 + 0.9434 + 2.9425 + 5.7528]$$

$$X_c^2 = 26.334$$

At 95% level of significance and $[(r-1)(c-1) = (2-1)(3-1) = 1(2) =]$ 2 degrees of freedom, $X_t^2 = 5.99$.

Table 133: Observed values – Being trusted

Regions	1-4	5-7	8-10	Total
Central	-	$\frac{466 \times 535}{890} = 280$	$\frac{424 \times 535}{890} = 255$	535
Northern	-	$\frac{466 \times 355}{890} = 186$	$\frac{424 \times 355}{890} = 169$	355
Total	-	466	424	890

$$\text{Calculating } X_c^2 = \sum \left[\frac{(235-280)^2}{235} + \frac{(231-186)^2}{231} + \frac{(300-255)^2}{300} + \frac{(124-169)^2}{124} \right]$$

$$X_c^2 = \left[\frac{2025}{235} + \frac{2025}{231} + \frac{2025}{300} + \frac{2025}{124} \right]$$

$$X_c^2 = [8.6170 + 8.7662 + 6.75 + 16.3306]$$

$$X_c^2 = 40.4638$$

At 95% level of significance and $[(r-1)(c-1) = (2-1)(3-1) = 1(2) =]$ 2 degrees of freedom, $X_t^2 = 5.99$.

Table 134: Observed values – Growing relationships

Regions	1-4	5-7	8-10	Total
Central	-	$\frac{434 \times 535}{890} = 261$	$\frac{456 \times 535}{890} = 274$	535
Northern	-	$\frac{434 \times 355}{890} = 173$	$\frac{456 \times 355}{890} = 182$	355
Total	-	434	456	890

$$\text{Calculating } X_c^2 = \sum \left[\frac{(225-261)^2}{225} + \frac{(209-173)^2}{209} + \frac{(310-274)^2}{310} + \frac{(146-182)^2}{146} \right]$$

$$X_c^2 = \left[\frac{1296}{225} + \frac{1296}{209} + \frac{1296}{310} + \frac{1296}{146} \right]$$

$$X_c^2 = [5.76 + 6.2010 + 4.1806 + 8.8767]$$

$$X_c^2 = 25.0183$$

At 95% level of significance and $[(r-1)(c-1) = (2-1)(3-1) = 1 (2) =]$ 2 degrees of freedom, $X_t^2 = 5.99$.

Table 135: Observed values – Effective policy

Regions	1-4	5-7	8-10	Total
Central	-	$\frac{239 \times 535}{890} = 144$	$\frac{651 \times 535}{890} = 391$	535
Northern	-	$\frac{239 \times 355}{890} = 95$	$\frac{651 \times 355}{890} = 260$	355
Total	-	239	651	890

$$\text{Calculating } X_c^2 = \sum \left[\frac{(86-144)^2}{86} + \frac{(153-95)^2}{153} + \frac{(449-391)^2}{449} + \frac{(202-260)^2}{202} \right]$$

$$X_c^2 = \left[\frac{3364}{86} + \frac{3364}{153} + \frac{3364}{449} + \frac{3364}{202} \right]$$

$$X_c^2 = [39.1163 + 21.9869 + 7.4922 + 16.6535]$$

$$X_c^2 = 85.2489$$

At 95% level of significance and $[(r-1)(c-1) = (2-1)(3-1) = 1 (2) =]$ 2 degrees of freedom, $X_t^2 = 5.99$.

Table 136: Observed value – Reasonableness

Regions	1-4	5-7	8-10	Total
Central	$\frac{44 \times 535}{890} = 26$	$\frac{290 \times 535}{890} = 174$	$\frac{556 \times 535}{890} = 334$	535
Northern	$\frac{44 \times 355}{890} = 18$	$\frac{290 \times 355}{890} = 116$	$\frac{556 \times 355}{890} = 222$	355
Total	44	290	556	890

$$\text{Calculating } X_c^2 = \sum \left[\frac{(16-26)^2}{16} + \frac{(28-18)^2}{28} + \frac{(155-174)^2}{155} + \frac{(135-116)^2}{135} + \right.$$

$$\left. \frac{(364-334)^2}{364} + \frac{(192-222)^2}{192} \right]$$

$$X_c^2 = \left[\frac{100}{16} + \frac{100}{28} + \frac{361}{155} + \frac{361}{135} + \frac{900}{364} + \frac{900}{192} \right]$$

$$X_c^2 = [6.25 + 3.5714 + 2.329 + 2.6741 + 2.4725 + 4.6875]$$

$$X_c^2 = 21.9845$$

At 95% level of significance and $[(r-1)(c-1) = (2-1)(3-1) = (1)(2) =]$ 2 degrees of freedom, $X_t^2 = 5.99$.

Table 137: Observed values – Motivation

Regions	1-4	5-7	8-10	Total
Central	-	$\frac{467 \times 535}{890} = 281$	$\frac{423 \times 535}{890} = 254$	535
Northern	-	$\frac{467 \times 355}{890} = 95$	$\frac{423 \times 355}{890} = 169$	355
Total	-	467	423	890

$$\text{Calculating } X_c^2 = \sum \left[\frac{(219-281)^2}{219} + \frac{(248-186)^2}{248} + \frac{(316-254)^2}{316} + \frac{(107-169)^2}{107} \right]$$

$$X_c^2 = \left[\frac{3844}{219} + \frac{3844}{248} + \frac{3844}{316} + \frac{3844}{107} \right]$$

$$X_c^2 = [17.5525 + 15.5 + 12.1646 + 35.9252]$$

$$X_c^2 = 81.1423$$

At 95% level of significance and $[(r-1)(c-1) = (2-1)(3-1) = 1 (2) =]$ 2 degrees of freedom, $X_t^2 = 5.99$.

Table 138: Observed values – setting questions

Regions	1-4	5-7	8-10	Total
Central	0	$\frac{135 \times 81}{189} = 58$	$\frac{108 \times 135}{189} = 77$	135
Northern	0	$\frac{81 \times 54}{189} = 23$	$\frac{108 \times 54}{189} = 31$	54
Total	0	81	108	189

Calculating X_c^2 :

$$X_c^2 = \sum \left[\frac{(50 - 58)^2}{50} + \frac{(31 - 33)^2}{31} + \frac{(85 - 77)^2}{85} + \frac{(23 - 31)^2}{23} \right]$$

$$X_c^2 = \sum \left[\frac{64}{50} + \frac{64}{31} + \frac{64}{85} + \frac{64}{23} \right]$$

$$X_c^2 = [1.28 + 2.0645 + 0.7529 + 2.7826]$$

$$X_c^2 = 6.88$$

At 95% level of significance and $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom $X_t^2 = 5.99$.

Table 139: Observed values – teachers regularity

Region	1-4	5-7	8-10	Total
Central	0	$\frac{94 \times 135}{189} = 67$	$\frac{94 \times 135}{189} = 68$	135
Northern	0	$\frac{94 \times 54}{189} = 27$	$\frac{94 \times 54}{189} = 27$	54
Total	0	94	95	189

Calculating X_c^2 ,

$$X_c^2 = \sum \left[\frac{(63 - 67)^2}{63} + \frac{(31 - 27)^2}{31} + \frac{(72 - 68)^2}{72} + \frac{(23 - 27)^2}{23} \right]$$

$$X_c^2 = \sum \left[\frac{16}{61} + \frac{16}{31} + \frac{16}{72} + \frac{16}{23} \right]$$

$$X_c^2 = [0.2540 + 0.5161 + 0.2222 + 0.6957]$$

$$X_c^2 = 1.684$$

At 95% level of significance and $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, $X_t^2 = 5.99$

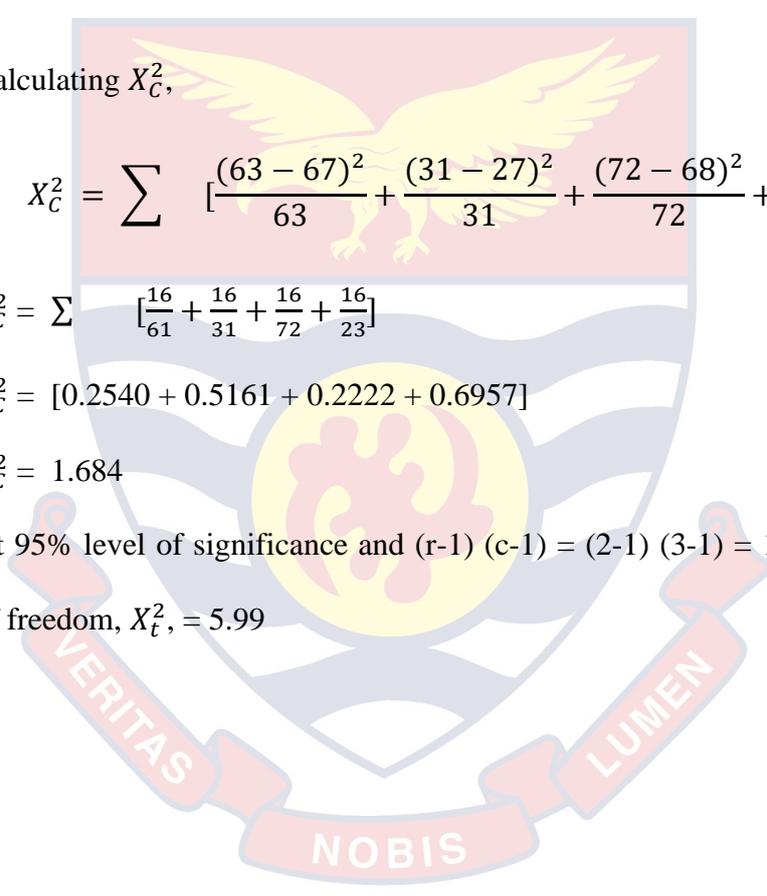


Table 140: Observed values – teachers punctuality

Regions	1-4	5-7	8-10	Total
Central	0	$\frac{91 \times 135}{189} = 65$	$\frac{135 \times 98}{198} = 70$	135
Northern	0	$\frac{91 \times 54}{189} = 26$	$\frac{98 \times 54}{189} = 28$	54
Total	0	91	98	189

Calculating X_c^2 ,

$$X_c^2 = \sum \left[\frac{(63 - 65)^2}{65} + \frac{(28 - 26)^2}{28} + \frac{(72 - 70)^2}{72} + \frac{(26 - 28)^2}{26} \right]$$

$$X_c^2 = \sum \left[\frac{4}{65} + \frac{4}{28} + \frac{4}{72} + \frac{4}{26} \right]$$

$$X_c^2 = 0.4138$$

At 95% level of significance and $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, $X_t^2 = 5.99$

Table 141: Observed values – ideas at meetings

Regions	1-4	5-7	8-10	Total
Central	0	$\frac{60 \times 135}{189} = 43$	$\frac{129 \times 135}{189} = 92$	135
Northern	0	$\frac{60 \times 54}{189} = 17$	$\frac{129 \times 54}{189} = 37$	54
Total	0	60	129	189

Calculating X_c^2

$$X_c^2 = \sum \left[\frac{(28 - 43)^2}{28} + \frac{(32 - 17)^2}{32} + \frac{(107 - 92)^2}{107} + \frac{(22 - 37)^2}{22} \right]$$

$$X_c^2 = \sum \left[\frac{225}{28} + \frac{225}{32} + \frac{225}{107} + \frac{225}{22} \right]$$

$$X_c^2 = 27.3971$$

At 95% level of significance and $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, $X_t^2 = 5.99$

Table 142: Observed values – obeying rules

Regions	1-4	5-7	8-10	Total
Central	0	$\frac{68 \times 135}{189} = 49$	$\frac{121 \times 135}{189} = 86$	135
Northern	0	$\frac{68 \times 54}{189} = 19$	$\frac{121 \times 54}{189} = 15$	54
Total	0	68	108	189

Calculating X_C^2

$$X_C^2 = \sum \left[\frac{(40 - 49)^2}{21} + \frac{(28 - 19)^2}{6} + \frac{(95 - 86)^2}{49} + \frac{(26 - 35)^2}{53} \right]$$

$$X_C^2 = \sum \left[\frac{81}{40} + \frac{81}{28} + \frac{81}{95} + \frac{81}{26} \right]$$

$$X_C^2 = [2.025 + 2.8929 + 0.8526 + 3.1154]$$

$$X_C^2 = 8.8859$$

Calculating X_C^2

At 95% level of significance and $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, $X_t^2 = 5.99$

Table 143: Observed values – marked scripts

Regions	1-4	5-7	8-10	Total
Central	0	$\frac{78 \times 135}{189} = 56$	$\frac{111 \times 135}{189} = 79$	135
Northern	0	$\frac{78 \times 54}{189} = 22$	$\frac{111 \times 54}{189} = 31$	54
Total	0	78	111	189

Calculating the X_C^2

$$X_C^2 = \sum \left[\frac{(50 - 56)^2}{21} + \frac{(28 - 22)^2}{6} + \frac{(85 - 79)^2}{49} + \frac{(26 - 35)^2}{53} \right]$$

$$X_C^2 = \frac{\Sigma [36]}{50} + \frac{36}{28} + \frac{36}{85} + \frac{36}{26}]$$

$$X_C^2 = [0.72 + 1.2857 + 0.4235 + 1.3346]$$

$$X_C^2 = 3.8136$$

At 95% level of significance and $(r-1) (c-1) = (2-1) (3-1) = 1 (2) = 2$ degrees of freedom, $X_t^2, = 5.99$

Comparing the two regions for any differences in teachers supervising students to maintain good sanitary conditions in the schools, the null hypothesis, H_0 : there is no difference between the two regions for teachers supervising students to maintain good sanitary conditions in the school.

H_1 : there is difference between the two regions for teachers supervising students to maintain good sanitary conditions in the school.

Table 144: Calculating the observe values

Regions	1-4	5-7	8-10	Total
Central	0	$\frac{74 \times 135}{189} = 53$	$\frac{115 \times 135}{189} = 82$	135
Northern	0	$\frac{74 \times 54}{189} = 21$	$\frac{115 \times 54}{189} = 33$	54
Total	0	74	115	189

Calculating X_C^2

$$X_C^2 = \sum \left[\frac{(45 - 53)^2}{21} + \frac{(29 - 21)^2}{6} + \frac{(90 - 82)^2}{49} + \frac{(25 - 33)^2}{53} \right]$$

$$X_C^2 = \frac{\Sigma [64]}{45} + \frac{64}{29} + \frac{64}{90} + \frac{64}{25}]$$

$$X_C^2 = [1.4222 + 2.2069 + 0.7111 + 2.56] = 6.9002$$

Calculating X_C^2

At 95% level of significance and $(r-1) (c-1) = (2-1) (3-1) = 1 (2) = 2$ degrees of freedom, $X_t^2, = 5.99$

Comparing for the two regions, for difference in teachers marking examination scripts, the null hypothesis, H_0 : there is no difference in teachers marking examination scripts in the two regions and the alternate hypothesis is H_1 : there is difference in teachers marking the examination scripts in the two regions. Calculating the observed values.

Table 145: Observed values – discussing exams scripts

Regions	1-4	5-7	8-10	Total
Central	0	$\frac{48 \times 135}{189} = 34$	$\frac{141 \times 135}{189} = 101$	135
Northern	0	$\frac{48 \times 54}{189} = 14$	$\frac{141 \times 54}{189} = 40$	54
Total	0	48	141	189

Calculating X_C^2

$$X_C^2 = \sum \left[\frac{(34 - 34)^2}{34} + \frac{(14 - 14)^2}{14} + \frac{(101 - 101)^2}{101} + \frac{(40 - 40)^2}{40} \right]$$

$$X_C^2 = \frac{\sum [0]}{34} + \frac{0}{14} + \frac{0}{101} + \frac{0}{40} = 0+0+0+0 = 0$$

At 95% level of significance and $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, $X_t^2 = 5.99$

Comparing the two regions for any difference in students attendance to all school gatherings, the null hypothesis H_0 : there is no difference in students attending all school functions in the two regions, and the alternate hypothesis, H_1 : there is difference in students attending all school functions in the two regions.

Table 146: Observed values – school functions

Regions	1-4	5-7	8-10	Total
Central	0	$\frac{93 \times 135}{189} = 66$	$\frac{76 \times 135}{189} = 70$	135
Northern	0	$\frac{93 \times 84}{189} = 27$	$\frac{76 \times 54}{189} = 26$	54
Total	0	93	96	189

Calculating X_C^2

$$X_C^2 = \sum \left[\frac{(63 - 66)^2}{63} + \frac{(30 - 27)^2}{30} + \frac{(78 - 70)^2}{72} + \frac{(24 - 26)^2}{24} \right]$$

$$X_C^2 = \sum \left[\frac{9}{63} + \frac{9}{30} + \frac{4}{72} + \frac{4}{24} \right]$$

$$X_C^2 = \sum \left[\frac{(21 - 16)^2}{21} + \frac{(6 - 11)^2}{6} + \frac{(49 - 62)^2}{49} + \frac{(53 - 40)^2}{53} \right. \\ \left. + \frac{(76 - 62)^2}{76} + \frac{(25 - 40)^2}{25} + \frac{(394 - 400)^2}{394} \right. \\ \left. + \frac{(266 - 260)^2}{266} \right]$$

$$X_C^2 = [0.1429 + 0.3 + 0.0556 + 0.1667] = 0.6652$$

At 95% level of significance and $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, $X_t^2 = 5.99$

Comparing the regions to find out if there is any difference in resolving conflicts in the two regions, the null hypothesis is H_0 : There is no difference between the two regions in resolving students conflicts effectively and the alternate hypothesis, H_1 : there is difference between the two regions in resolving students conflicts effectively.

Table 147: Observed values – students conflict

Regions	1-4	5-7	8-10	Total
Central	0	$\frac{76 \times 135}{189} = 54$	$\frac{13 \times 135}{189} = 81$	135
Northern	0	$\frac{70 \times 54}{189} = 22$	$\frac{76 \times 54}{189} = 22$	54
Total	0	76	113	189

Calculating X_c^2

$$X_c^2 = \sum \left[\frac{(51 - 54)^2}{51} + \frac{(25 - 22)^2}{25} + \frac{(84 - 81)^2}{84} + \frac{(29 - 32)^2}{29} \right]$$

$$X_c^2 = \left[\frac{9}{51} + \frac{9}{25} + \frac{9}{84} + \frac{9}{29} \right]$$

$$X_c^2 = [0.1765 + 0.36 + 0.1071]$$

$$X_c^2 = 0.9539$$

At 95% level of significance and $(r-1)(c-1) = (2-1)(3-1) = 1(2) = 2$ degrees of freedom, $X_t^2 = 5.99$

Table 148: Correlation for measuring leadership effectiveness for Grade A

X	X ²	Y	Y ²	XY
17	289	13	169	221
27	729	4	16	108
29	841	11	121	319
15	225	15	225	225
19	361	7	49	133
23	529	14	196	322
21	441	18	324	378
24	576	24	576	576
26	676	25	625	650
26	676	19	361	494
19	361	17	289	323
17	289	15	225	255
24	576	19	361	456
43	1849	19	361	817
33	1089	22	484	720
40	1600	32	1024	1280
30	900	26	676	780
12	144	10	100	120
27	729	22	484	594
21	441	19	361	399
47	2209	22	484	1034
33	1089	15	225	495
23	529	19	361	437
39	1521	24	576	936
ΣX = 635	ΣX² = 18669	ΣY = 431	ΣY² = 8673	ΣXY = 12078

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{[\sum X^2 - (\sum X)^2][\sum Y^2 - (\sum Y)^2]}$$

$$= \frac{24(12078) - (635)(431)}{\sqrt{[24(18669) - (635)^2][24(8673) - (431)^2]}}$$

$$= \frac{289872 - 273685}{\sqrt{[448056403225][208152185761]}}$$

$$= \frac{16187}{\sqrt{(44831)(22391)}} = \frac{16187}{31682.9705} = 0.5109053008$$

Table 149: Measuring leadership effectiveness for Grade B

X	X ²	Y	Y ²	XY
16	256	13	169	208
25	625	9	81	225
49	2401	21	441	1029
25	625	15	225	375
41	1681	18	324	738
32	1024	14	196	448
26	676	18	324	468
58	3364	34	1156	1972
45	2025	28	784	1260
38	1444	12	144	456
23	529	16	256	368
45	2025	24	576	1080
44	1936	23	529	1012
55	3025	25	625	1375
35	1225	26	676	910
52	2704	33	1089	1716
36	1296	29	841	1044
34	1156	22	484	748
32	1024	28	784	896
20	400	11	121	220
33	1089	20	400	660
32	1024	24	576	768
32	1024	21	441	672
33	1089	23	529	759
$\Sigma X = 861$	$\Sigma X^2 = 33667$	$\Sigma Y = 504$	$\Sigma Y^2 = 11771$	$\Sigma XY = 119407$

$$r_{xy} = \frac{n\Sigma XY - (\Sigma X)(\Sigma Y)}{[\Sigma X^2 - (\Sigma X)^2][\Sigma Y^2 - (\Sigma Y)^2]}$$

$$= \frac{24(19407) - (861)(504)}{\sqrt{[24(33667) - (861)^2][24(11771) - (504)^2]}}$$

$$= \frac{465768 - 433944}{\sqrt{[176760 - 173889][38184 -]}}$$

$$= \frac{31824}{\sqrt{(66687)(28488)}} = \frac{31824}{43586.45725} = 0.7301350467$$

= 0.73(2.dp)

Table 150: Measuring leadership effectiveness for Grad C schools

X	X ²	Y	Y ²	XY
37	1369	22	484	814
32	1024	13	144	3184
35	1225	30	900	1050
34	1156	18	324	612
23	529	21	441	483
42	1764	22	484	924
29	841	16	196	464
41	1681	26	676	1066
35	1225	31	961	1085
37	1369	22	484	814
38	1444	26	676	988
41	1681	23	529	43
33	1089	19	361	627
42	1964	23	529	966
42	1764	33	1089	1386
37	1369	29	841	1073
43	1849	37	1369	1591
21	441	12	144	252
34	1156	15	225	510
32	1024	20	400	640
30	900	21	441	630
27	729	18	324	486
34	1156	22	484	748
25	1225	21	441	735
$\Sigma X = 834$	$\Sigma X^2 = 29774$	$\Sigma Y = 539$	$\Sigma Y^2 = 12947$	$\Sigma XY = 19271$

$$r_{xy} = \frac{n\Sigma XY - (\Sigma X)(\Sigma Y)}{[\Sigma X^2 - (\Sigma X)^2][\Sigma Y^2 - (\Sigma Y)^2]}$$

$$= \frac{24(19271) - (834)(539)}{\sqrt{[24(29774) - (834)^2][24(12947) - (539)^2]}}$$

$$= \frac{462504 - 449526}{\sqrt{[714576695556][310728 - 290521]}}$$

$$= \frac{12978}{\sqrt{(39020)(20207)}} = \frac{12978}{19604.51836}$$

= 0.6619902495 = 0.66(2dp). That is 66%

= 0.6619902495 = 0.66(2dp). That is 66%

Table 151: Comparing leadership effectiveness – Combined Grades

X	X ²	Y	Y ²	XY
23	529	6	256	368
38	1444	13	169	494
38	1444	21	441	798
25	625	16	256	400
28	784	15	225	420
32	1024	17	289	544
25	625	17	289	425
41	1681	28	784	1148
35	1225	28	184	980
35	1225	18	324	630
27	729	23	529	621
34	1156	21	441	714
34	1156	20	400	680
37	1369	22	484	814
37	1369	27	729	999
42	1764	31	961	1302
36	1296	31	961	116
22	484	15	225	330
31	961	22	484	682
24	576	17	289	408
37	1369	21	441	777
31	961	19	361	589
30	900	21	441	630
36	1296	23	529	828
ΣX = 778	Σ X² = 25992	ΣY = 502	Σ Y² = 11092	ΣXY = 16697

$$\begin{aligned}
 r_{xy} &= \frac{n\sum XY - (\sum X)(\sum Y)}{[\sum X^2 - (\sum X)^2][\sum Y^2 - (\sum Y)^2]} \\
 &= \frac{24(16697) - (778)(502)}{\sqrt{[24(25992) - (778)^2][24(11092) - (502)^2]}} \\
 &= \frac{400728 - 390556}{\sqrt{[623808 - 605284][266208 - 252004]}} \\
 &= \frac{10172}{\sqrt{(18524)(14204)}} = \frac{10172}{16220.81675} \\
 &= 0.6270954266.063(2dp) \\
 &= \frac{10172}{16220.81675} = 0.6270954266 = 0.63(2dp)
 \end{aligned}$$

COMPARATIVE ANALYSIS OF DETAILED RESULTS OF WASSCE 2016/2017

SUBJECTS	GRADES																		TOTAL		% PASS		% FAIL			
	A1		B2		B3		C4		C5		C6		D7		E8		F9									
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017		
CORE	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
ENGLISH	72	147	161	205	470	486	109	119	58	51	52	38	12	06	07	03	01	01	01	01	942	1056	99.9	99.9	0.1	0.1
MATHEMATICS	280	141	83	121	200	308	41	83	51	106	107	152	54	90	60	43	65	08	08	08	941	1052	93.1	99.2	6.9	0.8
INTEGRATED SCIENCE	412	226	143	122	206	339	59	96	35	91	41	107	26	53	15	14	04	02	02	02	941	1050	99.6	99.8	0.4	0.2
SOCIAL STUDIES	230	145	259	140	307	352	57	113	38	99	32	110	13	51	04	26	01	14	14	14	941	1050	99.9	98.7	0.1	1.3
ELECTIVE																										
MATHEMATICS	278	214	100	71	149	143	60	65	49	48	87	107	65	88	49	111	25	106	862	953	97.1	88.9	2.9	11.1		
PHYSICS	134	34	88	41	180	226	53	75	50	93	71	136	20	35	13	15	11	02	620	657	98.2	99.7	1.8	0.3		
TECHNICAL DRAWING	41	67	27	33	70	70	24	09	23	09	32	15	10	03	11	01	04	-	242	207	98.3	100.0	1.7	0.0		
CHEMISTRY	160	203	97	110	155	181	33	32	16	25	36	18	08	03	07	01	03	02	515	575	99.4	99.7	0.6	0.3		
BIOLOGY	168	274	60	64	82	49	19	06	09	03	09	02	03	-	01	-	-	-	351	398	100.0	100.0	100.0	0.0		
FRENCH	37	56	19	37	34	35	04	13	04	04	09	06	02	02	02	01	03	02	114	156	97.4	98.7	2.6	1.3		
HISTORY	19	36	22	42	69	74	20	15	21	09	15	10	06	02	03	03	04	01	179	192	97.8	99.5	2.2	0.5		
GEOGRAPHY	61	28	34	26	88	80	17	18	25	41	21	78	13	50	09	23	05	17	273	361	98.2	95.3	1.8	4.7		
ECONOMICS	09	16	20	29	58	81	28	31	29	22	52	55	22	10	21	25	10	26	249	295	96.0	91.2	4.0	8.8		
LIT-IN-ENGLISH	-	-	01	-	06	08	06	06	02	11	16	23	04	09	04	01	10	02	049	060	79.6	96.7	20.4	3.3		
MUSIC	01	03	01	03	03	08	01	-	-	02	-	02	01	-	-	-	-	-	007	018	100.0	100.0	0.0	0.0		
C.R.S.	12	10	04	07	06	15	02	02	03	02	10	05	03	02	01	02	-	01	041	046	97.6	97.8	2.4	2.2		
CERAMICS	13	09	06	06	13	23	04	09	03	08	02	05	01	02	01	02	-	-	043	064	100.0	100.0	0.0	0.0		
GKA	06	11	04	05	09	25	05	06	02	05	12	07	01	03	02	01	02	01	043	064	95.3	98.4	4.7	1.6		
GRAPHIC DESIGN	07	03	01	03	07	18	01	06	03	07	02	07	08	07	05	03	02	-	036	054	94.4	100.0	5.6	0.0		
PICTURE MAKING	01	-	01	-	02	03	-	01	-	01	01	01	01	03	01	01	-	-	007	010	100.0	100.0	0.0	0.0		
BUILDING CONSTRUCTION	13	09	02	09	16	15	06	-	04	-	02	01	01	01	-	-	-	-	044	035	100.0	100.0	0.0	0.0		
APPLIED ELECTRICITY	05	02	07	03	15	13	01	06	05	08	04	04	03	-	01	01	-	-	041	037	100.0	100.0	0.0	0.0		
METAL WORK	02	04	01	-	06	01	03	03	02	01	02	-	03	-	-	-	-	-	019	009	100.0	100.0	0.0	0.0		
WOOD WORK	-	01	-	-	01	-	-	-	-	-	-	-	-	-	-	-	-	-	001	001	100.0	100.0	0.0	0.0		
TOTAL	1961	1639	1141	1077	2152	2553	553	714	432	646	615	889	280	420	217	277	150	185	7501	8400	-	-	-	-	-	-
% GRADE	26.1	19.5	15.2	12.8	28.7	30.4	07.4	08.5	05.8	07.7	08.2	10.6	03.7	05.0	03.9	03.3	02.0	02.2	100	100	98.0	97.8	2.0	2.2		

MFANTSIPIM SCHOOL

COMPARATIVE ANALYSIS OF DETAILED RESULTS OF WASSCE 2018/2019

SUBJECTS	GRADES												TOTAL		% PASS		% FAIL									
	A1		B2		B3		C4		C5		C6		D7		E8		F9		K							
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019						
CORE	21	12	76	84	403	297	240	145	137	52	129	56	18	17	10	5	07	3	1	1041	671	99.3	99.6	0.7	0.4	
ENGLISH	202	420	83	62	284	101	67	18	80	23	152	31	86	7	50	7	38	2	1	1042	671	96.4	99.7	3.6	0.3	
MATHEMATICS	189	221	139	144	327	203	140	43	79	24	104	25	47	9	16	1	00	1	1	1041	671	100	99.9	0.0	0.1	
INTEGRATED SCIENCE	440	340	180	137	262	136	58	26	28	10	37	10	21	5	09	6	07	1	1	1042	671	99.3	99.9	0.7	0.1	
SOCIAL STUDIES																										
ELECTIVE																										
MATHEMATICS	247	110	72	67	183	128	91	54	62	40	107	69	79	64	59	31	58	49	2	958	612	93.9	92	6.1	8.0	
PHYSICS	68	86	58	93	245	170	79	40	109	37	91	41	44	12	25	8	02	2	1	721	489	99.7	99.6	0.3	0.4	
CHEMISTRY	23	59	43	53	164	192	96	55	89	31	149	36	54	8	18	4	06	0	1	642	438	99.1	100	0.9	0.0	
BIOLOGY	26	111	56	82	191	103	68	15	33	4	51	7	05	0	04	0	-	0	1	433	322	100	100	0.0	0.0	
TECHNICAL DRAWING	31	55	37	31	79	40	32	6	11	2	17	3	03	1	03	0	02	0	0	215	138	99.1	100	0.9	0.0	
GEOGRAPHY	26	37	23	29	139	51	33	9	42	13	35	15	03	9	09	5	02	0	0	312	168	99.4	100	0.6	0.0	
ECONOMICS	10	12	18	17	74	39	27	23	21	14	51	19	17	10	12	9	34	7	0	264	150	87.1	95.3	12.9	4.7	
FRENCH	27	15	35	8	52	27	08	5	-	6	04	6	02	0	02	2	02	0	0	132	69	98.5	100	1.5	0.0	
HISTORY	35	23	31	8	58	22	11	3	11	12	10	11	02	6	01	3	01	5	0	160	93	99.4	94.6	0.6	3.4	
UT-IN-ENGLISH	01	0	02	0	03	1	03	1	01	2	08	4	08	1	04	3	01	1	0	31	13	96.8	92.3	3.2	7.7	
MUSIC	06	3	01	1	02	5	01	0	-	0	01	0	-	0	-	0	01	0	0	12	9	91.7	100	8.3	0.0	
C.R.S.	15	6	08	3	24	11	07	7	03	4	10	11	01	0	01	1	01	0	0	70	43	98.6	100	1.4	0.0	
CERAMICS	16	12	05	7	12	7	02	2	05	1	04	0	03	0	02	0	-	0	0	49	29	100	100	0.0	0.0	
GKA	17	16	06	3	11	7	06	3	-	0	04	0	02	0	02	0	01	0	0	49	29	98.0	100	2.0	0.0	
PICTURE MAKING	02	1	-	3	01	4	-	0	-	0	-	0	-	0	01	0	-	0	1	04	8	100	100	0.0	0.0	
GRAPHIC DESIGN	03	1	09	1	15	5	04	0	02	3	05	2	04	4	03	2	-	2	0	45	20	100	90	0.0	10	
BUILDING CONSTRUCTION	13	13	02	4	12	1	01	1	-	1	02	0	-	1	-	0	-	0	0	30	21	100	100	0.0	0.0	
APPLIED ELECTRICITY	05	7	03	3	15	2	02	1	02	3	09	1	02	0	-	0	-	0	0	38	17	100	100	0.0	0.0	
METAL WORK	01	6	02	3	03	3	02	0	01	0	01	0	-	0	-	0	-	0	0	10	12	100	100	0.0	0.0	
WOOD WORK	1	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	01	1	100	1	0.0	0.0	
TOTAL	1425	1567	889	843	2559	1555	978	457	716	282	981	347	401	154	231	87	163	73	10	8343	5365	-	2362.9	-	35.1	
% GRADE (DECIMALS)	-	0.292	-	0.16	-	0.29	-	0.09	-	0.05	-	0.06	-	0.029	-	0.02	-	0.01	0	-	1	-	-	-	-	-
% GRADE (ACTUALS)	17.1	29.2	10.7	15.7	30.7	28.9	11.7	8.5	8.9	5.3	11.8	6.5	4.8	2.9	2.8	2	2.0	1	-	100	100	98.0	98.5	2.0	1.5	

MFANTSIPIM SCHOOL

COMPARATIVE ANALYSIS OF DETAILED RESULTS OF WASSCE 2019/2020

SUBJECTS	GRADES												TOTAL		% PASS		% FAIL								
	A1		B2		B3		C4		C5		C6		D7		E8		F9		K						
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020					
ENGLISH	12	64	84	92	297	392	145	60	52	58	56	47	17	14	5	2	3	0	1	671	729	99.6	100	0.4	0.0
MATHEMATICS	420	243	62	91	101	186	18	40	23	53	31	61	7	29	7	21	2	5	1	671	729	99.7	99.3	0.3	0.7
INTEGRATED SCIENCE	221	220	144	90	203	217	43	51	24	65	25	59	9	19	1	8	1	0	1	671	729	99.9	100	0.1	0.0
SOCIAL STUDIES	340	205	137	122	136	214	26	66	10	38	10	51	5	13	6	7	1	13	1	671	729	99.9	98.2	0.1	1.8
ELECTIVE																									
MATHEMATICS	110	209	67	62	128	160	54	53	40	31	69	57	64	34	31	17	49	5	1	612	628	92	99.2	8.0	0.8
PHYSICS	86	62	93	59	170	141	40	60	37	50	41	78	12	24	8	9	2	3	1	489	486	99.6	99.4	0.4	0.6
CHEMISTRY	59	138	53	88	192	148	55	34	31	24	36	6	8	1	4	0	0	0	1	438	439	100	100	0.0	0.0
BIOLOGY	111	122	82	92	103	85	15	8	4	1	7	3	0	1	0	0	0	0	1	322	312	100	100	0.0	0.0
TECHNICAL DRAWING	55	135	31	7	40	3	6	0	2	0	3	0	1	0	0	0	0	0	0	138	145	100	100	0.0	0.0
GEOGRAPHY	37	14	29	18	51	64	9	14	13	29	15	45	9	15	5	10	0	0	0	168	209	100	100	0.0	0.0
ECONOMICS	12	18	17	17	39	58	23	20	14	26	19	31	10	9	9	9	7	8	0	150	196	95.3	96.0	4.7	4.0
FRENCH	15	21	8	28	27	34	5	4	6	3	6	1	0	1	2	0	0	0	0	69	92	100	100	0.0	0.0
HISTORY	23	56	8	35	22	40	3	3	12	6	11	3	6	0	3	0	5	0	0	93	143	94.6	100	3.4	0.0
LIT-IN-ENGLISH	0	0	0	0	1	0	1	0	2	2	4	14	1	7	3	11	1	2	0	13	36	92.3	94.4	7.7	5.6
MUSIC	3	0	1	0	5	7	0	3	0	1	0	0	0	5	0	0	0	0	0	9	16	100	100	0.0	0.0
C.R.S.	6	38	3	13	11	25	7	5	4	2	11	3	0	0	1	0	0	0	0	43	86	100	100	0.0	0.0
CERAMICS	12	6	7	4	7	9	2	3	1	3	0	0	0	1	0	1	0	0	0	29	27	100	100	0.0	0.0
GKA	16	14	3	6	7	5	3	0	0	1	0	1	0	0	0	0	0	0	0	29	27	100	100	0.0	0.0
PICTURE MAKING	1	1	3	0	4	1	0	0	0	0	0	1	0	0	0	1	0	0	0	8	4	100	100	0.0	0.0
GRAPHIC DESIGN	1	14	1	3	5	4	0	0	3	0	2	2	4	0	2	0	2	0	0	20	23	90	100	10	0.0
BUILDING CONSTRUCTION	13	3	4	7	1	15	1	2	1	3	0	1	1	0	0	0	0	0	0	21	31	100	100	0.0	0.0
APPLIED ELECTRICITY	7	0	3	0	2	3	1	2	3	0	1	3	0	0	0	1	0	0	0	17	9	100	100	0.0	0.0
METAL WORK	6	1	3	1	3	1	0	0	0	2	0	1	0	0	0	0	0	0	0	12	6	100	100	0.0	0.0
WOOD WORK	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	100	0.0	0.0	
TOTAL	1567	1584	843	835	1555	1813	457	428	282	398	347	468	154	173	87	97	73	36	8	5365	5832	2362.9	2005.6	35.1	13.5
% GRADE	29.2	27.2	15.7	14.3	28.9	31.1	8.5	7.4	5.3	6.8	6.5	8.0	2.9	2.9	2.0	1.7	1	0.6	-	100	100	98.4	99.4	1.6	0.6