INSTITUTE OF DEVELOPMENT AND TECHNOLOGY MANAGEMENT

A PERCEPTION STUDY OF MOTIVATION, INTERPERSONAL RELATIONSHIPS AND PERFORMANCE OF TEACHERS IN PRETERTIARY SCHOOLS IN UPPER EAST REGION OF GHANA

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DECLARATION

Candidate's Declaration

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

Candidate's signature…… Date: ……

Name: Thomas Nipielim Tindan

Supervisor's Declaration

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

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ABSTRACT

It has been realized that teachers who assume duty in schools either get motivated or de-motivated with time. The study titled 'A Perception Study of Motivation, Interpersonal Relationships and Performance of Teachers in Pre-tertiary Schools in Upper East Region of Ghana' sought to understand the effect that a good interpersonal relationship in schools has on teacher motivation and how to improve teacher motivation by the deployment of a model of interpersonal relationships in pre-tertiary schools to engender better teacher motivation for better teacher performance. A number of research designs were used, involving both quantitative and qualitative designs. A mixed method approach was employed to collect, process and analyse data. The study is majorly an exploratory research. The major findings were that teachers in the region were satisfied with their job (56.6%) but not motivated (83.5%). Poor teacher motivation corresponded with poor student achievement in both national and international standardized tests. The association between the degree of motivation and the socio-economic factors was found to be a power relationship. Interpersonal relationships provided the highest motivation to teachers at a mean responds rate of 76.2%. An interpersonal relationships model of teacher motivation was formulated through Grounded Theory approach thus: $\mathbf{TM} = k\mathbf{R} + \boldsymbol{\mu}(f_{\epsilon})^{W}$. **TM** is teacher motivational level, **R** is the degree of interpersonal relationships in the school and f_{ϵ} is the combined effect of the socio-economic factors available to the teacher. *'k'*, $\boldsymbol{\mu}$ and *'W'* are sociometric parameters. Improving interpersonal relationships in pre-tertiary schools could therefore bring about a higher degree of teacher motivation.

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LIST OF ACRONYMS

BECE	Basic Education Certificate Examinations
CBE	Compulsory Basic Education
CE	College of Education
DA	District Assembly
DBE	Diploma in Basic Education
DEO	District Education Officer
EFTA-EEA	European Free Trade Association – European Economic Area
ERG	Existence, Relatedness and Growth
GES	Ghana Education Service
GNAT	Ghana National Association of Teachers
GPEG	Ghana Partnership for Education Grant
GSS	Ghana Statistical Service
IAEEA	International Association for the Evaluation of Educational Achievement (IEA)
IDTM	Institute of Development and Technology Management
INSET	In-Service Training
JHS	Junior High School
JSS	Junior Secondary School
LIC	Low Income Country
MAWS	Motivation at Work Scale
MoE	Ministry of Education
MoESS	Ministry of Education, Science and Sports
MoMYE	Ministry of Manpower, Youth and Education
MUSTER	Multi-site Teacher Education Resource Project
NABCO	Nation Builders Corp
NGO	Non-governmental Organization
NSS	National Service Scheme
OECD	Organization for Economic Cooperation and Development
OOSC	Out of School Children

PCR	Pupils-Classroom Ration
PIRLS	Progress in International Reading Literacy Study
PISA	Program for International Student Assessment
PNDC	Provisional National Defence Council
PRESET	Pre-Service Training
PTA	Parent Teacher Association
PTR	Pupils-Teacher Ratio
SDT	Self Determination Theory
SHS	Senior High School
SSS	Senior Secondary School
SSSCE	Senior Secondary School Examinations
TI	Technical Institute
TIMSS	Trends in International Mathematics and Science Study
TMS	Teacher Motivation Scale
TTC	Teacher Training College
UCC	University of Cape Coast
UER	Upper East Region
UK	United Kingdom
UNDP	United Nations Development Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations International Children Fund
US	United States
USA	United States of America
UTDBE	Untrained Teacher Diploma in Basic Education
VSO	Voluntary Services Organization
WASSCE	West African Senior Secondary Certificate Examinations
WB	World Bank
YEP	Youth Employment Project

CHAPTER ONE

INTRODUCTION

1.1 Rationale for the Study

The instinct which shoves people into doing things to achieve a goal is referred to as motivation (Harmar, 2001). As stated by Czubaj (1996), the failure or the success of any complex task is explained by one's motivation. It is motivation that is responsible for the way people choose to do or not to do certain things; and how long they are willing to keep up with what they choose to do and how hard they are going to prosecute it. In the educational enterprise, the motivational level of the teacher is a key factor in determining his performance (Dornyei, 2001).

It could be said that the most important group of professionals for a nation's future are its teachers. It is therefore very discomforting to observe that many teachers in contemporary times are dissatisfied with their jobs and/or not motivated. A study conducted by Bishay (1996) indicated that there is a significant positive correlation between job satisfaction and motivation among industrial workers. Fried (2011) and Huitt (2001) also concluded from their studies that academic performance of students has a strong correlation with teacher motivation. This indicates that teacher motivation correlates with teacher performance. A highly motivated teacher assists students through innovative and creative approaches to comprehend and assimilate what they have been taught, and to appropriately apply the concepts they have learned. Poorly motivated teacher will however, eventually kill the initiative of the students; and would not go the extra mile to make the learners understand.

Segaly (2006) noted that less motivated teachers respond the most to performance-based monetary incentives. Thus, the recurrent agitation for higher salary and material-

based incentives could be a reflection of a low level of motivation among teachers. This situation hints that salary and allowances are not the best way to motivate teachers.

It would be more rewarding if innovative approaches to teacher motivation which are not dependent on economic factors, as promulgated in this study, were employed. With the increasing demand for education (both in quality and quantity), with its attendant demand for more teachers, the economic approach to teacher motivation cannot be sustained. Besides, it is important not to base such a crucial educational factor on a non-reliable and volatile variable like lucre. There is need to ensure that teachers still give off their best in providing quality education for the children of the nation without recourse to the economic situation of the nation.

School administrators would want to engage the services of teachers who are well motivated. Motivated teachers are easy to manage and often cooperate well in the pursuit of the institutional goals.

Motivation does not result only from economic or physical factors. It comes as well from social factors that significantly shape human responses (Dunning, 2010). Humans are the highest social species on Earth. Therefore, social motives play very integral roles, in helping and navigating the complex social world in which they live. A teacher could be motivated by the kind of social interaction that exists between the teacher and the principal of the school in which he teaches or other persons that matter to the teacher. Teachers inspired by this type of motivation tend to discharge their duty so as to please those they admire, respect, or whose opinions are of some importance to them.

Social motivation elicits nonmaterial rewards; and is related in direct measure to the perceived interpersonal relationship that exist between the teacher and the principal and others whose reinforcement activities are considered important. Thus, the possibility of a positive correlation between the kind of social interaction that existed among the

key stakeholders in the school environment and the motivational level of the teacher was anticipated.

1.2 Statement of the Problem

What is the best approach to motivating teachers? Why is it that even though teachers' salaries are continually increased, they never stop threatening to lay down their tools if they are not given more? Which extrinsic or intrinsic factors, if sufficiently met will adequately solve the problem of teacher motivation? Will teacher motivation continue to grow as the extrinsic and intrinsic determinants of motivation of teachers are progressively enhanced? How do interpersonal relationships within the school environment affect the motivational level of teachers? These are the kinds of issues that the current study seeks to address.

Teachers are not sufficiently motivated in Ghana and in the African continent in general (Kingful, 2015). There is also the general lack of comprehension on the most appropriate approach to motivate teachers to do their best for optimum performance.

Research on motivation in education is very common. Besides, there is preponderance of research on student and pupil motivation; and then, some few also on teacher motivation. However, contemporary research and practice on teacher motivation is majorly based on what could be referred to as the 'carrot and stick' approach (Moldavanu, et. al, 2008) (an approach of motivation based on the principle of reinforcement – punishments and rewards). This approach undoubtedly has not succeeded in producing the desired outcome in teacher motivation.

Teachers, generally desire to be posted to schools where they can enjoy better social amenities (socioeconomic factors), like housing, electricity, pipe borne water, better library, laboratory and workshop facilities. Better allowances and opportunities for

promotion and advancement. They prefer to be posted to the cities or urban communities because of the availability of better socioeconomic opportunities. But it is clear that not sooner than they have been posted, their motivation wane. Many also get dissatisfied.

In the presence of the high level of dissatisfaction among teachers, the social environment of some schools is such that almost every teacher does not want to work in such schools. If teachers had their choice they would never stay to teach in such schools or accept posting to teach in such schools. It has been observed that some highly motivated teachers became 'de-motivated' after been appointed to teach in certain schools. The adage that 'a new broom sweeps clean' could be traced to this observation, since the zest of the teacher is not sustained with time. There are also some instances where teachers who were not motivated enough in certain schools became highly motivated after being engaged to teach in a different school even though the salary and other amenities – the socio-economic determinants of motivation, remained the same. Or even when there was a reshuffle of staff in the school. It is observed that even when the socio-economic variables that have been suggested to promote motivation were sustained and improved, there was still general dissatisfaction among teachers in certain schools (UNESCO, 2006). There are other institutions also, where the economic motivating conditions are lacking, yet the motivational level of teachers was very high and sustained. It is suspected that the social environment - specifically, the interpersonal relationships, could be a deciding factor. The prevailing social background could have a lot to do with teacher motivation. This is the knowledge gap that has not been properly researched into. And this is the gap in knowledge that the current study has been in quest for to fill.

Teacher motivation is crucial to the educational enterprise and national development. It is therefore unwise to leave it to unsustainable approaches like rewards and punishment. Motivation affects one's morale in a positive sense. When one's morale is boosted it also enhances positive work ethics which lead to increase in performance and productivity (Judge and Ilies, 2002). It is difficult to deny that the current approach to teacher motivation is not producing the desired effect. Teachers do not feel motivated. The assumption behind this study was that social interactions and interpersonal relationship in schools could lead to a higher teacher motivational level and bring about higher success or performance by teachers. The study is therefore aimed at providing evidence that interpersonal relationships between the teacher and his co-teachers, the pupils he teaches and the headteacher under whom he works are critical factors in teacher motivation.

1.3 Objective of the Study

1.3.1 General Objective

The principal focus of the study that yielded this report was to analyse teacher motivation and its determinants to provide knowledge for the improvement of teacher performance.

1.3.2 Specific Objectives

This prevailing objective was achieved as the following specific objectives were pursued. These were:

i Describe the state of teacher motivation and teacher performance in UER of Ghana.

ii Determine the link between teacher motivation (TM) and teacher performance (TP) in the UER.

iii Assess the socioeconomic determinants of teacher motivation in UER of Ghana.

iv Analyse the contribution of interpersonal relationships in schools to teacher motivation in UER of Ghana.

v Synthesize an improved teacher motivation system in UER of Ghana.

1.4 Research Questions

Critically looking at the above problem, the following questions were answered.

1 What is the state of teacher motivation and teacher performance in UER of Ghana?

2 What is the effect of teacher motivation on teacher performance in the UER?

3 What is the effect of the socioeconomic factors on teacher motivation?

4 How do interpersonal relationships in schools contribute to teacher motivation in the study area?

5 What model would result in an improved teacher motivation in the UER of Ghana?

The research objectives were achieved as answers were proffered to these questions.

1.5 The Scope of the Study

Public basic schools only were involved in the study. That is, Primary Schools (PS), Junior High Schools (JHS) and Senior High Schools (SHS) in the Upper East Region of Ghana. Over 90% of these schools were listed for the study. Twenty-seven (27) motivating factors were assessed, including those on interpersonal relationships.

The study was done only in the Upper East Region (UER). This was due to resource and time constraints, and for methodological expediency. Involving regions in the south especially, will increase heterogeneity and introduce many inapposite factors.

Even though other determinants of teacher motivation were analysed, the concentration was on interrelationships (social motivation). The interrelationship between

i the teacher and the head of the school (TH),

ii the teacher and colleague teachers (TT),

iii the teacher and the pupils (TP).

The start to the end of the project spanned over five years; it began in 2015 to 2021.

1.6 Limitation and Delimitations of the Study

The study, just as any research in social science, is not without limitations. Many analysts find much of merit in social science research and acknowledge the inherent difficulties of producing authoritative and durable knowledge in the field. Still, social science research has been criticized for, paradoxically, being both too theoretical and abstract and too close to practice. It has been maligned for being dispersed and unfocused, inconclusive, and easily disputed. Research in development studies and education has received similar criticisms.

The limitations of the current study include methodological shortcomings like inadequate samples, incomplete theoretical models, and simplistic measurement and analysis techniques. The lack of random allocation of groups or proper controls in the research design employed (qualitative) make it very difficult for a firm statistical analysis to be made and to ensure complete control of threats to internal validity. Nevertheless, attempts have been made to reduce the effect of this by the employment

of the census method in data collection, ensuring minimum extraneous variables and sampling from a homogenous population.

The delimitation of the study involves the sampling frame. It would be expected that for a study of such relevance and global in nature the sampling frame should involve schools drawn from the entire nation. This was not done. Schools in the Upper East Region of Ghana only were involved in the sampling frame. The approach however would not in any way invalidate the findings of the study for the following reasons.

i For qualitative research, if the dependent and the independent variables are clearly defined, and extraneous variables well controlled, the location and size of the sampling frame does not make significant impact on the findings (Frankel and Wallen, 2000). This idea is however, employed with caution in this study since it cannot be presumed that all the extraneous variables in the study are controlled.

ii Since not all the extraneous variables can be controlled, homogeneity of the sampling frame in terms of these factors will increase the reliability of the results of the study. That is, the socio-economic motivational factors ought to be fairly uniform in the selected schools. These extraneous factors are obviously socially, economically, culturally and technologically related. The disparities in these factors are more pronounced across regions than within regions (UNDP, 2000) in the country. The selection of schools within the Upper East Region only, is an attempt to reduce the disparities in the extraneous variables and to have schools that are fairly uniform in terms of those concomitant variables.

iii The study is not about the general effects of interpersonal relationships in schools or in the educational enterprise. But is about the effect of positive

interpersonal relationships on teacher motivation. Apparently, the concern is as to whether we can employ this means to motivate teachers to perform their best instead of money and other economic means. Consequently, the negative effect of interpersonal relationships in schools was not considered in the study.

1.7 Conclusion

The largest cost item in any education system is the salary bill and allowances for teachers, accounting for more than 70 per cent of recurrent spending in most developing countries (UNESCO, 2006). The major constraint therefore to the socio-economic form of teacher motivation is fiscal sustainability. National budgets cannot be able to continue to sustain the continual demand of teachers for higher pay. The danger is that performance of teachers will dwindle. Fiscal and material (economic) motivation is thus not sustainable.

Social motivation - the view that people in general have the motivation to engage with other people, to interact with one another, may yield better results. Social motivation does not depend on the budget, but on social capital. Yet people through the power social motivation can be influenced to behave in ways that differ from how they would behave if they only were motivated economically. Social motivation brings about cooperation through social equilibrium that cannot be achieved by economic motivation.

Social motivation hinges mainly on interpersonal relationships. Interpersonal relationships in schools affect both the behaviour and performance of teachers. Studies on the connection between the interpersonal relationships in schools and the motivational level of the teacher are not very common in social science research. There is however practical evidence that positive interpersonal relationships motivate people

to perform better. There is therefore the need for more work in this area since the findings could add useful information to knowledge. Moreover, the right application of the findings could bring about greater improvements in school performance.

1.8 Organization of the Study

In chapter one, foundational issues like the rationale of the study, statement of the problem, objectives of the study, research questions, together with the limitations and delimitations are discussed. Justification for the study is also provided in chapter one.

Besides this introductory chapter, review of relevant literature is provided in chapter two. Literature is reviewed on the concept of teacher motivation and how it impacts on teacher performance. The various theories of motivation, with emphasis on teacher motivation have been critically analysed. The popular theories on how to motivate the teacher have been reviewed. The gap that the theoreticians have left out unfilled - concept of social motivation in teacher motivation, was identified.

Chapter three considered the methodological issues. The theories of educational research design and the design that is most suitable for this research has been discussed. The procedure employed in sampling, the instruments used in the study to collect data, the procedure for data collection and how the collected data was analysed and interpreted have been discussed in chapter three. Chapters four, five, six and seven provide the findings and deductions in answer to the research objectives. The report ends with chapter eight on the summaries and conclusions together with the recommendations and implications of the study on educational policies.

CHAPTER TWO

CONCEPTUAL AND THEORETICAL ISSUES

2.0 Introduction

One of the most noticeable behaviour of humans that have drawn the attention philosophers since classical times is its purposive, intentional quality (Forgas, et al., 2005). Everything people do, practically, is for some motive. In quotidian social life, people continuously work towards goals and try to satisfy their aspirations. It could even be asserted that all social behaviour and judgment is motivated behaviour and judgment.

The etymology of the word 'motivation' facilitates the comprehension of its meaning. It originates from the words 'moveo' or 'motivus' in Latin. It projects the idea of movement. To motivate is to move something or someone with a motive (purpose or an intent). Moving something, involves the employment of a impelling force, or an 'engine'. In human motivation there are two main impelling forces:

1 Goals. In the same way that wrestlers are reinvigorated in their effort by the thought or the vision of the goal, humans need clearly defined targets in life to be motivated. The vision of the goal is refreshing and reassuring because it generates excitement - enthusiasm or thrill.

2 Role models or significant persons. People with high achievement interest usually have models whom they wish to model themselves on or persons they have a desire to gain their affection. These role models by the example and influence greatly shape the behaviour of young sportsman. 'I want to be like him or her' is a potent motivator. There are role models in all classes in life. Great doctors in medicine have been strong motivation in the younger one's vocation. The same need for models occurs in teaching. In the preliminary studies to this thesis, the headmistress of Bapielug Basic

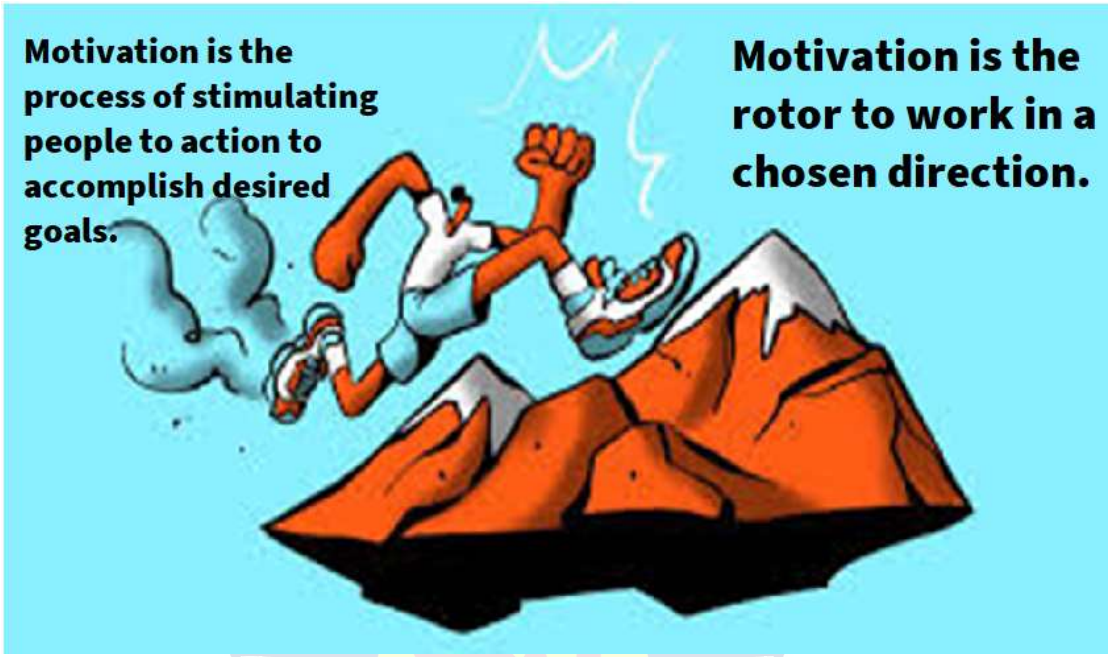
School in Baare indicated how her father's life as a teacher influenced her choice to become a teacher.

Psychologists first encountered term motivation in the early 1880s (Forgas et al., 2005). Before then, when philosophers and social theorists discussed the antecedents and features of effortful, directed and motivated human behaviour they employed the more indeterminate concept of the 'will'. Functional philosophers and psychologists in early years espoused the term motivation customarily in relation to voluntary action - behaviours that show direction (Bindra and Steward, 1966). Motivation was regarded as a phenomenon that compels one to action. By the early twentieth century, however, motivation had become increasingly conceptualized in terms of instinct explanations. This approach seemed to abnegate or at least made it unnecessary to take into consideration goal pursuit, choice, and deliberation, as part of the motivational processes (Forgas, et al, 2005).

Motivation provides energy and direction to behaviour. According to Cloninger (2004), when a person is seen running vigorously towards the door, one may ask why the person running? What is motivating the person? Many motives are discussed by theorists. The belief of some theorists is that, the motivations or goals of all people are fundamentally similar. Classical psychologists proposed that sexual motivation underlies personality (Sigmund Freud, cited in Cloninger, 2004). Carl Rogers (also cited by Cloninger, 2004), suggested a tendency to move toward higher levels of development – self-actualization. The psychological processes that impact on the behaviour of people with regards to the accomplishment of goals at the work place is the persons motivation. Occupational psychologists have come to understand among themselves that pay on its own does not increase motivation. Pecuniary motives are however likely to dominate among teachers of low-income countries (LICs). In these countries, pay and other material benefits are

too low for individual and household needs to be met (Bennell and Mukyanuzi, 2005). The higher-order needs, which are the basis for which true job satisfaction is realised, are met only when the basic needs are met.

2.1 Teacher Motivation



2.1.1 Thematic Review

Motivation entails a set of independent or dependent variable relationships that explain the direction, amplitude and persistence of an individual's behaviour. With this, the aptitude, skills and understanding of the task, and the restrictions taking effect in the environment, are held constant (Campbell and Pritchard, 1976). The following definitions of motivation are gleaned from a variety of leadership and psychology textbooks and journals. They reflect the general consensus that motivation is:

i An internal state or condition that activates behaviour and gives it direction (Huitt, 2011).

ii A desire or want that energizes and directs goal-oriented behaviour (Kleinginna and Kleinginna, 1981).

iii An influence of needs and desires on the intensity and direction of intentional behaviour (Schermerhorn, 2009).

Franken (1994) also contributed that motivation is the arousal, direction and persistence of behaviour. Many researchers have acknowledged that the factors that energize behaviour are likely different from the factors that provide for its persistence.

Motivation affects the job performance of teachers. Where teachers are poorly motivated there is lack of dedication and zeal to work, purposeful lethargy, laziness, and negligence. By the Equity Theory of Motivation, there must be a fair balance between employees' inputs (say, hard-work, level of skills, enthusiasm and tolerance) and employees' output (say, benefits, salary levels and intangible rewards such as recognition).

There will be a very strong and productive relationship with employees when there is a fair balance between employees' input and employees' output. This will lead to job satisfaction in employees and a motivated work force. The Equity Theory believes that employees are generally demotivated both in relation to their employer and to their job when they realise that their inputs are higher than their outputs.

Teachers respond to this in different ways. They could be demotivated (depending on how extensive the teachers view the discrepancy between their inputs and their outputs). They could also reduce their efforts and become disgruntled or even disruptive thereby negating productivity. It is expected of teachers that they render very high job performance. And the employer is invariably curious regarding teachers' performance of their job. The employer demands also a very high level of commitment to duty, dedication, patriotism, loyalty and hard-work from teachers.

The motivation of employees determines the liveliness of an organisation, whether public and private. Notwithstanding, employees' abilities is just as critical in determining their work motivation and performance. Motivation, according to Golembiewski (1973) is the amount of preparedness of an individual to work towards some specific goal(s) of an organization. It implies that motivation is what determines of the nature and locus of the forces causing the intensity of preparedness. The agency that maintains or modifies the intensity, the quality, and the direction of behaviour is the causatum of motivation (Kelly, 1974). Hoy and Miskel (1987), opined that the complex drives, tension states, forces, needs and other mechanisms that start and maintain self-determined activity is what motivation is. It is directed towards the achievement of a personal goal. Putting these together, motivation could be defined as the acuteness or magnitude of one's desire to take part in some activity. Some issues are brought up to mind from these definitions, that deal with what starts and energizes human behaviour. They relate with how these forces are directed and sustained as well as the results they produce (performance).

The consequence of these definitions is that there could be a correlation between motivation and job satisfaction. All the same, many are often confused with the concepts of work motivation and job satisfaction. Peretomode (1991) intimated that the two terms are related but they do not express the same idea. Job satisfaction is only one of the processes that can bring about motivation. Primarily, motivation is concerned with behaviour that is goal oriented; while job satisfaction concerns the fulfilment or pleasure gained through experiencing different job activities and rewards.

It does happen that an employee may have satisfaction in every aspect of the job, yet manifests very low motivation from the standpoint of the organisations. This represents a state of positive and elevated job satisfaction. By his or her zeal, agility, enthusiasm,

dedication, focus, and general performance and contribution to the institutional objectives and goals, a motivated teacher is easy to distinguish.

2.1.1.1 Characteristics and Uniqueness of Teacher Motivation

Teacher motivation is unique. This lies in the fact that instrumental or extrinsic process motivation does not really give teachers satisfaction and does not really motivate teachers. Intrinsic process motivation can be defined as the enthusiasm to work, because working gives the prospect for self-realization. Intrinsic process motivation augments the desire

i to go in search for something new;

ii to experiment with pioneering schemes of work; and

iii to go in search of prospects for professional development.

That is how one can attain self-realization at the place of work (Leonard, Beauvais and Scholl, 1995).

Lapeniene and Dumciene (2012) in their study concluded that for teachers, subjective creativity corresponds in a positive manner with intrinsic process motivation. Teachers' subjective creativity can be predicted by the level of the teachers' intrinsic process motivation.

Intrinsic process motivation is dissimilar to instrumental/extrinsic motivation. Extrinsic motivation is the enthusiasm to work because of reward (tangible or intangible). According to Amabile (1996) a negative correlation between creativity and instrumental motivation could be established. Working creatively requires different qualities in comparison with working effectively or productively. Instrumentally motivated teachers are reluctant to experiment with unconventional procedures of work and also save time which is inevitable for innovation at workplace.

2.1.1.2 Measurement of Teacher Motivation

Just like any social construct, it is difficult to put figures to teacher motivation either by calculation or by measurement using an instrument. Vroom (1964) in his Expectancy Theory of Motivation proposed that motivation could be determined by the following equation:

Motivation, M = Perceived probability of success (Expectancy) x Connection of success and Reward (Instrumentality) x Value of obtaining goal (Valence,value)

That is, M = E x I x V.

No figures were ever arrogated, however, to the levels of motivation.

Individuals will behave in a more similar manner if there are social interaction among them (Akerlof, 2008). Thus, good social interaction between the principal, the pupils and the teacher can make the teacher agree more with the vision and mission of the institution.

According to Akerlof (2008), a person chooses his own beliefs. He embraces beliefs about how he should conduct himself (what is right) and how he should not conduct himself (what is wrong). Such beliefs are called ideals. A widely held ideal is a social norm. When a person is able to live up to his chosen ideal, he gains utility. A person gains utility when his beliefs are confirmed; and loses utility when his beliefs are 'dis-confirmed'. Confirmation can take place in two ways.

i Information base confirmation: a person's beliefs are confirmed when they are correspondingly in consonance with the information he possesses and dis-confirmed in so far as they are not in consonance.

ii Social interaction base confirmation: a person's beliefs are confirmed by interaction with people with common beliefs; and dis-confirmed by interaction with people with dissimilar beliefs.

An individual gains utility and is motivated if his beliefs (or ideals) are confirmed both by the available information and by his social interaction with others. Thus, confirmation utility (C) can be segregated into utility from these two sources: utility from information confirmation (C^I), and utility from social interaction (C^S); that is,

$$C = C^I + C^S.$$

Akerlof also did not provide numbers but shows an idea as to what constructs enhance motivation.

2.1.1.3 Determinants of Teacher Motivation

Different theories propose different factors as determinants of motivation which are related to teacher motivation. Each of the major theoretical approaches in behavioural theory posits a primary factor in motivation. Classical (Pavlovian) conditioning states that biological responses to associated stimuli energize and direct behaviour (Barlow, 1956; Mank et al, 1983). Operant theory states the primary factor is consequences: the application of reinforcers provides incentives to increase behaviour; the application of punishers provides disincentives that result in a decrease in behaviour.

The psychoanalytic theory suggests that all behaviours are motivated by either love or hate (Montgomery, 2013). Social cognition theory (SCT) advances reciprocal determination as a principal factor of motivation. In this view, the environment, an individual's behaviour, and the individual's characteristics (like cognitive development, knowledge and emotion) impact and are impacted by one another (Figure 2.1).

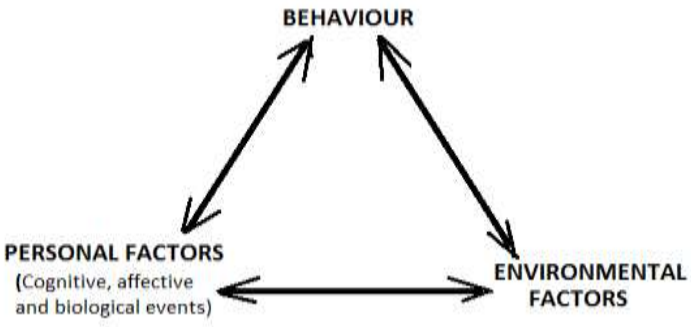


Figure 2.1: An Illustration of SCT

Many of the theories reviewed do not completely rule out the fact that social relationships at the workplace can be a source of motivation for the teacher. The proponents of the theories only have not made it their emphasis.

Herzberg's Two Factor Theory (Loiseau, 2011), also known as the Motivation-Hygiene Theory, was derived from a study designed to test the concept that people have two sets of needs: .

i. their needs as animals to avoid pain

ii. their needs as humans to grow psychologically

As a consequence, Herzberg's theory postulates that there are two categories of factors that impact on employee motivation. These are, intrinsic factors and the extrinsic factors.

The intrinsic factors were referred to as motivator factors, and were linked to job satisfaction. The extrinsic factors were referred to as hygiene factors, and were linked to job dissatisfaction. Motivators (intrinsic factors) led to job satisfaction because of a need for growth and self-actualization. Hygiene (extrinsic) factors, however, led to job dissatisfaction because of a need to obviate unpleasantness.

Fundamental to Herzberg's position is the understanding that motivation is a outcome of personal growth and is based on an innate need to grow. What this means is that people encounter satisfaction in work that is interesting and challenging.

The two-step approach suggested by Herzberg to understanding employee motivation and satisfaction is as shown in Figure 2.2.

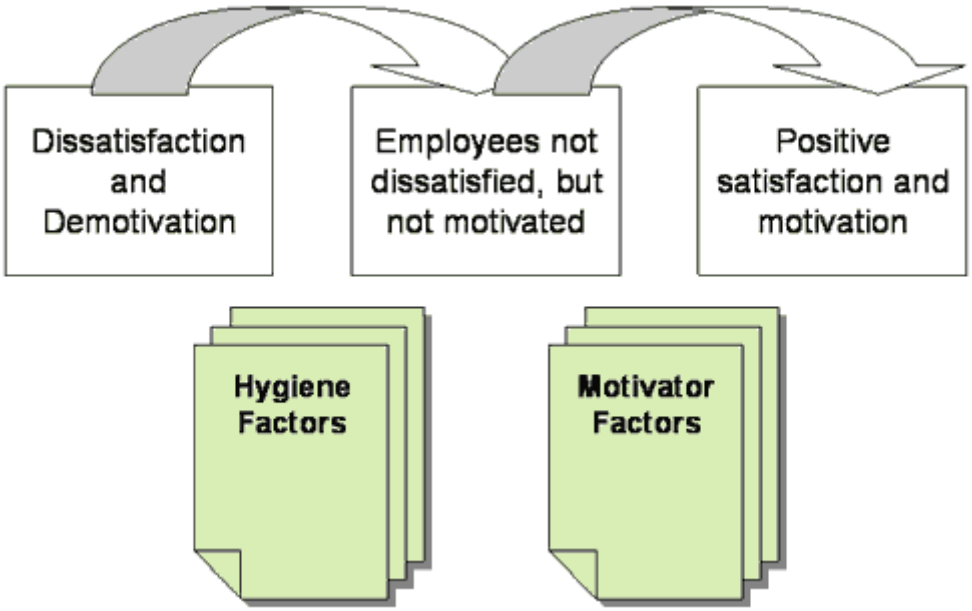


Figure 2.2: Herzberg's Two Factor Theory of Motivation

Hygiene factors are derived from an employee's need to keep away from unpleasantness at work. If these factors are assessed to be inadequate by employees, then they can give rise to dissatisfaction with work. Hygiene factors include:

- policies and administration of the company.
- financial remuneration like wages, salaries and allowances.
- quality of supervision.
- inter-personal relations.
- conditions of work.
- job security

Motivator factors are based on the need the individual for personal growth. Motivator factors, when they are inexistence, they actively give rise to job satisfaction. They can motivate an individual to achieve above-average performance and effort if they are efficacious. Motivator factors include:

- increase in social status; like promotion.
- availability of the opportunity for professional advancement.
- a gain in recognition.
- being given higher responsibility.
- being offered a challenging or stimulating work.
- sense of personal growth and achievement in the job.

The model Maslow and the model of Herzberg have some similarity between them. They both intimate that for the employee to be motivated, his needs have to be satisfied. Herzberg however, asserts further that only the higher levels of the Maslow Hierarchy (that is, self-actualisation and esteem needs) function in the capacity of a motivator. The remaining needs can only bring about dissatisfaction if not addressed.

All the theories including Herzberg's theory down play the significance of social motivation – interrelationships in the school, or, in the educational setting. But man as a social being will very much be affected by the social culture of the environment. This is where the current study comes in handy to supply the knowledge gap to make the discourse more wholesome.

2.1.2 Geographical Review

In Asia and Africa, there are diverse array of country specific opinions concerning motivation. However, generally there seem to be rising apprehension that unacceptably high proportions of teachers working in public school systems in many low-income

countries (LICs) are poorly motivated. This is as a result of a compounding of job dis-satisfaction, inadequate controls, low morale, poor incentives and a host of other behavioural sanctions. As a result of this there is a significant drop (and falling) in the standard of professional conduct and performance in many LICs.

Teachers make common-sense economic decisions about their careers and strive for better paid work where they can. Thus, in part, teacher motivation is affected by economic factors. There is nevertheless, enough evidence to affirm that teacher's work is becoming increasingly stressful; and they have impression that their status is falling (Macdonald, 1999). There is evidence, also, that teaching conditions have deteriorated drastically in Mali, Burkina Faso, and Senegal. This has resulted from factors like a high number of students per classroom, poor teaching and living accommodation, inadequate equipment, and an insufficient supply of student textbooks and teaching materials (Caillods, 2001).

The excessive politicization of public education has had a far-reaching impact on levels of accountability in many education systems. This has, in turn, seriously affected teacher motivation and performance. The poor and declining quality of public education has given rise to a progressing number of parents sending their children to non-state schools (or private schools). In some countries, particularly in South Asia, this has brought about a mass exodus of teachers (Karava, 2010).

Incentives for teachers in the public education system to perform well are recurrently inadequate and ineffective. Very low pay forces large proportions of teachers to seek secondary income from private tutoring and other activities. Poor human resource management also seriously de-motivates employees. Teacher management at the national and sub-national levels is nothing short of chaotic in many countries (Karava, 2010).

In a study of 167 teachers in Oklahama, Sylvia and Hutchinson (1985) concluded that teacher motivation is based on

i the freedom to experiment with novel ideas,

ii the achievement of befitting responsibility levels, and

iii intrinsic work components.

Kagema's (2018) did an analysis of some heuristic studies on teacher motivation. He identified that declining levels of motivation among secondary school teachers eventually led to nominal achievement of Kenya's Vision 2030 projection. He examined the school curriculum as a determinant of secondary school teacher motivation in curriculum implementation. He adopted a survey study design, and employed mixed methods research approach with an aim of fortifying and converging both quantitative and qualitative data, The respondents were sampled from 46 secondary schools located in Nyeri and Kirinyaga counties of Kenya. The discovery of the research informs education leadership, curriculum planners and policy makers that the school curriculum is a fundamental determinant of teacher motivation in secondary schools and affects curriculum implementation in Kenya.

2.1.3 Empirical Review

From the analysis of data collected in Kibaha District by Mark (2015), the following were the findings of the study:

1. Teachers were highly motivated.
2. In good performing schools there was agreement that the motivating factors available included
    - job security (60%),
    - love for their work (53%),
    - recognition of teachers by management (73%)

- excellent standards of performance (53%),
- expression of appreciation from society (87%),
- opportunity to take on new challenges,
- fixing problems facing their career (80%),
- good interpersonal relationship (80%),

3. In the poor performing schools, remuneration like pay was not attractive enough (57%).
4. Teachers suggested that the following could bring about improvement in teachers' job satisfaction.
   - Better pay and other benefits.
   - Improvement in working and living conditions.
   - Involvement of teachers in decision making.

Interviews has revealed the attempts of governments to solve the tackle the demands of teachers for better conditions.

It is crucial that more definite efforts are made to ascertain what augments teacher motivation. Many factors have been studied to find which ones promote teacher motivation. Pay incentives have been found to be not successful in augmenting teacher motivation. Strategies such as merit pay were found to be counterproductive.

Extra allowance for teachers who accept postings to remote places, and public recognition like best teacher awards, as employed in Ghana, have also not produced the desired effect in teacher motivation.

The state of deficiency of motivation of teachers is a cardinal contributory factor to the deplorably poor learning performance of primary and secondary students. According to Segaly (2006) less motivated teachers respond the most to performance-based monetary incentives. Thus, it could be inferred that the frequent agitation for higher salaries in

Ghana is a reflection of an existence of a low motivational level among teachers in the country. This situation hints that there is the need to look for more reliable factors that affect teachers' motivational level better.

2.2 Teacher Performance

2.2.1 Thematic Review

A teacher's proven impact on students' learning outcomes as established through observed pedagogical practices, student achievement test scores, or student or employer surveys is referred to as teacher performance. Evaluation of Teacher performance matters a lot, both to teachers and to those they are answerable to. But how can schools ascertain the performance of all teachers precisely? And what are they to do with the outcomes?

Typically, teacher evaluation pertains to the conventional process a school uses to appraise and rate teachers' performance and effectiveness in the classroom. These processes include:

i. Value-Added Models
ii. Classroom Observations
iii. Principal Observations
iv. Analyses of Classroom Artifacts
v. Portfolios
vi. Self-reports of Practice
vii. Students Evaluations

In principle, the findings from these appraisals are used to provide feedback to teachers to superintend their professional development.

2.2.1.1 Indicators of Teacher Performance

The following criteria and descriptors are designed to let teachers and administrators know what the performance expectations are for teachers in the system. Teachers and administrators need to know to develop a universal understanding about the expectations, and to supply a common language for discussing performance as it appertains to the following benchmarks; that whether the teacher:

i. Plans his instruction.

ii. Implements the lesson.

iii. Maximizes time on task.

iv. Integrates materials and methodology.

v. Plans and uses evaluative activities.

vi. Gives specific evaluative feedback to students.

vii. Manages the classroom.

viii. Interacts well with students.

ix. Interacts well with parents.

x. Interacts well with administration and other educational personnel.

xi. Involved in professional development activities.

xii. Gives backing to the implementation of school policies, regulations, procedures and accepted practices.

xiii. Brings about high school performance in standardized tests.

xiv. Aids in producing high district performance in standardized tests.

xv. Trained in test construction and analysis by cycle and by subject.

xvi. Motivates students.

xvii. Demonstrates knowledge of curriculum.

xviii. Sets high expectations for student achievement in connection with their needs and abilities.

The following also are indicators of teacher performance.

i. Performance of sample of students in national and international tests at selected grades.
ii. Percentage of students repeating a grade.
iii. Percentage male/female repetition rates.
iv. Percentage of enrolled students completing each grade.
v. Percentage of students making progress to higher education from schools.
vi. Percentage of staff-days authorized absences monthly.

The indicators could be very long and even localized. Performance is measured by observing the performance indicators and how they are achieved.

2.2.1.2 School Autonomy and Student Performance

The various categories of school autonomy and management is weakly associated with student performance when it is focussed on student performance in a given country. This is as expected; for national legislation often specifies how decision-making responsibilities are to be distributed. There is therefore within many countries and in many situations, very little dissimilarity in the degree of school autonomy in the various respects of school autonomy.

Table 2.1: The Relation between Student Performance (in Mathematics) and School Management and Autonomy

		PISA 2003	PISA 2000
1	Deciding on budget allocations within the school	0.6	0.4
2	Appointing teaching	0.4	0.2
3	Establishing student disciplinary policies	0.4	0.2
4	Dismissing teachers	0.3	0.1

5	Determining course content	0.3	0.2
6	Deciding which courses are offered	0.3	0.4
7	Establishing teachers' starting salaries	0.1	-0.1
8	Determining teachers' salary increases	0.1	-0.1
9	Formulating the school budget	0.1	-0.1
10	Establishing student assessment policies	0.1	0.0
11	Approving students for admittance to school	0.1	0.0
12	Choosing which textbooks are used	0.1	0.1

Cross-country correlations (Pearson's R)
Source: PISA 2003 and PISA 2000 datasets. All OECD countries are included in the calculations (OECD, 2004).

In relation to determining which courses are offered at school, and in determining the course contents, it is realized that a positive association exists between school autonomy and average student performance across countries (Pearson's R = 0.3) (PISA, 2003).

2.2.1.3 Teacher Related School Climate Factors

Responses of Principals of schools were sought on how the following Teacher Related School Climate Factors affected learning at school (Haahr et al, 2005).

(a) low expectation of students by teachers.

(b) the interpersonal relationship between student and teacher being poor.

(c) teachers not being regular at school.

(d) staff not willing to change.

(e) needs of individual students not being met by teachers.

(f) teachers not encouraging students enough to perform excellently.

Generally, a positive picture of teachers was painted by principals in this regard. There were however some differences between countries. In Slovakia, Denmark, The Czech

Republic and Poland, the evaluation of teachers by Principals were generally positive. While in China, Hong Kong, the Netherlands, Greece and Portugal it was rather negative.

The power of explanation of factors related to teachers concerning the climate of the school is low. About zero to about two percent of the overall variation in students' performance in mathematics is accounted for by factors related to the teacher in many of countries.

Authorities, in connection with this may have to reconsider whether the efforts made to increase teacher performance, the commitment of teachers, and their readiness to change, could enhance the general performance of the educational system in the area of efficiency and equity in opportunities to education.

2.2.2 Geographical Review

Haahr, et. al (2005) did a study on 'Explaining student performance: Evidence from PISA, TIMSS and PIRLS survey' in some EU countries. Most of the countries with an especially higher level of distinction in their educational institutions are countries in which it is reported in PISA 2003 that teachers did not give a significantly sufficient level of support to individual students.

Policy makers in some OECD countries were required to ensure that teachers give sufficient support to the pupils most in need. They may have to concentrate their attention on steps that will bring about adjustment for the benefit of learners with adverse socio-economic background.

In their study of OECD countries Haahr et al. (2005) required school principals to assess the degree to which adverse behaviours of students was an obstruction to learning by students. In seven countries, the findings principals the school climate were very positive. Of these, five (that is, Korea, Hong Kong, China, Japan, and Belgium) were

among the best first six performers with respect to the overall student performance in the respective subject areas.

A similar study Haahr et al. (2005) did in the Netherlands, Portugal and Greece revealed that principal's assessment of students was negative. Teacher-related school climate factors, did not correlate strongly with performance of students. The educational authorities of the Netherlands, Portugal and Greece, however, were encouraged to consider the reasons that explained why the principals of schools assessed the teachers negatively.

2.2.3 Empirical Review

Teacher performance is also seen in the improvement of female achievement in education. The disadvantage situation of the women and girls when it comes to education has been a politically important issue in the politics of recent times. Among the women themselves, however, it has been realized that, when it comes to completion of tertiary education, women of ages between 25 and 34 are more than double the women between ages of 55 and 64 in 18 of 30 comparable OECD nations. In 21 out of 27 countries of OECD, in which data was compared, the rate at women now graduate is equal those of men. In others it is even higher.

The differences are larger for the other countries. Performance of females in all the three domains is stronger than the performance of males in Iceland.

Data collected and analysed from PISA 2000 test results at the individual student level support these findings (OECD, 2000). It has been found that generally, girls are significantly better readers than boys; while boys are significantly better than girls in mathematics and science; all other factors being held constant. A conclusion which was drawn was that, the differences in reading in each of the countries in the three skills

domains, accounted for largest share of the overall difference between males and females.

The lower level of performance of girls in mathematics and science and in the lower level of boys in reading must both be considered as problems to be solved.

It is clear that countries that have achieved significant improvement in gender equality in employment are necessarily not countries that have performances in basic skills in PISA skewed against the women and girls. The female employment rate in Hungary in 2003 among the 15–64-year-olds, was over fifty percent. The corresponding rate for Denmark in the same year was 70.5%. However, the differences in basic skills among the men and the women in the 15-year-olds in Denmark is generally higher.

It was only in Korea, Japan and the Netherlands (that is, three out of sixteen countries that participated) that the performance in mathematics was significantly different. In grade eight, six out of the sixteen countries that participated had significant differences in performance in mathematics.

Lastly, gender differences in mathematical literacy among final year secondary school students were significantly large in all participating countries. The United States and Hungary are excepted. The differences were all in the favour of male learners.

In science, a similar and even more conspicuous situation is observed. The findings reveal that in many countries, differences in performance between female and male students in mathematics and science at the higher levels are more conspicuous.

2.3 The Development and Deployment of Teachers

2.3.1 Thematic Review

'Everybody values education, but nobody wants to be a teacher' (Towse et al., 2002). This is rather debatable. Many would rather say that only a few would want to be teachers. Available literature reveals that people join the teaching profession for three

main reasons. They are: Extrinsic, Intrinsic or Altruistic (Lortie, 1975). Monica Brown (1992) conducted a survey in Jamaica and the countries on teachers who have just been freshly posted to ascertain why they chose to become professional teachers. Her study concluded that they were altruistic. Their reasons were similar those given by teachers in North America. A survey by Robert Serow (1993) on 26 late entry teachers in North America revealed that the major for choosing the teaching as a career was altruism.

2.3.2 Geographical Review

In sub-Saharan Africa (and other developing countries), teaching at the pre-tertiary level is not reckoned as an appropriate job for the enhancement of one's social image. Teachers generally, do not remain long as teachers at that level (Hanushek et al. 2004). The teaching profession is not considered by many as career that one should stay in it for long (Akyeampong and Furlong, 2003).

Salaries of teachers in developing countries are low and deteriorating. As such, they are not able to retain teachers (Bennell and Akyeampong, 2006). Teachers' salaries put considerable burden on the economy. The growth in education, and the corresponding rise in enrolment, has inevitably resulted in poorer pay rise. In Ghana, and other African countries, the salary of teachers are not able to meet rudimentary family necessities (Bennell and Akyeampong, 2006). This is what compels teachers to on many times go for a second job to make ends meet.

Lambert (2004) contends that the poor level of pay of teachers at the pre-tertiary level was handed over from colonial administrations. While access to education in anglophone countries is high and increasing, salaries of teachers in pre-tertiary schools are low and falling in real value. This not the case in francophone countries. For in francophone countries pre-tertiary school teachers' salaries are relatively better. The situation in anglophone countries has a cause.

As a result of the growing teaching force, the teaching profession has lost its status as an elite profession which it enjoyed in some decades earlier. The educational level of teachers is no more different from the rest of the community in which they live (VSO, 2006). In consequence, pre-tertiary school teachers have low status.

In Ghana, due the rapidly growing pre-tertiary education sectors, the requirements needed to enter into a teacher training institution were made low. As such, the trainee teachers' educational competence deteriorated significantly (Lockheed and Verspoor, 1991). Things have picked up due to the educational reforms within the last decade.

The status of pre-tertiary school teachers and that of tertiary school teachers is very distinct. Teachers of pre-tertiary schools receive low salaries and have social image. This does not serve as an attraction to trainees who have accomplished the most in education. Towse et al. (2002) did a research on trainee teachers in Tanzania. They suggested that one of the cardinal bases on which students choose the teaching profession is the fact that they obtained low grades at the examinations that is used for admission into tertiary institutions. The low academic background of the candidates, does not give them the opportunity to quest for university education. Those who get admission into university do not get programmes that could lead to high pay jobs. So, they settle for teaching programmes or other unpopular courses that eventually take them to the classroom.

MUSTER (Multi-site Teacher Education Research) Projects were done in Lesotho, Ghana and Malawi from between 1997 to 2002. The research revealed that the qualification of trainee teachers in the secondary school leaving certificate examinations was very low. Jessop and Penny (1998), and Towse et al. (2002), did similar studies in the Gambia and South Africa, and in Tanzania, respectively, and arrived at alike conclusions.

Majority of teachers who are in the teaching field currently do regard going to teacher training college or college of education, and pursuing teaching programme at the university to teach at the pre-tertiary level as a second and/or a third-best option. It is considered as a stepping stone or a means to getting to teach at a higher educational institution, or to other jobs where the salary is better (Akyeampong and Lewin, 2002). Discourses on the welfare of teachers have often centred on trained teachers, leaving out the untrained teachers. Issues relating to untrained teachers do emerge in some studies only as a subgroup in educational statistics (World Bank, 2004).

An investigation was done on the motivation and incentives of basic school teachers in Ghana, by Akyeampong and Asante (2005). The mixed method approach was employed. They compared the rural schools' situation with that of the urban schools.

The female teachers' proportion in primary schools vary significantly in developing countries. There is also an extensive disparity among individual countries within sub-Saharan Africa. In rural Lesotho and Mozambique, more than 70% of teachers are female. In Tanzania and Uganda however, there fewer female teachers in rural schools Mulkeen and Chen (2008).

Bame (1991) suggested in his study that excessively high proportion of men in the teaching profession in Ghana may be as a result of the fact that fewer women are recruited into the profession. This also, stems from the fact that the education of girls is resisted and there are fewer women to be trained into any kind of profession. Besides, women also leave the profession when they get married. More often than not, it is parents with better education and social standing who permit their daughters to go to school. This suggest that the teaching profession regarded differently by educated females from their male colleagues. This perception is however, fading away. The patterns of deployment of female teachers in the country has a lot to do with the culture

of the land. And so, it generally accepted that gender should be a theme for educational discourse and formulated. Teacher qualifications, in terms of trained and untrained personnel are looked into in the light of gender.

2.3.2.1 Pre-Tertiary School Teacher Development and Deployment in Ghana

In Ghana, six classifications of pre-tertiary school teachers exist. They are classified based on their qualifications and affiliation. The Ministry of Education (MoE) and the Ghana Education Service (GES), however, recognises only two groups. That is, trained and untrained teachers. Beside the GES, NSS, YEP and NABCO also deploy both trained and untrained teachers in Ghana. The trained teachers are referred to as 'professional' teachers, while the untrained teachers are referred to as 'pupil' teachers (GES, 2000). Thus, beside the GES teachers, some NSS teachers, some YEP teachers, some NABCO teachers and some volunteer teachers (some of whom are retirees), have tertiary school certificates. These include both trained and non-trained teachers.

2.3.2.1.1 Trained Teachers

Basic school teachers who have professional qualifications from recognized colleges or universities are referred to as trained teachers. The two main ways one can obtain professional qualification to teach in Ghana are the

(i) pre-service training (PRESET) and

(ii) in-service training (INSET).

PREISET is a full-time teacher training programme now run by majority of the public universities in the country (as at the year 2021). Besides, all teacher training colleges (TTCs), now referred to as colleges of education (CE), including private ones run the PRESET programme. They award a diploma or degree.

INSET is a part-time programme run by some universities and colleges of education. Untrained teachers seeking for professional certificates are the participants of this programme. Serving professional teachers who seek to upgrade their qualifications also do undertake INSET. Principally, the greatest number of trained teachers acquire their professional qualifications through the PRESET programme.

In GES, teachers are ranked to indicate their professional status in the service. The most recently published ranks, with the highest being the Director General and the lowest being the Pupil Teacher GCE 'O' Level, is as shown below.

1. Director General
2. Deputy Director General
3. Director 1
4. Director 2
5. Deputy Director
6. Assistant Director 1
7. Assistant Director 2
8. Principal Superintendent
9. Senior Superintendent 1/Principal Technical Instructor
10. Senior Technical Instructor
11. Senior Superintendent 2
12. Superintendent 1/Senior Technical Instructor
13. Superintendent 2/Technical Instructor
14. Pupil Teacher GCE 'A' Level/Senior Craft Instructor
15. Pupil Teacher GCE 'O' Level/Craft Instructor.

The non-teaching staff also have their own ranking systems.

A Certificate 'A' trained teacher after national service and probation is placed at the lowest rank as Superintendent II. He then rises through the ranks through long service and/or further academic qualification.

Principal Superintendent, Assistant Director, and Deputy Director, who has a university degree can assume the same duties with added responsibilities. The Director up to the Director General are solely administrative positions.

A greater part of teachers in the basic schools are leavers of college of education. Teachers tend to leave teaching at the basic schools to teach at the secondary schools or take administrative roles at the regional education office (REO) or district education office (DEO) as they progress in their ranks. Basic school teaching has the lowest status in the teaching career in the GES system.

Promotion in GES is not only through long service. Younger teachers that obtain higher academic qualifications can be promoted to higher ranks. Basic school teachers are encouraged by this opportunity to upgrade themselves through further studies. By upgrading themselves, they are not only promoted, but they are also able to move to teach in higher institutions and also earn higher salary; since salary levels are linked with professional rank.

2.3.2.1.2 Pupil Teachers

Teachers those who did not do teaching courses and are employed by the GES are referred to as pupil teachers. Their duties are mainly to teach in pre-tertiary institutions. Passes in four subjects is the minimum qualification for pupil teaching. The passes must include Core English, and Core Mathematics in the Senior Secondary School Certificate Examination (SSSCE) or the West African Senior Secondary Certificate Examination (WASSCE). People holding certificate in General Certificate Examinations (GCE O or A Levels) are also employed as pupil teachers. By the

conditions of service for teachers in the GES, pupil teachers shall be removed from the service if they are not able to gain admission into teacher training college (or college of education) or a prescribed teacher training programme within five years (GES and GNAT, 2000; p36). This condition is hardly enforced. The establishment of the Untrained Teachers Diploma in Basic Education (UTDBE) has been a great help to pupil teachers. They will no longer be laid off as long as they are enrolled into the UTDBE programme. University graduates who do not hold any certificate in education (professional teaching) are also pupil teachers.

Newly trained professional teachers have thirty days of annual leave. They also have ten working-day casual or emergency leave. Pupil teachers do not qualify for staff annual leave. And there is no opportunity for progression in their career; not until they get a professional qualification.

2.3.2.1.3 National Service Scheme Teachers

In 1973, the National Service Scheme (NSS) was launched. Under the scheme all Ghanaians who have completed tertiary education are to serve the nation in any economic sector for one year. The objectives of the National Service Scheme as set in 1970 include:

(1) nation building.

(2) national unity.

(3) poverty alleviation.

(4) provision of accessible and quality education.

(5) provision of healthcare.

(6) reduction in unemployment among the youth of Ghana.

(The Ghana National Service Scheme Rules and Regulations, 1980).

NSS teachers are classified into mandatory NSS and voluntary NSS. Mandatory NSS teachers are personnel who have completed tertiary education, and are doing the service for the first time. The voluntary NSS personnel are those who have chosen to prolong their service after the one-year compulsory service. They also include those who have earlier experienced the service but desire to recommence and continue to offer their service. Unlike the mandatory NSS personnel who could be posted to any sector of the economy, the voluntary NSS personnel could be posted to only the Ghana Education Service (GES); specifically, to teach in the classroom. Mandatory NSS teachers are eligible to one of annual terminal leave. This most of the time falls in August. It occurs concurrently with the basic schools' long vacation period.

2.3.2.1.4 Retired Teachers

Retired teachers have been employed and posted to teach as volunteer teachers in basic schools by NSS since 2006. Both trained and untrained teachers who are retired from GES are eligible for this provision. This programme however, has been suspended.

2.3.2.1.5 Youth Employment Teachers

In October 2006, the Ghana Youth Employment Programme (YEP) under the directive of the President was started. Its core mandate was to address the unemployment and the underemployment situation of the youth in Ghana (Ministry of Manpower Youth and Employment (MoMYE), 2006). At least, five hundred jobs were to be created in each district of the nation for the first six-month period after its establishment, which then would be increased to over six hundred (MoMYE, 2006 p10).

Over seventy-eight thousand job opportunities were initiated under the YEP in 2006. Teaching at the pre-tertiary level was one of the areas that they were deployed into.

YEP teachers, also known as Community Education Teaching Assistants, are young women and men with a minimum of second cycle education certificate. They assist in the delivery of educational services at the pre-tertiary school level in rural communities where are not adequate supply of teacher. The prerequisites to be a YEP teacher are:

(1) the person must be a resident of the community in which the job is located, say, a community school.

(2) the person must have the requisite academic qualification to be able to teach in the particular school; whether first cycle or second cycle.

(3) the person must be of sound behaviour and be willing to work with the programme for a minimum of one year.

2.3.2.1.6 Volunteer Teachers

Volunteer teachers in Ghana do not fall into any of the five categories of teachers discussed earlier. These are persons who on their own volition opt to give educational support to educational institutions. Many times, these institutions are deprived and located in the community in which the volunteer resides. Voluntary teachers had often been given support by charity from NGOs, community leaders, the PTA and churches. Volunteer teachers are recruited based on the initiative of the school head, and community leaders or PTA. Volunteer teachers could be Middle School leavers, Senior High School leavers, university graduates, or higher; or people who have retired from their official jobs.

2.3.2.1.7 Employment Conditions of Pre-Tertiary School Teachers in Ghana

In Ghana, the employment conditions of teachers vary in accordance with their various categories. While trained teachers in the GES have permanent jobs, there is no job

security for untrained teachers. Trained teachers are paid the highest salaries in GES, compared to the salaries of their colleagues who are not with GES, or those who are with GES and not trained. Trained teachers with GES also enjoy study leave with pay and annual leave. They are promoted; and also given responsibilities and leadership roles that bring further monetary benefits like allowances onto them. These are not in the employment conditions of other teachers. Generally, the employment conditions of trained teachers are better than those of other categories of teachers.

2.3.2.1.8 Incentives for Pre-tertiary School Teachers in Ghana

The discourse here is about strategies intended to motivate pre-tertiary school teachers; especially, those that live in rural areas. As used here, material rewards that are given to teachers to motivate them to stay and work in disadvantaged communities is referred to an incentive package. Five thousand (5,000) radio cassette players and five thousand (5,000) sets of cooking utensils were distributed to teachers living and teaching in disadvantaged communities in October 2001. In 2002, nine thousand (9,000) bicycles were distributed; and in 2006, eight thousand two hundred and eighty (8,280) bicycles were distributed in fifty-three (53) deprived districts of the country.

In addition to these efforts by the GES headquarters, district assemblies in collaboration with district education offices provide incentive packages to attract teachers to rural communities in their respective districts. Items like radios, mattresses, solar lamps, motor cycles, fridges, and so on are provided to teachers.

The Best Teacher Awards scheme

For performance to result from teacher motivation, in 1995, the Best Teacher Awards system was instituted. Its purpose was also to assist in restoring some respect into the

profession. It had the intent of increasing teacher retention and enhancing their performance - effectiveness and efficiency in the classroom (MoESS, 2008).

All classroom teachers in pre-tertiary schools (both public and private) are eligible for the award. It is also required that the teacher should have taught to a minimum of five years. However, preference is given to teachers in rural communities. That is, working in a rural environment is an added advantage.

The award is in categories, including:

(1) the best Pre-school teacher award

(2) the best primary school teacher award

(3) the best junior high school teacher award

(4) the senior high school teacher award

(5) the best Special School

(6) the best HIV/AIDS alert school

(7) the most outstanding teacher and the first and second runner ups.

In 2007, there were twelve (12) categories.

For the primary and junior high school categories, the selection of winners beginning from the schools by the headteachers. The names are then submitted to the circuit supervisor who supervises a number of schools in his circuit. The circuit supervisor then short list the names of outstanding teachers and submit them to District Education Office. At the regional and national levels candidates are still identified and selected. Awards are given at three levels – district, regional, and finally at the national level.

The award at the national level is a big ceremony. It takes place in October every year, on a day known as 'Teachers' Day'. The winner is given material rewards. This is done in the presence of distinguished guest like high profile politicians and other leaders.

They are given houses, built for them at any place of their choice. They are given cars, computers and sometimes cash.

Study Leave with Pay

The leave with pay for studies is provided only for teachers with the GES. The policy provides opportunity for trained teachers employed by GES to upgrade themselves through further studies. Teachers who qualify for study leave with pay and are given, have their salaries secured while they pursue further academic or professional studies. Usually to qualify, the course of study must be relevant to the service; and it must be done in an approved institution. The applicant for study-leave with pay must have taught for not less than three years as an employee of GES. Nevertheless, shorter periods are given to those who for at least two years in rural areas. This is to encourage teachers to accept postings to the rural areas. Where the conditions are not met by teachers, study leave without could be applied for by them. In which case, they would secure their jobs, but forfeit their salaries in the course of their studies.

2.3.2.1.9 Teacher Upgrading Programmes in Ghana

The current minimum qualification for professional teachers in Ghana is Diploma in Basic Education. Studies towards this qualification can be done in some of the colleges of education (CE) and in some public universities in the country. It can be done through a regular full-time on-campus studies, or by sandwich or part-time studies. The Untrained Teacher Diploma in Basic Education (UTDBE), is a programme designed for untrained (pupil) teachers to obtain training while in service through part-time studies. Trained (professional) teachers in GES who do not have a diploma can also upgrade themselves through a similar part-time study to obtain a Diploma in Basic Education (DBE) certificate. These are measures to have qualified teachers in every

classroom; so that the nation can achieve the goal that quality education should be provided for all children.

2.3.2.1.10 Graduate Teachers in Ghana

For education-focused international organizations, quality education is of great importance in this era; and directs national discourses. As such, the quality of the teacher must in an equal manner be of most important consideration. Since the teacher plays a central role towards the achievement of any educational agenda, the teacher's education must be of leading quality.

In Ghana, full-time graduate teachers are of two kinds. One group, classified as 'professional' graduate teachers have professional training. The non-professional graduate teachers form the other group. They are without professional training.

Table 2.3, presents the present-day system of education in Ghana.

Table 2.3: Teacher Education Programmes and Qualifications in Ghana

Level	Duration of Course	Entry Level	Certificate Awarded	Level of teaching after certification
Post-secondary level	3 Years	Completion of Secondary School	Post-secondary Certificate 'A'	Primary and junior secondary
Higher education (non-graduate level)	3 Years	Completion of Post-Secondary and having taught for 3 years	Diploma Certificate	Primary and junior high school
Higher education (undergraduate level)	3 years or 2 years for post-diploma BEd	Teachers holding diploma certificate, or senior secondary leaving certificate*	BEd Degree	Post-secondary teacher training college or, senior high school

Higher education (postgraduate level)	2 years or 1 year for post graduate diploma in education	Holders of graduate degrees e.g., BSc, BA	Post-Graduate Certificate in Education	Senior high schools or post-secondary teacher training colleges

* The entry qualification is higher than for the post-secondary level.

2.3.2.1.11 District Sponsorship for Trainee Teachers in Ghana

The districts provide sponsorship for teachers under training. The District Assemblies have put in place the District Sponsorship strategy to attract newly trained teachers to the districts. The district assemblies through this programme provide financial support to teachers during the time they are under training at the colleges of education (CE). It is a contract between the trainee teacher and the district assembly. Upon completion of their training the teacher would have to teach for three years in that sponsoring district. And ones a trainee teacher receives the support, he is bonded to it.

Persons who are applying for admission into colleges of education and who have interest in the sponsorship have to identify the districts which are providing such sponsorship. In 2006, nine thousand (9,000) trainee teachers, constituting ninety eight percent (98%) of those that were enrolled were sponsored by district assemblies.

2.3.2.1.12 The Capitation Grant Scheme for Pre-tertiary Schools in Ghana

Basic school teachers fill motivated when their given autonomy in respect of their managerial skills and professional development. The objective of the capitation grant scheme was to ensure that. So that they could exercise greater control over school management. It was also designed to equip schools to plan and effectively use financial resources to carry out quality improvement activities in the schools. In 2005/06, the scheme was carried out as a pilot in fifty-three (53) 'deprived' districts. And in 2006/07 it has since been put into action in all the districts.

2.3.2.2 Professional Development of Teachers in Finland

The PISA 2003 survey results have identified as a top performing country. The same indication is given by the achievement scores of average pupils in science, mathematics and reading; as well as the variance of the pupils' achievement score. They were below only Hong Kong for mathematics.

2.3.2.2.1 The Status of Teachers in Finland

Finnish teachers are well educated and real experts in pedagogy. This is very necessary for success in a heterogeneous community. In Finland, all teachers are required to have a masters' degree in either a subject area or in educational science. Compared to other OECD countries, Finnish teachers are paid relatively well. And the class teachers' profession is valued. It is also popular in Finland.

The teaching profession is viewed as very important profession in Finnish culture. As a result, a lot more resources have been committed into the training of teachers. Teachers also, have been relied upon to do their best to prove that they are true professionals.

2.3.3 Empirical Review

There has been substantial research in Canada, USA, UK and Australia on the source of motivation of new teachers who just joined the teaching profession. Two hundred and three (203) students admitted into University of Toronto's Education Faculty were asked about their reason for entering into the teaching profession (Suzanne, 1992) They gave their reasons as below:

- the need to make positive impact to students and society.
- to serve as role models for students.

- the teacher-student exchange as one of the mutual growths and continuous learning for both.
- a desire to share personal knowledge and expertise.
- to create of a positive learning environment.

In the USA, Sandra Hayes (1990) surveyed 100 college students majoring in education at North-western Oklahoma State University. She found that:

i to make a positive difference in children's lives.

ii they loved children (92 percent).

iii to express their creative abilities (98 percent).

iv an awesome responsibility (87 percent).

v 58 percent disagreed that a 3-month vacation was a reason for choosing a teaching career.

vi a highly respected profession (24 percent).

vii 92 percent thought that teachers were not sufficiently paid.

viii 61 percent strongly felt that rewards of teaching are not monetary.

ix 32 percent had a teacher-parent; and

x 54 percent were influenced to become a teacher by one of their own former teachers.

2.4 Interpersonal Relationships in Pre-tertiary Schools

The ability to live in community, since from the appearance hominids to modern humans, is ability par excellence (Opic, 2016). Humans' ability to help each other, play with other people, cooperate, co-exist, share and learn, is the reason for our development. A permanent characteristic from other people is left on us when we interact with them. This is not unexpected. As a characteristic of the whole life on earth,

some mutual relationships and interactions (from the socio viewpoint) transcends ourselves. Animals that live in communities in the animal kingdom, have an improved prospect of surviving as a species. Such a relationship is increased through their ability to protect themselves, reproduce and hunt.

2.4.1 Thematic Review

Tanaka Chisato (2010) did a study on the topic: 'An exploration of teacher motivation: a case study of basic school teachers in two rural districts in Ghana'. The study was conducted in two districts in the country. A total of 874 teachers were involved in completing the questionnaires. Talking about how teachers' relationship with the headteacher motivated them, a teacher had this to say:

> *Sometimes [when] we [are] short food in the house, he [the headteacher] supports us. At times, he talks to us like our colleague. He doesn't bring himself high where you cannot approach him with your problems. If you have problems, you can meet him and talk to him like a colleague without fear ... Sometimes, when we are with him, we just play like small children. So, he is a good leader.*

2.4.1.1 Teacher Interpersonal Relationships in Schools

Figure 2.3: Cartoon depicting people interrelating

Figure 2.3 is a cartoon depicting people interrelating. A strong social relationship among students and teachers is a key factor in developing and sustaining a flourishing

classroom climate (Mainhard et al., 2011). Accordingly, social interaction among educators is a very important ingredient that aid productive learning climates, for both the teacher in his professional development and the student for better academic achievement.

2.4.1.1.1 Interpersonal Relationship between Teacher and Head-teacher (TH)

One cannot underestimate the crucial role that headteachers play in developing countries. With the support of headteachers, teachers are likely to adopt new pedagogical practice (Taylor and Mulhall, 2001). From Taylor and Mulhall's (2001) case study in four developing countries in Asia and in Africa, they suggested that an atmosphere that is collegial, where regardless of their hierarchical position in the school and teachers can voice their opinions freely, encourages teachers.

2.4.1.1.2 Interpersonal Relationship between Teacher and Colleague Teachers (TT)

Here are some ways that teachers can employ to foster positive interpersonal relationships.

i. Use of the teachers' lounge

ii. Attend social gatherings

iii. Communicate during the holidays

iv. Volunteering

v. Talk in person

vi. Broaden your conversation

vii. Keep your door open

viii. Offer help and ask for it back

The ability to craft strong relationships with co-workers is often an unsung benefit of being a teacher. If these tips are followed a great bond with colleagues could be established, and work could be found to be much more a productive and pleasant place to be.

2.4.1.1.3 Interpersonal Relationship between Teacher and Pupils (TP)

Staffs who do not build positive relationships with students and who are resistant to this approach could create problems and issues for students and with fellow staff members.

2.4.1.2 Good Interpersonal Relationships in School

Interpersonal relationships and emotions in the school environment are almost inevitable. They have become part and parcel of the daily activities in the schools (Sias, 2009, p. 1-2). According to Roffey (2012, p. 146.), it becomes devastating and affects the members in the school community, especially the defenceless students, in a situation where school experiences the negative of these feelings and relationships. Encouraging positive feelings and quality relationships among members in school environment promotes discipline as well as aid learning to flourish.

2.4.2 Geographical Review

2.4.2.1 Interpersonal Relationships in Schools in Croatia

Opic (2016) did a study to examine the interpersonal relationships in terms of quality that exist between pupils and teachers in Croatian schools. On a sample of 432 pupils and 432 teachers from 35 primary schools in 20 towns, in the Republic of Croatia, it was established that a difference existed in the appraisal of the quality of their interpersonal relationships. The general ranking of interpersonal relationships between pupils and teachers, was at a moderately satisfactory level. But the students ranked the quality of interpersonal relationship between themselves and their teachers lower than

the ranking the teachers gave to it. The correlation analysis was employed. And a low negative correlation (statistically significant) between the years of service and the subscale of rough verbal and physical treatment ($\rho = -0.101$) was adduced. In view of the subscale of rough verbal and physical treatment between pupils and teachers, the results on a negative correlation implied that older teachers, rather than their younger colleagues,

i. call pupils insulting names.
ii. impolite and nasty words were used on pupils.
iii. pupils were treated rudely.
iv. corporal punishment was used often in school.

2.4.3 Empirical Review

2.4.3.1 Empirical Study of Teacher Interpersonal Relationship in Romania

Rebrean (2017) did empirical research on college students' academic path in Romanian. The conventional motivational theory he started with affirmed that the process of reaching academic performance is affected by the perception students hold concerning their relationship their teachers (Pajares and Graham, 1996). Having in mind the psychometric difference between achievement and aptitude, the identification of relationships as positive from a socio-educational perspective between students and their teachers, could characterised through psychosocial indicators like positivity, warmth and closeness (Orth et al., 2012). From the other point of view, the educational risk that in association with the absence of a positive interpersonal relationship between the students and the teachers include the following:

i low self-confidence,
ii low self-esteem, and

iii high proportion of school dropout.

2.4.3.2 Results of Survey of Teacher Interpersonal Relationships in Romania

A direct evaluation question was used to explored student's general perception on the relation between teachers' attitude and the academic performances of students. Other profiles of the teacher were surveyed. But with regards to the psychosocial profile of a well-behaved teacher, he must be:

i. patient and calm;
ii. dedicated and competent;
iii. have the capacity to communicate well;
iv. respect his students; and
v. punctual to classes.

They also ranked very highly, the ability of the teacher to provide emotional comfort to students.

2.5 Interrelationship of Major Concepts

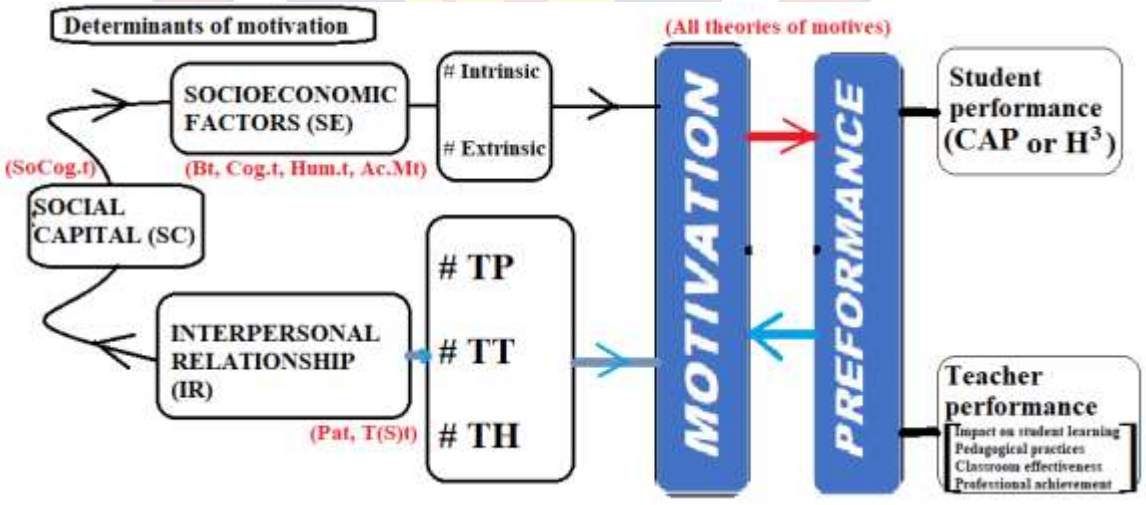


Figure 2.4: Interrelationship between the major concepts
(Source: Researcher, 2021)

Figure 2.4 is a diagram showing the interrelationship between the major concepts.

Students' performance includes the:

i. cognitive domain (C), or the head (H);
ii. affective domain (A), or the heart (H); and
iii. psychomotor domain (P), or the hand (H).

The teachers' performance includes the teachers':

i. impact on student learning;
ii. pedagogical skills;
iii. classroom effectiveness; and
iv. professional achievement.

2.5.1 Interrelationship between Interpersonal Relationships in School and Teacher Motivation

The professional relationship of teachers with their colleagues is cardinal in the role it plays in shaping the way teachers adjudge their career. Teachers remain in teaching when they recognize that they are given the necessary support to achieve their goals.

2.5.2 Interrelationship between Interpersonal Relationships in School and Teacher Performance

Allport (1960) created the term *social facilitation* to direct attention to a better explained outcome in which the simple presence of members of the same species (conspecifics) would enhance the task performance of individuals. These conspecifics might be co-actors (say, people doing the same task but not interacting) or simply a passive audience (say, people observing the performance of the task). Social facilitation is an increase in dominant responses in the presence of others of the same species. This could lead to an improvement in performance of a well learned task, and a deterioration in the performance of a poorly learned task.

Zajonc (1965) asserts that if the dominant response is the correct behaviour for that situation (say, pedalling when we get on a bicycle), then social presence improves performance (social facilitation). But if the dominant response is an incorrect behaviour (say, trying to write notes in a lecture before we have understood properly what is being said), then social presence can impair performance (social inhibition) (see Figure 2.5) (Markus, 1978).

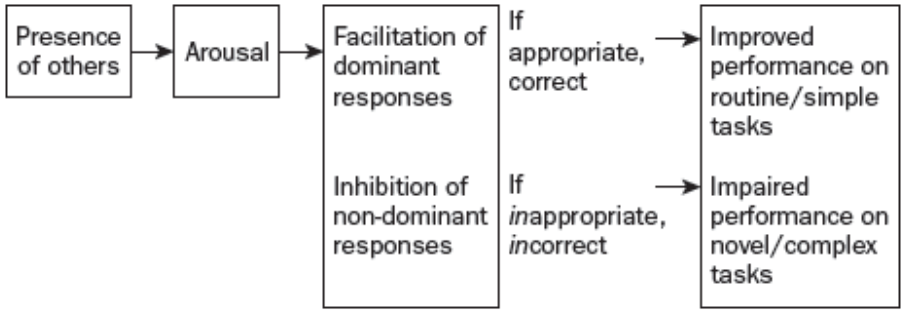


Figure 2.5: Zajonc's (1965) explanation of Social Facilitation/Inhibition.
Source: Hewstone and Stroebe (2001).

By implication, the quality of interpersonal relationships is essential for the healthy development of teachers and students alike (Wubbele, et al., 2006). Teachers learning, for example, thrive when principals/heads of schools facilitate accommodation and safe school cultures. Positive teacher-student relationship contributes to student learning (Wubbele, et al., 2006). Educators, parents and students together understand that problematic relationships can be detrimental to the attainment of student outcomes and development. Productive learning environments are characterized by supportive and warm interactions throughout the class (Fraser, 2007, Wubbele et al., 2006).

Whereas positive teacher-student relationship is important for every learner, it is more than a necessary condition for the development of learners living and studying in context in which there is poverty, inequality or unequal access to the learning

opportunities. Promoting social justice also depends on the quality of teacher-student relationships.

2.5.3 Interrelationship between Teacher Motivation and Teacher Performance

It is pointed out in McGregor's theory X and Y, and in Maslow's theory of needs, that the morale of motivated employees is always boosted; and they contemplate on more suitable procedures to perform a task. And as far as their task is concerned, they are willing to make an enormous effort. Employees that are motivated are more quality oriented. All these show that quality and efficiency are the results of motivation and job satisfaction. Additionally, they maintained that motivated workers perform better. Consequently, the end result of quality and efficiency is enhanced productivity or performance.

2.6 Conceptual Framework

In its simplest form, a conceptual framework is not more than a set of descriptive categories. A conceptual framework is a succinct description (which often go together with a graphic or visual representation) of the cardinal variables operating within the domain of the problem to be investigated together with the researcher's overarching view of how the variables work together (or could be made to interact under manipulable conditions) to come up with a more vivid and far-reaching 'model' of relevant phenomena than has hitherto been available for shedding light on the problem. It could be look at as a 'map' with conceptual directions. The framework, either directly presents or anticipates the basic design of the study.

The framework therefore incorporates the ontological and epistemological character of the study and is a foundation for the methodological phases of inquiry.

Figure 2.6 is a concept map of the phenomenon under consideration, envisaged by the researcher. The Psychoanalytical theory suggest that interpersonal relationship could

produce social capital. The Social Cognition theory clearly reveals that socioeconomic benefits are some of the elements of social capital, which include the intrinsic and extrinsic determinants motivation. It is very clear from all the theories of motivation, including the Behavioural theory and the Humanistic theory that motivation results in improved performance. The blue box to the green boat is what has not been researched into. That is the knowledge gap that the current study has considered.

Figure 2.6: Concept map of teacher motivation (Source: Researcher, 2019)

2.6.1 Theoretical Underpinnings

A theory is a set of interrelated concepts, propositions and definitions that gives and explanation for or predicts events or situations by specifying relations among variables. Theories and models help explain behaviour, as well as put forward suggestions on how to formulate more effective ways to influence and modify behaviour in a certain preferred direction.

2.6.1.1 Behavioural Theory

Each of the dominant theoretical strategies in behavioural theory postulates a principal factor in motivation. Classical or Pavlovian conditioning submit biological responses

to associated stimuli kick-start and direct behaviour (Barlow, 1956). Operant theory indicates that the primary factor is consequence: reinforcers provide incentives to increase behaviour; punishers provide disincentives that result in a decrease in behaviour.

As evidenced by the comments of critics, many sociologists regard the behavioural perspective as alien to traditional sociological thought (Sanders, 1974). Thus, according to the behaviourists human behaviour is purely mechanistic. That is, it is purely socioeconomic. But Molm, et. al, (1981) argue that it is not. But that, behaviourists believe that human behaviour and choices are affected by social relationships.

2.6.1.2 Cognitive Theory

The attribution theory is the first cognitive approach (Weiner, 1974). It proposes that individuals give explanations for success or failures of others or self by suggesting certain attributions. 'Attributions' are inferences generated by people when they try to explain reasons for events, the behaviour of others, and their own behaviour. Attributions may be internal (dispositional) - based on something within a person, or external (situational) - based on something outside a person. They are also either under control or not under control. These attributions could be social Weiner (2006).

The Expectancy Theory is the second cognitive strategy (Vroom, 1964). It puts forward the following equation:

Motivation(M) = Perceived Probability of Success (Expectancy) x Connection of Success and Reward (Instrumentality) x Value of Obtaining Goal (Valance, Value)

or M = E x I x V.

This expression declares that, the three determinants, that is, expectancy, instrumentality and valence, must be multiplied by each other to yield motivation. A significantly low value in one will produce a low value of motivation. All three must be present in significant quantities in order for motivation to take place. For an individual who have no confidence that he can succeed at the task, or does not envisage any connection between his activity and success, or has no appreciation for the results of success, then there will be very little probability that the person would engage himself in the task. That is, all three variables must be present and high in order for motivation and the resulting behaviour to be high.

Cognitive dissonance theory is the third cognitive approach. This approach is in some sense similar to 'disequilibrium' in Piaget's cognitive development theory. This theory was developed by a social psychologist, Leon Festinger (1957). It states that when there is a discrepancy between two beliefs, two actions, or between a belief and an action, one will act to resolve the conflict or discrepancies. The implication is that, if the appropriate amount of disequilibrium can be created, it will in turn lead to an individual changing his or her behaviour. This will also lead to a change in thought patterns, which will again lead to more change in behaviour.

To summarize, the cognitive dissonance theory suggests that humans will seek balance or homeostasis in their lives and will resist influences or expectations to change.

2.6.1.3 Psychoanalytic Theory

In line with the psychoanalytic theory, it is not out of context to suggest that all behaviours are motivated by either love or hate. This conception is more relevant and agreeable with the ongoing discussions on social motivation. It identifies interpersonal relationships as fundamental to human motivation.

2.6.1.4 Humanistic Theory

One of the prominent writers in this domain of motivation is Abraham Maslow (1954). He synthesized a large collection of research that have connection with human motivation. Earlier before Maslow, researchers customarily concentrate separately on factors like power, achievement, or biology, to explain what directs, energizes and sustains human behaviour. Maslow postulated a hierarchy of needs based on growth needs and deficiency needs. Within the deficiency needs, each lower need must be met before moving to the next higher-level need. Once each of these needs has been satisfied, if at some future time a deficiency is detected, the person will act to remove the deficiency.

The first four levels of needs are:

i Physiological: hunger, thirst, and bodily comforts;

ii Safety/security: out of danger;

iii Belongingness and Love: affiliate with others, be accepted; and

iv Esteem: to achieve, be competent, gain approval and recognition.

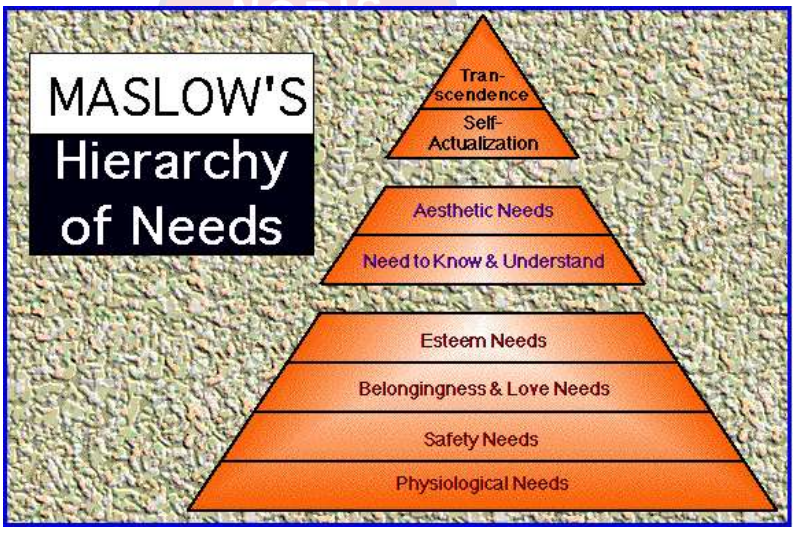


Figure 2.7: Maslow's Hierarchy of Needs

Maslow's inclusion (classification) of the need for belongingness and love as deficiency need and not a growth need is his undoing. By observation (empirical), it is evident that from infancy to old age people always want to belong and to be accepted; to love and to be loved. It can even be adduced that one's greatest motivation in behaving in a particular way at any level of development is the need to be loved. This need grows stronger as one advances or matures. It assures one of having fewer enemies and so one feels secure and confident that he is on the right path. The need for belongingness and love should thus be a 'growth' need. The love need is a need for self-actualization and self-transcendence. It is love that makes one passionate about others and wants to help them find self-fulfilment in life and helping them to realize their potentials.

Table 2.4: Alderfer's Hierarchy of Motivational Needs

Level of Need	**Definition**	**Properties**
Growth	Impel a person to make creative or productive effects on himself and his environment	Satisfied through using capabilities in engaging problems; creates a greater sense of wholeness and fullness as a human being
Relatedness	Involve relationships with significant others	Satisfied by mutually sharing thoughts and feelings; acceptance, confirmation, under- standing, and influence are elements
Existence	Includes all of the various forms of material and psychological desires	When divided among people one person's gain is another's loss if resources are limited

Not all personalities followed his proposed hierarchy. While a variety of personality dimensions might be considered as related to motivational needs, one of the most often cited is that of introversion and extroversion.

Table 2.5: Reorganization of Maslow's and Alderfer's Hierarchies

Level	**Introversion**	**Extroversion**
Growth	Self-Actualization (development of competencies [knowledge, attitudes, and skills] and character).	Transcendence (assisting in the development of others' competencies and character; relationships to the unknown, unknowable.
Other (Relatedness)	Personal identification with group, significant others (Belongingness)	Value of person by group (Esteem)
Self (Existence)	Physiological, biological (including basic emotional needs)	Connectedness, security

At this point there is little agreement about the identification of basic human needs and how they are ordered.

2.6.1.5 Social Cognition Theory

Social cognition theory advances that reciprocal determination is a primary factor in both motivation and performance. That, the environment, the behaviour of the individual and the characteristics of the individual, influence and influenced by each of the other two component.

2.6.1.6 Transpersonal or Spiritual Theory

The transpersonal theory is also known as the spiritual theory. It deals the meaningfulness of life and the ultimate essence of life. This theory surmises that compassion, inner peace, joy and love, and so on, are some transpersonal emotions that can bring an individual beyond himself to a larger identity that incorporates not only the beloved, but also all of life and the cosmos itself.

2.6.1.7 Achievement Motivation Theory

Many studies on leadership have regularly reported that leadership ability is directly linked to subordinate performance. It is also of common understanding that leadership style, leadership behaviour and the kind of social interaction that exist between the leader and the subordinate affect subordinate performance. The principle of social motivation is based on this understanding.

2.7 Summary

Study was premised on the assumption that an atmosphere of a positive interpersonal relationship in the school can be of a more motivating factor in influencing teachers to perform at their peak than the economic factors like salary, awards, promotions, school policies and the likes; and can lead directly to teacher motivation without recourse to social capital.

It is generally agreed that, and per the literature reviewed that majority of teachers in Africa and Asia, do not teach for intrinsic reasons but for pay and welfare - economic reasons (Kingful, 2015, UNESCO 2006). There is the need to identify a way of motivating teachers aside pay and welfare. Education is so crucial that it is not appropriate to base teacher motivation which leads to improvement in teacher performance on non-sustainable economic variables. Employing interrelationships to

motivate teachers is under social motivation. Social motivation is an element of social capital; and social capital is the result of interpersonal relationships.

Interpersonal relationship is an affiliation motive. It is the need for acceptance, and the support of supervisors or superiors, colleagues, and subordinates. individuals with high affiliation motives seek for cooperation and collaboration to meet work goals. Affiliation motives include of the following work value constructs:

1. Supervisor Relations: Individuals who rate high on this construct accept that cooperating and relating well with supervisor is important. And so, they go all out to meet their supervisor's expectations. They show very high appreciation.

2. Co-workers Relations: individuals who rate this construct high believe that it is very important to relate with peers. Being actively involved in employee related organisations at work and outside work is key to them. They highly value teamwork and collaboration.

3. Subordinate Relations: This construct is rated high by people who believe that they are responsible to their subordinates (in the case of teachers, their students or pupils). They feel that it is their duty to assist the students to meet their personal aspirations. They do a lot to satisfy their subordinates, they have a lot of respect for them.

The review is therefore summarized by observing the following interconnections:

i Social capital (SC) can lead to teacher performance (TP) and teacher motivation (TM) (Vogus, 2006). It can also bring about socio-economic (SE) benefits to the needy. (Psychoanalytical theorists). (Erickson, 1993; Sullivan, 1968; Adler, 1989).

ii Interpersonal relationship (IR) can bring about socio-economic benefits. (Social cognition theory) (Bandura, 1986, 1997).

iii Socio-economic (SE) elements can bring about teacher motivation (TM) as per the behaviourist theorists. (Herzberg, 1968).

iv Interpersonal relationships bring about social capital (SC). (Psychoanalytic theorists). (Erickson, 1993; Sullivan, 1968; Adler, 1989; Vogus, 2006).

v Teacher motivation (TM) also brings about teacher performance (TP). (Achievement Motivation theorists). (Ames, 1992; Dweck, 1986; McCleland, 1985).

But it was also envisaged that interpersonal relationships (IR) in school could bring about teacher motivation (TM) and teacher performance (TP). This the knowledge gap that the study sought to bridge.

Figure 2.8 illustrates the concept map of the interconnection described above. The broken path is the path of the current research.

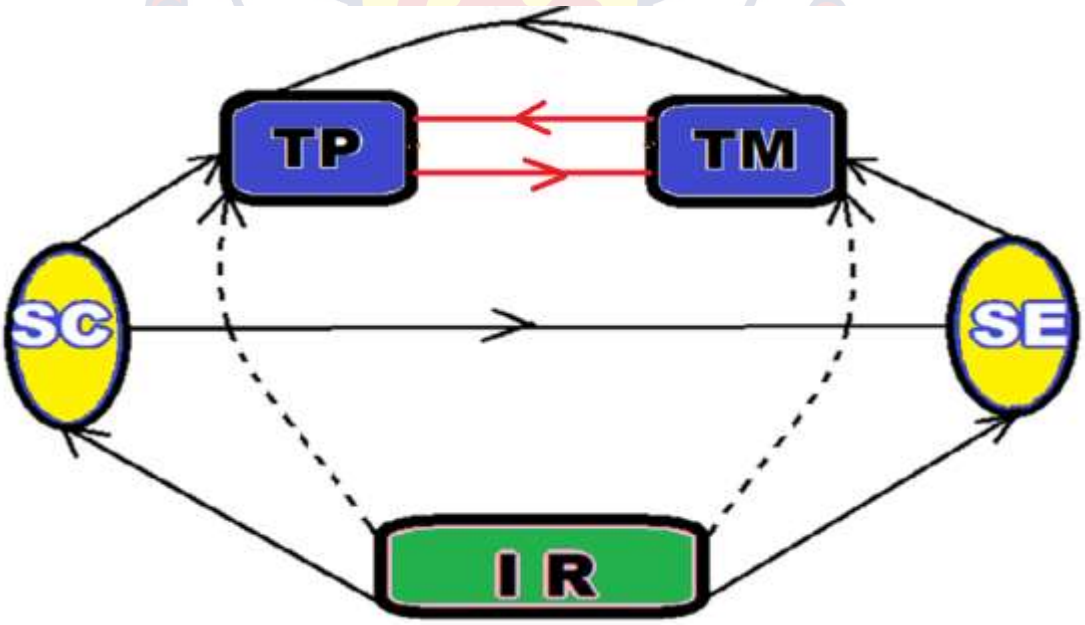


Figure 2.8: Concept map of the interrelationship between interpersonal relationship (IR), Teacher Motivation (TM) and Teacher Performance (TP). (Source: Researcher).

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The meaning of methods is straightforward. It is derived from the Greek *meta* meaning 'beyond' or 'after'. It is usually used in English words to mean beyond in the sense of more developed or higher order. And *hodos* meaning 'way' or 'means'. The accomplishment of something higher by a systematic approach is 'methods'. In research, therefore, methods represent the ways in which data are produced, interpreted and reported. It is the systematic ways in attaining and advancing knowledge.

Methodology, nonetheless, has a more widened and problematic connotation. It is quite a complex conception. The Greek *logos*, from the final element, ***-logy***, means 'word' or 'reason'. It is used in a number of ways in English; but the suffix ***-logy*** generally denotes 'study' or 'theory'. Thus, the study of, or the theory of, the way that methods are used in research, fundamentally, is methodology.

3.1 Sources of Knowledge

A cursory look at debates about educational research might suggest that the only valuable knowledge is that developed by using rigorous research methods to study empirical phenomena. But in any field of practice, authoritative guidance typically comes from several sources; each with different kinds of knowledge assertions and different justifications for those assertions. For example, sources of normative knowledge about core ideals and values for a field of practice may come from scholarship in the humanities, ethical and philosophical analyses, cultural studies, and even religious beliefs. Such sources of knowledge draw out conceptual, logical, and moral insights and provide ideas and principles to undergird practice.

3.1.1 Normative Knowledge

Normative scholarship in educational theory has a long history. About two centuries ago, educational leaders often spoke and acted like philosophers of education (National Research Council [NRC], 2002). After the rise of scientific management, professional expertise came to be associated less with normative knowledge about schooling than with operational knowledge, particularly knowledge derived from formal inquiry. Currently, even the most avid promoters of scientific inquiry in education acknowledge that normative knowledge should inform the profession.

3.1.2 Reflective Knowledge

Reflective practice is a second source of insight. Practitioners learn by thinking carefully about what they do (Schon, 1983). Practical wisdom about organizational leadership has been written down to be shared. Unfortunately, knowledge derived from reflective practice sometimes has been treated as similar to research-based knowledge and criticized for having thin methodological grounds. This undercuts the valid epistemological basis for the wisdom of the practice. Reflective practice need not ignore or contradict research-based knowledge. In fact, research can provide concepts that frame how practitioners think about their work. This point had been made for teaching by Shulman (1987), who saw the wisdom of reflective practice as a valid source of knowledge and suggested that formal research can help structure practitioners' reasoning.

3.1.3 Practical Inquiry

A somewhat more disciplined third source of knowledge is often termed practical inquiry or action research. Such inquiry is explicitly intended to add to knowledge in local contexts (Riehl, et al, 2000). It may use formal methods for gathering information and drawing conclusions. But methodological choices are made to maximize the ability

to inform local policy or practice quickly. Action research usually does not aspire to generalization or wide dissemination. It is often conducted by practitioners and by those who work closely with practitioners. In education, increased respect for local inquiries stems from an emphasis on schools as learning organizations (Senge, 1990) or places where inquiry is essential for continual improvement. Ideally, practical inquiry leads to conclusions consistent with those derived from more systematic inquiries. The risk that this may not happen is borne because the benefit of contextualized knowledge that is quickly available (and quickly revisable) overrides the risk.

3.1.4 Systematic Research

The fourth source of knowledge is termed systematic research (though this does not mean to suggest that practical research is not systematic, nor that systematic research cannot be practical). This enterprise generates knowledge through well-established means of gathering and interpreting empirical evidence and through the process of reporting evidence, validating it through peer review, and making it broadly available. Such research aims for knowledge that contribute to the conceptual understandings that usefully inform practice beyond specific contexts.

These four sources of knowledge have fluid relationships and fuzzy boundaries. Each can look to the others for insight (NRC, 2002; Riehl et al., 2000).

3.2 Research Quality

Many analysts find much of merit in educational research and acknowledge the inherent difficulties of producing authoritative and durable knowledge in the field (e.g., Labaree, 1998). Still, educational research has been criticized for, paradoxically, being both too theoretical and abstract and too close to practice. It has been maligned for being dispersed and unfocused, inconclusive, and easily disputed (Kaestle, 1993; Lagemann and Shulman, 1999). Research on teacher motivation has received similar criticisms.

Methodological shortcomings include inadequate samples, incomplete theoretical models, and simplistic measurement and analysis techniques (Hallinger and Heck, 1996). Studies within problem areas do not accumulate and grow in sophistication. Studies are sporadic in coverage of important topics in the field, and they have not linked teacher motivation to student learning. Some have criticized research on teacher motivation as being too technical and positivistic (Evers and Lakomski, 1991; Scheurich, 1997).

3.2.1 The Experimental Question

Three general themes pervade many criticisms of educational research. The first is a more specific version of the concern that research has not used the most effective designs or methods. Following the current interest in 'scientific' research, this critique assumes that research should help answer the question, 'What works?' in the most authoritative way possible (Slavin, 2004). The preferred method for doing so is thought to be experiments that test the outcomes produced by particular interventions, with subjects randomly assigned to treatment groups in order to eliminate possible selection biases. In some experiments, theoretical understandings might be tested instead of specific interventions. This approach assumes that well-crafted experimental research does not simply present a 'one-size-fits-all' solution, but instead specifies conditions under which alternative treatments work better or worse (Slavin, 2004). This deflects the criticism that the experimental approach ignores local conditions and aspires too much toward context-free generalizations.

The experimentalists believe that the only means of obtaining reliable and credible picture of the reality is by experimentation, where one can control extraneous variables. Experimental research usually requires that an intervention be implemented uniformly across settings. But extensive research has documented that virtually any intervention

undergoes substantial local adaptations (Berman and McLaughlin, 1977). In addition, the experimental approach overlooks research that serves other functions, including descriptive research that details current conditions or process research that explores the mechanisms through which interventions that work do work.

In many areas, knowledge is simply not developed enough to test specific interventions. Arguably, the most productive educational research over the last few decades has not been experimental research, but instead research that has looked closely at the cognitive processes of learners, teachers, administrators, and even policymakers (Hallinger, Leithwood, and Murphy, 1993; Palincsar and Brown, 1984).

3.2.2 The Foundational Question

The second critique focuses on the philosophical foundations of research methods. Experimentalists (and many others) assume that research can generate objective, accurate - but never perfect - portrayals of a generally stable world. In the wake of Kuhn's (1962) account of scientific paradigm shifts, others assert that researchers' conclusions about reality are coloured by theories and values. In still other views, reality is understood to be partly socially constructed. This is a product of perceptions and experience; and a combination of subjective and material preconditions. The reasoning behind this question is that our interpretation of reality is always based on someone's theories or views. It is difficult to give an objective picture of the world.

Then the researcher's job is less to give an account of reality than to adduce actors' accounts of how they construct meaning of the world and act on their understandings. The most radical position is that a researcher's interpretations are so heavily dependent on one's own beliefs that they cannot be verified or challenged by others. This postmodernist perspective makes the prospect of sharable knowledge too dim to reconcile with aspirations for systematic research.

Views of causality are a source of foundational critiques as well. The more realist position is to search for antecedent conditions that cause other things to happen with regularity. But it could be said that causality is not so mechanistic but is instead responsive to local variation and human volition. It is possible to find connections among thoughts, actions, and events to produce a convincing interpretation of how one thing led to another. In this way, processes are exposed as meaningful, but not determinate.

Proponents of each perspective tend to find research conducted within other frameworks less than informative and sometimes even delusional for building knowledge and improving practice. These debates are concentrated in academic circles, but they affect others as well. Since most end-users of research look for technical solutions to problems of policy and practice, they tend to gravitate toward research that presents the world as more objective and knowable. They discount other forms of research, especially those presented in 'insider' language that is hard to grasp. This denies them the opportunity to encounter interesting and potentially helpful insights.

3.2.3 The Critical Question

Rather than assuming that better data and more rigorous methods will yield better warranted results intended for the general good, the critical critique is that researchers hold values that privilege the status quo and currently dominant interests. Advocates of this view see finding an unbiased truth as less significant than challenging established relationships of power and privilege (Lowe, 2000). An important function of research is to uncover and document what is happening from the perspective of those being ill served to publicize inequities in the existing system and advocate for the victims of the system.

Taken together, the experimental, foundational, and critical themes challenge fundamental epistemological concerns, the core intentions of research, and the potential for different research approaches to generate findings that will lead to authoritative knowledge that can inform practice.

3.3 The Research Design

Rather than entering into debates about what constitutes scientifically based research, the very pressing question that ought to be asked is: 'What kinds of research can produce well warranted knowledge that can help improve practice and policy?' The research that produces such knowledge can take many forms, from descriptive research to interpretive research to hypothesis-testing research. It can rest on a variety of philosophical positions and can use diverse strategies for gathering evidence and producing conclusions, from case studies to experiments to critical ethnographies to surveys to action research. The function of a research design is to ensure that the evidence obtained enables the answering of the initial research question as unambiguously as possible. In this study the design employed deals with the logical problem and not a logistical problem.

The research design is quasi-experimental; employing mixed method approach in the analysis. It is cross-sectional. These are selected to conform with the nature and procedure for collection and analysis of the data of the specific research objective.

The research design provides the structural framework for the collection and analysis of data and subsequently indicates which research methods are appropriate.

There is nothing intrinsic about any research design that requires a particular method of data collection (research method). Data for any design can be collected with any data collection method (Yin, 1989). The research design employed for this current study was the mixed method research design.

This approach is well suited for 'fuzzy' or contextual concepts such as sociological quality of life, atmosphere, climate, anomie, morale, disorganisation, interpersonal relationships, and natural attributes like motivation. This type of research is occasionally called contextual analysis.

This approach is almost all comparatively more original, creative or unorthodox in attributing the cause of something. This is because, there is no manipulation of an independent variable in order to assess causality as the case is in true experiments. Alternatively, under the most favourable conditions, there is a statistical baseline, and some interventions that occurred naturally (like, in this social motivation approach to teacher motivation, there is the motivational levels of teachers and interpersonal relationship).

The designation 'trend' or 'effect' is applied instead of 'cause'. The interest is in finding the one true trend. Notwithstanding, this kind of research often unveils several trends or effects. And the leading ones are developed or synthesized into 'models' or 'syndromes' or 'cycles'. The subordinate ones are just ascribed as normal or abnormal events (Scott and Usher, 1996). In this research the approaches that lead to the highest motivational level of teachers are what are investigated.

Since many different, but interlocking relationships between variables are often involved in research designs of this kind, it is recommended that the researcher employs modelling the causal relationships. This makes it possible to discern spurious and intervening variables, and a number of other variable relationship types, like suppression effects (Leary, 1983). Spurious variables when identified, should be thrown out completely. Intervening variables however, may require multiplying the effects of two interacting terms.

Both quantitative and qualitative data was collected. While the data on the state and determinants of motivation are nominal and ordinal data, that about the level or degree of motivation and of teacher performance are interval and ratio data. The design could be said to be an **'eclectic nomothetic deterministic design'**. In the sense that, with the background of two independent believes or theories, objective data is sought through empirical research to form a universal, general law (of how interpersonal relationships can inspire the motivational levels of teachers); with the belief that things have their own independent reality.

Consequently, the current study entails the search for a universal principle of teacher motivation by the employment of the best practicable approach rooted in the belief that all events (including teacher motivation) are inevitable consequences of antecedent sufficient causes.

In talking about the research process Hitchcock and Hughes (1995) suggest that there is a logical procedural sequence; that is,

ontological assumptions → epistemological assumptions → methodological considerations → instrumentation and data collection.

This is the procedure employed in this study. This is in line with the scientific method of doing psychological research.

3.3 Data Types and Sources

Data are the actual pieces of information that are collected through a study. There are four types of data (or measurement scales): nominal, ordinal, interval and ratio. These are simply ways to categorize different types of variables.

Nominal measurement places objects or individuals into categories that are qualitatively different. Measurement at this level requires only that, two or more relevant, mutually exclusive categories are distinguished; and the criteria for placing an

individual or object into the appropriate category are known. The necessary empirical operation at this level of measurement takes into account only the recognition of whether an object or individual does or does not belong in a given category. The only relationship between categories is that they are different from each other. And that there is no suggestion that one category represents more or less of a characteristic. Data gathered from items that solicit for a 'yes' or 'no' responses, items about sex, category of institution, urban or rural setting, and so on, are nominal data. Thus, data from items 2 to 7, and 11 of the TMS, and items 1 and 2 of the interview schedule were nominal.

The ordinal scale of measurement ranks individuals with respect to how much or how little of the attribute under consideration they possess. An ordinal variable is a qualitative variable. There is a meaningful ranking or ordering of the categories. The measurements of an ordinal variable may be numerical or nonnumerical. The ordinal scale also has an arbitrary origin. Equal differences in the numbers, however, do not represent equal differences in the attribute being measured.

The data collected for the current study included nominal data, ordinal data, interval data and ratio data (that is, both qualitative and quantitative data). Therefore, both parametric and nonparametric methods are employed in the analysis. Items 1,3,4,5,6,8,9,10 and 12 of the TMS (a Likert scale) yielded ordinal data. Thus, the TMS collects both nominal and ordinal scale data. Responses to item 3a of the interview schedule were also ordinal. Items 3b and 4, of the interview schedule provide ratio data. The teacher performance rater provides interval data.

Figure 3.1 illustrates all the types of research or statistical data that are employed in research work.

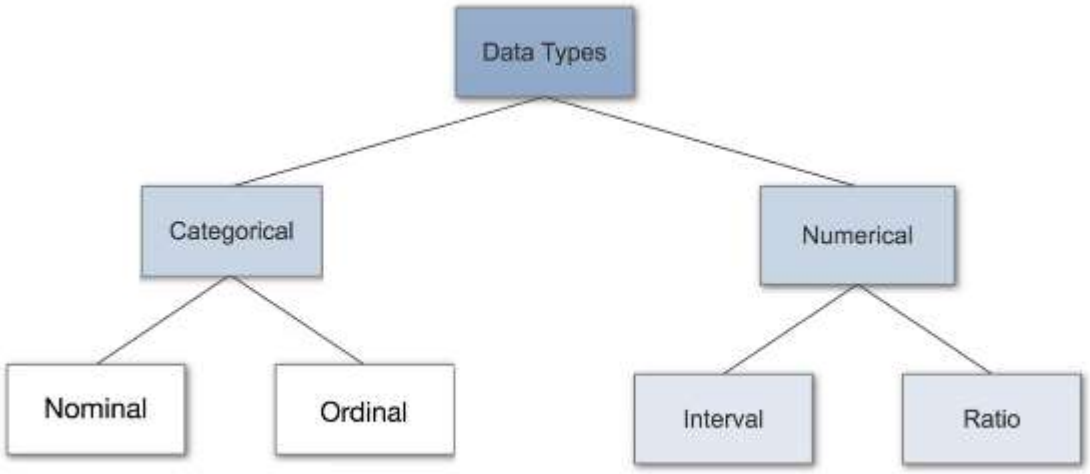


Figure 3.1: Types of Statistical Data

3.4.1 Parametric Test

Parametric test and statistics are employed in dealing with interval and ratio data. The interval level of measurement ranks data. Here, there is no precise measure of differences between units. It also has no meaningful zero.

The ratio level is the highest level of measurement. The ratio level of measurement possesses all the characteristics of the interval measurement, and there exists a true zero. The principal assumptions on which parametric tests are based include independence of the observations, normality of the underlying population distributions, and homogeneity of the population variances across groups (for multiple group procedures).

Advantages of Parametric Tests:

1. Do not require data.
2. Quite easy to calculate them.
3. Provides all the necessary information.
4. Other benefits of parametric tests.

Disadvantages of Parametric Tests:

1. They are not valid with small data.
2. The size of the sample is always very big.
3. There are ranked data as well as outliers that cannot be removed.

3.4.2 Nonparametric Test

Nonparametric test and statistics are used as a substitute for parametric test when the supposition of normality cannot be met. Nominal measurements are principally employed.

3.4.3 Data Sources

The source of the research data is primarily primary – first hand data. All the instruments – the TMS, the interview schedule, and the observation checklist, all gather primary data. However, the BECE results got from the district GES offices are secondary – that is, from the archives.

3.4 The Population

The target population of the study is public pre-tertiary school teachers in Ghana. The accessible population is however, is public pre-tertiary school teachers in the Upper East Region (UER) of Ghana. The choice of UER was strategic for methodological reasons. Many teachers in the southern part of Ghana are using teaching as a stepping stone to their actualcareer goal, which is not teaching. Others are also teaching in the south for reasons they are not willing to disclose to anyone. They are unwilling to disclose their true motivation for teaching. Unlike their counterparts in the northern part of Ghana who have very little reasons apart from teaching, for accepting postings to teach in the northern part of Ghana.

The Upper East Region is located in the northern part of Ghana. People in the region that are citizens of Ghana by birth, or parenthood (that is, were born in Ghana) account for about ninety-three percent of the population in Upper East Region. Naturalized foreigners form about five percent. The population of the region is as shown in Table 3.1.

Table 3.1: Population of UER by Districts

Name	Status	Population	Population
		Census	**Projection**
		9/26/2010	**9/26/2019**
Upper East Region	**Region**	**1,046,545**	**1,273,677**
Bawku Municipal	Municipal District	98,538	119,590
Bawku West	District	94,034	114,526
Binduri	District	61,576	75,073
Bolgatanga Municipal (including Bolgatanga East)	Municipal District	131,550	160,308
Bongo	District	84,545	103,060
Builsa North	District	56,477	68,724
Builsa South	District	36,514	44,528
Garu-Tempane (Garu / Tempane)	District	130,003	157,778
Kassena Nankana East Municipal	Municipal District	109,944	133,610
Kassena Nankana West	District	70,667	86,519
Nabdam	District	33,826	40,718
Pusiga	District	57,677	69,985
Talensi	District	81,194	99,258
Ghana	**Republic**	**24,658,823**	**30,280,811**

Source: Ghana Statistical Service, 2018

The number of pre-tertiary school teachers in the region as at 2016 both in Ghana and in the Upper East Region was as shown Appendices B1 and B2. Per the Ministry of Education's (2018) Educational Reforms Report, there were 285,880 total number of teachers at post in the classrooms doing teaching nationwide. Of these, only about 5% are in the Upper East Region (MoE, 2018). Thus, the population for the study was comprised of all teachers in Primary Schools, Junior High Schools and Senior High

Schools (teachers) on the one hand and all Headteacher/headmaster in these schools (Principals) in the Upper East Region (UER) of Ghana on the other (Table B2).

3.5 Sampling

The purpose of drawing a sample from a population for research, is to obtain information with regard to that population. It is therefore acutely important that the subjects included in the sample be a representative cross section of persons in the population. Samples must be representative if one is to generalize with credence from the sample to the population. This is most especially with quantitative research. The sample must be a true representation of the population.

Sampling is always a 'leap of faith'. Even with the most randomly selected sample, representativeness can never be completely guaranteed; except where the population is perfectly homogeneous.

The sample consists of two categories:

i all teachers of Primary Schools (PS), Junior High School (JHS) and Senior High Schools (SHS) selected in the Upper East Region of Ghana.

ii all headteachers and headmasters (principals) of the selected schools.

The sample size is illustrated on Table B.3 in Appendix B. A total of over 2,098 teachers sampled from 226 pre-tertiary schools and 226 principals were involved in the study.

3.5.2 Sampling Frame

The sampling frame comprised all first and second cycle schools in the districts. Every second cycle school in each district was sampled. For the first cycle schools, for every primary school that was selected, its corresponding JHS was also selected except where the primary school did not have a corresponding JHS attached to it. Thus, the sampling frame was as shown in Table 3.2.

Table 3.2: Sampling Frame (Pre-tertiary Institutions in UER, as at 2016)

	Institution	Number of Institutions	Number of Teachers
1	PRIMARY	630	4,709
2	JHS	332	2,647
3	SHS/TI	30	1,067
	TOTAL	992	8,423

3.5.3 Sample Size Determination

The number of schools sampled from each district for the study was as tabulated in Table B.4 of Appendix B. The teachers were sampled by census from the selected schools. That is, every teacher in the selected schools was included in the study. Table 3.3 illustrates the sample size.

Table 3.3: Sampling Size

	Institution	Number of Institutions	Number of Teachers	Number of Principals
1	PRIMARY	100	780	100
2	JHS	100	756	100
3	SHS/TI	26	562	26
	TOTAL	226	2,098	226

Thus, 226 schools were selected from a total of 998 schools. Two thousand and ninety-eight (2,098) teachers were selected from a total of 8,423 teachers and 226 principals from and total of 998 principals. The sample size was determined with the aid of a table of sample sizes (The Research Advisors, 2006); (see Appendix C). The error margin is 2.5 percent; and the confidence level is 99 percent.

3.5.4 Sampling Technique

Both probability and non-probability sampling procedures were employed in selecting the sample. The approach is acceptable since the study is a mixed method research

(Creswell, 2005). There are so many extraneous variables of the study. The ideal environment for the study will be where:

i those extraneous variables do not exist; or

ii if the extraneous variables existed, was homogeneous.

In the case of this study such conditions are completely unattainable. The lack of such environment to select the sample, does not make the study non-feasible or invalid. Attempt was made to get closer to the ideal. And this approach is common also with social science research. To ensure a fair level of validity and reliability, the effect of the extraneous variables must be as low as possible. And their presence in the site must be as uniform (homogeneous) as possible. This foresight informs the process outlined below.

i Upper East Region was chosen by purposive – non-probability sampling. This was done to reduce the effect of extraneous variables (the economic motivating factors) and to achieve a level of homogeneity. The other motivating factors like the work itself, job security, salary, working conditions, benefits, working hours, opportunity for advancement and so on vary significantly between schools in the southern part of Ghana and schools in the northern part of Ghana. The prevalence of these conditions is higher in the south than in the north (United Nations Development Programme, UNDP, 2000). Institutions in the Upper East Region (UER) were chosen because the prevalence of these factors was relatively low and their impact controlled or rather limited. The reliability of the study is more enhanced when the economic motivating factors are homogeneous (Oppenheim, 1996).

According to Umur (2011), effective student-teacher relation, positive school atmosphere, administrative support, higher teacher autonomy, are the most

important working conditions that increase the teacher's motivational level and job satisfaction not considering whether the teacher was employed in a public or private institution.

ii Private schools were not included for the reason of limiting the extraneous variables.

iii Two hundred and thirty (226) schools in UER – 100 from the primary, 100 from the junior high schools (JHS) and 26 from senior high schools (SHS), were selected. The primary schools in the districts were selected proportionately, and by random sampling. The schools were first clustered according to districts in the region. The districts were then given quotas according to the ratio:

number of schools selected from district,

$$n = \frac{226}{998}\ x\ total\ number\ of\ primary\ schools\ in\ the\ district.$$

The figures were then rounded up to the nearest whole numbers to yield Table B4.

iv The JHSs were selected purposively. Every JHS attached to the primary schools selected were also selected. Others were selected by convenience (say, the nearest JHS to the particular Primary school) to make up the number.

v The SHS were selected by census. That is, every senior high school in each district was selected; but only 26 (out of 28) SHSs responded to the study. That made the total to be 226 schools.

vi The teachers in the selected schools were selected by census. That is, all teachers in selected schools were given questionnaires to answer. And all principals in the selected schools were interviewed.

3.6 Instrument Preparation

The chief instrument was a Teacher Motivation Scale (TMS) (see Appendix A1). An

open-ended interview schedule (Appendix A2) and a performance observation checklist (Appendix A3) were also developed and used as the analysis progressed and the need for more data was realized.

3.6.1 The Teacher Motivation Scale (TMS)

The Teacher Motivation Scale (TMS) (Appendix A1) was developed after studying the Motivation at Work Scale (MAWS) (Gagne et al., 2008) and the principle that less motivated teachers respond the most to performance-based monetary incentives (Segaly, 2006).

The Self Determination Theory (SDT) advances that the magnitude to which any of these three psychological needs is unsupported or impeded within a social context, will have a strong detrimental ramification on wellness in that setting.

Combining all fields of psychology, SDT has produced over 400 empirical publications since the early 1980's. It is a dominant theory of motivation in the social sciences, including education, and sport psychology (Deci and Ryan, 2000).

The TMS is a Likert Scale with 40 items. Items 1 to 4 comprise questions that solicit the teacher's general perception about job satisfaction and motivation of teachers. These are analysed to determine the motivational level of the teachers in the region. Items 5 and 6 (made up of 31 sub-items in total) are the ones scored to determine which factors give the teacher the highest motivational level and which gives him the poorest. The highest score for each item meant highly motivating, while the lowest score implied poorly motivating or unmotivating. These determinants were identified through a focus group discussion with teachers from both first and second cycles schools, including a headteacher. Some other factors were perused from literature. Items 7 to 12 are to collect the biodata of the subject and the level of the school in which the subject teaches.

The interview schedule comprised of 10 open ended questions. It is in Appendix A2. An observation checklist was also used. The observation checklist comprised of 24 performance indicators (Appendix A3). These were employed to increase the depth of the study with the support of higher-level research data.

3.7 Instrument Refinement

A major task in quasi-experimental research is how to ensure validity. Validity refers to the appropriateness, meaningfulness, and usefulness of the specific inferences made, based on the data collected. Validation is the process of collecting evidence to support such inferences (Wallen and Fraenkel, 2000). In research terminology, validity appertain to the exactitude and truthfulness of the data, and findings that are produced. It applies to the concepts that are being investigated; the people or objects that are being studied; the methods by which data are collected; and the findings that are produced. Validity therefore, is contingent on the amount and type of evidence there is, to support the interpretations made concerning data collected. The following approaches were employed to certify validity in the study.

3.7.1 Ways Employed to Validate the Study

To ensure both face validity (the extent to which a measuring instrument appears to others to be measuring what it claims to measure) and content related validity (the content and format of the instrument) in the current study, the TMS though self-designed, was carefully compared with the validated MAWS to ensure criterion related evidence of validity. Each question was minutely scrutinized to ensure that none were ambiguous, double-barrelled, leading, loaded, non-specific, dichotomous or biased questions. Any wording or phraseology that was deemed potentially confusing to the respondents was reframed in a more comprehensible fashion. It was also piloted to ascertain its reliability.

Suffice it to say that the instruments, that is, the TMS, the interview schedule, and the teachers' performance rater, all were examined; and received the approval of experienced researchers in the field of education and motivation. The data they gathered satisfied the research matrix in Table 3.4 (Atkinson, 1988).

There have been some debates regarding the use of the Likert Scale. There has been questions as to whether the 'undecided' option should always be included in the Likert scale. Most experts in the field recommend that the researcher should include a neutral or undecided choice because some respondents actually feel that way and do not want to be forced into agreeing or disagreeing. The TMS however, is not about 'agree' or 'disagree'. It is about 'motivating' or 'unmotivating'. And there is no neutral point between 'motivating' and 'unmotivating'. Therefore, in this case, one must have to tell whether the determinant is motivating or unmotivating.

Table 3.4: The Research Matrix

	Specific Objective	**Dominant Variables**	**Data Type and Sources**	**Method of Data Collection**	**Data Processing**	**Data Analysis**	
						Framework	**Technique**
1	To describe the state of teacher motivation and teacher performance in the study area.	Job satisfaction. Teacher motivation. Teacher performance.	Ordinal. Source: Primary and Secondary.	Questionnaire administration – questionnaire. Interviews – interview schedule. Focus group discussion – discussion guide.	Cleaning. Sorting. Coding. Reviewing. Data entering. SPSS.	Descriptive framework. Correlation.	Descriptive statistics; Scenario building. Correlation coefficient.
2	To determine the effect of teacher motivation on teacher performance.	Teacher motivation. Teacher performance. Student performance.	Interval. Source: Primary, and secondary.	Questionnaire; performance rater; staff personal records; students test/exam results.	Cleaning. Sorting. Coding. Reviewing. Data entering.	Descriptive framework.	Descriptive statistics – percentage, means, standard deviations.

					SPSS.		
3	To assess the determinants of teacher motivation in the study area.	Determinants of TM: Socioeconomic factors. Teacher motivation (TM).	Interval; ratio. Source: Primary.	Questionnaire administration – questionnaire. Interviews – interview schedule. Focus group discussion – discussion guide.	Cleaning; sorting; coding; reviewing; data entering. SPSS. Excel.	Ex post facto.	Descriptive statistics.
4	To analyse the contribution of interpersonal relationships to teacher motivation in schools in the study area.	Interpersonal relationships - Teacher-pupil (TP); Teacher-teacher (TT); Teacher-headteacher (TH). Teacher motivation. Strength of interpersonal relationship.	Interval. Source: Primary.	Questionnaire administration – questionnaire. Interviews – interview schedule. Focus group discussion – discussion guide.	Cleaning; sorting; coding; reviewing; data entering. SPSS. Excel.	Correlation framework.	Regression analysis. Descriptive statistics. Factor analysis. PPMCC.
5	To synthesize an improved teacher motivation system in the study area.	Interpersonal relationship. Economic factors.	Components -Interpersonal relationships, - Socioeconomic factors, - Tele factor, etc. Specifications. Procedures. Source: Primary.	Interviews – interview schedule. Focus group discussion – discussion guide. Observation – checklist.	Sorting. Coding; Categorizing; Reviewing; Comparison; and Reasoning.	Synthesis. Grounded theory.	Framework analysis. Modelling; and system improvement.

The careful selection of the Upper East Region for the study was also meant to ensure the internal validity of the study by eliminating extraneous variables that could affect

performance and yet not related to teacher motivation. It was intended to create a kind of homogeneous environment.

3.7.2 Reliability of the Study

Reliability is concerned with the consistency and dependability of the data gathered with the measuring instrument. It is an indication of the degree to which one can give the same interpretation and application to the data over time, across similar groups and irrespective of who administered the instrument. Reliability refers to the consistency of the results obtained – how consistent they are for each individual from one administration of an instrument to another, and from one set of items to another (Mehrens and Lehmann, 1991). The application of a reliable instrument will always give the same result on different occasions assuming that what is being measured has not changed during the intervening period.

3.7.3 Measurement of Reliability

The MAWS on which the TMS was based, had the following overall calculated reliability Cronbach Alpha values for each subscale using the entire sample and values: 0.75 (external), 0.77 (introjected), 0.84 (identified) and 0.91 (intrinsic) respectively. The TMS was piloted and its Cronbach Alpha coefficient (which is one of the internal consistency methods) was found to be 0.81. The Cronbach Alpha Coefficient also called the Alpha Coefficient is a general form of the Kuder-Richardson (KR20) formula. The Cronbach Alpha was employed because:

1. As an internal consistency method, it requires only one administration of the instrument.

2 It is used in calculating the reliability of items that are not scored right versus wrong; as in the instrument for this study where the opinions of respondents were sought.

The formula for calculating Cronbach Alpha Coefficient (α) is

$\alpha = \left(\frac{k}{k-1}\right)\left(1 - \frac{\sum S_{i^2}}{S_{x^2}}\right)$, where

$S_{x^2} = \frac{\sum\left(X-X\right)^2}{N}$, is the variance of the obtained scores of the instrument;

S_{i^2} =variance of the scores of each variable or item;

k = number of items on the schedule; i.e., 40.

X = the raw score; i.e., the scale ranking for each item. The scoring is not done on correct or wrong basis.

$\bar{X} = \frac{\sum X}{N}$; the mean of the distribution.

N = number of cases in the distribution; i.e., 1,741.

However, the SPSS (Statistical Package for Social Sciences) was employed in these calculations.

The factors that make research results invalid are the same factors that make the results unreliable. Thus, as factors of invalidation were checked, the reliability of the results was increased.

3.8 Data Collection

The following steps were taken in the collection of the data:

i. Permission was obtained from the GES regional director's office to the district directors offices. They were asked to call for verification if they were in doubt.

ii. The district directors also gave their permission verbally to the headteachers and headmasters of the schools, and asked that they could also call for verification if they were in doubt.

iii. A focus group discussion was had with teachers (including a headteacher) to identify the factors that could motivate teachers in the performance of their duties. These were incorporated in the construction of the TMS.

iv. The TMS was thus taken to the schools and given to the teachers with directives as to how to complete them. Two thousand and ninety-eight (2,098) TMSs were distributed.

v. The questionnaires were collected back for analysis as soon as they were completed. One thousand seven hundred and forty-two (1,742) TMSs were returned; making a return rate of 83%.

vi. Interviews were held with some individual teachers who gave their permission to be interviewed. About 420 teachers were interviewed in all; including headteachers and headmasters.

vii Focus group discussions were also held with five different groups of teachers. An average of ten (10) teachers per group.

viii The performance indicators observation checklist was also used in the schools, to gather information both to confirm and to ground the theory. The 226 principals or their representatives were interacted with in this regard.

ix Secondary data, in the form of exam results and enrolment numbers were gathered both from the district education offices and from some of the schools.

It took over a year to distribute and to receive all the completed questionnaires; i.e., from 2016 to 2017. There were also follow-ups and focus group discussions for corrections and clarifications to ground the model. These continued even into 2020.

3.9 Data Processing

The data processing entailed the following.

i The questionnaires for each school were screened for correction, sorted, and classified according to districts.

ii The districts were coded.

iii The data was inputted into the SPSS software. The various columns were completed including the name, type of data, type of measurement, decimals, labels, and so on.

Data was sifted, indexed, charted, and sorted in accordance with key issues and themes.

3.10 Data Analysis

The appropriate analytical approaches were employed to answer the research questions in accordance with the research matrix shown in Table 3.4. Each determinant of motivation was scored to determine which determinant was regarded as providing the highest motivational level and which the least. The determinants of motivation were also ranked by their scores in percentage of respondents – from highest score to lowest score. And the level or degree of motivation in percentage of each determinant was determined.

i The results for each category of teachers (basic school teachers and secondary school teachers) were tabulated, in accordance with the percentage of respondents selecting the particular determinant as motivating, and the mean degree (level) of motivation the particular determinant offered.

ii The determinant with the highest motivational level was identified as well as the one with the lowest motivational level. The motivating factors were also separated from the unmotivating factors. And thus, were classified.

iii The number (frequency) and/or percentage of respondents marking each choice to each item, was determined.

iv The item means and/or median and standard deviation were also determined.

v The results were compared by triangulation of the findings from the responds of the first cycle school teachers and the findings from the responds of the second cycle school teachers. This was done by cross tabulation and by use of the relevant statistical tools as the case may be – Pearson chi square, or differences of means or medians.

vi The results were also illustrated diagrammatically – graphically wherever necessary.

It is important to note, however, that in practice numerical ordinal ratings are often analysed as though they are quantitative. Specifically, various arithmetic operations are often performed on numerical ordinal ratings; like the Likert Scale (TMS) employed in this study. After administering the scale to a group of respondents (with the attribute independent variables – determinants of teacher motivation), the researcher did an item analysis to identify the best-functioning items (the best teacher motivating factors). Triangulation was employed to validate the conclusions that were drawn from the data. There was the special need for multiple type of evidence gathered from different sources Primary Schools (PS), Junior High Schools (JHS) and Senior High Schools (SHS). In triangulation evidence is gathered from multiple sources to address the questions at hand from different points of view. Triangulation is the strategy of casting out broadly for diverse evidence to more effectively focus on the study at hand.

As Fetterman (1989) contents, this bringing together of different types of evidence in order to test sources of information against each other is a way to determine which

explanations are accurate and which ones should be rejected. In any field of study, the researcher can gather comparable pieces of evidence to test whether the conclusions initially reached remain valid as additional pieces of evidence are accumulated.

Triangulation is employed with the aim to

i broaden the study

ii develop the research in a sequential manner

iii address possible contradiction in the evidence

iv search for convergence and complementarity in the results (Cresswell, 1994)

v strengthen the validity of the study (since randomization was not possible).

The fourth research objective – 'Develop (or propose) a strategy for improving teacher motivation', was tackled by employing the grounded theory method.

3.10.1 Factor Analysis (FA)

This technique was employed in analysing the data in answer of research objective four (iv). Interval data was involved. Factor analysis is a method for investigating whether a number of variables of interest $Y_1, Y_2, \ldots, Y_n$, are linearly related to a smaller number of unobservable factors $F_1, F_2, \ldots, F_k$. The fact that the factors are not observable does not disqualify the employment of regression methods and Pearson Product Moment Correlation Coefficient (PPMCC) (Atkinson, 1988).

3.10.2 Framework Analysis (Grounded Theory) (GT)

Framework analysis (founded on the principles of the Grounded theory) fundamentally, incorporates a number of techniques which allow researchers to effectively analyse 'rich' (detailed) qualitative data effectively.

It switches the classical hypothesis-testing approach (favoured by some quantitative researchers) to theory development. This is done by defining data collection as the

primary stage and demanding that theory is closely tied in to the sum total of the data. The researcher keeps close to the data when developing theoretical analyses. In this way the analysis is 'grounded' in the data rather than being based on speculative theory. This is then tested using hypotheses rooted in the theory. It is an inductive approach. It makes use of a constant process of comparison back and forth between the different aspects of the analysis and also the data.

Grounded theory does not mean that there are theoretical concepts just waiting in the data to be discovered. It means that the theory is anchored in the data. Categories are developed and refined by the researcher in order to explain whatever the researcher regards as the significant features of the data. It is amenable during the analysis process in that it gives allowance for the user to either gather all the data and then analyse it or do data analysis during the collection process. In the analysis stage, the gathered data is sifted, charted and sorted in accordance with cardinal issues and themes. This involves a five-step process:

i familiarization;

ii identifying a thematic framework;

iii indexing;

iv charting; and

v mapping and interpretation (Ritchie and Spencer, 1994).

Familiarisation describes the process by which the researcher acquaints himself with the transcripts of the data gathered and gets an overview of the gathered data (Ritchie and Spencer, 1994). In other words, the researcher immerses himself into the data by listening to audiotapes, studying the field or reading the transcripts. Throughout this process, the researcher was aware of the dominant ideas and recurring themes and

drafted notes of them. By use of the Grounded Theory the Interrelationship model of teacher motivation was formulated.

3.11 Profile of Sampled Respondents

The population refers to a well-defined group or set of people that has certain specified properties that identifies them as teachers in pre-tertiary institution. It is the larger group to which the results of the research study were to be applied. The target population is the population that the results of the study are applied – all teachers in pre-tertiary institutions in Upper East Region. However, the accessible population is the real population of teachers in pre-tertiary institutions to which the results of the study can be generalized. This comprised all those in the sample frame.

The study is aimed at discovering and describing general laws and principles that could be applied to all pre-tertiary educational institutions in the study area. The accessible population for the study is thus all public pre-tertiary institutions in the Upper East Region of Ghana. The data for the accessible population is as shown in Table B.1 in Appendix B.

3.11.1 The Study Area: Upper East Region (UER)

Historically, the Upper East Region is part of what used to be the Upper Region (Upper East and Upper West), which was itself carved out of what used to be the Northern Region on 1st July, 1960. From 1902 the old Northern Territory was a British protectorate until 1960 when it was separated into the Northern and Upper Region. The Upper Region was later apportioned into Upper East and Upper West in 1983 during the PNDC rule. The process actually started in 1980 when what eventually became Upper West was run as an experiment as a semi-autonomous region with Wa as the

administrative centre, even though the Upper East Regional Minister at Bolgatanga exercised overall responsibility.

3.11.2 Location and size

The Upper East Region is exactly situated in the Dagbon Kingdom. It is bordered by Burkina Faso to the north, and Togo to the east, Upper West Region to the west and North-East Region to the south. It lies between longitude 0^{o} and 1^{o} west, and latitudes 10^{o} 30^{I}N. The region is divided into fifteen districts.

3.11.3 Districts of UER

Figure 3.2: Map of the Districts of UER (2016)

The 15 districts in the region comprises of 4 municipals and 11 ordinary districts. They are as follows (Table 3.5):

Table 3.5: Capital Towns of Districts in UER

S/No.	District	Capital Town
1	Bawku Municipal	Bawku
2	Bawku West	Zebilla
3	Binduri	Binduri
4	Bolgatanga Municipal	Bolgatanga
5	Bongo	Bongo
6	Builsa North Municipal	Sandema
7	Builsa South	Fumbisi
8	Garu	Garu
9	Kassena Nankana East Municipal	Navrongo
10	Kassena Nankana West	Paga
11	Nabdam	Nangodi
12	Pusiga	Pusiga
13	Talensi	Tongo
14	Bolgatanga East District	Zuarungu
15	Tempane District	Tempane

3.11.4 Transportation

Three national highways, such as the N2, N10 and the N11, and a few regional highways such as the N113, N114, N116 and the N181, serve the region.

3.11.5 Poverty

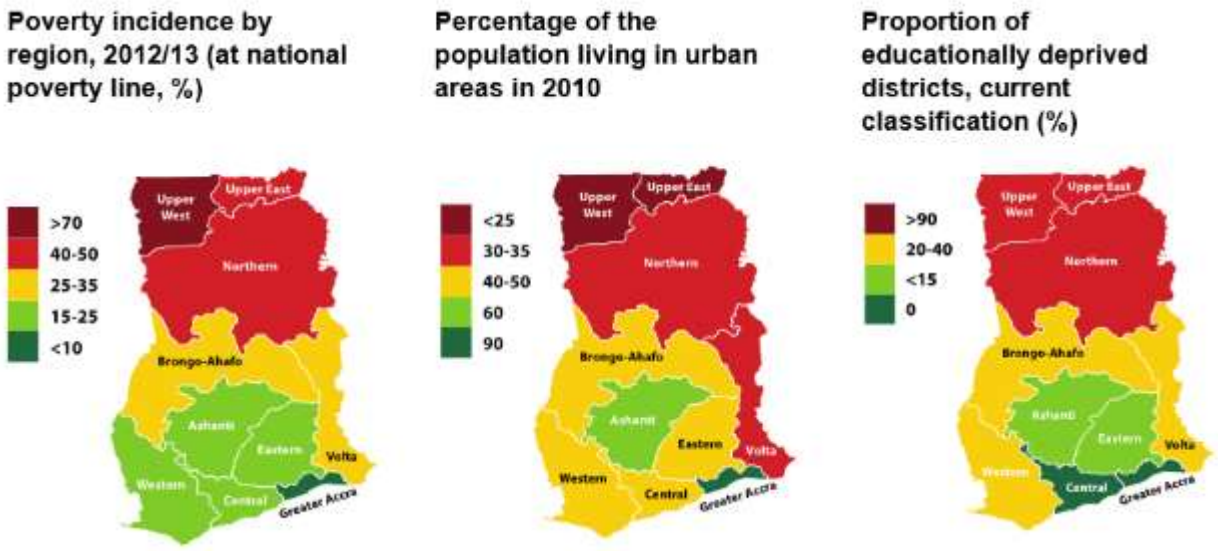


Figure 3.3: Regional patterns of inequality in Ghana

3.11.6 Education

Educational delivery in the Upper East Region is not as effective as it is in other regions in the country. From infrastructure, to human resource, to accessibility, to performance, it is all below average. The situation in respect of the core factors in education are relatively poor in the Upper East Region.

Pupils-Teacher Ratios (PTRs) for public basic schools differ significantly across the country is as shown in Figure 3.4.

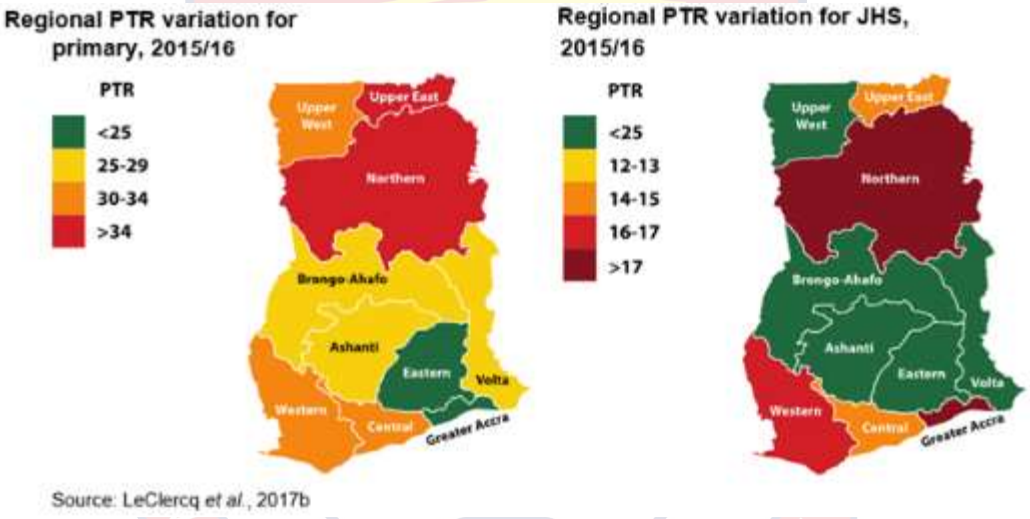


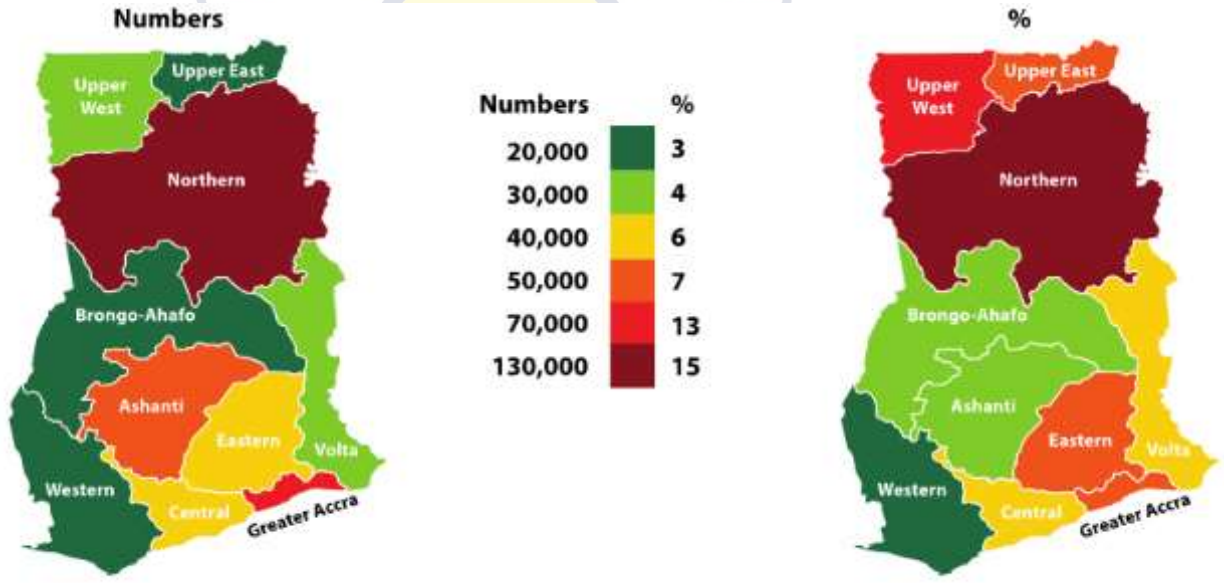
Figure 3.4: Pupil-Teacher Ratio (PTR) Variations for Primary Schools and JHS

Table 3.6: PCRs and classroom backlog for kindergarten, primary, and JHS by region (2016).

Region	PCR			Classroom backlog		
	Kindergarten	Primary	JHS	Kindergarten	Primary	JHS
Ashanti	49	36	35	351		
Brong Ahafo	52	35	33	519		
Central	46	37	33	70		
Eastern	43	31	28			
Greater Accra	46	52	48	26	1583	612
Northern	86	46	46	2256	1545	445
Upper East	81	50	45	785	1077	190
Upper West	81	40	35	638	31	
Volta	53	33	29	408		
Western	52	36	34	438		
Total	**55**	**38**	**35**	**5491**	**4236**	**1247**
% of total classrooms				**24%**	**5%**	**4%**

Source: EMIS 2016 database (accessed 2018) / Perry *et al.*, 2018

Pockets of OOSC has persisted since 2011, with the highest proportion of OOSC in the regions in the north, as evidence by Figure 3.5.



Source: LeClercq *et al.*, 2017a

Figure 3.5: Regional distribution of OOSC, 2014.

The Basic Education Certificate Examination (BECE) utilizes a stanine scoring system. The system simulates a bell-curve distribution of scores. BECE results in any particular year can be compared by districts and by gender, to examine the equality of outcomes. Table 3.7 shows the gender disparities in BECE pass rates by subject and y region.

While girls underperform compared to boy boys for maths, science and social studies, they outperform boys in English (MoE ESPR, 2017). Gender disparities against girls can be found in all three regions in the north in all four core subjects.

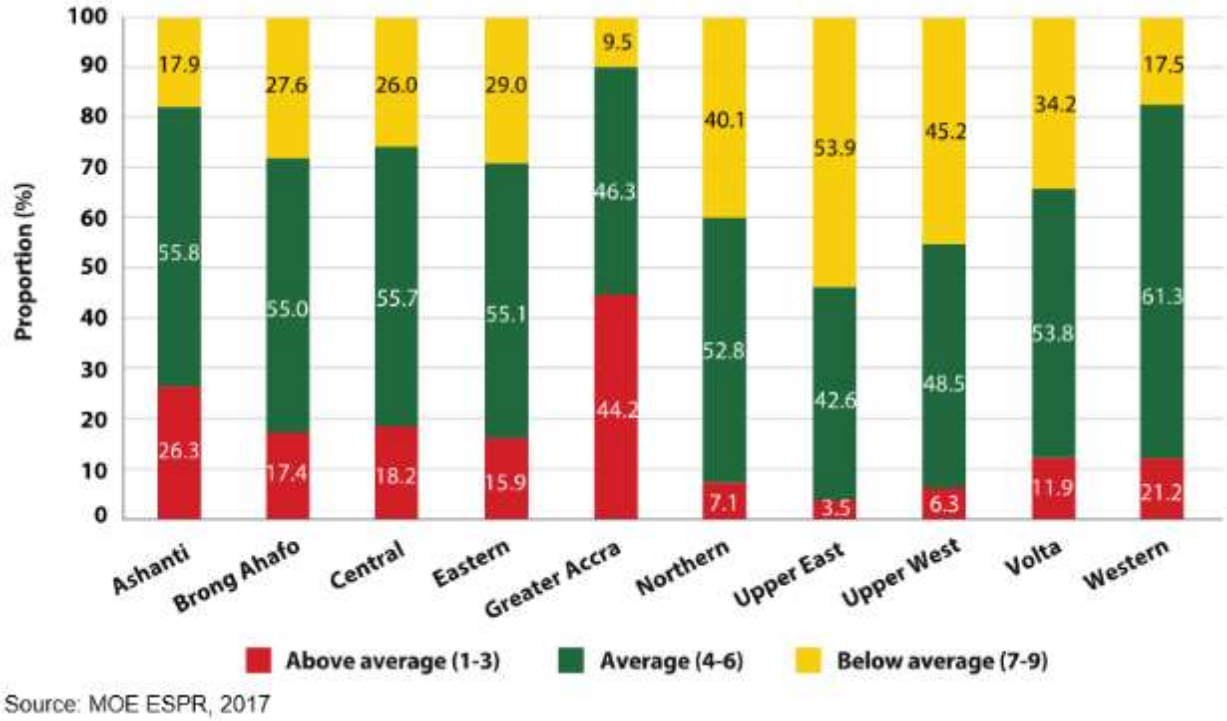
Table 3.7: Gender disparities in BECE pass rates by subject and region, 2016/17

	Absolute gap				GPI			
	English	Maths	Science	Social studies	English	Maths	Science	Social studies
Ashanti	0.1	-2.9	-2.4	42.2	1.00	0.97	0.97	2.06
Brong Ahafo	-0.5	-2.3	-2.2	-2.5	0.99	0.97	0.97	0.97
Central	2.1	-4.0	-3.1	-2.3	1.03	0.95	0.96	0.97
Eastern	3.6	-3.5	-2.1	-0.8	1.05	0.95	0.97	0.99
Greater Accra	1.3	-2.4	-1.1	-0.6	1.01	0.97	0.99	0.99
Northern	-3.9	-6.1	-7.9	-7.3	0.94	0.91	0.88	0.89
Upper East	-2.6	-9.8	-12.7	-9.7	0.95	0.83	0.78	0.84
Upper West	-10.9	-17.7	-19.4	-17.9	0.80	0.71	0.70	0.71
Volta	1.8	-7.6	-4.3	-3.9	1.03	0.88	0.93	0.94
Western	0.2	-3.5	-3.0	-3.0	1.00	0.96	0.97	0.97

Note: Regions with GPI values below 0.97 are in red; regions with GPI values above 1.03 are in green.

Source: LeClercq *et al.*, 2017a

The regional distribution of 2016 BECE English scores is as shown in Figure 3.6.



Source: MOE ESPR, 2017

Figure 3.6: Distribution of English BECE results by regions, 2016.

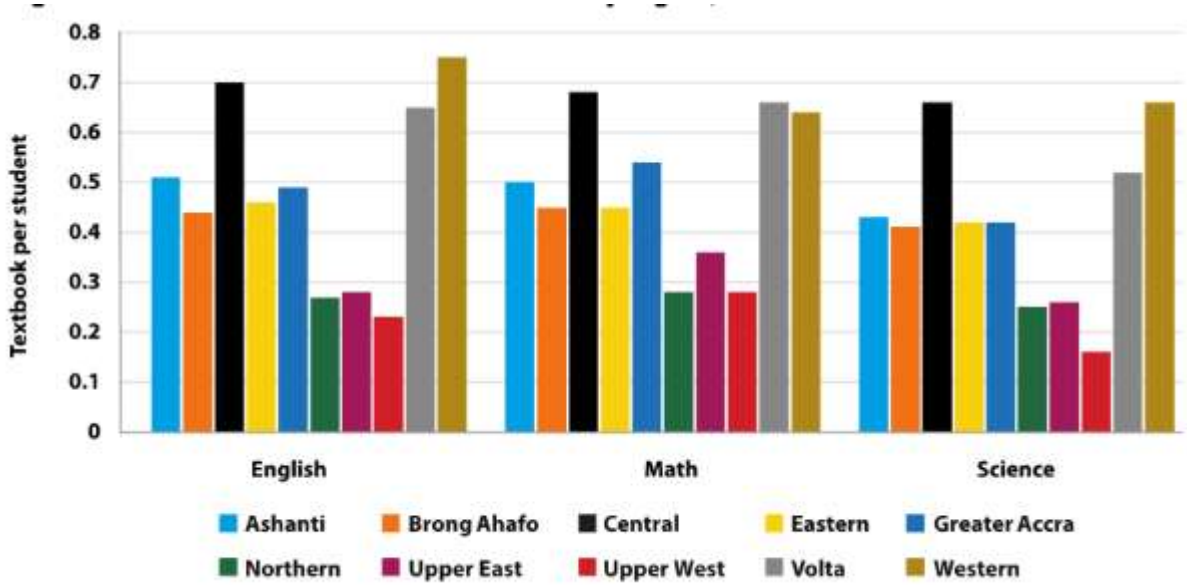
The SCR by region is as shown in the table below (Table 3.8). Only one region (Volta Region) has a SCR of below 40:1. The table also illustrates the classroom requirement in each region, if the maximum ratio of 40:1 is employed to estimate the classroom backlog.

Table 3.8: SCRs and classroom backlog in SHS by region, 2016

Region	CPR	Classroom backlog
Ashanti	49	877
Brong Ahafo	43	109
Central	43	155
Eastern	49	585
Greater Accra	47	272
Northern	55	478
Upper East	51	217
Upper West	45	77
Volta	36	
Western	44	123
Total	**46**	**2894**
% of total classrooms)		16

Source: EMIS 2016 database (accessed 2018) / Perry *et al.*, 2018

With reference to equity in inputs, textbook-student ratios differ significantly across regions (see Figure 3.7).



Source: Adapted from figures in MOE ESPR, 2017

Figure 3.7: Textbook–student ratios at SHS by region, 2016/17

With regards to student performance by gender and region in the West African Senior Secondary Certificate Examinations (WASSCE) (Table 3.8), the widened and consistent variation to the disadvantage of girls is very obvious. This is clear especially in social studies, science, and maths, in all the regions; and in English in the five regions in the north.

Table 3.9: Gender Disparities in WASSCE Pass Rates by Subject and Region, 2016.

	Absolute gap				GPI			
	English	Maths	Science	Social studies	English	Maths	Science	Social studies
Ashanti	-0.7	-9.0	-6.3	-6.0	0.99	0.80	0.90	0.91
Brong Ahafo	-1.2	-2.3	-2.6	-5.9	0.98	0.95	0.96	0.89
Central	0.5	-9.3	-6.7	-5.1	1.01	0.77	0.87	0.91
Eastern	3.8	-5.0	-2.1	-0.6	1.06	0.87	0.96	0.99
Greater Accra	-1.0	-13.5	-11.4	-5.0	0.99	0.65	0.80	0.92
Northern	-5.5	-9.7	-14.0	-13.4	0.76	0.40	0.50	0.61
Upper East	-4.3	-11.1	-16.1	-13.4	0.87	0.47	0.60	0.73
Upper West	-10.3	-18.6	-23.0	-21.3	0.73	0.37	0.54	0.68
Volta	4.6	-12.5	-9.2	-3.9	1.10	0.57	0.79	0.93
Western	-1.5	-14.5	-8.0	-7.9	0.97	0.70	0.86	0.87

Note: Regions with GPI values below 0.97 are in red; regions with GPI values above 1.03 are in green.

Source: LeClercq *et al.*, 2017

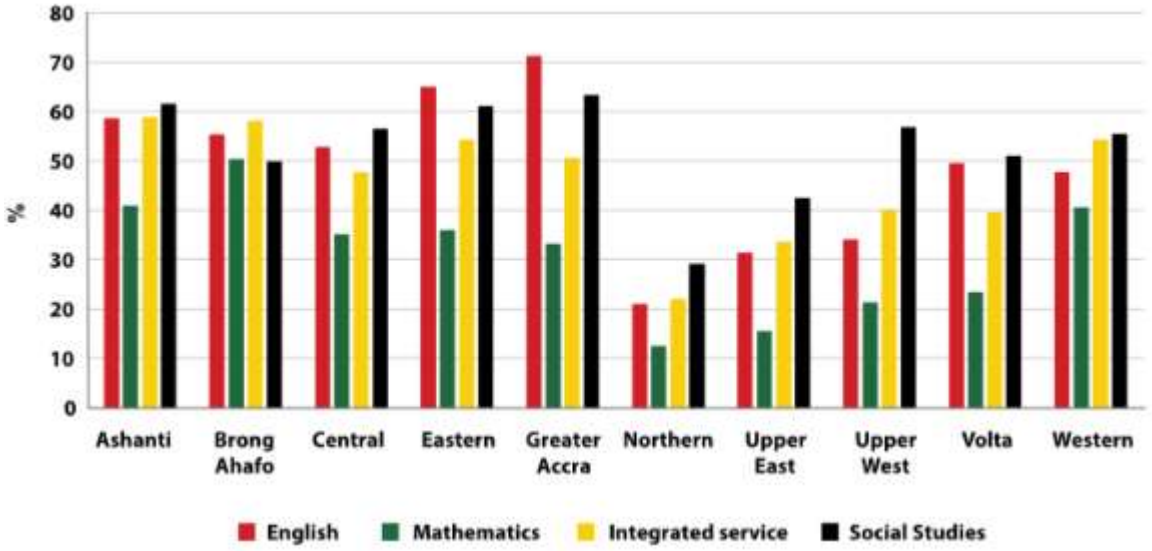
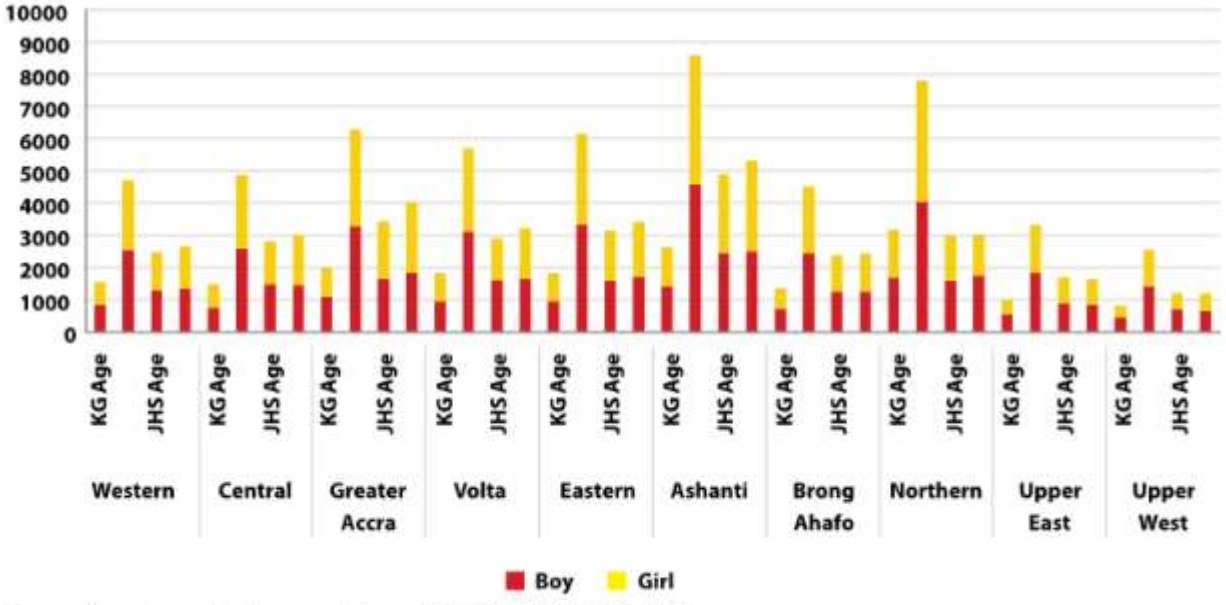


Figure 3.8: Proportion of Students Achieving A1 – C6 in Core Subjects by Region, 2016. Source: MOE ESPR, 2017

The geographical distribution of children with disabilities is as shown in Figure 3.9. The Upper West and the Upper East regions recorded the lowest rates in children with disabilities; while the Ashanti region recorded much higher rates.



Source: Interim analysis presentation of ESA-IE (UNICEF, 2017)

Figure 3.9: Geographical distribution of children with disabilities

3.12 Summary

The research type is both quantitative and qualitative. This is because both quantitative and qualitative data was collected. A quasi-experimental research design is employed. This is because quasi-experiments involve matching instead of randomization. In the current study it would be very difficult to assign people randomly and it is even more difficult to ensure that the participants actually follow instructions.

Triangulation was employed to validate the conclusions that were drawn from the data. This is because the data was collected from different sources – primary schools, junior high schools and senior high schools. There was the special need for multiple type of evidence to be gathered from different sources. In triangulation, evidence is gathered from multiple sources to address the questions at hand from different points of view. Triangulation is the strategy of casting out broadly for diverse evidence to more effectively focus on the study at hand.

Though the results are very rewarding, studies of this nature are not easy. But with openness and experience the job has been accomplished.

CHAPTER FOUR

THE STATE OF TEACHER MOTIVATION AND TEACHER PERFORMANCE IN THE UPPER EAST REGION (UER) OF GHANA

4.0 Introduction

About eighty three percent (that is, 83.3%) of the 2,098 Teacher Motivation Scales (TMSs) (Appendix A1) distributed were completed and returned. The headteachers/headmasters also completed the Teachers Performance Rater (Appendix A3).

The results are presented and the findings are discussed in pursuance of research objective one – to describe the state of teacher motivation and teacher performance in the study area; and objective two – to determine the effect of teacher motivation on teacher performance. The data collected through the questionnaires are presented on frequency distribution tables. Since the data are qualitative, nonparametric statistics are employed in the analysis including frequencies, percentages and modes for the ordinal data. By crosstabs the situation for both the first cycle schools (Primary Schools (PSs) and Junior High Schools (JHSs)) and the second cycle schools (i.e., Senior High Schools (SHSs), Senior High Technical Schools (SHTSs) and Technical Institutes (TIs)) are analysed separately and then triangulated.

4.1 Level of Satisfaction with Job as a Teacher

The level of satisfaction with their job as teachers in Upper East Region can be described by analysing the responds of the subjects to items one (1) and two (2). By crosstabs the results are as shown in Table 4.1 below. Their levels of job satisfaction are shown in the row for 'within the level of current school cycle. For first cycle schools the percentage of respondents who feel satisfied with the job of teaching (i.e., SS+VS)

is 57.0%. And that for the second cycle institutions is 56.0%. There is no significant difference in their responds.

Table 4.1: Crosstab of Level of Job Satisfaction with Cycle of School

			current school - cycle		Total
			1st cycle	2nd cycle	
level of job satisfaction	very dissatisfied (VD)	Count	274	130	404
		% within level of job satisfaction	67.8%	32.2%	100.0%
		% within level of current school - cycle	23.7%	22.2%	23.2%
		% of Total	15.7%	7.5%	23.2%
	somewhat dissatisfied (SD)	Count	223	128	351
		% within level of job satisfaction	63.5%	36.5%	100.0%
		% within level of current school - cycle	19.3%	21.8%	20.1%
		% of Total	12.8%	7.3%	20.1%
	somewhat satisfied (SS)	Count	470	255	725
		% within level of job satisfaction	64.8%	35.2%	100.0%
		% within level of current school - cycle	40.7%	43.5%	41.6%
		% of Total	27.0%	14.6%	41.6%
	very satisfied (VS)	Count	189	73	262
		% within level of job satisfaction	72.1%	27.9%	100.0%
		% within level of current school - cycle	16.3%	12.5%	15.0%
		% of Total	10.8%	4.2%	15.0%
Total		Count	1156	586	1742
		% within level of job satisfaction	66.4%	33.6%	100.0%
		% within level of current school - cycle	100.0%	100.0%	100.0%
		% of Total	66.4%	33.6%	100.0%

Table 4.2: Level of Job Satisfaction of Teachers

	Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very dissatisfied	403	23.1	23.1	23.1
	somewhat dissatisfied	351	20.1	20.2	43.3
	somewhat satisfied	725	41.6	41.6	85.0
	very satisfied	262	15.0	15.0	100.0
	Total	1741	99.9	100.0	
Missing	System	1	.1		
Total		1742	100.0		

In relation to job satisfaction, the general responds of the teachers in both cycles is as shown in Table 4.1 in terms of number of respondents (frequency) and percentage of respondents who gave a particular responds. In all 43.3% of respondents said they were dissatisfied with the job of teaching; i.e., VD + SD. And 56.6% of respondents said they were satisfied with the job of teaching; i.e., SS + VS.

The sample proportion that are dissatisfied with their job were $\hat{p} = 0.43$ (to two decimal place (d.p.)) or 43%. The mode $m = 3.0$. Thus, the teachers are somewhat satisfied with the job of teaching.

4.1.1 Ingemination of the Teaching Career

To the question 'If you had the opportunity to start over in a new career, would you choose to become a teacher?', their responds by cross tabulation are tabulated below in Table 4.3.

Table 4.3: Crosstab of teacher Ingemination with Cycle of School

			level of current school - cycle		Total
			1st cycle	2nd cycle	
If you had the opportunity to start over in a new career, would you choose to become a teacher?	Yes	Count	473_a	215_a	688
		% within become teacher again?	68.8%	31.3%	100.0 %
		% within level of current school - cycle	40.9%	36.7%	39.5 %
		% of Total	27.2%	12.3%	39.5 %
	No	Count	683_a	371_a	1054
		% within become teacher again?	64.8%	35.2%	100.0 %
		% within level of current school - cycle	59.1%	63.3%	60.5 %
		% of Total	39.2%	21.3%	60.5 %
Total		Count	1156	586	1742
		% within become teacher again?	66.4%	33.6%	100.0 %
		% within level of current school - cycle	100.0%	100.0%	100.0 %
		% of Total	66.4%	33.6%	100.0 %

Each subscript letter denotes a subset of level of current school - cycle categories whose column proportions do not differ significantly from each other at the .05 level.

Here, for the first cycle schools 40.9% of teachers responded that they would choose teaching again, while 36.7% said same in the second cycle schools. In both cases the proportions $\hat{p}$ are less than 0.5. A difference of $\Delta\,\hat{p} = 0.042$. This is not significant at the 0.05 level.

Table 4.4 shows the overall responds for both first and second cycle school teachers.

Table 4.4: Proportion of Teachers who will Ingeminate if given the opportunity

Responses		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	687	39.4	39.5	39.5
	no	1054	60.5	60.5	100.0
	Total	1741	99.9	100.0	
Missing	System	1	.1		
Total		1742	100.0		

A pie-chart of the responds is shown in Figure 4.2.

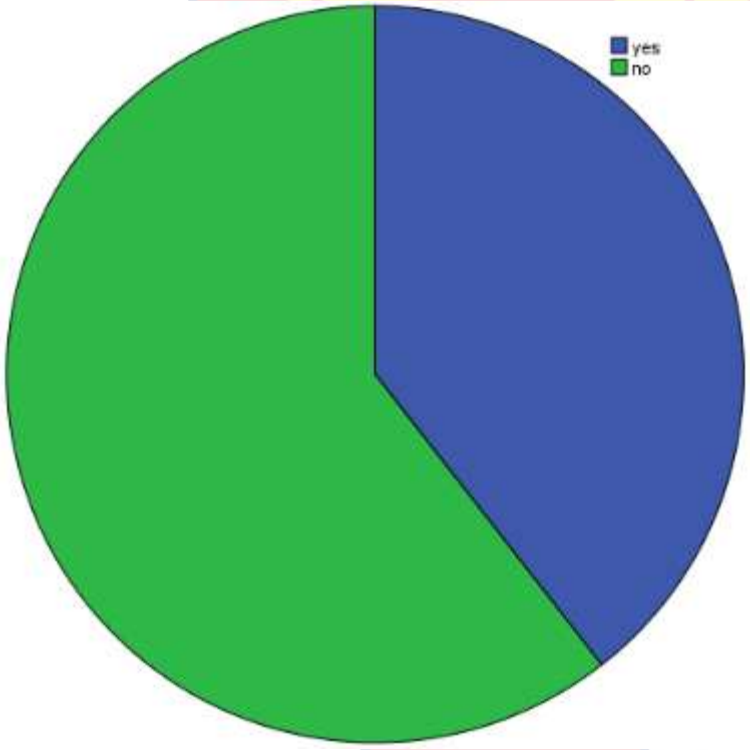


Figure 4.1: Pie-chart of Teacher Ingemination

The percentage of teachers who will not choose to become teachers again when given a second chance were 60.5%; while those who would choose to teach again were 39.4%. The sample proportion of those who will choose to teach again were $\hat{p}$ = 0.39 or 39%; less than 50%. Thus, even though the teachers are somewhat satisfied with teaching, they will not choose to teach again had they the opportunity to restart a career.

4.2 The State of Teacher Motivation in UER

The state of teacher motivation in Upper East Region can be described by perusing the responses of the subjects to items three (3) and four (4) of the questionnaires (TMS).

As regards to the state of teacher motivation in the region, the question asked was: 'Generally speaking, do you believe that the teachers with whom you work are motivated?'. The responds were as shown in the Table 4.5. For first cycle schools 16.4% of respondents said they believe teachers were motivated. While for the second cycle institutions 15.9% said same. Here again the difference in proportion is 0.005; which is not significant at the level of 0.05. The overall response was as shown in Table 4.6.

Table 4.5: Crosstab of Proportion of Teachers Motivated with Cycle of School

			level of current school - cycle		Total
			1st cycle	2nd cycle	
are teachers motivated ?	yes	Count	190$_a$	93$_a$	283
		% within are teachers motivated?	67.1%	32.9%	100.0%
		% within level of current school - cycle	16.4%	15.9%	16.2%
		% of Total	10.9%	5.3%	16.2%
	no	Count	964$_a$	490$_a$	1454
		% within are teachers motivated?	66.3%	33.7%	100.0%
		% within level of current school - cycle	83.4%	83.6%	83.5%
		% of Total	55.3%	28.1%	83.5%
	none response	Count	2$_a$	3$_a$	5
		% within are teachers motivated?	40.0%	60.0%	100.0%
		% within level of current school - cycle	0.2%	0.5%	0.3%
		% of Total	0.1%	0.2%	0.3%
Total		Count	1156	586	1742
		% within are teachers motivated?	66.4%	33.6%	100.0%

	% within level of current school - cycle	100.0%	100.0%	100.0%
	% of Total	66.4%	33.6%	100.0%
Each subscript letter denotes a subset of level of current school - cycle categories whose column proportions do not differ significantly from each other at the .05 level.				

Table: 4.6: Proportion of Teachers who feel Motivated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	283	16.2	16.3	16.3
	no	1453	83.4	83.5	99.7
	none response	5	.3	.3	100.0
	Total	1741	99.9	100.0	
Missing	System	1	.1		
Total		1742	100.0		

About sixteen percent (16.3%) of teachers believe that teachers are motivated to teach, whether intrinsic or extrinsic. About eighty four percent (that is, 83.5%) believe that teachers in the region are not motivated to teach. That is, the proportion of teachers who believe that teachers are motivated to teach are, $\hat{p} = 0.16$ (to 2 d.p.) or 16.3%.

4.2.1 Percentage of Teachers who are motivated

Concerning the percentage of teachers who are unmotivated, the responds (to TMS item four (4)) is as shown in Table 4.7.

Table 4.7: Crosstab of Percentage of Unmotivated Teachers with Cycle of School

			level of current school - cycle		Total
			1st cycle	2nd cycle	
percentage of teachers unmotivated	<50%	Count	325_a	136_b	461
		% within percentage of teachers unmotivated	70.5%	29.5%	100.0%
		% within level of current school - cycle	28.1%	23.2%	26.5%
		% of Total	18.7%	7.8%	26.5%
	50%	Count	215_a	120_a	335
		% within percentage of teachers unmotivated	64.2%	35.8%	100.0%
		% within level of current school - cycle	18.6%	20.5%	19.2%
		% of Total	12.3%	6.9%	19.2%
	>50%	Count	616_a	330_a	946
		% within percentage of teachers unmotivated	65.1%	34.9%	100.0%
		% within level of current school - cycle	53.3%	56.3%	54.3%
		% of Total	35.4%	18.9%	54.3%
Total		Count	1156	586	1742
		% within percentage of teachers unmotivated	66.4%	33.6%	100.0%
		% within level of current school - cycle	100.0%	100.0%	100.0%
		% of Total	66.4%	33.6%	100.0%

Each subscript letter denotes a subset of level of current school - cycle categories whose column proportions do not differ significantly from each other at the .05 level.

From the cross tabulation, 28.1% of the first cycle school teachers responded that they knew or worked with less than 50% of teachers who are unmotivated; and 53.6% knew that more than 50% of teachers are unmotivated. For the second cycle school teachers 23.2% knew that less than 50% of teachers are unmotivated and 56.3% knew that more

than 50% of teachers they worked with are unmotivated. The differences between the proportions of the two responses are 0.049 and 0.027 respectively.

The overall responds for both cycles are as shown in Table 4.8.

Table 4.8: Percentage of Teachers who are Un-motivation (Triangulated)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<50%	460	26.4	26.4	26.4
	50%	335	19.2	19.2	45.7
	>50%	946	54.3	54.3	100.0
	Total	1741	99.9	100.0	
Missing	System	1	.1		
Total		1742	100.0		

About twenty six percent (26.4%) of respondents acknowledged in their responds that less than 50% of teachers are unmotivated. About 73.5% (i.e., 19.2% + 54.3%) knew that

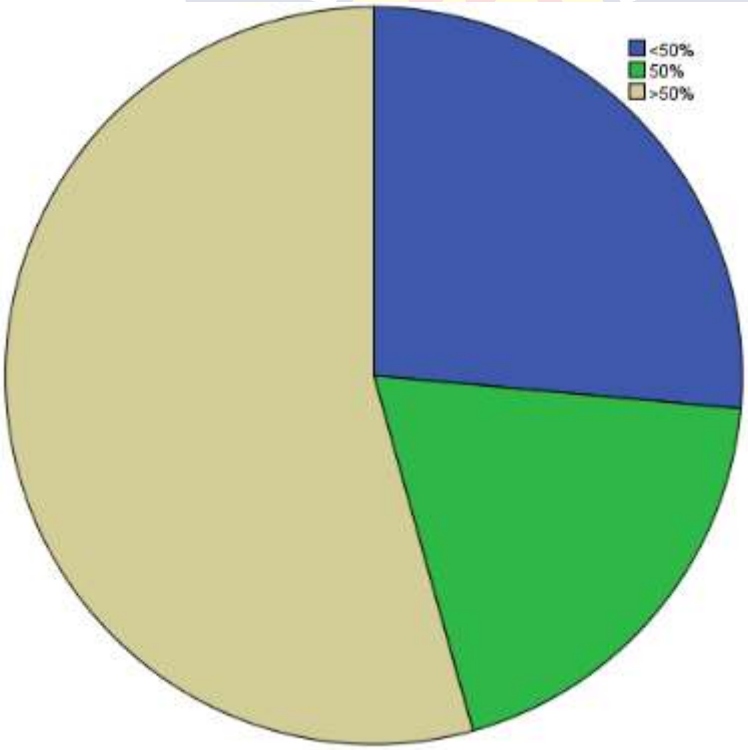


Figure 4.2: Proportion of Teachers in Terms of Un-motivation.

50% and over of teachers are unmotivated. A pie-chart of the responds is illustrated in Figure 4.3.

4.3 Performance of Teachers in the UER

Performance is measured by observing the performance indicators and how they are achieved. In the current study, headteachers and headmasters were asked to score the teachers under them with respect to the various performance indicators using the Teachers' Performance Rater (TPR). Students' test and exam results were also perused. Assessment of 40 schools on teachers' performance indicators across the region yielded the following results (Table 4.9 and Table 4.10). Table 4.9 is about the percentage of teachers who demonstrated or possessed the performance indicators listed in the table.

Table 4.9: Teachers Performance Indicators

S/No.	Performance Indicators	Mean Performance (%)	Standard Error (%)
1	Plans instruction	100.0	0
2	Implements the lesson	100.0	0
3	Maximizes time on task	100.0	0
4	Integrates materials and methodology	57.1	2.2
5	Plans and uses evaluative activities	100.0	0
6	Provides specific evaluative feedback	100.0	0
7	Manages the classroom	85.7	1.6
8	Interacts with students	100.0	0
9	Interacts with parents and community	85.0	1.5
10	Interacts with administration and other educational personnel	90.0	1.0
11	Involves in professional growth activities	70.0	2.5
12	Supports and implements school regulations, policies, procedures and	51.4	2.0

	accepted practices		
13	Motivates students	80.0	1.6
14	Demonstrates knowledge of curriculum	55.0	1.2
15	Sets high expectations for students' achievement in accordance with the needs and abilities	60.0	2.8
16	Trained in test construction and analysis	97.0	0.2
	Mean	**83.2**	**1.0**

These findings were cross-checked using the observation checklist and by interviewing the heads of schools. A mean value of 83.2% in performance indicators, with a standard error of only 1.0% is indeed a very high-performance rate. Mean percentage of staff days authorized absence monthly was found to be 0.9 at 0.1 standard error.

The effect of the teachers' performance on students' performance is as shown in Table 4.10. The policy of education in Ghana as at the time of the study did not permit repetition of pupils and students in pre-tertiary schools. Therefore 'Percentage of students repeating a grade', 'Percentage male/female repletion rates' and 'Percentage of enrolled students completing each grade' could not be attributed to result of teacher performance.

Table 4.10: Performance Indicators (Regional) – Students' Achievement

S/No. (#)	Performance Indicators	Mean Performance (%)	Standard Error (%)
1	School performance in standardized tests (1st cycle) (2017)	20.4	1.6
2	District performance in standardized tests (1st cycle) (2017)	13.5	1.1

3	Performance of students in international tests at selected grades (TIMSS 2017)	39.8	2.5
4	Percentage of students repeating a grade (1st cycle) (2017)	2.6	0.2
5	Percentage of female completion rates (1st and 2nd cycles) (2017)	7.9	0.8
6	Percentage of enrolled students completing each grade (1st and 2nd cycles) (2017)	94.7	0.4
7	Percentage of students progressing to higher education from school (2nd cycle to tertiary) (2017)	53.1	2.1
Mean (# 1,2,3)		24.6	1.7

The mean performance of:

1. Schools in standardized tests in the region (like the GES standardized tests) = 20.4%,
2. District in standardized tests = 13.5%;
3. Sample of students in national and international tests at selected grades = 39.8%;
4. Percentage of students progressing to higher education from school = 53.1%.

These averaged of the first three gave 24.6% at a mean standard error of 1.7%. These are very poor results. And this corresponds negatively with the high-performance rate of the teachers (83.2% at a mean standard error of 1.0%). As at the time of the study, the policy of education in Ghana was that, no pupil/student should be repeated. There was mass promotion to the next level, except for drop outs and those who could move on due to ill health, teenage pregnancy, child birth and death.

Teachers blamed the contrast on inappropriate government policies in education. It could be seen in Table 4.9 that teachers' support for the implementation of school regulations, policies, procedures and accepted practices was the lowest; i.e., 51.4%. The teachers explained that the government policies made it difficult to discipline, control and correct misbehaving students. Indiscipline does not correlate with student performance, according to the teachers. Some of the government policies teachers mentioned as having negative effect on students' performance and reversing their efforts included:

a. No corporal punishment.
b. Mass promotion. No repetition. There is therefore no motivation to learn. Thus, their low performance in exams and tests. In Table 4.11, it could be seen that,
    i. percentage of students repeating a grade is 2.6% (for the SHS level, it was zero percent); and
    ii. percentage of enrolled students completing each grade was 94.7% (for the SHS level it was 100%).
c. Allowing teenage girls with pregnancy to attend classes. This does not deter students from engaging in teenage sex, leading to teenage pregnancy. They spend a lot more time in sexual relations, instead of learning.

The BECE performance of students in the Bolgatanga Municipal area of the UER for 2018 was as shown in Table 4.11. Bolgatanga Municipal is the regional capital of the UER; and students' performance in BECE in the municipality was often the best in the region. Student's performance in an external examination is a key performance indicator and reflects teachers' performance.

Table 4.11: BECE Performance of Public JHSs in Bolgatanga Municipal in 2018

	Number of Candidates Presented	Number of Students with Aggregate 6-30	Percentage Score for the District
Boys	1,012	263	20.6%
Girls	1,328	299	22.5%
Total	2,340	562	Mean = 21.6%

(Source: Bolgatanga Municipal GES Office, 2018)

The percentage of students in the district who scored between aggregate 6 and 30 inclusive was approximately 21.6%. This reflects negatively on the teachers' performance in the district.

4.4 The Effect of Teacher Motivation on Teacher Performance in the UER

The level of teachers' motivation was compared with their scores on the performance rater, together with the performance of pupils/students in tests and exams. These were analysed to see whether they correspond positively or negatively or otherwise.

About sixteen percent (16.3%) of sampled teachers indicated that they were motivated; while over eighty three percent (83.5%) indicated that they were not motivated. And 54.3% of sampled teachers indicated that they knew that over 50% of teachers in general were unmotivated; while 25.4% said that they believed less than 50% of teachers in general were unmotivated. About twenty percent (20.3%) said that they believed that about 50% of teachers were not motivated (Table 4.8).

When it came to teachers' pedagogical abilities, the teachers were rated highly – a mean value of 83.2% at a standard error of 1.0% (Table 4.9). Table 4.12 shows the qualifications of sampled teachers. From the table 87.3% of teachers had tertiary education; and 82.4% had diploma or a higher qualification. About 97.0% at a standard error of 4.8% had professional training either INSET or PRESET.

Table 4.12: Highest Teacher Qualifications

Highest Qualification		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	shs	225	12.9	12.9	12.9
	cert'A	85	4.9	4.9	17.8
	diploma	710	40.8	40.8	58.6
	first degree	674	38.7	38.7	97.2
	MSc/MPhil	47	2.7	2.7	99.9
	PhD	1	.1	.1	100.0
	Total	1742	100.0	100.0	

With respect to teaching experience, over 65% had taught for over 5 years (Table 4:13).

Table 4.13: Teaching Experience

Years of Teaching		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	598	34.3	34.3	34.3
	6-15	625	35.9	35.9	70.2
	16-25	265	15.2	15.2	85.4
	26-35	164	9.4	9.4	94.8
	>35	89	5.1	5.1	99.9
	23.00	1	.1	.1	100.0
	Total	1742	100.0	100.0	

Teachers generally, were trained pedagogically before they were employed (PRESET). It was therefore more probable that their training may affect their motivation than the reverse.

The effect of teachers' motivation on teacher performance would therefore be observed in lesson delivery; which is also reflected in students' achievement. Tables 4.10 and 4.11 show poor students' achievements in some standardized test. The available information showed that:

- The average pass for the UER in the TIMSS 2017 test was 39.8%.
- The average pass for the UER in the BECE 2018 exam was 21.6%.
- And the average pass for UER in the WASSCE 2019 exam was 8.8%.

It was observed that poor student achievement (that is, poor teacher performance with respect to student performance), corresponded with poor teacher motivation. They compare positively.

4.5 Summary

From the analysis

i. Teachers in the region are satisfied with their job by a proportion of $\hat{p}$ = 0.57.

ii. Teachers will not choose to teach again if given another chance to choose a new career; by a proportion of about 60.5% or 0.061

iii. 83.5% of teachers in the sample believe that teachers are not motivated to teach in the region.

iv. 50% and more of teachers in the region are unmotivated by a proportion of approximately $\hat{p}$ = 0.74.

v. The very high mean teacher performance of 83.2% on the performance indicators does not correspond to the low mean student performance of 20.4% in GES standardized tests and 39.8% in national and international tests in the region.

Thus, teachers in the region do not feel motivated to teach even though they claim to be satisfied with their job. Through focus group discussion it was realized that this claim was as a result of the fact that teachers felt there were no job opportunities. And they would rather teach than stay idle. One of the teachers expressed his frustration thus,

> *... but if you say you are not satisfied, what can you do. Is it not better to teach so that you can get something at the end of the month to feed your family than to stay idle and be suffering?*

It was found that some teachers were satisfied with the job of teaching (43.3%), but they were not motivated (83.5%). Some other teachers were unmotivated but they would still choose teaching as their career if given the opportunity to start a new career (39.4%). The low teacher motivation also reflected in the low performance in terms of students' achievement.

CHAPTER FIVE

THE DETERMINANTS OF TEACHER MOTIVATION IN UPPER EAST REGION (UER)

5.0 Introduction

Through Focus Group Discussions (FGD) the factors that teachers identified as motivating were identified. These were compared with Herzberg's two factors (intrinsic and extrinsic), and the common factors were selected to construct the Teachers Motivation Scale (TMS), a Likert Scale questionnaire. Teachers then completed the questionnaire, and the factors or determinants that were selected as most motivating as per the response of the subjects were identified as motivating determinants; while those factors they select as un-motivating were identified as providing no motivation per the percentage response of respondents. Table 5.1 shows the respondents response in percentages for each of the determinants of motivation. The columns are HU - 'highly unmotivating', U - 'unmotivating', M - motivating' and HM - 'highly motivating'.

Table 5.1: Level of Motivation Provided by each Factor of Motivation

S/No.	Determinant	% Response				% Response
		HU	U	M	HM	M+HM
1	Improvement in achievement of pupils' levels	8.2	20.4	48.7	22.7	71.4
2	Sense of achievement	7.6	23.6	53.3	15.5	68.8
3	Thank you from pupils	12.8	22.9	42.0	22.3	64.3
4	Autonomy and responsibility for work	9.1	26.8	52.3	11.9	64.2
5	Sense of accountability	11.0	25.8	47.9	15.3	63.2
6	Potential for professional growth	10.5	26.7	47.2	15.6	62.8
7	Potential for achievement	10.7	28.4	43.6	17.4	61.0
8	Professional status of teaching	12.8	27.0	47.0	13.1	60.1
9	Supervision by supervisors	11.3	30.8	46.6	11.4	58.0
10	Additional equipment and supplies for instruction	14.6	27.4	38.7	19.2	57.9
11	Teacher evaluation	10.5	32.0	48.7	8.7	57.4
12	Workshop offered and paid by district	17.6	27.0	34.6	20.8	55.4
13	Best teacher award in district	20.3	22.9	42.0	22.3	54.0
14	Factors in personal life	14.4	32.7	44.1	8.8	52.9
15	Being awarded a plague by pupils	17.3	30.7	32.9	19.1	52.0
16	Job security	19.1	29.0	38.7	13.2	51.9
17	Work itself	11.6	37.7	42.6	8.1	50.7
18	One-time monetary award	18.5	31.4	32.3	17.8	50.1
19	Recognition	23.2	32.3	35.8	8.7	44.5
20	Participation in research and curriculum development	25.3	32.9	30.0	11.8	41.8
21	Early retirement	18.9	41.9	25.8	13.3	39.1
22	Working conditions	32.6	35.1	25.5	6.8	32.3
23	District policies	23.6	47.9	24.2	4.3	28.5
24	Salary increases	38.8	36.2	19.2	5.8	25.0

Table 5.1 shows the factors of motivation and the percentage of the samples (teachers) that perceive them to be motivating in terms of percentage responds (column 7, i.e., M + HM).

For the 24 determinants of motivation listed, the median motivational level is that between that of:

Workshop offered and paid by district - 55.4%, and

Best teacher award in district - 54.0%.

That is, the median, MD = $\frac{55.4\%+54.0\%}{2} = \frac{109.4\%}{2} = 54.7\%$.

Using the critical values for the **sign test**, with n = 24 and α = 0.05 (that is, at 95% confidence interval), the critical value obtained from the table, is, i_t = 6 (for a two tailed test). The test value is

$$i_o = +12 - 12 = 0;$$

that is, adding the positives and the negatives around the median. Since $i_o < i_t$, the median is not specifically 54.7%, but the confidence interval of the median; which is determined thus:

i. add 1 to the critical value; and we have 7.

ii. count seven from top and seven from bottom of the ranked list of determinants;

iii. the confidence interval for the median is that between the 7th and the 18th determinants (inclusively); that is, 50.1% ≤ MD ≤ 61.0%.

Thus, the determinants which had responds as motivating

i. higher than 61.0% could be said to be very motivating;

ii. between 50.1% and 61.0% are medially or partially motivating; and

iii. lower than 50.1% are unmotivating.

5.1 Motivating Factors

'Observing vast improvement in the achievement levels of one's students since the beginning of the year', was perceived to produce the highest motivation to teachers among other motivating factors. Table 5.2 shows the crosstab with the cycles of schools.

For the first cycle schools 71.3% (i.e., M + HM) respondents said 'Observing vast improvement in the achievement levels of one's students since the beginning of the year', was motivating. While 71.8% of respondents said the same from among the second cycle school teachers. The difference in proportion is not significant, that is, $\Delta\hat{p}$= 0.008. A triangulation of the two findings yielded Table 5.3.

Table 5.2: Crosstab of 'Improvement in achievement of pupils' levels' with 'cycle of school'

			level of current school - cycle		Total
			1st cycle	2nd cycle	
improvement in achievement of pupils levels	highly unmotivating	Count	104_a	38_a	142
		% within improvement in achievement of pupils levels	73.2%	26.8%	100.0%
		% within level of current school - cycle	9.0%	6.5%	8.2%
		% of Total	6.0%	2.2%	8.2%
	unmotivating	Count	228_a	127_a	355
		% within improvement in achievement of pupils levels	64.2%	35.8%	100.0%
		% within level of current school - cycle	19.7%	21.7%	20.4%
		% of Total	13.1%	7.3%	20.4%
	Motivating	Count	549_a	300_a	849
		% within improvement in achievement of pupils levels	64.7%	35.3%	100.0%
		% within level of current school - cycle	47.5%	51.2%	48.7%
		% of Total	31.5%	17.2%	48.7%
	highly motivating	Count	275_a	121_a	396
		% within improvement in achievement of pupils levels	69.4%	30.6%	100.0%
		% within level of current school - cycle	23.8%	20.6%	22.7%
		% of Total	15.8%	6.9%	22.7%
Total		Count	1156	586	1742
		% within improvement in achievement of pupils' levels	66.4%	33.6%	100.0%
		% within level of current school - cycle	100.0%	100.0%	100.0%
		% of Total	66.4%	33.6%	100.0%

Each subscript letter denotes a subset of level of current school - cycle categories whose column proportions do not differ significantly from each other at the .05 level.

The combined proportion of teachers who found this to be motivating was found to be 71.4%.

Table 5.3: Level of Motivation provided by 'Improvement in achievement of pupils' levels'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly unmotivating	142	8.2	8.2	8.2
	Unmotivating	355	20.4	20.4	28.6
	Motivating	849	48.7	48.7	77.3
	highly motivating	396	22.7	22.7	100.0
	Total	1742	100.0	100.0	

Over seventy one percent (i.e., 71.4%) of respondents viewed that as providing the most motivation to teachers in doing their work as teachers than the other socioeconomic factors. A teacher remarked thus,

> *... you see, we don't teach because of money per se. We love the students, and we will be happy to see they have acquired the necessary skills and knowledge that will make them contribute well to national development tomorrow.*

And less than twenty nine percent (i.e., 28.6%) viewed it as unmotivating (HU+U). A feeling of a 'Sense of achievement' by teachers was ranked second (68.8%); and the expression of a 'Thank you from pupils' was ranked third with 64.3% responds.

The determinants which had respondents greater than 61.0% as providing motivation to teachers, were the first six factors; and they generally are factors that promote the self-esteem of the teacher. They include:

i. Improvement in achievement of pupils' levels - 71.4%

ii. Sense of achievement - 68.8%

iii. Thank you from pupils - 64.3%

iv. Autonomy and responsibility for work - 64.2%

v. Sense of accountability - 63.2%

vi. Potential for professional growth - 62.8%.

Thus, boosting the self-esteem of teachers would boost their motivation to teach better than tangible rewards and threats and punishments.

The determinants which had percentage response within the range of the median for providing motivation, that is, $50.1\% \leq MD \leq 61.0\%$, included:

i.	Potential for achievement	-	61.0%
ii.	Professional status of teaching	-	60.1%
iii.	Supervision by supervisors	-	58.0%
iv.	Additional equipment and supplies for instruction	-	57.9%
v.	Best teacher award in district	-	54.0%
vi.	Factors in personal life	-	52.9%
vii.	Being awarded a plague by pupils	-	52.0%
viii.	Job security	-	51.9%
ix.	Work itself	-	50.7%
x.	One-time monetary award	-	50.1%

They also give some motivation to teachers to teach; as per the proportion of respondents who admit so. Only a little above fifty percent (that is, 50.7%) responded that the 'work itself' (that is, teaching itself) provided some motivation. That is, only about half of the respondents derived some intrinsic motivation in teaching. The other half are teaching because of extrinsic factors.

5.2 Unmotivating Factors

'Salary increase' which is currently the most dominant means of motivating teachers by employers in the region, was ranked lowest as providing motivation. Cross tabulation yields Table 5.4.

Table 5.4: Crosstab of 'Salary increases' with School Cycle

			level of current school - cycle		Total
			1st cycle	2nd cycle	
salary increase	highly unmotivating	Count	465_a	211_a	676
		% within salary increase	68.8%	31.2%	100.0%
		% within level of current school - cycle	40.2%	36.0%	38.8%
		% of Total	26.7%	12.1%	38.8%
	unmotivating	Count	409_a	221_a	630
		% within salary increase	64.9%	35.1%	100.0%
		% within level of current school - cycle	35.4%	37.7%	36.2%
		% of Total	23.5%	12.7%	36.2%
	motivating	Count	212_a	123_a	335
		% within salary increase	63.3%	36.7%	100.0%
		% within level of current school - cycle	18.3%	21.0%	19.2%
		% of Total	12.2%	7.1%	19.2%
	highly motivating	Count	70_a	31_a	101
		% within salary increase	69.3%	30.7%	100.0%
		% within level of current school - cycle	6.1%	5.3%	5.8%
		% of Total	4.0%	1.8%	5.8%
Total		Count	1156	586	1742
		% within salary increase	66.4%	33.6%	100.0%
		% within level of current school - cycle	100.0%	100.0%	100.0%
		% of Total	66.4%	33.6%	100.0%

Each subscript letter denotes a subset of level of current school - cycle categories whose column proportions do not differ significantly from each other at the .05 level.

Over seventy five percent (75.6%) of respondents from the first cycle schools responded that 'Salary increase' does not motivate teachers to teach. While 73.7% from the second cycle schools gave the same responds. About twenty four percent (24.4%) from the first cycle schools and 26.3% from the second cycle schools indicated that 'Salary increase' is motivating. The combined result is shown in Table 5.5.

Table 5.5: Level of Motivation provided by Current Salary Increases

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly unmotivating	676	38.8	38.8	38.8
	unmotivating	630	36.2	36.2	75.0
	motivating	335	19.2	19.2	94.2
	highly motivating	101	5.8	5.8	100.0
	Total	1742	100.0	100.0	

Seventy five percent (i.e., HU + U = 75.0%) of respondents view salary as not motivating. And 25.0% view 'Salary increase' as motivating.

Through discussions with some group of teachers (both first cycle and second cycle), there was an admission that salary increase could be a demotivating factor. This happens when the increment does not meet their expectations; that is when it is far below their expectation. It could even lead to anger and frustration. This was what one teacher said:

> *Teachers work very hard; we don't run shift system. And these days the break periods are very short, one week or two weeks. And the salary is still very small. When the government increased our salary, it was by ten percent. If your take home is say one thousand, and you are given ten percent. That is just hundred Ghana cedis.*

And another continued thus:

> *What difference can hundred cedis do in one's life in this present economic situation. Sometimes it is even annoying. If they don't increase it, it is even better; because it is like they are insulting our sensibility. We all go to the same market with the politicians and the bankers and the doctors and nurses and all others.*

Another also added thus:

> *If not because we love the children it were better to go and farm. Because farming, you can get more money for yourself. And you will not also be hungry.*

The following factors are among those that were identified as not motivating teachers to teach. These are determinants that had percentage responds less than 50.1%. The

corresponding percentages are proportion of respondents that viewed these factors as not motivating. They include:

i	Recognition	- 55.5%
ii	Participation in research and curriculum development	- 58.2%
iii	Early retirement	- 60.9%
iv	Working conditions	- 67.7%
v	District policies	- 71.5%
vi	Salary increases	- 75.0%

'Salary increase' provides the least motivation from among the factors studied.

5.3 Gender Perspective of the Determinants of Teacher Motivation

From Table 5.6, there are both similarities and differences between male and female in the ranking of the factors that provide motivation.

Similarities:

'Improvement in achievement of pupils' levels' top the list in both cases. For both male and female teachers that provides the highest level of motivation.

'Sense of achievement' comes second in both cases in the level of motivation it provides.

With respect to unmotivating factors, 'Salary increase' top the list both cases; with 24.0% of responds for female teachers and 25.6% for male teachers.

In both cases 'Salary increase' as an unmotivating factor is followed by 'District policies', 'Working conditions', 'Early retirement' and 'Participation in research and curriculum development', respectively.

Table 5.6: Crosstab of Factors of Motivation with Gender

S/No.	Determinant	% Response	
		Female (FR)	Male (MR)
1	Improvement in achievement of pupils levels	72.6	70.9
2	Sense of achievement	70.7	68.3
3	Thank you from pupils	62.7	65.0
4	Autonomy and responsibility for work	63.9	64.3
5	Sense of accountability	64.4	62.5
6	Potential for professional growth	65.7	61.6
7	Potential for achievement	59.9	61.4
8	Professional status of teaching	59.9	60.2
9	Supervision by supervisors	58.6	57.6
10	Additional equipment and supplies for instruction	62.0	56.2
11	Teacher evaluation	60.7	56.0
12	Workshop offered and paid by district	59.5	53.6
13	Best teacher award in district	55.1	53.5
14	Factors in personal life	52.5	53.1
15	Being awarded a plague by pupils	49.1	53.3
16	Job security	49.5	51.2
17	Work itself	53.8	54.4
18	One-time monetary award	53.8	48.4
19	Recognition	39.1	46.8
20	Participation in research and curriculum development	42.1	41.7
21	Early retirement	41.9	38.0
22	Working conditions	31.1	32.9
23	District policies	31.3	27.2
24	Salary increases	24.0	25.6

'Recognition (like, receiving praise from students, parents, administrators, or others)' motivated neither the male teachers nor female teachers.

Beside these, both male and female teachers are satisfied with their job, (a male responds of 56.6% and female responds of 56.7%). In terms of whether teachers are motivated, they both said they are not motivated – male responds of 85.1% and female responds of 79.8%. They both also indicated that they will not take teaching as a career if given the second chance; with 63.2% 'NO' responds for male teachers, and 54.5% 'NO' responds for female teachers.

Differences:

1. For the male teachers the ranking of the factors of motivation in terms of percentage of responds is the same as in the triangulated case, except for 'Work itself' which had percentage responds for motivation of 54.4%.

2. The ranking of the motivational factors for the female teachers was not consistent with the overall ranking for all teachers.

3. For the female teachers, 'Being awarded a plague by pupils', 'Job security' and 'Work itself do not motivate them; while 'One-time monetary award is a motivator', with a responds rate of 53.6%. It is however not a motivator for the male teachers.

A plot of the correlation between male responds (MR) and female responds (FR) is as shown in Figure 5.1. Strong positive Pearson correlation coefficient of r = 0.915 existed between MR and FR; with a coefficient of determination (R^2) of 0.9308 or 93.08%. That is, the male respondents and the female respondents share over 93% common view.

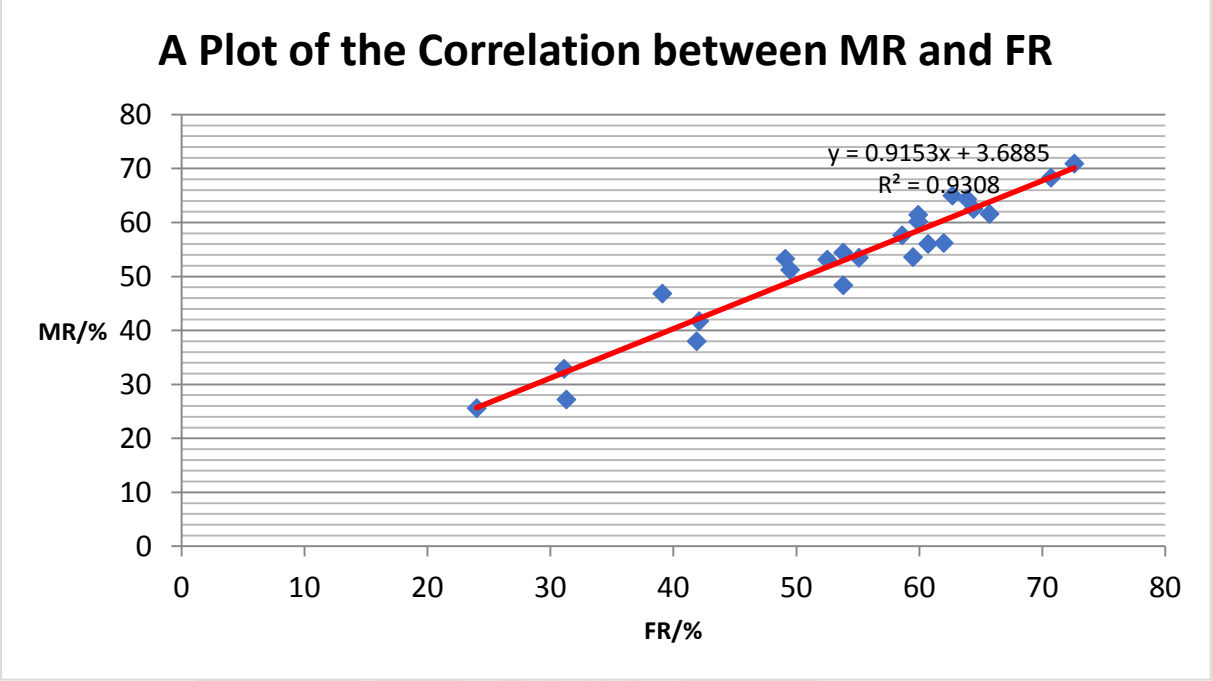


Figure 5.1: A regression line of the correlation between MR and FR.

5.4 Correlation between Percentage (f_ϵ) Response and Degree of Motivation of Determinants (TM)

The percentage of respondents who identified the determinants (the socio-economic factors) as motivating, f_ϵ, and the level or degree of teacher motivation of the determinants, TM, are represented in Table 5.7. A scatter plot and the regression line of same are represented in Figure 5.3 (linear plot, $R^2 = 0.0931$), Figure 5.4 (power plot, $R^2 = 0.1023$) and Figure 5.5 (polynomial of order three plot, $R^2 = 0.1375$).

From the linear regression graph, the Pearson correlation coefficient is $r = 0.2571 \approx 0.26$; and the coefficient of determination, R^2, is 0.0931 or 9.3%. This is a weak positive association. That is, only about 9.3% of the dependent variable, TM, is explained by the linear regression model and the independent variable, f_ϵ.

Table 5.7: Percentage Responds ($f_€$) and Degree of Teacher Motivation (TM) of each Socio-Economic Determinant of Motivation

S/No.	Determinant	% Response that the factor is Motivating ($f_€$/%)	Degree of Motivation (TM/%)
1	Improvement in achievement of pupils' levels	71.4	78.9
2	Sense of achievement	68.8	71.2
3	Thank you from pupils	64.3	64.7
4	Autonomy and responsibility for work	64.2	49.6
5	Sense of accountability	63.2	51.1
6	Potential for professional growth	62.8	76.6
7	Potential for achievement	61.0	57.9
8	Professional status of teaching	60.1	54.7
9	Supervision by supervisors	58.0	63.1
10	Additional equipment and supplies for instruction	57.9	66.9
11	Teacher evaluation	57.4	43.5
12	Workshop offered and paid by district	55.4	61.3
13	Best teacher award in district	54.0	78.0
14	Factors in personal life	52.9	69.0
15	Being awarded a plague by pupils	52.0	69.4
16	Job security	51.9	82.4
17	Work itself	50.7	65.7
18	One-time monetary award	50.1	58.4
19	Recognition	44.5	63.7
20	Participation in research and curriculum development	41.8	59.6
21	Early retirement	39.1	20.1
22	Working conditions	32.3	61.7
23	District policies	28.5	32.3

24	Salary increases	25.0	72.9

The expectation was a stronger positive association between TM and $f_{€}$.

A power plot of TM and $f_{€}$ yields Figure 5.4. Here, the coefficient of determination is 0.1023 or 10.23%. Implying that, 10.23% is the measure of the variation of the dependent variable, (TM), that is explained by the power model and the independent variable, $f_{€}$. Thus, the relationship between TM and $f_{€}$ is more of a power model than a linear model, since the power plot explains the relationship better.

The coefficient of determination between TM and $f_{€}$ per the polynomial plot was found to be 13.75%. That is, 13.75% of the variation in TM is explained by the polynomial model and the independent variable $f_{€}$. Thus, the polynomial model explained the association between teacher motivation and the socio-economic variables better than both the linear model and the power model.

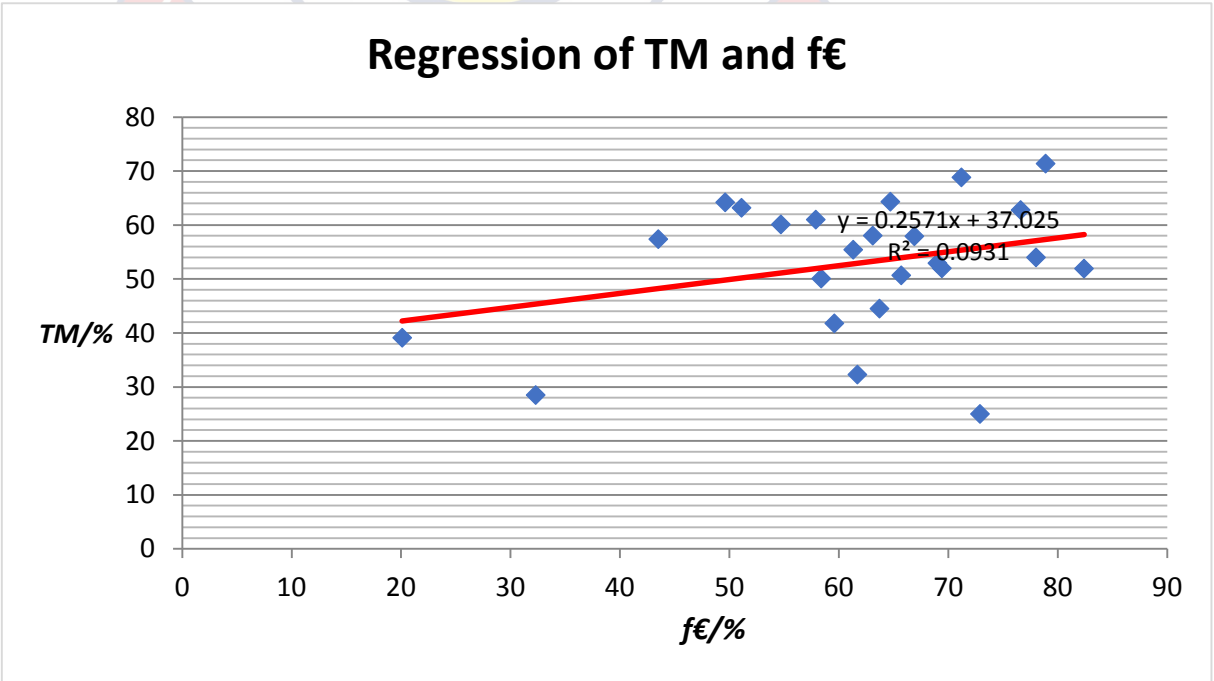


Figure 5.2: A linear regression graph of TM and $f_{€}$.

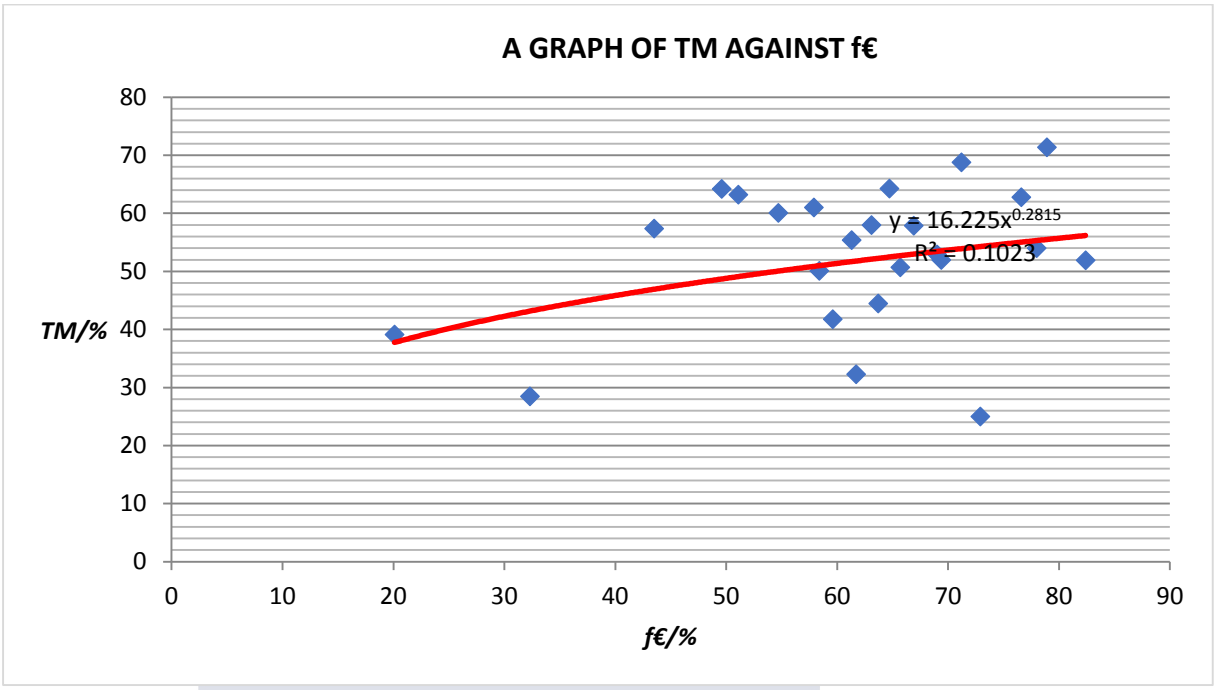


Figure 5.3: A power regression plot of TM against f_{ϵ}.

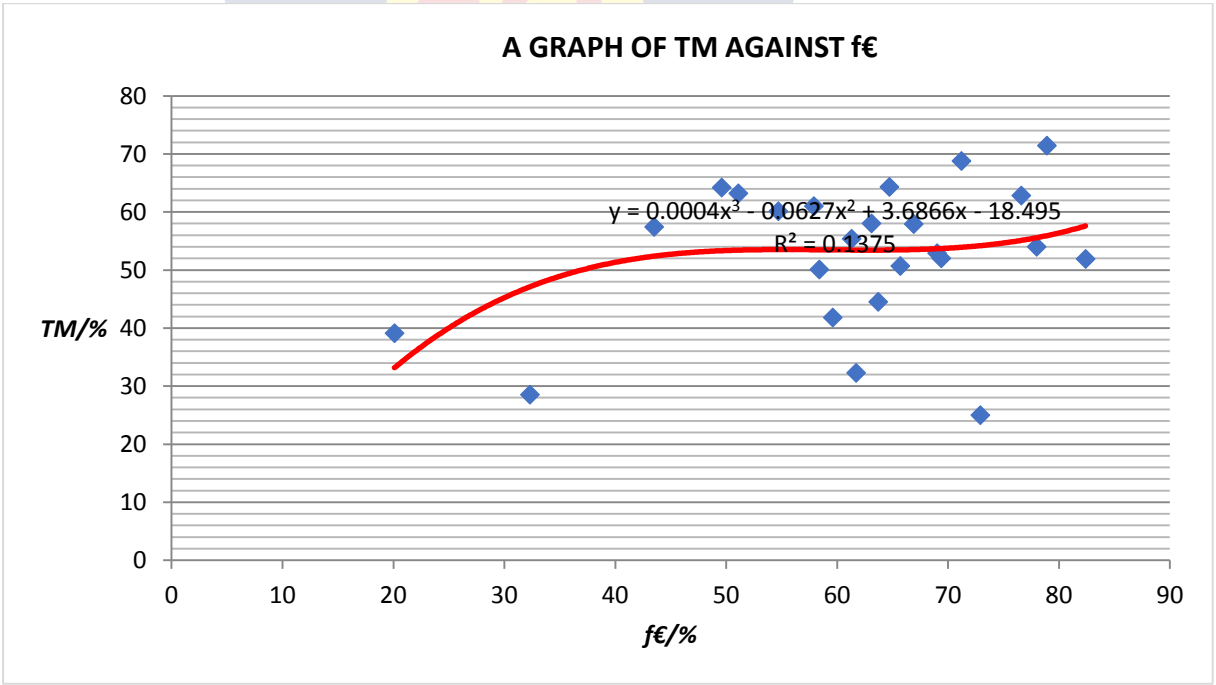


Figure 5.4: A polynomial regression plot of TM against f_{ϵ}

By observing the three plots, it could be deduced that the relationship between TM and f_ϵ seem to be described best by the polynomial relationship. With this model, 13.75% of the variation in TM is explained by variation in f_ϵ.

The possible reasons for the unexpected low correlation between TM and f_ϵ are:

i Teacher motivation is not wholly determined by socio-economic factors. Hence, the very low R^2 value.

ii The effect of time. There has been about two years interval between the period the data was collected on the f_ϵ and the period the data was collected on TM.

iii Different respondents for the two variables. The people from whom the data on f_ϵ was collected were different from the people from whom the data on TM were collected.

iv The effect of COVID-19. The f_ϵ data were collected about two years before COVID-19; while the data on TM were collected during the period of the COVID-19. Before the COVID-19, the economy of Ghana was better, and most teachers seemed to have met their needs of existence and were aspiring for higher needs – growth needs (Alderfer, 1972).

During the COVID-19, however, the economy in Ghana had declined significantly. Many Ghanaians, including teachers, encountered distress in meeting their needs; and had reverted to the survival or existence needs.

This third observation receives support from Franken (2001), who believed that the list of basic needs could be modified by explanatory attributional style of a person. Therefore, it was most appropriate that the people were asked about what they wanted, and how their needs could be satisfied, rather than having faith in a groundless theory. For example, Waitley (1996), recommended that the researcher should let the individual

contemplate how life would be like assuming money and time were not of essence in his life. In other words, what would the person do this week, this month, this year, or next year, and so forth, if all the money and time he needed to engage in his activities were all available to him; and were assured that both would be available to him the following year also, and again and again. Some follow-up questions could then be asked to ascertain what preventing the subject from doing what he would have wished to do now. This open-ended approach is more likely to bring to light the exact and most critical needs of the subject, which when met could bring about motivation. The approach to the current study has been shaped by that conceptualisation.

5.5 Summary

Among the variables that were identified by respondents as motivating or causing motivation, 'Observing vast improvement in the achievement levels of one's pupils since the beginning of the year' was ranked first as the socio-economic factor that could motivate teachers, with a 71.4% respondent proportion.

The following are the variables that respondents selected as motivating to teachers in respect of their work.

i.	Improvement in achievement of pupils' levels	-	71.4%
ii.	Sense of achievement	-	68.8%
iii.	Thank you from pupils	-	64.3%
iv.	Autonomy and responsibility for work	-	64.2%
v.	Sense of accountability	-	63.2%
vi.	Potential for professional growth	-	62.8%
vii.	Potential for achievement	-	61.0%
viii.	Professional status of teaching	-	60.1%

ix. Supervision by supervisors - 58.0%

x. Additional equipment and supplies for instruction - 57.9%

For the variables that were identified as unmotivating, 'Salary increases' was ranked first at 75.0% respondents' proportion. The unmotivating factors are listed below:

i. Salary increases - 75.0%

ii. District policies - 71.5%

iii. Working conditions - 67.7%

iv. Early retirement - 60.9%

v. Participation in research and curriculum development - 58.2%

vi. Recognition - 55.5%

From the findings of the study, the teaching job itself does not motivate teachers in the region. That is, there is generally very little intrinsic motivation in teaching among the teachers involved in the study. A feeling of relevance and fulfilment - self-esteem motives, give more motivation than the survival and safety motives. Success, mission and task orientations were regarded by teachers in the region as more motivating than earnings, benefits and working conditions.

The trend was not exactly so when it came to the degree or level of teacher motivation (TM) that each of the twenty-four socio-economic factors gave to teachers. ' Observing vast improvement in the achievement levels of one's students' still had a very high ranking in degree of motivation to teachers – 78.9%. Nevertheless, it did not top the list. It was 'Job security' that topped the list with a TM of 82.4%. 'Salary increases' was fifth place with a TM of 72.9%. 'Early retirement' was the least in terms of ***TM***; that is, 20.1%.

Not a strong association existed between teacher motivation and socio-economic variables. This result reveals that not much of teacher motivation depends on socio-economic factors. A linear regression does not represent the relationship between ***TM*** and f_{ϵ} as well as the power relation does. The linear relation between the two is

$R^2 = 0.0931$ or 9.31%.

That is, only 9.31% of teacher motivation (TM) is accounted for by the socio-economic factors (f_{ϵ}). While for the power relation between them

$R^2 = 0.1023$ or 10.23%.

That is, 10.23% of TM is accounted for by f_{ϵ}. thus, the power equation explains the relationship better.

If we represent TM by $\mathbf{M}_{\epsilon}$, and the constants 16.225 = $\boldsymbol{\mu}$ and 0.2815 = W, then

$\mathbf{M}_{\epsilon} = \boldsymbol{\mu}(f_{\epsilon})^{W}$.

CHAPTER SIX

THE CONTRIBUTION OF INTERPERSONAL RELATIONSHIPS TO TEACHER MOTIVATION IN UPPER EAST REGION (UER) IN PRE-TERTIARY SCHOOLS

6.0 Introduction

Focus Group Discussion, questionnaire and interviews were employed in gathering these data. Frequencies, percentages and proportions were used in analysis to ascertain the types, the nature and the strength of interpersonal relationships that existed in the schools. Factor analysis was employed in determining the contribution that the interpersonal relationships in pre-tertiary schools made in motivating teachers. The interpersonal relationships involved are:

i. Teacher – pupil interpersonal relationship
ii. Teacher – teacher interpersonal relationship, and
iii. Teacher – headteacher interpersonal relationship.

6.1 The Nature and Strength of Teacher-Pupil Interpersonal Relationships (TP) in Pre-tertiary Schools

In relation to the presence of TP in pre-tertiary schools, it was 100% 'yes'. TP existed in all sampled schools. In all schools (100%), it was considered as a 'good' and 'positive' relationship. Over seventy percent (71.4%) of respondents said that it was both formal and informal; while 28.6% said it was purely a formal relationship. None said it was an informal relationship. Hundred percent (100%) of respondents said it was a productive relationship. It resulted in better teacher performance.

In terms of how prevalent it was in the schools, the following results (Table 6.1) was obtained. Only over twenty eight percent (that is, 28.6%) said that it was the most prevalent (first) in the pre-tertiary schools. While about 42.9% said it was second in prevalence, and 28.6% said it was third in terms of prevalence as compared to TT and TH.

Table 6.1: Prevalence of TP in Schools with respect to TT and TH in UER

Respondents Ranking of TP with respect to TT and TH		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Third	144	28.6	28.6	28.6
	Second	216	42.9	42.9	71.4
	First	144	28.6	28.6	100.0
	Total	504	100.0	100.0	

Crosstabulation of the percentage of sampled teachers' responds as to how motivating TP was to teachers was as shown in Table 6.2. It can be seen that for the first cycle schools 80.9% of respondents find good interpersonal relationship between teachers and pupils motivating (M + HM). While 80.1% of the respondents in second cycle schools find it motivating to teachers to teach. For those who find it unmotivating, it was 19.1% and 19.9% respectively. A bar-chart of the findings is represented in Figure 6.1.

The combined result is shown in Table 6.4. Just over nineteen percent (19.4%) said Teacher-Pupil interpersonal relationship in school does not motivate teachers; while 80.6% said it was motivating.

Table 6.2: Crosstab of TP with 'cycle of school'

Level of Motivation	1st Cycle School Teachers (%)	2nd Cycle School Teachers (%)
Unmotivating (UM)	19.1	19.9
Motivating (M)	80.9	80.1

Table 6.3: TP and how it affects teacher motivation (triangulated)

Level of Motivation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly unmotivating	96	5.5	5.5	5.5
	unmotivating	242	13.9	13.9	19.4
	motivating	928	53.3	53.3	72.7
	highly motivating	476	27.3	27.3	100.0
	Total	1742	100.0	100.0	

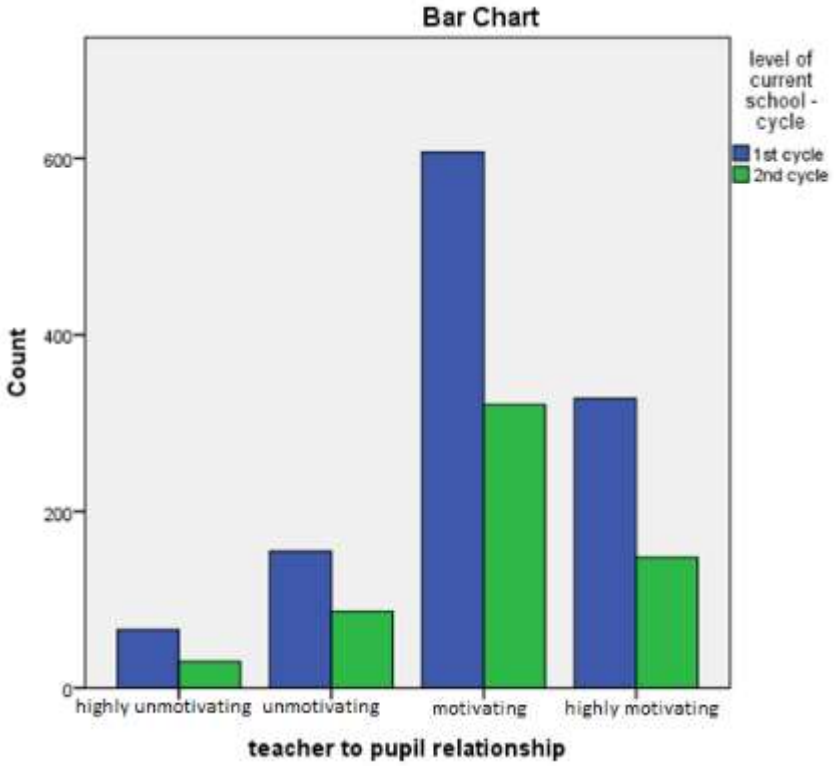


Figure 6.1: A Bar-chart showing the effect of TP on TM

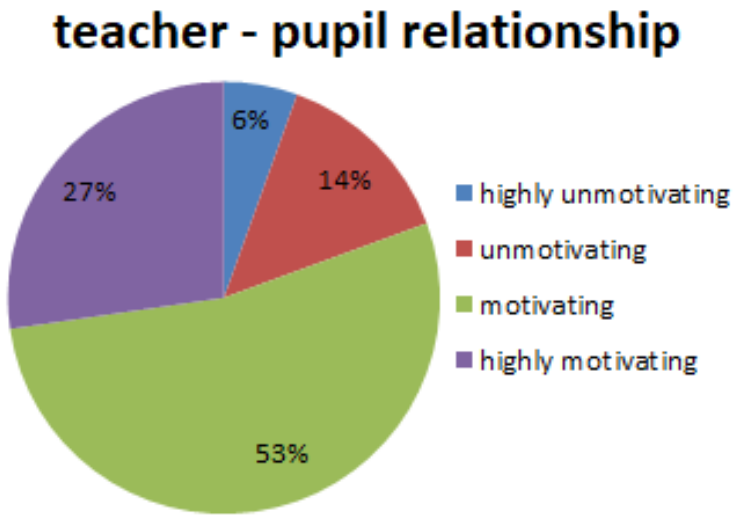


Figure 6.2: A pie-chart of the Effect of TP on TM

A p value of 0.806 also shows a strong significance of the Teacher-pupil interpersonal relationship. Teacher-pupil interpersonal relationship in schools is viewed highly as a motivator by teachers (80.6% of respondents).

6.2 The Nature and Strength of Teacher-Teacher Interpersonal Relationships (TT) in Pre-tertiary Schools

In relation to the presence of TT in pre-tertiary schools, it was 100% 'yes'. TT existed in all sampled schools. In all schools (100%), it was considered as a 'good' and 'positive' relationship. Over seventy percent (85.7%) of respondents said that it was both formal and informal; while 14.3% said it was purely a formal relationship. None said it was an informal relationship. Hundred percent (100%) of respondents said it was a productive relationship. It resulted in better teacher performance.

In terms of how prevalent it was in the schools, the following results (Table 6.4) were obtained. Over fifty seven percent (that is, 57.1%) said that it was the most prevalent (first) in the pre-tertiary schools. While about 28.6% said it was second in prevalence, and 14.3% said it was third in terms of prevalence as compared to TP and TH.

Table 6.4: Prevalence of TT in Pre-tertiary Schools in UER

Respondents Ranking of TT with respect to TP and TH		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Third	72	14.3	14.3	14.3
	Second	144	28.6	28.6	42.9
	First	288	57.1	57.1	100.0
	Total	504	100.0	100.0	

A cross tabulation of the finding is presented in Table 6.5. From the cross tabulation, 86.2% of the first cycle school teachers viewed Teacher-Teacher interpersonal relationship as motivating; while 84.3% of the second cycle school teachers had the same view.

Table 6.5: Crosstab of TT with 'cycle of school'

Level of Motivation	1st Cycle School Teachers (%)	2nd Cycle School Teachers (%)
Unmotivating (UM)	13.8	15.7
Motivating (M)	86.2	84.3

A bar-chart of the results is illustrated in Figure 6.3.

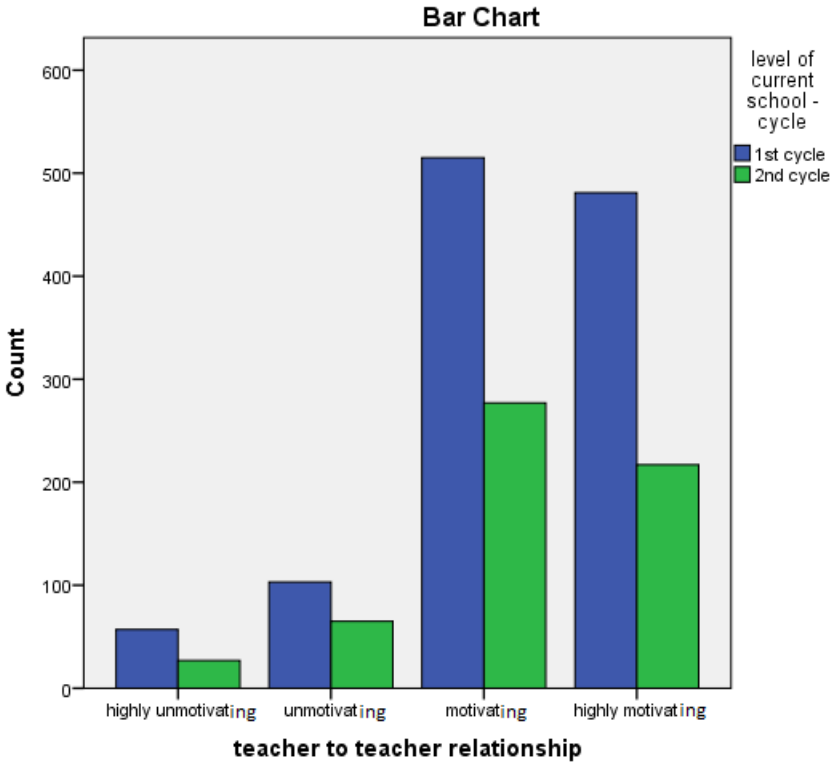


Figure 6.3: Bar-chart of level of TM produced by TT

By triangulation, the combined responds for teachers of both cycles are illustrated as shown in Table 6.7. The corresponding pie-chart is shown in Figure 6.4.

Table 6.7: TT and how it affects TM (triangulated)

Level of Motivation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly unmotivating	84	4.8	4.8	4.8
	unmotivating	168	9.6	9.6	14.5
	Motivating	792	45.5	45.5	59.9
	highly motivating	698	40.1	40.1	100.0
	Total	1742	100.0	100.0	

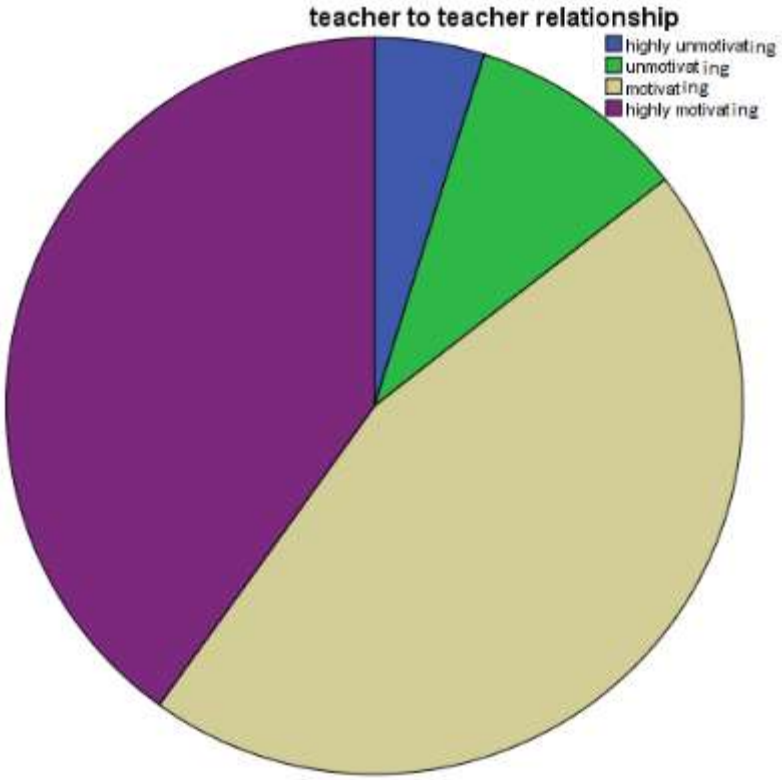


Figure 6.4: Pie-chart showing the effect of TT on TM

The proportion $\hat{p}$ of about 0.86 of respondents which indicated that teacher-teacher interpersonal relationships motivate teachers is significant.

6.3 The Nature and Strength of Teacher-Headteacher Interpersonal Relationships (TH) in Pre-tertiary Schools

In relation to the presence of TH in pre-tertiary schools, it was 100% 'yes'. TH existed in all sampled schools. In all schools (100%), it was considered as a 'good' and 'positive' relationship. Over seventy percent (85.7%) of respondents said that it was both formal and informal; while 14.3% said it was purely a formal relationship. None said it was an informal relationship. Hundred percent (100%) of respondents said it was a productive relationship. It resulted in better teacher performance.

In terms of how prevalent it was in the schools, the following results (Table 6.8) were obtained. Only over fourteen percent (that is, 14.3%) said that it was the most prevalent

(first) in the pre-tertiary schools. While about 28.6% said it was second in prevalence, and 57.1% said it was third in terms of prevalence as compared to TP and TT.

Table 6.8: Prevalence of TH in Pre-tertiary Schools

Respondents Ranking of TH with respect to TP and TT		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Third	288	57.1	57.1	57.1
	Second	144	28.6	28.6	85.7
	First	72	14.3	14.3	100.0
	Total	504	100.0	100.0	

Crosstabulation of the percentage of sampled teachers responds as to how motivating TH was to teachers was as shown in Table 6.9. For the first cycle school teachers, 58.6% of respondents viewed teacher-headteacher interpersonal relationship in schools as motivating to teachers. While 69.5% of respondents in the second cycle schools said the same.

Table 6.9: Crosstab of TH with 'cycle of school'

Level of Motivation	1st Cycle School Teachers (%)	2nd Cycle School Teachers (%)
Unmotivating (UM)	41.4	30.5
Motivating (M)	58.6	69.5

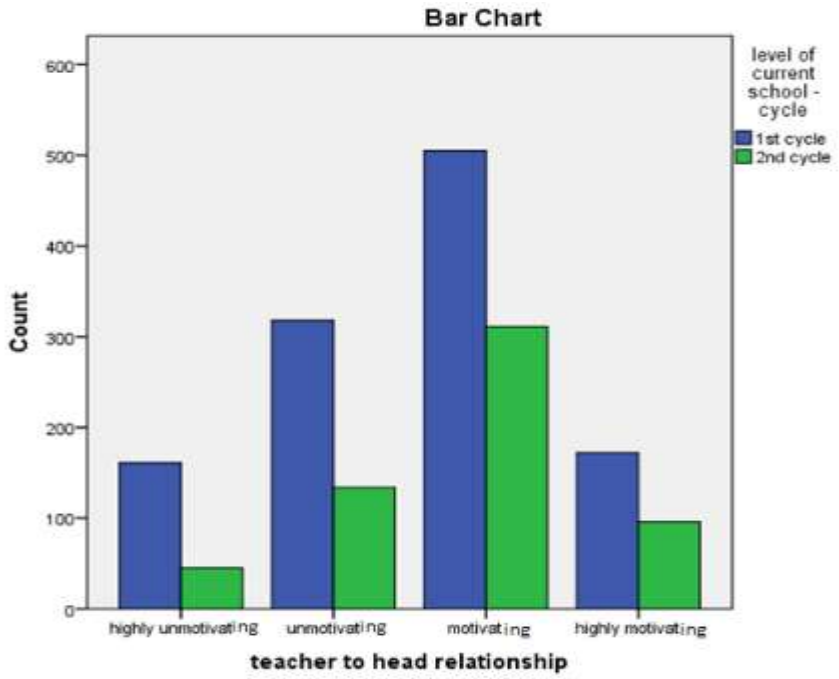


Figure 6.5: A bar-chart of TH and TM

A bar-chart of the results is shown in Figure 6.5.

The triangulated results show that 37.7% of sampled teachers viewed teacher-headteacher interpersonal relationship in schools as unmotivating (i.e., HU + U), and 62.2% viewed it as motivating (i.e., M + HM) (Table 6.10). Thus, the $\hat{p}$ that teacher-headteacher interpersonal relationship (TH) motivates teachers is 0.62 (to 2 d.p.); which is significant. A pie-chart of the results is illustrated in Figure 6.6.

Table 6.10: Triangulated results for TH and Pre-tertiary Schools in UER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	highly unmotivating	206	11.8	11.8	11.8
	unmotivating	452	25.9	25.9	37.8
	motivating	816	46.8	46.8	84.6
	highly motivating	268	15.4	15.4	100.0
	Total	1742	100.0	100.0	

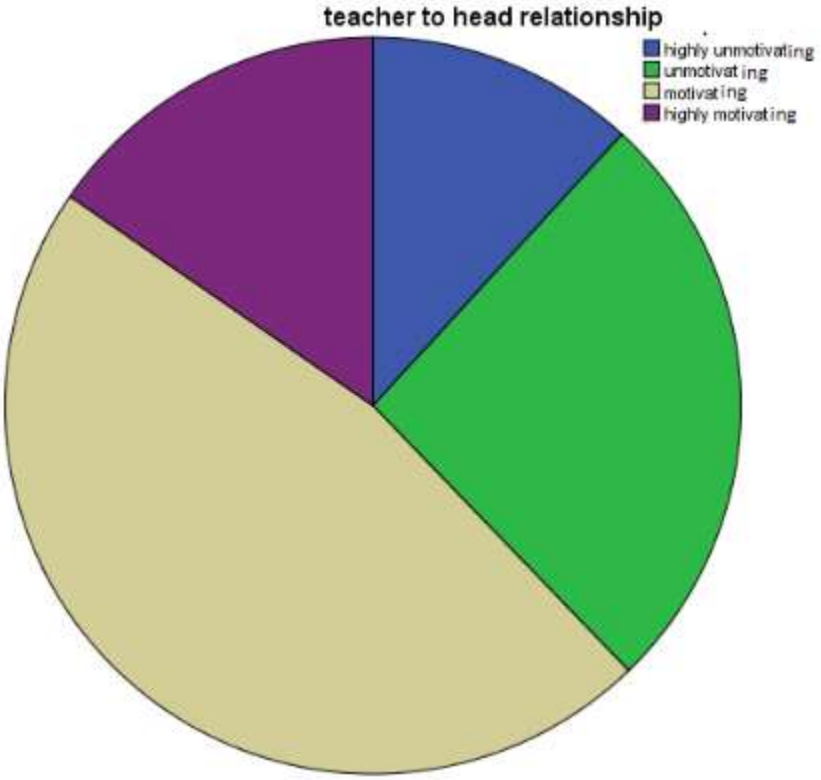


Figure 6.6: A pie-chart of TH and TM

6.4 Gender Perspective of Interpersonal Relationships in Schools as a Teacher Motivator

A cross tabulation of the three interpersonal relationships with 'Gender' yields the summary in Table 6.14. The rankings are consistent with that of the triangulated results. There is no significant difference between the response of female teachers and the response of male teachers with respect to their view about the type of interpersonal relationship that motivates teachers most in the pre-tertiary school environment.

Table 6.11: Crosstab of TP with 'Gender'

Level of Motivation	Female (%)	Male (%)
Unmotivating (UM)	15.0	14.2
Motivating (M)	85.0	85.8

Table 6.12: Crosstab of TT with 'Gender'

Level of Motivation	Female (%)	Male (%)
Unmotivating (UM)	19.3	19.4
Motivating (M)	80.7	80.6

Table 6.13: Crosstab of TH with 'Gender'

Level of Motivation	Female (%)	Male (%)
Unmotivating (UM)	41.4	36.2
Motivating (M)	58.6	63.8

Table 6.14: Triangulation of IR in Schools with 'Gender'

S/No.	Interrelationship	Response (%)	
		Male	Female
1	Teacher-teacher (TT)	85.0	85.8
2	Teacher-pupil (TP)	80.7	80.6
3	Teacher-headteacher (TH)	58.6	63.8
Mean		**74.8**	**76.7**

In general, TT was most prevalent in the pre-tertiary schools. Followed by TP and lastly TH.

6.5 Magnitude of Teacher Motivation (TM) Contributed by Interpersonal Relationships (IR) in Pre-tertiary Schools in UER

In terms of prevalence in schools the three types of interpersonal relationships studied were ranked as illustrated in Table 6.14.

Table 6.15: The Prevalence of the IRs (TP, TT, TH) in Pre-tertiary Schools in UER

Ranking	Type of IR	Prevalence (%)
1st	Teacher-teacher interpersonal relationship (TT)	57.1
2nd	Teacher-pupil interpersonal relationship (TP)	28.6
3rd	Teacher-headteacher interpersonal relationship (TH)	14.3
	Total	100.0

Thus, teacher-teacher interpersonal relationship (TT) was most prevalent in schools in UER, followed by teacher-pupil interpersonal relationship (TP) and lastly teacher-headteacher interpersonal relationship (TH). The results showed a significant amount of disconnection between teachers and their heads and the school authority in general.

The contribution that interpersonal relationships make in motivating teachers was analysed by factor analysis. This was due to the issue of multicollinearity which is a problem in regression analysis. In factor analysis, multicollinearity is necessary. Variables must be associated with some of the variables so that they load ('clump') into factors. The findings are represented in Table 6.12 to Table 6.20.

Table 6.16: Descriptive Statistics of the Magnitude of TM by IRs

Variable	Mean (%)	Std. Deviation
Interpersonal relationship (% tm) – TP	87.17	7.21661
Interpersonal relationship (% tm) – TT	79.56	10.62219
Interpersonal relationship (% tm) – TH	87.76	7.94695

From Table 6.11 and Table 6.12, even though TT is most prevalent in schools in the study area, it yields the least amount of motivation to teachers (79.56%) as compared with TP (87.17%) and TH (87.76%).

6.5.1 Correlation Matrix

For the Correlation matrix (Table 6.17), the top half explains the Pearson's product-moment correlation coefficient (*R*) between all pairs of variables. Pearson's product-moment correlation coefficient (*R*) compares both pattern and magnitude of loadings. The bottom half contains the one tail significance of the coefficients. Since the determinant (0.765) was greater than the necessary value of $1x10^{-5}$, multicollinearity was not a problem. All the variables correlated fairly well; and none of the correlation coefficients were particularly large. Therefore, there existed no need to consider eliminating any variable.

Table 6.17: Correlation Matrix[a]

Variable		TP (% tm)	TT (% tm)	TH (% tm)
Correlation (*R*)	TP (% tm)	1.000	-0.285	-0.349
	TT (% tm)	-0.285	1.000	-0.105
	TH (% tm)	-0.349	-0.105	1.000
Sig. (1-tailed)	TP (% tm)		0.000	0.000
	TT (% tm)	0.000		0.009
	TH (% tm)	0.000	.0009	

a. Determinant = 0.765

The values of *R* indicate that the variables are oblique (they are not independent of one another) and so,

$$TM_{TP} = \lambda_{TP1}F_1 + \lambda_{TP2}F_2 + e_{TP},$$

$$TM_{TT} = \lambda_{TT1}F_1 + \lambda_{TT2}F_2 + e_{TT}, \text{ and}$$

$$TM_{TH} = \lambda_{TH1}F_1 + \lambda_{TH2}F_2 + e_{TH}.$$

In general,

$$TM_m = \lambda_{m1}F_1 + \lambda_{m2}F_2 + e_m.$$

And, var(e_j) ≠ var(e_k), ∀ j ≠ k.

Where, F is the factor of teacher motivation, TM, (i.e., IR in variations of TP, TT and TH);

$\lambda = R$, is the loadings; regression coefficient; that is the degree to which each of the variables correlate with each of the factors;

$\lambda^2 = R^2$, the coefficient of determination, is the percentage variability in (standardized) TM explained by IR; and

e = the measure of error of TM.

6.5.2 Factor Extraction

The eigenvalues associated with each linear component (factor) before extraction is listed in Table 6.18a. Three linear components were verified within the data set. The eigenvalues associated with each factor represent the variance explained by that particular linear component. The eigenvalues in terms of the percentage of variance explained is also presented in Table 6.18a. Thus,

factor 1 explains 46.468% of the total variance;

factor 2 explains 36.743% of the total variance; and

factor 3 explains 16.488% of the total variance.

These three factors explain relatively all the variance (99.999%). The other factors explain only a small amount of the variance (i.e., 0.001%).

The extraction of factors with eigenvalues greater than one is presented in Table 6.14b (extraction sums of squared loadings). Here there are only two factors. The eigenvalues associated with these factors are displayed and the percentage of variance explained. The values in this table are the same as the values before extraction; except that the values for the discarded factor as ignored. Hence, the table is blank for the third factor.

After rotation, the rotation sums of squared loadings are presented in Table 6.18c (the eigenvalues of the factor after rotation). Rotation has the effect of optimizing the factor structure. One significance of these data is that the comparative importance of the two factors remaining is equalized. Before rotation, factor one accounted for substantially, more variance than the remaining two (46.768% compared with 36.743% and 16.488%). After rotation it accounted for 43.822% only.

Table 6.18a: Initial Eigenvalues

Component	Total	% of Variance	Cumulative (%)
1	1.403	46.768	46.768
2	1.102	36.743	83.512
3	0.495	16.488	100.000

Table 6.18b: Extraction Sums of Squared Loadings

Component	Total	% of Variance	Cumulative (%)
1	1.403	46.768	46.768
2	1.102	36.743	83.512
3			

Table 6.18c: Rotation Sums of Squared Loadings

Components	Total	% of Variance	Cumulative (%)
1	1.315	43.822	43.822
2	1.191	39.690	83.512
3			

Communality values represent the proportion of the variance in a variable that is predictable from the factors underlying it. The communalities before and after extraction are shown in Table 6.15. Principal component analysis works on the initial

assumption that all variance is common. Therefore, before extraction the communalities are all 1. The communalities in the column labelled *Extraction* reflect the common variance in the data structure.

Table 6.19: Communalities

Variable	Initial	Extraction
% motivation due to TP (TM_{TP})	1.000	0.781
% motivation due to TT (TM_{TT})	1.000	0.880
% motivation due to TH (TM_{TH})	1.000	0.844

Extraction Method: Principal Component Analysis.

Thus, the common or shared variance in teacher motivation associated with:

i. TP interpersonal relationship is 78.1%.

ii. TT interpersonal relationship is 88.0%; and

iii. TH interpersonal relationship is 84.4%.

The amount of variance in each variable that can be explained by the retained factors is represented by the communalities after extraction. That is

$$Comm(X_j) = \lambda_j^2 \equiv R^2.$$

This implies,

$$Comm(TM_m) = \lambda_m^2.$$

Since, $TM = Comm(TM_{TP})TP + Comm(TM_{TT})TT + Comm(TM_{TH})TH + e$, then,

$$TM = 0.781TP + 0.880TT + 0.844TH + e$$

The expectation of the communalities, that is,

$$expComm(TM_{TP}, TM_{TT}, TM_{TH}) = \frac{0.781+0.880+0.844}{3} = \frac{2.505}{3} = 0.835.$$

Thus, 83.5% is the common variance.

And so, for a single factor IR (that is, interpersonal relationship), the teacher motivation (TM), is given as

TM = 0. 835(IR) + e;

or generally, it is $\mathbf{M_R} = k\mathbf{R} + \mathbf{e}$.

The uniqueness, **e**, (the amount of variability unexplained by the factors) associated with the variable (factor) IR, is given as

Uniqueness = 1 – Comm(TM) = 1.000 - 0.835 = 0.165 or 16.5%.

The analysis has yielded two factors (factors with initial eigenvalues greater than 1). This is not confirmed by the scree plot (Figure 6.7). The knee occurs after the third point, meaning three factors. Factor analysis however permits the discretion of the researcher. Three factors are therefore considered since it yields a higher loading for the variable teacher motivation (TM). Thus, teacher motivation loads highly on teacher-pupil interpersonal relationship (TP), teacher-teacher interpersonal relationship (TT), and teacher-headteacher interpersonal relationship (TH).

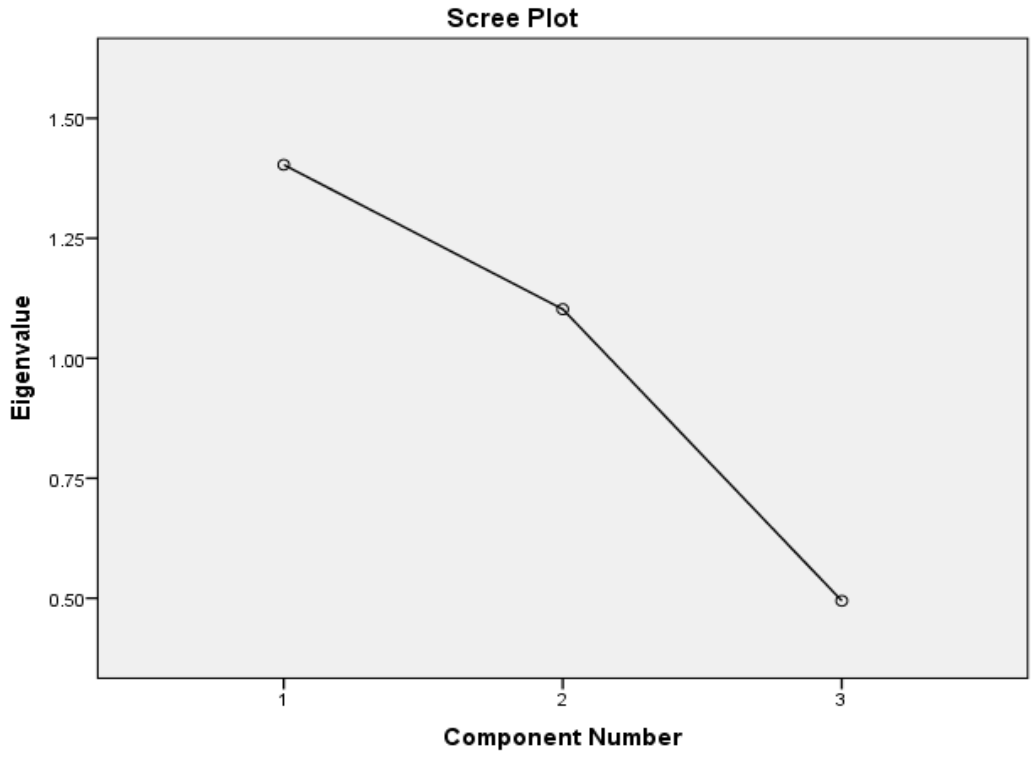


Figure 6.7: A Scree plot for TM

6.5 Summary

Interpersonal relationships existed in pre-tertiary schools in UER. It was considered positive and productive. Generally, it was both formal and informal. Interpersonal relationships contributed positively towards teacher motivation in pre-tertiary schools in the UER; hence causing them to improve performance.

The contribution to teacher motivation that interpersonal relationships in schools has made to teachers' motivation was summarized as shown in Table 6.20, from a combination of Table 6.15, Table 6.16 and Table 6.19.

Table 6.20: Summary of Contribution of IR to TM

Factor/ IR	Prevalence /%	% Response			Magnitude of TM/%	Communality /%
		Female	Male	$\square^2$		
TP	28.6	85.8	85.0	0.52	87.17	78.1
TT	57.1	80.6	80.7	0.99	79.56	88.0
TH	14.3	63.8	58.7	0.11	87.76	84.4
Mean		76.7	74.8	0.54	84.83	83.5

Hence, even though the interpersonal relationship between teachers and headteachers (TH) exists the lowest in pre-tertiary schools in the UER (14.3% compared with 28.6% for TP, and 57.1% for TH), it gives the highest motivation to teachers (87.76% compared with 87.17% for TP, and 79.56% for TT). Though the interpersonal

relationship between teachers and colleague teachers (TT) is the highest in presence, the magnitude of its contribution to teacher motivation is the lowest.

A mean communality or coefficient of determination of 0.835 or 83.5% is the proportion of interpersonal relationship (IR, i.e., TP, TT, and TH) that accounts for teacher motivation (M_R) in pre-tertiary schools in the UER of Ghana. It can therefore be suggested that the uniqueness value of 0.165 or 16.5% is accounted for by other factors; say the socio-economic determinants. The general expression for teacher motivation ($\mathbf{M_R}$) in terms of interpersonal relationships (**R**) in pre-tertiary schools can thus be written as

$$\mathbf{M_R} = k\mathbf{R} + \mathbf{e}.$$

The use of the bold characters is to indicate that motivation is directional.

CHAPTER SEVEN

THE INTERPERSONAL RELATIONSHIP MODEL OF TEACHER MOTIVATION

7.0 Introduction

The main idea was reinforced by the data that were gathered for objectives one, two and three, together with experiences and observations. And the results that were arrived at after the analyses strengthened the resolve. The ensuing data that was gathered was informed by the sampling principle of grounded theory as proposed by Strauss and Corbin (1990) – sampling on the basis of concepts that have proven theoretical relevance to the evolving theory.

The goal of this chapter was to gather data to confirm the findings to research objective three; and to develop a model for teacher motivation grounded on empirical data, taking into consideration the socio-cultural and the socio-economic environment of the participants. The theory was evolved and grounded on data, being theoretically sensitive.

7.1 Foreground of a Focus Group Discussion

Open ended interviews were held with a group of teachers. The group comprised six teachers made up of

- One headteacher (female);
- Two senior high school teachers (both were males);
- Two junior high school teachers (one male, one female);
- One primary school teacher (male).

About 100 other individual teachers were also interviewed. Sampling was by convenience; that is, any teachers who gave his/her consent was interviewed.

7.2 Emergent Initial Concepts

The interviews brought to fore most of the motivating factors listed in chapter five. The first ten most frequent concepts in terms of mention were:

i. Increase in academic performance of students/pupils (IP)
ii. Good rapport in class between teacher and students/pupils (GR)
iii. Good interpersonal relationships in school (IR)
iv. Financial support (SI)
v. Effective supervision (ES)
vi. Parents appreciation and support (PA)
vii. Personal business (PB)
viii. Working environment
ix. Job satisfaction
x. Morale

Some codes were linked to form categories. Some teachers that mentioned 'observed increase in students'/pupils' performance' as a motivator, in explaining their reason talked about the good rapport in class between teacher and students/pupils. They directly linked it to good interpersonal relationship in school; especially teacher-student/pupil interpersonal relationship. A teacher said thus,

> *Good interpersonal relationship with students makes you satisfied with job. It makes you work better. Students who interact freely with teachers motivate the teachers. When students can come close to the teachers to even present their problems to you, it makes you feel responsible to them and you will do more to help them. They see you as parent.*

This also hints on good interpersonal relationship between teacher and students/pupils.

7.3 Emergent Core Category

'Observing increase in students' performance' and 'good interpersonal relationships in school' were the dominant categories that emerged. However, in explaining how

'observing increase in students' performance' motivate teachers, they linked it to how good interpersonal relationship with the students make teachers to employ all means to make students understand the lesson. When students perform well, teachers become happy and are motivated to go the extra mile. A teacher said, sometimes he gives money to pupils who do well in class, to motivate them to keep working harder. He would buy his own reference books; spend part of his pay to go to internet to search for relevant materials to teach. He constructs instructional aids at his own cost. This disposition was observed in Kumbosco Junior High School in Bolga East district when an English teacher rewarded a JHS 1 pupil with four Ghana cedis (GHS 4.00) for scoring a dictation test. She was motivated by the performance of the pupil.

The various levels of interpersonal relationships were commented on. They indicated that teacher-student/pupil interpersonal relationship in school motivate teachers. They indicated that the salary per se does not make teachers want to go to school to teach. But their good relationship with the pupils does. It is their good relationship with the pupils that make them want to go to teach them. They also indicated that unprofessional relationship with the pupils can make them take the teacher for granted and bring about misbehaviour towards the teacher. Unruly behaviour of students and pupils towards teachers do take away the flare from teachers.

Teacher-teacher interpersonal relationship motivates teachers. One talked about the benefit of teacher-teacher interpersonal relationship thus:

> *"Teacher-teacher interpersonal relationship motivates. It leads to support to one another. Say in financial support. A colleague teacher can assist you with money to solve your problem. In subject delivery. If you find a topic difficult for you to handle in your class, you ask a colleague teacher who is good in that topic to help teach the topic in your class for you. And even in solving students' questions. That motivates teachers to work better. There is team work, there is confidentiality and there is support."*

With regard to teacher-headteacher interpersonal relationship, the respondents indicated that it motivates teachers. A male teacher in one senior high technical school stated that because of the kind of good relationship that existed between the headmaster and himself he would not do anything that could cause him to fail in carrying out his duties in school. He shows the extra commitment in school because of this cordial relationship that existed between them. They indicated that a positive teacher-headteacher interpersonal relationship boosts teachers' morale and they work better.

A female headteacher shared her experience in her school. According to her some of the things she does to strengthen the ties between her and her teachers are that, she buys textbooks for them. Sometimes, with her own money. She cooks food from the house and takes it to school for breakfast or lunch with the teachers, from her own resources. She also assists newly posted teachers to get accommodation in the community. She allows them some autonomy. As the teachers saw her efforts to satisfy them, they became motivated. They worked well even in her absence. It is only when they are not sure about something that they call her to find out.

An across case pattern comparison is shown in Table 7.1. Ability of these categories to bring about motivation is indicated by a 'YES'; and the inability of it to motivate is indicated by a 'NO'.

Table 7.1: Across case pattern comparison

Core categories	Subcategories	Cycle of school	
		1st cycle	2nd cycle
Interpersonal	Teacher-pupil	YES	YES

relationship	Teacher-teacher	YES	YES
	Teacher-headteacher	TES	YES
Work environment (extrinsic)	Adequate furniture	YES	YES
	Well ventilated classroom	YES	YES
	Adequate classrooms	YES	YES
Personal welfare (extrinsic)	Salary increment	NO	NO
	Provision of accommodation	YES	YES
	Hospital allowance	YES	YES
	Electricity rebate	YES	YES
Work itself (intrinsic)	Teaching	YES	YES
	Testing students/pupils	YES	YES
	Lab/student projects	YES	YES
	Lesson preparation	YES	YES

From the responds, the work itself gives some motivation. Teaching is interesting and they like the profession. But the low social status accorded to teachers in the country makes them not to want to be teachers. They are teaching not because of passion for teaching but because of the income they need to take care of their homes and personal needs. They love to teach, but they do not love to teach for the pay they are receiving.

Salary increment, extra duty allowance, end of year benefit, Christmas bonus, electricity rebate, including accommodation, transport allowance, hospital allowance and provision of breakfast, lunch and/or supper at school were categorized as welfare package. In this categorization teachers feel appreciated; and that their welfare is being considered. Such a view would make teachers both satisfied and motivated to go the extra mile. But when money is given as the market price for the teacher's labour, and their unions have to go to the negotiating table with the employer to negotiate for that price, they feel they have been bought. Besides, normally the amount agreed upon at

the end of the negotiation cannot afford them the comfort they need to be able to do their work as they know they should. This makes the teacher become demoralized, discontented and dissatisfied. Even some feel guilty that they are taking pay yet, they are not able to give of their best to the students due to welfare concerns. This is what brings about the demotivation.

Other core categories and subcategories were identified; but for the sake of the current objective, attention was centred on the effect of positive interpersonal relationships in school on teacher motivation. In terms of ranking, a positive school social environment, positive interpersonal relationships in school, was ranked highest. Salary increment was still ranked lowest. It is a demotivator to teachers in the region.

7.4 Correlation between Core Categories and Teacher Motivation

The study found the following correlation between the categories and teacher motivation (Table 7.2).

Table 7.2: Correlation between Core Categories and TM

Core categories	Subcategories	Correlation	
		1st cycle	2nd cycle
Interpersonal relationship	Teacher-pupil	Positive	Positive
	Teacher-teacher	Positive	Positive
	Teacher-headteacher	Positive	Positive
Work environment (extrinsic)	Adequate furniture	Curvilinear	Curvilinear
	Well ventilated classroom	Curvilinear	Curvilinear
	Adequate classrooms	Curvilinear	Curvilinear
Personal welfare (extrinsic)	Salary increment	Curvilinear	Curvilinear
	Provision of accommodation	Curvilinear	Curvilinear
	Hospital allowance	Curvilinear	Curvilinear
	Electricity rebate	Curvilinear	Curvilinear
Work itself (intrinsic)	Teaching	No correlation	No correlation
	Testing students/pupils	No correlation	Negative
	Lab/student projects	No correlation	Negative
	Lesson preparation	No correlation	Negative

Both first cycle school teachers and second cycle school teachers correlated the categories the same. Figure 7.1 illustrates the pattern of the various sources of motivation diagrammatically as per the responses illustrated in Table 7.1.

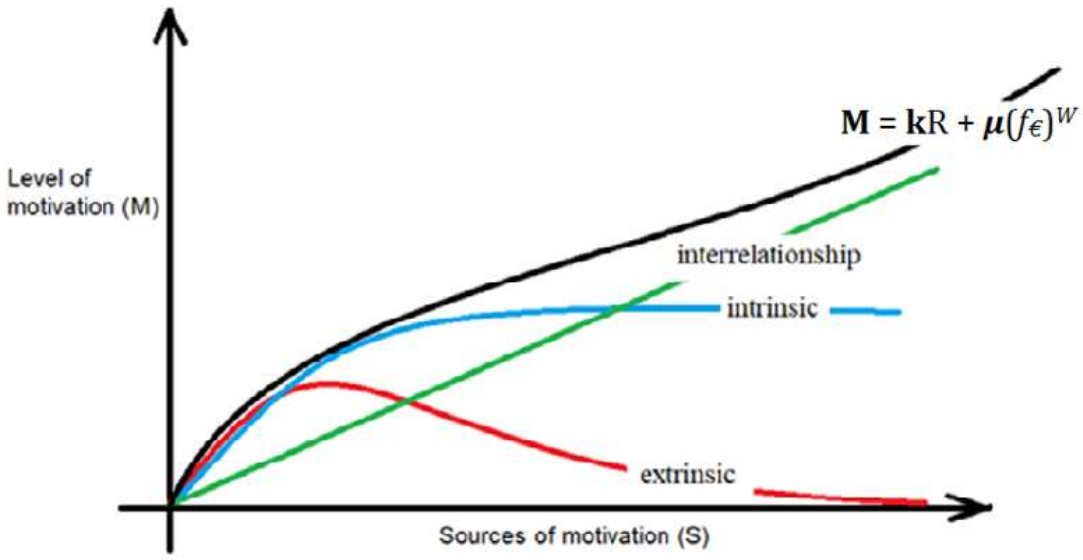


Figure 7.1: Comparison of the different sources of teacher motivation

For interpersonal relationship in school, a teacher said this:

> *You see, if the relationship gets better, whether teacher-pupil, teacher-teacher or teacher headteacher, you will continue to be motivated. And you will continue to perform better until your abilities can no longer take you further.*

Concerning the extrinsic factors, a teacher said that, initially, the teacher would be motivated as they are provided. But with increases in the factors, it will get to a point when addition of the factors will no longer increase one's motivational level. The motivational level may begin to dip downwards. This was how a teacher in a senior high school put it:

The truth is, when you realize that your needs are adequately met, further addition of the extrinsic factors will no longer move you.

The implication is that, once a need is satisfied, it is no longer a motivation.

As concerning the work of a teacher in its itself (intrinsic factor), the responds are that there is no correlation. That if you love to teach, you love to teach. Nothing can reduce

or increase your flare. But if the work load increases, they can lose the passion to teach. Fatigue will set in; and that will demotivate them.

7.5 Strategy to Improve Teacher Motivation

From the results of the study interpersonal relationships in pre-tertiary schools enhance teacher motivation better. The proposed model is therefore to foster

i. Teacher to pupil interpersonal relationship,
ii. Teacher to teacher interpersonal relationship, and
iii. Teacher to head teacher interpersonal relationship.

The traditional approach may offer job satisfaction, as was observed in the findings to research objective one. But is not the best means to teacher motivation as was observed in the findings of research objective two. Good interpersonal relationship in school, that is a positive social atmosphere as was found in chapter six and chapter seven, does the best.

The extrinsic factors start to motivate and immediately bring motivation down to zero as more of the factors or more of the same factor are provided. As the extrinsic needs are met, they no longer motivate. Salary increases and best teacher award in the district for instance motivate one to start to teach. But as the person starts to teach and salary is increased, and the award comes, motivation drops to zero.

The intrinsic factor grows motivation to a certain height and it stays constant at that height even though more of the factor is provided. 'Professional status' and 'potential for achievement' for instance may motivate a teacher only to a certain level; but will not continue to increase motivational level of teachers with further increases of the factors.

It is envisaged however that motivational levels will increase as interpersonal relationships keep growing. The better the interpersonal relationship, the more one desires it; and so motivated to do more for it. Interpersonal relationships sustain motivational levels of teachers better than the other (socioeconomic) motivating determinants in the study.

The motivation of teachers can thus be derived from two main sources.

i. The interpersonal relationships that exist in the school community, **R**; which is positively correlated to teacher motivation, $\boldsymbol{M_R}$. That is, $\boldsymbol{M_R} = k\mathbf{R}$.

ii. The socio-economic variables in the community, $f_€$; which is curvilineal to teacher motivation, $\boldsymbol{M}_€$. That is, $\boldsymbol{M}_€ = \boldsymbol{\mu}(f_€)^W$.

Teacher motivation is therefore a combination of the two components, and can thus be represented as:

$$\mathbf{M} = \boldsymbol{M_R} + \boldsymbol{M}_€$$

$$\Rightarrow \quad \mathbf{M} = k\mathbf{R} + \boldsymbol{\mu}(f_€)^W,$$

where,

M is level of motivation of teacher,

R = **TP** + **TT** + **TH**, is the combined strength of the interpersonal relationships between teacher and pupil (TP), teacher and teacher (TT), and teacher and head teacher (TH).

$f_€$ represents the combined effect of the other motivating factors (non-interrelationship, that is, extrinsic and intrinsic factors, or socio-economic factors);

and '*k*' '$\boldsymbol{\mu}$' and '*W*' are sociometric parameters (Bain, 1943); of which '*k*' is a tele factor and is determined by the slope of the $\mathbf{M} = k\mathbf{R} + \boldsymbol{\mu}(f_€)^W$ graph at any point. It is a measure

of the attitude of acceptance or rejection which the individual projects towards the various members of his or her group. '$\boldsymbol{\mu}$' is the coefficient of determination of the $\boldsymbol{M}$-f_{ϵ} regression curve; and $0 \leq W \leq 1$, is Kendall's Coefficient of Concordance; a characteristic of the individual teacher in relation to the socio-economic variables in the community. It gives the degree of association or agreement among the ranks assigned by different respondents on the level of motivation of the various socioeconomic variables.

Figure 7.2 illustrates the pattern of the various sources of motivation diagrammatically.

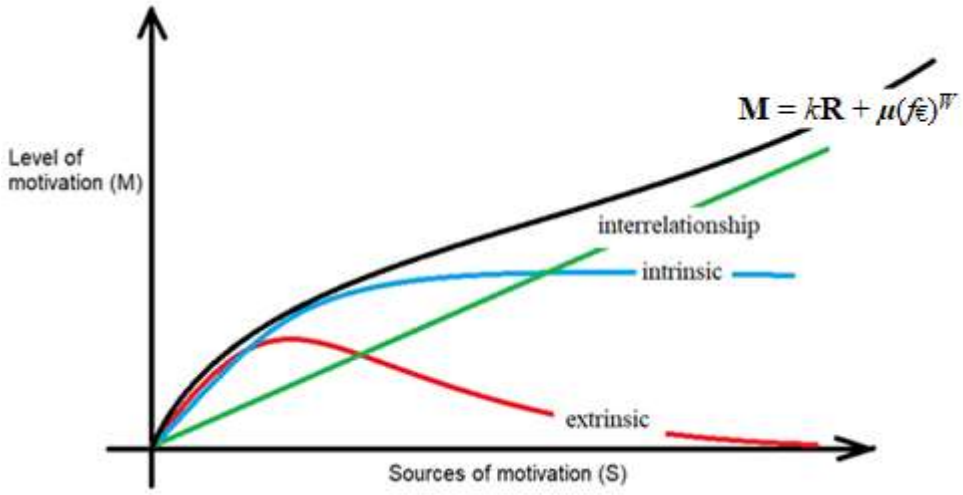


Figure 7.2: Graph of the Interpersonal Relationship (IR) Theory of Teacher Motivation (TM) (Source: Researcher, 2020).

The concept map in Figure 7.3 below illustrates the interrelationship theory of teacher motivation.

Figure 7.3: Concept map of IR Model of TM (Researcher, 2020).

7.6 The Interpersonal Relationship Model of Teacher Motivation

The interpersonal relationship model of teacher motivation has the following components, specifications and procedures.

A. Components of the model:

1. Interpersonal relationships (R);

- Teacher-Pupil (TP)
- Teacher-Teacher (TT)
- Teacher-Headteacher (TH)

2. Socio-economic factors ($f_{€}$);

- Incentive packages.
- School infrastructure.
- Teaching and learning materials.
- Government policies.
- Social amenities

- Leadership style of headmaster.
- etc.

3. Tele factor (*k*).

4. Kendall's Coefficient of Concordance (*W*).

B. Specifications of the system:

1. Communication.
2. Problem solving.
3. Critical thinking.
4. Confidence.
5. Mutual trust.
6. Collaboration.
7. Flexibility.
8. Self-awareness.
9. Laughter.
10. Love.
11. Understanding one another.
12. Cooperation.
13. Coordination (orderliness).
14. Peaceful coexistence.
15. Good neighbourliness.
16. Tolerance.
17. Forgiveness.

C. Procedures of the system:

1. Establishment of boundaries.

2. Maintenance of a positive attitude.
3. Active listening.
4. Showing of respect to the other persons(s) at all times.
5. Openness to constructive criticism and feedback without letting emotions take over.
6. Making it a point to see the other(s) in person (having face to face interaction).
7. Admission of mistakes and apologizing when wrong.
8. Having a good relationship with oneself.

7.7 Summary

Several factors motivate teachers. The dominant core category however was 'interpersonal relationship in school'. This entails the following subcategories:

- Teacher-pupils interpersonal relationship;
- Teacher-teacher interpersonal relationship; and
- Teacher-headteacher interpersonal relationship.

These subcategories all motivate teachers. Thus, they have a high positive correlation with teacher motivation.

Teachers in the region are scarcely intrinsically motivated to teach. They teach majorly for extrinsic reasons. One core extrinsic factor that motivated teachers in the region is a realization in the increase in performance of their students or pupils. Teachers however, still felt that it is due to good interpersonal relationship between the teacher and her students that gave the teacher the impetus to go the extra mile to ensure that students have the maximum benefit from their lessons.

Material rewards, including monetary offers, according to the teachers should be classified as welfare packages. Such a nomenclature would rather motivate them to work than viewing them as pay for their labour.

In general, teacher motivation (**M**) in terms of interpersonal relationships (**R**) in pre-tertiary schools and socioeconomic factors (f_{ϵ}) available can be represented as:

$$\mathbf{M} = k(\mathbf{R}) + \boldsymbol{\mu}(f_{\epsilon})^{W}.$$

CHAPTER EIGHT

SUMMARY, CONCLUSIONS, AND POLICY IMPLICATIONS

8.0 Introduction

In this chapter a recapitulation of the main points of the study, including the research problem and methodology together with a summary of the fundamental findings of the study are presented. Also, well founded conclusions that could be drawn from the results of the study and some recommendations for implementation and for further research are stated.

8.1 Summary of Findings

The mixed method approach was employed; using quasi-experiments, correlation and the Grounded Theory to arrive at the results. The instruments included the self-made Teachers Motivation Scale (TMS), adapted from the Works Motivation Scale by Deci and Ryan (2000), interviews using an open-ended interview schedule, focus group discussion, performance rater used by the headteachers and headmasters to rate the performance of teachers working under them, together with personal observations. These all gathered primary data. Teachers' personal records as well as students' exam results (local, national and international) were used to gather some secondary data. The ethics of research were observed. The core findings of the study per the research objectives that were investigated are summarized below.

8.1.1 The State of Teacher Motivation in UER of Ghana

From the analysis

i. Teachers in the region were satisfied with their job by a proportion of $\hat{p}$ = 0.566 (to 3 d.p.) or 56.6%. Of this, 41.6% are somewhat satisfied, while 15.0% are very satisfied. So, the majority of teachers in the region

are only somewhat satisfied. This finding contradicts the common belief that teachers in the region are deprived and not satisfied with their job of teaching as suggested by the EMIS 2016 data.

ii. Teachers will not choose to teach again if given another chance to choose a new career. A proportion of $\hat{p}$ = 0.615 teachers gave this response. This proportion is more than the proportion of teachers who are satisfied with teaching as a career. A difference of Δ = 0.049. But why would they not choose teaching again as a career when they are satisfied with teaching as a career? The answer is in the next finding.

iii. Over eighty three percent (that is, 83.5%) of teachers in the study believe that teachers in the region are not motivated to teach. This study reveals an absence of a positive correlation between job satisfaction and teacher motivation. By arithmetic deduction, only about 26.9% (that is, 83.5% - 56.6% = 26.9%) out of the 43.3% teachers who were not satisfied with the job of teaching were not motivated.

iv. In confirmation of the third finding, a proportion of approximately $\hat{p}$ = 0.74 of the sampled teachers agreed that 50% and more of teachers in the region were unmotivated.

Thus, teachers in the region do not feel motivated to teach even though they claim to be satisfied with their job. Through focus group discussion it was realized that this claim was as a result of the fact that teachers felt there are no job opportunities. They would therefore rather teach than stay idle. One of the teachers expressed his frustration thus,

> *... but if you say you are not satisfied, what can you do. Is it not better to teach so that you can get something at the end of the month to feed your family than to stay idle and be suffering?*

Thus, Akerlof's (2008) revelation that when one gains utility, he is motivated, may not wholly apply when it comes to job satisfaction. It could however be said that when one gains relevance, he is motivated.

8.1.2 The Effect of Teacher Motivation on Teacher Performance

Teachers were poorly motivated (with a mean level of motivation of 16.3%). The very high mean teacher performance of 83.2% on the performance indicators does not correspond to the low mean student performance of 20.4% in GES standardized tests and 39.8% in national and international tests in the region. True teachers' performance is based on delivery, which is expected to reflect in students' achievement. The poor teacher motivation compares positively with students' performance.

8.1.3 Determinants of Teacher Motivation in UER

Attribute independent variables that could induce teacher motivation, as were gathered through focus group discussions were investigated. The confidence interval of the median motivational level is $50.1\% \leq MD \leq 61.0\%$. Among the variables that were identified by respondents as motivating or causing motivation, 'Observing vast improvement in the achievement levels of one's pupils since the beginning of the year' was ranked highest with a 71.4% respondent proportion.

The variables that respondents selected as providing more than 61.0% motivational level (that is, are very motivating) are:

i.	Improvement in achievement of pupils' levels	-	71.4%
ii.	Sense of achievement	-	68.8%
iii.	Thank you from pupils	-	64.3%
iv.	Autonomy and responsibility for work	-	64.2%
v.	Sense of accountability	-	63.2%

vi.	Potential for professional growth	-	62.8%

Those that provided medial level of motivation, that is, 50.1% ≤ MD ≤ 61.0%, include:

i.	Potential for achievement	-	61.0%
ii.	Professional status of teaching	-	60.1%
iii.	Supervision by supervisors	-	58.0%
iv.	Additional equipment and supplies for instruction	-	57.9%
v.	Best teacher award in district	-	54.0%
vi.	Factors in personal life	-	52.9%
vii.	Being awarded a plague by pupils	-	52.0%
viii.	Job security	-	51.9%
ix.	Work itself	-	50.7%
x.	One-time monetary award	-	50.1%

For the variables that were identified as unmotivating, that is, those with motivational levels below 50.1%, 'Salary increase' was ranked first at 75.0% proportion of respondents. They include the following, with their corresponding motivational levels:

i.	Salary increases	-	25.0%
ii.	District policies	-	28.5%
iii.	Working conditions	-	32.3%
iv.	Early retirement	-	39.1%
v.	Participation in research and curriculum development	-	41.8%
vi.	Recognition	-	44.5%

From the findings of the study, the teaching job itself does only medially motivate teachers in the region. That is, there is generally not much intrinsic motivation in

teaching among the teachers involved in the study. By observing the lists, it is evident that fulfilment and self-esteem motives give more motivation than the survival and safety motives. Success, mission and task orientations provide more motivation to teachers in the region than earnings, benefits and working conditions.

Work that provides the teacher with opportunities to reach his optimum potential, are the works that motivate them. These include works that require foresight, competence, creativity, and works that heightens the teacher's curiosity, are works that will make teachers experience fulfilment and be motivated. Fulfilment motives consist of the following work value constructs:

Success Orientation: Persons who score high on this construct are motivated to accomplish career goals and reaching their full potential through their work. They are very enthusiastic about their work. And they are prepared to tolerate sessions of hardship to be successful. They will endure any inconvenience and hardness as long as they believe their efforts will bring about increased students' performance.

Mission Orientation: Persons who score high on this construct are positioned to see the big picture and have the propensity to be less concerned with details. They are goal directed; and they able to discern how their present work correlates with, contributes to the general course of the organization. They are motivated by a sense of achievement.

8.1.4 The Contribution of Interrelationships in Schools to Teacher Motivation in UER

The level of motivation derived from interpersonal relationships in schools to teachers was summarized as shown in Table 6.10. It was seen that teacher-teacher interrelationship (TT) gave the highest motivational level with a responds rate of 85.6%. This is also highest among all the 27 determinants of teacher motivation that were surveyed. The next highest motivator is teacher- pupil/student interrelationship

(TP), with a responds rate of 80.6%. Teacher-headteacher interrelationship is third among the interrelationship variables (62.2%); but seventh place among the 27 determinants after

i.	Improvement in achievement of pupils' levels	-	71.4%
ii.	Sense of achievement	-	68.8%
iii.	Thank you from pupils	-	64.3%
iv.	Autonomy and responsibility for work	-	64.2%
v.	Sense of accountability	-	63.2%
vi.	Potential for professional growth	-	62.8%

Putting all the three interrelationship variables together under the factor 'interpersonal relationships in school', the mean responds of respondents was 76.2%. This was still highest among all the surveyed determinants of motivation.

For interpersonal relationship in school, a teacher said this:

> *'You see, if the relationship gets better, whether teacher-pupil, teacher-teacher or teacher-headteacher, you will continue to be motivated. And you will continue to perform better until your abilities can no longer take you further'.*

Another teacher in a senior high school said:

> *'The truth is, when your needs are sufficiently met, further additions of the extrinsic factors do not longer move you. But ones the relationship is good you will continue. And, when the workload is too much for you too, you get stressed up'.*

8.1.5 The Interpersonal Relationship Model of Teacher Motivation

Several factors motivate teachers. The dominant core category however was 'interpersonal relationship in school. This entails the following subcategories:

i Teacher-pupils interrelationship;

ii Teacher-teacher interrelationship; and

iii Teacher-headteacher interrelationship.

These subcategories all motivate teachers. Thus, they have a high positive correlation with teacher motivation. Teachers in the region are scarcely intrinsically motivated to teach. They teach majorly for extrinsic reasons. One core extrinsic factor that motivated teachers in the region is a realization in the increase in performance of their students or pupils. This is a motive of self-esteem. That is, the need for responsibility, achievement, and a challenging and meaningful engagement.

Teachers with high self-esteem motives are able to see links between leadership and achievement. They are motivated by the feeling that they are good managers of their lessons and pupils. Teachers that score high on this construct hold in high regard opportunities to supervise and direct the work of others. They ungrudgingly take responsibility for teacher performance and the achievement of their students. They are task oriented. They plan their work, and make the most use of resources. Sustaining their focus is very important to them. They may be disinclined to perform functions that are not related to he teaching career.

Teachers however, still felt that it is due to the good interpersonal relationship between the teacher and her students that gave the teacher the impetus to go the extra mile to ensure that students have the maximum benefit from their lessons. Due to the good interpersonal relationship with the pupils, the teachers felt responsible to them in ensuring that the pupils get the best from their delivery.

Material rewards, including monetary offers, according to the teachers should be classified as a welfare package. Such a nomenclature would rather motivate them better to work than viewing them as pay for their labour. In general, the economic factors do

contribute to the teacher motivation equation, but are never the core motivating variables. The deduced relationship theory of teacher motivation is thus:

$$\mathbf{M} = k\mathbf{R} + \boldsymbol{\mu}(f_{\epsilon})^{W},$$

where,

M is level of motivation of teacher,

R = TP + TT + TH, is the combined effect of the interpersonal relationships between teacher and pupil (TP), teacher and teacher (TT), and teacher and head teacher (TH).

f_{ϵ} represents the combined effect of the socio-economic factors of motivation (i.e., extrinsic and intrinsic); and '*k'*, '$\boldsymbol{\mu}$' and '*W'* are sociometric parameters. '*k'* is a tele factor and it gives an indication of the level of inspiration that the players in the interpersonal relationship receive from each other. It is determined by the slope of the $\mathbf{M} = k\mathbf{R} + \boldsymbol{\mu}(f_{\epsilon})^{W}$ graph. '$\boldsymbol{\mu}$' is the coefficient of determination of the **M**-f_{ϵ} regression curve, and '*W'* is Kendall's Coefficient of Concordance. *W* is a characteristic of the individual teacher in relation to existing socio-economic variables in the community (a factor that defines the degree of the teachers' agreement/association with their rating of the socio-economic elements in the community); $0 \leq W \leq 1$.

8.2 Conclusions

The following conclusions are drawn from the summaries:

1. Teachers in the Upper East Region have job satisfaction but are not motivated to teach. Thus, job satisfaction does not always correlate with teacher motivation. Teachers in Upper East Region would change their profession if they had the opportunity to do so. This could explain the high level of teacher

attrition that has been observed in previous studies (Hanushek, Kain and Rivkin, 2002).

2. Teacher motivation compares positively with pupils/students' performance. Since most teachers receive pre-service training before deployment, it is not logical to infer the effect of their motivation (during their service) on their pedagogical ability.
3. Not all the popularly known intrinsic (motivator) and extrinsic (hygiene) factors motivate teachers. The findings of this study do not conform to Herzberg's classification (Herzberg, 1968). The study reveals that some of Herzberg's motivator (intrinsic) factors like 'being given the opportunity to participate in teacher projects (e.g., research, curriculum development)' and 'gaining recognition' are not motivating. Also, some hygiene (extrinsic) factors like 'supervision by supervisors', 'potential for professional growth' and 'having pupils thank a teacher for aiding in the understanding of a difficult concept' have been identified as motivating factors to teachers. Salary increase does not motivate teachers in the Upper East Region.
4. Teacher motivation has no correlation with teacher performance in terms of teachers' professional or pedagogical ability. Teacher motivation has positive effect on teachers' performance with respect to student achievements. That is, poor teacher motivation results in poor student achievement.
5. Interpersonal relationships motivate teachers in the region most. If school owners and proprietors will improve upon and properly manage relationships in the pre-tertiary schools in Upper East Region, teachers in the region will feel more motivated. A leader (that is, the school principal) who knows how to cultivate and sustain a social culture that places emphasis on the social ideals of

the worker (that is, teacher) will see much more cooperation and commitment to the institutional goals.

6. When teachers work with the ones they love, they are motivated; and performance is enhanced. The desired relationship is the positive mutual relationship; not the mistrust, conflict or negative mutual relationship.

For a school community with a combined interpersonal relationship strength **R**, existing between teacher and pupils/students, teacher and colleague teachers, and teacher and headteacher or principal, and if there exist other socio-economic factors of motivation, f_{ϵ}, in the community, the level of teacher motivation is given by,

$$\mathbf{M} = k\mathbf{R} + \boldsymbol{\mu}(f_{\epsilon})^{W}.$$

where 'k', '$\boldsymbol{\mu}$' and 'W' are sociometric parameters.

Thus, the motivation of a teacher in a school community is based mainly on the kind of social interrelatedness that exists in the school, and concomitantly, on the motivation provided by the socio-economic variables prevalent in the community. The era of isolated learning is over. When teachers and school leaders work together in strong professional learning communities it results in effective teaching. Teachers will remain longer in a district when they experience support from administrators. They have strong bond of attachment to a professional learning community that has, at its heart, high-quality interpersonal relationships built on trust and respect.

The distinguishing feature of effective schools is a culture of high-performance, in which all teachers take responsibility for the learning of all students. Teachers thrive better when they feel connected to their students or pupils and co-teachers.

Teachers want more than a job. They want to contribute to a group, to make a difference. It is the teacher: what he knows and what he is willing to do, is what is the most significant factor in student achievement. When the teacher is improved the student learning will improve.

8.3 Policy Implications and Recommendations for further Research

A structured, sustained, multiyear induction programme (INSET) is necessary to motivate teachers into peak performance. A professional culture must be created in which teachers thrive and grow throughout their careers. The result will be quality teaching and improved student learning in every classroom.

Building good interpersonal relationships in schools, whatever the circumstances, is critical. If there is hope to make meaningful lasting change within school communities, however, identifying increased interpersonal relationships as a priority and taking time to develop it looks to be well worth the investment. Without a good social atmosphere, a school cannot improve and grow into the rich, nurturing micro-society needed by children and adults alike.

Having identified what motivates teachers, these factors need to be put in place to ensure teacher motivation for better teacher performance (students' achievement). The following recommendations are therefore to guide policy.

1 Interpersonal relationships in the schools should be considered as a critical factor in teacher motivation. School owners and school heads should ensure that school environments inspire effective, positive and well managed interpersonal relationships in the schools. Positive interpersonal relationships should be strengthened in schools.

2 In employing heads for pre-tertiary schools, professionals who can promote and ensure good interpersonal relationships in schools should be identified and selected. Head teachers could also be trained on how to promote and ensure good interpersonal relationships in their schools.

3 Based on the findings leading to conclusion # 3, that the classification of motivation factors into intrinsic factors and extrinsic factors is inappropriate, it is preferable that discussions on teacher motivation, especially in connection with teacher performance, the factors should be classified in the line of 'motivating factors' and 'not motivating factors'.

4 The curriculum of colleges of education should be reviewed to include activities or courses or programmes that would induce a motivated in mindset in trainee teachers towards the teaching career as part of their training. This will result in improved students' performance.

5 Salary and other monetary rewards should be classified as welfare concerns. They should be given to teachers as a demonstration of the care and concern by the employer. Teachers will receive such gestures with thanks and appreciation.

6 Interpersonal relationship borders on the affective domain. The study thus, reflects on the importance of the affective domain. There is need for curriculum revision to give emphasis to the affective domain. The layman frequently regards knowledge and education as synonymous; and regard knowledge as the primary index of the level of education an individual has attained. Comparing the goals of the current curriculum with the range of possible outcomes suggest additional goals that need to be included. The findings of the current study suggest a range of possible educational goals or outcomes in the affective area. The affective domain describes learning objectives that emphasize a feeling

tone, an emotion, a degree of acceptance or rejection, desirable interests, attitudes, values, appreciation, love, friendliness, empathy, care and support for one another and character development. The affective domain is not easy to be taught or learned. It is important that it is introduced early to the learner, even from kindergarten till he or she completes school.

7 Employers of teachers should involve the teachers already teaching in the school in deciding who to bring in to work with them. The new entrant can either bring about motivation or demotivation, depending on the tele of the other teachers already in the system towards him. Sociometric ratings by co-workers for desirability as partners and other job-related activities correlate with positive attitudes towards work and with quality and quantity of performance on the job.

One of the benefits of a good study is the opportunities it opens for further studies in and around the researched area. This study is not without such opportunities. The following suggestions are made for further study:

1) An investigation on how to achieve a positive interpersonal relationship between teachers and pupils/students.
2) A survey of a positive teacher-headteacher interpersonal relationship.
3) An investigation on how to achieve a positive teacher-teacher interpersonal relationships in schools.
4) Establishing the correlation between job satisfaction and teacher motivation.

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APPENDICES

Appendix A Research Instruments

A.1 The Teacher Motivation Scale (TMS)

DIRECTIONS: For each item, please indicate your response by making a tick (√) in the appropriate response column.

NO.	QUESTION	VD	SD	SS	VS
1	What is your overall level of satisfaction with your job as a teacher?	1	2	3	4

VD – Very Dissatisfied; SD – Somewhat Dissatisfied; SS – Somewhat Satisfied

VS – Very Satisfied

NO.	QUESTION	YES	NO
2	If you had the opportunity to start over in a new career, would you choose to become a teacher?	1	2
NO.	QUESTION	YES	NO
3	Generally speaking, do you believe that the teachers with whom you work are motivated?	1	2

NO.	QUESTION	< 50%	50%	> 50%
4	What percentage of teachers that you know or work with would you classify as unmotivated?	1	2	3

5. On a 4-point scale, indicate the degree to which each of the following conditions or situations in your current school serve as a motivating or an un-motivating factor for you as a teacher.

HU - Highly Unmotivated; U - Unmotivated; M - Motivated; HM - Highly Motivated.

NO.	QUESTION	HU 1	U 2	M 3	HM 4
a	Recognition (e.g., receiving praise from administrators, parents, students or others)				
b	Potential for professional growth (e.g., possibility of improving one's own professional skills)				
c	Supervision by supervisors (e.g., overall competence of superiors)				
d	Interpersonal relationships with colleagues (e.g., interaction with other teachers)				
e	Salary (e.g., financial compensation)				
f	Job security (e.g., tenure)				
g	Status (e.g., professional status of teaching)				
h	Interpersonal relationship with administrators (e.g., cordial interaction with administrators)				
i	Sense of achievement (e.g., experiencing success)				
j	Working conditions (e.g., building conditions, amount of work, facilities available)				
k	District policies (e.g., overall effects of the district as an organization)				
l	Teacher evaluation (e.g., appraisal of classroom instruction by evaluator)				
m	Responsibility (e.g., autonomy, authority and responsibility for own work)				
n	Potential for advancement (e.g., possibility of assuming different positions in the profession)				
o	Work itself (e.g., aspects associated with the tasks of teaching)				
p	Being given the opportunity to participate in teacher projects (e.g., research, curriculum development)				
q	Factors in personal life (e.g., effects of teaching on one's personal life)				
r	Interpersonal relationships with students (e.g., interaction with students)				
t	Sense of accountability (e.g., being held directly responsible for student learning				

6. On the following 4-point scale, indicate the degree to which each of the following items serve as a motivating factor or un-motivating for you as a teacher.

NO.	QUESTION	HM 1	M 2	U 3	UM 4
a	A one-time monetary award (supplemental to the step increase)				
b	Being selected as "Teacher of the Year" in the district				
c	Having students thank a teacher for aiding in the understanding of a difficult concept				
e	An instructional workshop offered and paid for by the district				
g	Early retirement/contract buy-out				
h	Observing vast improvement in the achievement levels of one's students since the beginning of the year				
i	Being awarded a plaque by students				
j	Being permitted to purchase additional equipment and supplies for instructional purpose				

NO.	QUESTION	FEMALE F	MALE M
7	What is your gender?	1	2

NO.	QUESTION	< 20	20-30	31-40	41 - 50	> 50
8	What is your age (in years)?	1	2	3	4	5

NO.	QUESTION	1-5	6-15	16-25	26-35	>35
9	Including the current school year, how many years of teaching experience do you have?	1	2	3	4	5

NO.	QUESTION	SHS	CERT' A	DIPLOMA	DEGREE	MSC/ MPHIL	PHD
10	What is your	1	2	3	4	5	6

	highest qualification?						

NO.	QUESTION	URBAN	SUB-URBAN	RURAL
11	What best describes your current school setting?	1	2	3

NO.	QUESTION	1ST CYCLE	2ND CYCLE	3RD CYCLE
12	What best describes the level of the current school you are teaching in?	1	2	3

Thank you for taking time to complete this questionnaire.

How to Score the TMS

Sum the selected ranks for questions 5 and 6. Highest sum represents high motivation and lowest sum represents un-motivation.

A.2 Schedule for Focus Group Discussion with Teachers

1. What do you say about teacher motivation? What are the things that motivate teachers?

2. As a teacher what is it that motivates you most in the performance of your duties?

3. How does a good interpersonal relationship in school help in motivating teachers in the discharge of their duties?

- Teacher-pupil interrelationship;
- Teacher-teacher interrelationship;
- Teacher-headteacher interrelationship.

4. What do you have to say about salary increments (and other monetary offers) in the light of teacher motivation?

5. Considering all the factors that you mentioned as motivators, including interpersonal relationships at school and salary increments, which one motivates you most and which is least?

7. How do you correlate the following with teacher motivation?

i Increased performance (IP) of pupils/students and teacher motivation (i.e., positive, negative or no correlation).

ii Interpersonal relationships (IR) in school and teacher motivation (TP, TT, and TH).

iii Salary increments (SI) and teacher motivation.

7. Concerning interpersonal relationships in your current school where you teach, do the following interpersonal relationships exist in your school? (YES (Y) or NO (N)).

I Teachers relating with pupils or students (TP): -

II Teachers relating with colleague teachers (TT): -

III Teachers relating with headteachers (TH): -

If YES, is it

a GOOD (G) or BAD (B)?

TP -

TT -

TH -

Explain:

b FORMAL (F) or INFORMAL (I) or both (B)?

TP -

TT -

TH -

Explain:

c PRODUCTIVE (P) or COUNTER PRODUCTIVE (C)?

TP -

TT -

TH -

Explain:

8a. How is the type of interpersonal relationship prevailing in your current school affecting teacher motivation (TM) in your school? (i.e., POSITIVE (P), or NEGATIVE (N) or NEUTRAL (O)).

TP -

TT -

TH -

Explain:

b In your opinion, how would a good interpersonal relationship in your current school affect teacher motivation (TM) in your school? (i.e., POSITIVE (P), or NEGATIVE (N) or NEUTRAL (O)).

TP -

TT -

TH -

Explain:

9a. Rank the following interpersonal relationships from between 1-3, as regards the most prevalent to the least prevalent respectively, in your current school; (i.e., 1≡ most prevalent; 2≡ second prevalent; and 3≡ least prevalent).

TP -

TT -

TH -

Explain:

b How much, in terms of percentage (i.e., from 0% to 100%) motivation do the following interpersonal relationship types give you as a teacher in the performance of your duties?

TP -

TT -

TH -

Explain:

10. On a scale of 0 to 100, indicate the degree to which each of the following conditions or situations could serve as a motivating factor to you as a teacher in the performance of your duties.

No.	Question	Degree of Motivation
i	Recognition (e.g., receiving praise from administrators, parents, students or others)	
ii	Potential for professional growth (e.g., possibility of improving one's own professional skills)	
iii	Supervision by supervisors (e.g., overall competence of superiors)	
iv	Interpersonal relationships with colleagues (e.g.,	

	interaction with other teachers)	
v	Salary (e.g., financial compensation)	
vi	Job security (e.g., tenure)	
vii	Status (e.g., professional status of teaching)	
viii	Interpersonal relationship with administrators (e.g., cordial interaction with administrators)	
ix	Sense of achievement (e.g., experiencing success)	
x	Working conditions (e.g., building conditions, amount of work, facilities available)	
xi	District policies (e.g., overall effects of the district as an organization)	
xii	Teacher evaluation (e.g., appraisal of classroom instruction by evaluator)	
xiii	Responsibility (e.g., autonomy, authority and responsibility for own work)	
xiv	Potential for advancement (e.g., possibility of assuming different positions in the profession)	
xv	Work itself (e.g., aspects associated with the tasks of teaching)	
xvi	Being given the opportunity to participate in teacher projects (e.g., research, curriculum development)	
xvii	Factors in personal life (e.g., effects of teaching on one's personal life)	
xviii	Interpersonal relationships with students (e.g., interaction with students)	
xix	Sense of accountability (e.g., being held directly responsible for student learning	
xx	A one-time monetary award (supplemental to the step increase)	
xxi	Being selected as 'Teacher of the Year' in the district	
xxii	Having students thank a teacher for aiding in the understanding of a difficult concept	
xxiii	An instructional workshop offered and paid for by the district	
xxiv	Early retirement/contract buy-out	
xxv	Observing vast improvement in the achievement levels of one's students since the beginning of the year	
xxvi	Being awarded a plaque by students	
xxvii	Being permitted to purchase additional equipment and supplies for instructional purpose	

A.3 Teachers' Performance Rater (Performance Indicators Score Sheet)

To: The Principal (Headteacher or Headmaster).

Please, score (from 0% to 100%) your teachers under you on how much they perform on the following performance indicators.

S/No.	Performance Indicator	Score (%)
1	Planning instruction.	
2	Implementing the lesson.	
3	Maximizing time on task.	
4	Integrating materials and methodology.	
5	Planning and using evaluative activities.	
6	Providing specific evaluative feedback.	
7	Managing the classroom.	
8	Interaction with students.	
9	Interaction with parents and community.	
10	Interaction with administration and other educational personnel.	
11	Involvement in professional growth activities.	
12	Supporting and implementing school regulations, policies, procedures and accepted practices.	
13	School performance in standardized tests.	
14	District performance in standardized tests.	
15	Motivating students.	
16	Demonstrating knowledge of curriculum.	

17	Setting high expectations for student achievement in accordance with their needs and abilities.	
18	Percentage of teachers trained in test construction and analysis by cycle and subject.	
19	Performance of sample of students in national and international tests at selected grades.	
20	Percentage of students repeating a grade.	
21	Percentage male/female repetition rates.	
22	Percentage of enrolled students completing each grade.	
23	Percentage of students progressing to higher education from schools.	
24	Percentage of staff-days authorized absences monthly.	
Average Score		

Appendix B

Table B.1: National Summary by Level of Education (2017/18)

S/No.	Level of School	NATIONAL SUMMARY BY LEVEL OF EDUCATION			
		Total Number of Schools	Total Enrolment	Total Number of Teachers at Post	% of Trained Teachers
1	KG	14,649	1,250,144	42,666	75.2%
2	PRIMARY	15,138	3,175,338	109,20	83.8%
3	JHS	10,784	1,288,245	90,818	91.5%
4	SHS/SHTS	647	892,015	40,341	91.8%
5	TVET	47	54,186	2,835	85.4%
TOTAL		41,265	6,659,928	285,880	

Table B.2 Sampling Frame (public first and second cycle institutions in UER as at 2016)

	Institution	Number of Institutions	Number of Principals	Number of Teachers
1	PRIMARY	630	630	4,709
2	JHS	332	332	2,647
3	SHS/SHTS	30	30	1,067
	TOTAL	992	992	8,423

Table B.3 Sample Size for Study

	Institution	Number of Institutions	Number of Principals	Number of Teachers
1	PRIMARY	100	100	780
2	JHS	100	100	756
3	SHS/TI	26	26	562
	TOTAL	226	226	2,098

Table B.4: Number of Schools Selected from each district in UER for the Study

DISTRICT	PRIMARY	JHS	SHS/SHTS	TOTAL
Bawku Municipality	14	14	4	32
Bawku West District	8	8	2	18
Bongo District	10	10	2	22
Bolga Municipality	16	16	6	38
Builsa District	6	6	2	14
Garu-Tempane District	10	10	2	22
Kassena-Nankani East	12	12	4	28
Kassena-Nankani West	12	12	2	26
Talensi-Nabdam District	12	12	2	26
Total	100	100	26	226

Appendix C

Table C: Table of Sample Sizes (Source: The Research Advisors, 2006)

Population Size	Confidence 95.00%				Confidence 99.00%			
	Degree of Accuracy/Margin of Error				Degree of Accuracy/Margin of Error			
	0.05	0.035	0.025	0.01	0.05	0.035	0.025	0.01
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
900	269	419	568	823	382	541	672	854
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
264,000,000	384	784	1537	9603	663	1354	2654	16586