Principal Leadership Practices, Teacher Motivation, and Student Achievement in Secondary Schools of Addis Ababa City Government

By

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We hereby certify that this Dissertation submitted by Shimelis Zewdie Admassie confirms to acceptable standards, and as such is fully adequate in scope and quality. It is therefore approved as the fulfillment of the Dissertation requirements for the degree of Doctor of Philosophy in Educational Policy and Leadership.

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ABBREBATIONS AND ACRONYMS

AACGBoFED	Addis Ababa City Government Bureau of Finance and Economic Development
AACG	Addis Ababa City Government
AACGEB	Addis Ababa City Government Education Bureau
ABE	Alternative Basic Education
ANOVA	Analysis of Variance
AU	African Union
EFA	Education for All
EGSECE	Ethiopian General Secondary Education Certificate Examination
EHEECE	Ethiopian Higher Education Entrance Certificate Examination
ESDP	Education Sector Development Program
ETP	Education and Training Policy
FGD	Focus Group Discussion
GEQIP	General Education Quality Improvement Package
LBDQ	Leader Behavior Description Questionnaire
LPI	Leadership Practice Inventory
MLQ	Multifactor Leadership Questionnaire
MoE	Ministry of Education
TMQ	Teacher Motivation Questionnaire
TVET	Technical and Vocational Education and Training
UNECA	United Nations Economic Commission for Africa
UNESCO	United Nations Educational, Scientific and Cultural Organization
VSO	Voluntary Service Overseas

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

The purpose of this study was to investigate the relationship between principals' leadership practices, teachers' motivation and students' achievement in Addis Ababa City Government Secondary Schools. Ten government secondary schools, 387 teachers and ten principals were the participants of this study. The ten sample schools were selected using stratified sampling method; the sub-cities in Addis Ababa City were used as strata. Three hundred sixty three sample teachers to fill in the surveys were selected using simple random sampling method. The rest 24 sample teachers interviewed were selected using purposive sampling method to include well experienced teachers to gain rich information for the study. The ten principals of the sample schools were included using availability sampling method. Both quantitative and qualitative data were collected to investigate the issues under study. The Leadership Practice Inventory (LPI) - self and observer formats and the Teacher Motivation Questionnaire (TMQ) were employed to collect quantitative data. Interview guides were used to collect qualitative data. Student achievement for three consecutive years on Ethiopian General Secondary Education Certificate Examinations (EGSECE) was used to represent students' achievement. One way ANOVA, t-test, eta squared, and Person's r were employed to analyze quantitative data. Qualitative data were presented and analyzed in descriptive ways to triangulate the results of the quantitative analysis. Results of the study indicated a strong and direct relationship between principals' leadership practices and teachers' motivation. Results also showed that principals' leadership practices have direct and strong relationship with students' achievement. In addition, the study indicated a strong and direct relationship between teachers' motivation and students' achievement. Finally, recommendations for future researches and in relation to school principals' recruitments and selection were forwarded.

CHAPTER ONE: INTRODUCTION

In this chapter, basic empirical findings about the relationship between principals' leadership practices, teachers' motivation and students' achievement are briefly discussed. Statement of the problem in which practical and research gaps in relation to the issue understudy are also presented. Moreover, research questions, objectives of the study and scope of the study are also presented under this chapter.

1.1 Background of the Study

Schools' influence on students' learning and academic achievement has been a repeatedly treated concept in the literature of school leadership and effective school theories. In the last six decades, many studies were conducted to identify the effect of school related factors on students' academic achievement. The results of the studies, however, varied depending on the contexts in which the studies were conducted. In 1966 Coleman and his colleagues released a controversial report that schools had an insignificant impact on student achievement (Kercheval & Newbill, 2001). Coleman's report indicated that, 'out-of-school factors' such as socio-economic status and family background highly correlate with student achievement (Kercheval & Newbill, 2001; Raptis & Fleming, 2003; Sammons, Hillman & Mortimore, 1995).

However, to challenge the findings of Coleman, *the effective schools movement* was begun (Kercheval & Newbill, 2001; Raptis & Fleming, 2003; Sammons, Hillman & Mortimore, 1995). Subsequently, in 1979 Edmonds came up with a result that disproved Coleman's report. Edmonds asserted that school factors such as leadership qualities of principals, disciplinary environment of schools, size of student body, and teachers' commitment and effectiveness have considerable effect on students' learning and achievement (Chubb & Moe, 1990; Lee, Bryk & Smith, 1993; Raptis & Fleming, 2003).

Based on the findings of Edmonds, many studies were conducted to identify the effect of principals' leadership on students' achievement. However, the studies came up with varied results based on the approaches they employed and the times at which they were conducted.

Qualitative case studies conducted before and during the 1990s, in general, reported large school principal effects on students' learning and academic achievement (Bridges, 1982; Pitner, 1988; van de Grift, 1990). However, these studies are criticized for they were conducted in exceptional school settings, selected as exemplars of effectiveness, and are with a problem of external validity or generalizability (Louis, Leithwood, Wahlstrom & Anderson, 2010).

Quantitative reviews conducted during 1990s and 2000 in general reported indirect effect of school principals on students' learning and achievement manifested indirectly through creating a constructive teaching learning environment (e.g, Boyan, 1988; Cuban, 1988; Hallinger & Leithwood, 1994; Hallinger & Murphy, 1985; Heck, 1993; Silins, 1994), shaping schools' instructional climates and organizations (Bossert, Dwyer, Rowan & Lee, 1982), and developing schools policies and norms (Dwyer, 1986; Leithwood, Begley & Cousins, 1992). According to Louis and his colleagues, however, because of the weak and inappropriate research designs the quantitative studies were employed, their implication to leadership practice have been limited (Louis, Leithwood, Wahlstrom & Anderson, 2010).

Other more recent findings affirmed a positive and significant effect of school principals on students' learning and achievement. For example, Leithwood, Day, Sammons, Harris and Hopkins (2006) reviewed a large amount of research to compare the amount of the direct and indirect influences exercised by school leaders on students learning. From their analysis they concluded that successful school leaders play a crucial role for the betterment of students' learning and academic achievement and for the improvement of school organization.

Marzano, Waters and McNulty (2005) also reviewed 69 studies published since 1978 and aimed at examining the effect of leadership on student achievement. From their analysis they concluded that (1) leadership does make a difference in student achievement; (2) the average correlation between leadership and student achievement is .25; and, (3) if not properly practiced, leadership can have a *negative* impact on student achievement.

On the other hand, studies conducted in relation to the influence of schools leaders on teachers' motivation indicated that school principals can affect teachers' motivation and performance by involving and committing teachers to changes (Bogler, 2001; Fullan, 2005; Day, Harris & Hadfield, 2001), by enabling them to recognize the influence of their collective capacity (Aydin, Sarier & Uysal, 2013), committing them to organizational values and visions and directing their efforts towards the achievement of the values and visions (Aydin, Sarier & Uysal, 2013; Eyal & Roth, 2011; Ross & Gray, 2006; Fullan, 2005; Leithwood & Jantzi, 2000).

Studies indicated that principals' leadership style plays an important role in influencing teachers' motivation (e.g., Bogler, 2001; Cerit, 2009; Dinham & Scott, 2000; Griffith, 2004; Josanov-Vrgovic, 2012 cited in Josanov-Vargovic & Pavlovic, 2014; Mehrotra, 2005; Sharma & Jyoti, 2006). The way principals carry out their daily leadership practices (Eres, 2011), principals' willingness to involve teachers in decision making processes (Kocabaş & Karakose, 2005), principals' willingness to share authority and responsibilities (Kocabaş & Karakose, 2005), principals' commitment to make the physical conditions of schools attractive (Atakli, 1996 cited in Eres, 2011), and principals' ability to establish good communication and interaction among teachers and between teachers and students (Guclu, 1996 cited in Eres, 2011) directly contribute to teachers' motivation.

Regarding the effect of teachers on students' learning and academic achievement, research results reported a direct effect of teachers on students' achievement. For example, UNESCO (2006) asserted that teachers are the most decisive factor in determining the quality of education that children receive. Similarly, Davidson (2007) also affirmed that through effective classroom practices, teachers play crucial roles in the process of education quality improvement. A review of researches conducted in U.S. by Marzano (2000), to identify the impact of school and teacher on student achievement, indicated that school and teacher related factors account for approximately 20 percent of the variance in student achievement.

A study conducted by Sanders and Horn (1994) and reviewed in Marzano (2003) revealed a 39 percentage point difference in student achievement between students with "most effective" and "least effective" teachers. Students taught by teachers characterized as "most effective," scored achievement gains of 53 percentage points, whereas those taught by "least effective" teachers scored achievement gains of 14 percentage points over the course of one academic year (Marzano, 2003). Leithwood, Louis, Anderson & Wahlstrom (2004) also concluded that teachers are the most important school related factor influencing student learning and achievement. If the teacher is ineffective, students under the teacher's guidance will achieve inadequate progress academically (Wright, Horn & Sanders, 1997).

Studies also indicated that teachers' motivation level has direct and significant impact on students' achievement. Motivated teachers practice productive teaching learning activities in the classroom and as a result improve student learning outcomes (Nyam & William-west, 2014), and stimulate increased level of student academic achievement (Bishay, 1996).

Different findings (e.g., Agezo, 2010; Cogneau, 2003; Dolton & Marcenaro-Gutierrez, 2011; Lambert, 2004; Ololube, 2006; Salifu & Agbenyega, 2013; Sargent & Hannum, 2005)

indicated that teachers' motivation level is directly associated with students' learning outcomes. In a cross-country analysis, Dolton and Marcenaro-Gutierrez (2011) detected that countries with poor records of teacher's motivation have low teacher performance and as a result characterized by poor educational outcomes and students achievement. Teachers' performance in contributing to student learning is strongly influenced by their motivation level (Voluntary Service Overseas (VSO), 2002), which, in general, is crucial to quality of education (Javaid, 2009). According to Bennell (2004) the primary factor that contributes to effective classroom practices is strong teacher's motivation. Bennell (2004) further indicated that to bring about changes and improvements to an educational system, it is important to improve teacher's motivation.

Nyam and William-West (2014) in a study conducted in Nigeria indicated that improved teachers' motivation strongly enhance teachers' commitment, performance and increased students' learning outcomes. A study conducted in Ghana by Akuoko, Dwumah and Baba (2012) also identified a positive relationship between teacher motivation and quality education.

To summarize the above discussed issues, research findings about principals' effect on students' achievement showed different results based on the approaches they employed and the times at which they were conducted. Results of qualitative studies conducted during the 1990s reported large principals' impact on students' learning and academic achievement, though these studies are with problems of external validity. On the other hand, quantitative studies conducted during 1990s and 2000 reported that school principals have weak and indirect effect on students' achievement. However, more recent research findings indicated that school leadership can make a considerable positive contribution to student learning and academic achievement.

Studies also reported a strong and direct relationship between principals' leadership practices and teachers' motivation. Similarly, results of studies indicated a strong and direct relationship between teachers' motivation on students' achievement.

However, the relationships between these variables are not well treated in Ethiopian education system. Hence, this study aimed at investigating the relationship between principals' leadership practices, teachers' motivation and students' achievement in the context of the Ethiopian education sector in general and that of the Addis Ababa City Government (AACG) secondary education in particular.

1.2 Statement of the Problem

In Ethiopia, for the last two decades, different measures have been taken to improve schools' overall performances and students' achievement. Different teachers' training and development programs have been introduced and implemented (ESDP – IV, 2010). School budget allocation program was revised and based on number of students to be served at each school (GEQIP, 2008). School leadership training and upgrading programs have been introduced (ESDP – IV, 2010). General education quality improvement package was designed and implemented (GEQIP, 2008), and other relevant measures have also been taken to improve the country's education sector in general and students' academic achievement in particular.

In tandem with the measures taken by the federal government, AACG has adopted and implemented the listed measures and reform to improve the quality of its education provided at all levels (AACGEB, 2010). It is clear that AACGEB has better opportunities to implement these reform programs in effective and efficient ways and improve its students' overall learning conditions and academic achievement as compared to other regions' education bureaus in the country at least for the following reasons.

The first reason is that Addis Ababa is the political and economic centre of Ethiopia. It has relatively better infrastructures and facilities as compared to other regions and cities in the country. Similarly, its education sector also has relatively better infrastructure and facilities as compared to other regions' education sector. For example, the pupil teacher ratio (PTR) at its secondary schools is even much better than the standard set by the Ministry of Education (1: 50). Since 2008, PTR in AACG secondary schools oscillates between 1: 21 and 1: 27 (AACGEB, 2015). Moreover, more than 94 percent of the secondary schools in the city have libraries. At national level, however, only 72 percent of the secondary schools have libraries (MoE, 2015). All the secondary schools in the city have at least one laboratory; even some have two or more laboratories (AACGEB, 2015). At national level only about 41 percents of the secondary schools have laboratories and most of them were not fully functional (MoE, 2014).

Second, the city's education sector has a relatively better opportunity to attract and retain competent and experienced teachers and other education personnel as compared to the education sector of other regions in the country. For example, 2014/2015 data indicated that, 95 percent of the secondary school teachers in the city have first degree and above (AACGEB, 2015). At national level, however, 91.5 percent of the secondary school teachers met the minimum qualification to teach at secondary schools (MoE, 2014). First degree is the minimum qualification to teach at secondary education level (MoE, 2014).

Third, students in AACG have a relatively better exposure and access to technologies to enrich their knowledge and skills as compared to students from other regions in the country. According to 2014/15 data, for example, more than 90 percent of the secondary schools in the city have an internet access. At national level, only 19.77 percent of the secondary schools have an internet access (MoE, 2014).

All of the above mentioned opportunities have something to add to the improvement of secondary school students' learning conditions and academic achievements in the city. Concerning this, research findings indicated that, school related factors such as good infrastructures and facilities, and, attractive and friendly learning environment (Marzano, 2003; Sanders & Horn, 1994 reviewed in Marzano, 2003) and teacher related factors such as teachers' qualification, experiences, effective classroom practices (Adeyemi, 2010; Davidson, 2007; Marzano, 2003; UNESCO, 2006; Wright, Horn & Sanders, 1997; Yala & Wanjohi, 2011) are important predictors of students' academic achievement.

Hence, (1) as a result of the availability of above mentioned infrastructures, school facilities and competent teachers; and (2) for the reason that research findings support the availability and appropriate use of facilities, infrastructures, and competent teachers improve students achievement (Adeyemi, 2010; Davidson, 2007; Marzano, 2003; UNESCO, 2006; Wright, Horn & Sanders, 1997; Yala & Wanjohi, 2011), the investigator of this study expects better students' achievement in national exams and other academic arenas in the city as compared to students from other regions in the country. In addition, since the availability of these school and teacher related factors promote students achievement, the investigator of this study also expects most students' scores to be above the minimum standard set at national level. The country's education and training policy states that students have to score a minimum of 50 percent points in national, regional and classroom tests and examinations to be promoted from one level to the next (ETP, 1994).

However, data from different sources indicated that in AACG secondary schools, students' achievement on different national learning assessments were below the national average. For example, in 2013/14 from the total number of students who sat for EGSECE in the

city, 36.15 percent scored a total grade point average (GPA) of courses below 2.00 out of 4.00 (MoE, 2014). At national level, only 29.86 percent scored below 2.00 (MoE, 2014).

Similarly, from the total number of students who sat for Ethiopian Higher Education Entrance Certificate Exams (EHEECE) in the city, on average, more than half (55.40 percent) scored below 350 points from the total of 700 points (MoE, 2013 & 2014). This indicates that, on average, more than half of the students did not attain the minimum requirement (50 percent) in the mentioned years.

Therefore, the above presented figures indicate contradictory results with the assumptions and research findings that schools with better facilities and infrastructures, as well as with qualified, experienced and competent teachers have the opportunities to improve their students' learning conditions and academic achievement (Adeyemi, 2010; Davidson, 2007; Marzano, 2003; UNESCO, 2006; Yala & Wanjohi, 2011) . So, what accounts for the secondary school students' low academic achievement on national exams in the City Government?

To answer this question it may require a wide and broad analysis of the education sector of the city in general and its secondary education in particular. However, research findings indicated that, among other factors, factors like the way principals practice their leadership roles, the way they motivate and utilize teachers strongly affect students' achievement (Bogler, 2001; Flores, 2007; Fullan, 2005; Leithwood & Jantzi, 2000; Rhodes, Nevill & Allan, 2004; Ross & Gray, 2006). Hence, this study was aimed at analyzing the relationship between principals' leadership practices, teachers' motivation and student achievement in AACG secondary schools.

In addition to the above mentioned reason, the investigator of this study observed research gaps in addressing the issues under this study. As far as the knowledge of the investigator of this study was concerned, there were no studies conducted to address students'

achievement problem in relation to principals' leadership practices and teachers' motivation. There are researches conducted on each of the mentioned variables separately without considering the relationship between them. For example, Demeke (2014), Gedefaw (2012), Seungcheon & SungSang (2014), and Tewdaje (2012), among other researchers, conducted studies about teachers' motivation, job satisfaction, attrition and turnover in Addis Ababa City and in its sub-cities. However, they did not relate these factors with students' achievement and principals' leadership practices. Similarly, Tigistu (2012) tried to analyze principal leadership effectiveness in one of the sub-cities in Addis Ababa. However, he did not treat principal effectiveness against students' achievement and teachers' motivation.

Therefore, the investigator of this study was interested to address the problem identified in AACG secondary education and to cover the research gap indicated. Hence, the major purpose of this study was to assess the relationship between principals' leadership practices, teachers' motivation and students' achievement in AACG secondary education context.

1.3 Research Questions

This study was aimed at addressing the following research questions based on the above presented practical and research gaps.

1. Is there a significant relationship between principals' leadership practices (combined and individual score) and teachers' motivation in AACG secondary schools?
2. Is there a significant relationship between principals' leadership practices and students' achievement in AACG secondary schools?
3. Is there a significant relationship between teachers' motivation and students' achievements in AACG secondary schools?

1.4 Research Hypothesis

This study was designed to test the following research hypotheses stated in relation to principals' leadership practices, teachers' motivation and students' achievement.

Q1. Is there a significant relationship between principals' leadership practices (combined and individual scores) and teachers' motivation in AACG secondary schools?

Ho 1: There is no statistically significant relationship between principals' leadership practices (combined and individual scores) and teacher motivation in AACG secondary schools.

Q2. Is there a significant relationship between principals' leadership practices and students' achievement in AACG secondary schools?

Ho 2: There is no statistically significant relationship between principals' leadership practices and students' achievement in AACG secondary schools.

Q3. Is there a significant relationship between teachers' motivation and students' achievement in AACG secondary schools?

Ho 3: There is no statistically significant relationship between teachers' motivation and students' achievement in AACG secondary schools.

1.5 Purpose of the Study

The main purpose of this study was to investigate the relationship between principal leadership practices, teacher motivation and students' academic achievement in the AACG secondary schools. More specifically, the objectives of this study were:

1. To identify the types of relationships that exist between principal leadership practices and teacher motivation in the government owned secondary schools in the AAC G;

2. To identify the types of relationships that exist between principal leadership practices and students achievement in the government owned secondary schools in the AACG; and
3. To analyze the relationship between teacher motivation and student achievement in the government owned secondary schools in the AACG.
4. To suggest recommendations that help in addressing the problem treated under this study.
5. To identify areas for further studies to be conducted in the future.

1.6 Scope of the Study

The scope of this study was delimited to government owned secondary schools in the AACG. Hence, private secondary schools were not included in this study as the structure of privately owned secondary schools and socio-economic background of students at these schools is relatively different from students at government secondary schools. Moreover, this study focused only on grade ten national exams students' achievement; hence, other grade levels and students' achievement on other exams were not treated under this study. The reason to focus of grade ten national exams is that it is considered to be a standardized exam in Ethiopian case and provided at all secondary schools.

Concerning teachers' motivation, this study was focused on motivational factors of teachers that are controlled by principals. Hence, other motivation factors like teachers' salary, curriculum development, and teachers' assignment to schools were not treated by this study as they are beyond the responsibilities of school principals in Ethiopian case. As a result, only motivational factors like teachers' assignment to different grade levels and subjects, teachers' advancement and promotion, communication between teachers and principals, good and friendly working environment at schools, and fair distribution of different benefits among teachers were addressed by this study. The major reason for focusing on these factors was for the reason that

these activities are performed by school principals and their impact on teachers are directly accountable to principals' responsibilities.

1.7 Significance of the Study

This study is expected to provide a better understanding in relation to the impact of principal daily leadership practices on teacher motivation and student achievement in Ethiopian contexts. Its findings may help the Ministry of Education, AACG Education Bureau and the Sub-city Education Offices in formulating better strategies on how to improve the procedures they followed to recruit, select and train principals. Moreover, its findings may help them on how to enhance teacher motivation and consequently improve student learning and achievement.

The findings of this study may also help in providing preliminary information regarding the influence of principal leadership practices on teacher motivation and students' achievement in the context of the Ethiopian education system. It may also encourage other researchers to conduct in-depth and a long range analysis of the impact of school principals on students' learning and achievement. Furthermore, it may inform policy makers to revisit and revise the current working policies and practices for principals' recruitment, selection and training.

1.8 Theoretical Framework

Some studies reported that principals can directly affect student learning and academic achievement (Bridges, 1982; Pitner, 1988; van de Grift, 1990). On the other hand, others concluded that school leaders have weak and indirect effects on student outcomes that are basically mediated by teacher related factors (Hallinger & Heck, 1998) and school and classroom conditions (Louis, Leithwood, Wahlstrom and Anderson, 2010).

This study focused on the direct relationship of principals' leadership practices with students' achievement. In the direct relationship, principals' leadership practice was treated as an

independent variable and students' achievement on EGSECE was treated as a dependent variable (see Fig. 1).

The second relationship treated in this study was about the relationship between teachers' motivation and students' achievement. Research findings indicated that motivated teachers practice productive teaching learning activities in the classroom and as a result improve student learning outcomes (Nyam & William-west, 2014), and stimulate increased level of student academic achievement (Bishay, 1996).

Researchers further indicated that (e.g., Agezo, 2010; Cogneau, 2003; Dolton & Marcenaro-Gutierrez, 2011; Lambert, 2004; Ololube, 2006; Salifu & Agbenyega, 2013; Sargent & Hannum, 2005) teachers' motivation level is directly associated with students' learning outcomes. Teachers' performance in contributing to student learning is strongly influenced by their motivation level (Bennell, 2004; Dolton & Marcenaro-Gutierrez, 2011; Nyam and William-west, 2014; VSO, 2002).

Accordingly, in this study, teachers' motivation was treated as an independent variable and students' achievement on Ethiopian General Secondary Education Certificate Exams was treated as a dependent variable.

Another relationship considered in this study was about the relationship between principals' leadership practices and teachers' motivation. Studies indicated that principals' leadership practices play important roles in influencing teachers' motivation (e.g., Bogler, 2001; Cerit, 2009; Dinham & Scott, 2000; Griffith, 2004; Josanov-Vrgovic, 2012 cited in Josanov-Vargovic & Pavlovic, 2014; Mehrotra, 2005; Sharma & Jyoti, 2006). Principals' efforts to involve teachers in decision making processes (Kocabaş & Karakose, 2005), to share authority and responsibilities (Kocabaş & Karakose, 2005), to make the physical conditions of schools

attractive (Atakli, 1996 cited in Eres, 2011), and to establish good communication and interaction among teachers and between teachers and students (Guclu, 1996 cited in Eres, 2011) directly contribute to teachers' motivation.

In this study, principals' leadership practices in general and its five subcomponents (Modeling the Way, Inspiring a Shared Vision, Challenging the process, Enabling others to Act, and Encouraging the Heart) were considered as the independent variables and teachers' motivation was treated as the dependent variable.

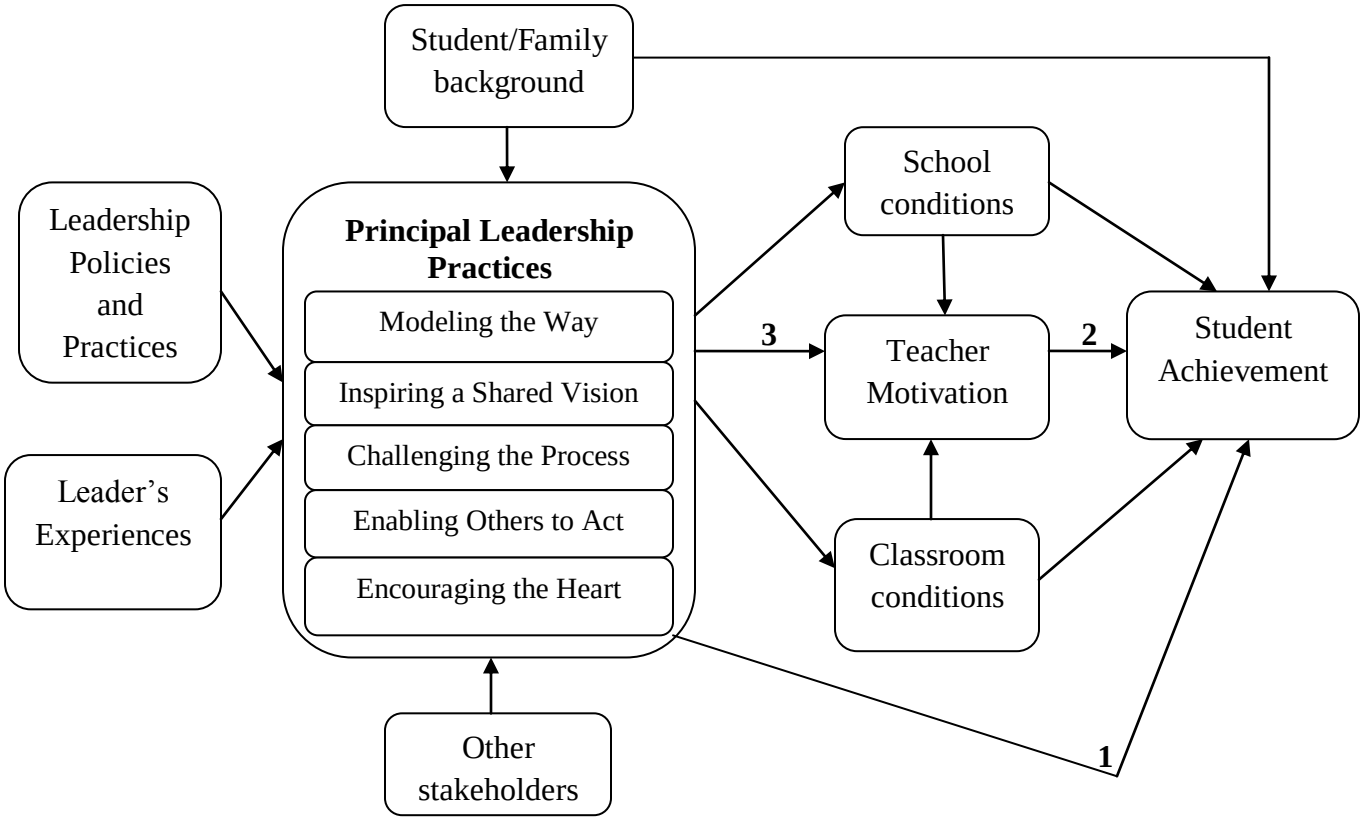

Fig. 1 Conceptual model (Adopted from Louis, Leithwood, Wahlstrom and Anderson (2010))

As indicated in the conceptual model (Fig. 1) varied factors were listed to influence student achievement and teacher motivation. In this study, however, focuses were given on addressing the relationships between principals' leadership practices and teachers' motivation, principals' leadership practices with students' achievement, and teachers' motivation with

students' achievement. The reason for focusing on the relationships between these variables was for the assumptions that the following factors have relatively similar influence on students' achievement and teachers' motivation in Addis Ababa City Government secondary schools.

First, it was assumed that students in government secondary schools came from parents with almost similar socio-economic status. Most students who enrolled to government schools in the city were from the mass and from parents with low income. It is clear that those parents who are with better income and can pay school fees send their children to private schools. Hence, it was assumed that factors related to parents' background and socio-economic status influence academic achievement of all students in government secondary schools in a similar way.

Second, school and classroom related factors such as number of students in a class, pupil-teacher ratio, school infrastructures and facilities were almost similar at all schools in the city (AACGEB, 2015). Hence, it was assumed that these factors also influence all government secondary schools students and their academic achievement in a similar way.

Third, teacher related factors such as educational qualification, experiences, and teachers salary were almost comparable at all government secondary schools in Addis Ababa. According to Addis Ababa education bureau report (AACGEB, 2015) almost all secondary school teachers in the city have the required level of qualification and they were also well experienced. Moreover, teachers' salary throughout the country was based on a scale endorsed by the federal government/Ministry of Education. Hence, these factors were assumed to have similar influence on all government secondary school teachers and their motivation. In addition, it was also assumed that external factors like teachers' status and acceptance in the community were almost similar for all government secondary school teachers in the city.

1.9 Definition of Terms

Achievement: is a summary of cognitive measure of what a student had learned as a result of many units or months of work (Guida, Ludlow & Wilson, 1985). In this study, grade point average on the Ethiopian General Secondary Education Certificate Examinations (EGSECEs) was used as measures of achievement.

Leadership practices: refers to the five domains of leadership practices identified by Kouzes and Posner (2003). The five exemplary leadership practices include: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart (Kouzes & Posner, 2007). According to Kouzes and Posner, Modeling the Way refers to leading by example. Inspiring a Shared Vision refers to the leader's visionary ability and leader's ability to motivate others to move the organization toward its goals. Challenging the Process refers to changing the status quo and finding innovative ways to improve the organization. Enabling Others to Act refers to allowing organization members to do their part. It deals mainly with creating good relationships with others, listening to others, and empowering others. Encouraging the Heart refers to celebrating accomplishments of a group or an individual. These five practices of exemplary leadership are "not the private property of a few individuals or of a few selected shining stars. They have stood the test of time, and they are available to anyone, in any organization or situation, who accepts the leadership challenge" (Kouzes & Posner, 2007: 1). Hence, they can be applicable to educational institutions and practiced by school principals. Consequently, this study tried to analyze school principals' leadership practices in terms of these five categories.

Leadership practices inventory (LPI): was designed by Kouzes and Posner to measure what people did when they are leading others (Posner & Kouzes, 2007). In this study, the LPI is used to measure (or quantify) the five leadership practices, actions and behaviors of school principals.

Motivation: refers to the force within or external to a person that arouse enthusiasm and persistence to pursue a certain course of action (Daft & Marcic, 2007). Motivating teachers refers to the process of influencing teachers to exert their efforts to the maximum to facilitate schools' primary goal achievement mainly students learning and achievement (Bennell, 2004). This study focused on measuring teachers' motivational factors that are controlled by school principals. The TMQ was used to measure teacher's motivation level.

1.10 Organization of the Study

This study contains five chapters. The first chapter includes introduction part, statement of the problem, research questions, objectives of the study, significance of the study, theoretical framework, limitations of the study, assumptions of the study, and the definitions of basic terms. The second chapter contains a review of the related literature in relation to (a) leadership and school leadership, (b) theories of motivation and teachers' motivation, and (c) student achievement. The third chapter presents the methodology part that introduces the research method followed, the procedures and methods used to select samples, the data collection instruments employed and their brief explanations, the procedures and methods used to collect, analyze, and present the data. The fourth chapter presents analysis of data and the results obtained with regard to each research question. The last chapter contains the summary of the findings, conclusions, and recommendations.

CHAPTER TWO: REVIEW OF THE RELATED LITERATURE

This review of literature focuses on the analysis of the concepts of leadership, principal leadership practices and its five subcomponents (Modeling the Way, Inspiring a Shared Vision, Challenging the process, Enabling Others to Act, and Encouraging the Heart) identified by Kouzes and Posner in 1993. It also deals with the review of literature on a school principal's contribution to educational institutions, teachers' motivation, and student achievement. In addition, it also reviews theories of motivation, the implications of teachers' motivation to educational institutions and the influence of teachers' motivation on student achievement.

2.1 Leadership

Leadership is a complex concept and it is difficult to define it easily (Leithwood & Duke, 1999). Defining leadership is difficult because: (1) leadership involves a multitude of follower interactions, (2) follower's interactions take place in various different types of organizations, and (3) organizations have their own contexts and environments (Leithwood & Duke, 1999; Stewart, 2006). As a result, the concept and definition of leadership has been a topic of debate among scholars for many years (Leithwood & Duke, 1999).

However, scholars have tried to define it in different ways. For example, Yukl (2006) defined leadership as " the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplished shared objectives" (p.8). Hence, according to Yukl, leadership is a process by which a person influences others to accomplish an objective and directs individual and collective efforts towards organizational goal achievement.

Some definitions of leadership focus on two functions of leaders: "providing direction" and "exercising influence." (Leithwood, Louis, Anderson & Wahlstrom, 2004). According to

Leithwood, Louis, Anderson and Wahlstrom, each of these functions are carried out in different ways by different leaders and this resulted to different models of leadership.

Other scholars have identified three major areas common to most definitions of leadership. The first area is that leadership is directed towards organizational improvement (Leithwood, Day, Sammons, Harris & Hopkins, 2006; Marzano, Waters & McNulty, 2005). This indicates that, in any organization, the primary purpose of a leader is to improve the organization the leader is leading in some way. The second common area in leadership definitions is direction setting within the organization (Jacobs & Jaques, 1990; Leithwood, Jantzi & Steinbach, 1999; Leithwood, Day, Sammons, Harris & Hopkins, 2006; Yukl, 2006). To improve an organization there must be a clear direction towards which the leader is going to take the organization. Without direction, organizational improvement is not likely to occur. The third area common to leadership definitions is a leader's influence (Jantzi & Leithwood, 1996; Leithwood & Duke, 1999; Leithwood & Jantzi, 1999; Leithwood, Day, Sammons, Harris & Hopkins, 2006; Yukl, 2006). Influence is important regardless of who is exerting it, and how much is exerted (Leithwood & Duke, 1999), because intentionally exerted influence on followers (or employees) facilitates organizational goal achievement (Yukl, 2006).

Kouzes and Posner (2010) also explained that leaders who used "The Five Practices of Exemplary Leadership" are perceived by their followers to be better leaders. According to Kouzes and Posner, individuals who are working with leaders using the five leadership practices are found to be more satisfied with their leaders, more excited about their work, and become more productive in their performance (Kouzes & Posner, 2010). Therefore, this study was focused on the five practices of exemplary leadership identified by Kouzes and Posner since it includes all the areas explained by other scholars.

2.2 School Principal Leadership

Principals' roles are numerous and range from managing the day-to-day functions of schools to introducing different methods, procedures and ways of doing things to make their schools effective and efficient (Marzano, 2003; Ross & Gray, 2006). Hence, principals are expected to possess the necessary knowledge and leadership skills to effectively lead their schools and to improve students' learning and achievement (Ross & Gray, 2006). They must be able to encourage and motivate their staffs to accept the initiative and to provide the necessary resources and support for the staff to successfully improve students' achievement (Leithwood, Louis, Anderson, & Wahlstrom, 2004).

For improvement to occur at the school level, the school principal must create a culture supportive of change (Duke, 2004; Fullan, 2005). Principals create such cultures when they (1) create policies and procedures which facilitate the improvement process, (2) arrange schedules so that individuals can work together as they strive for improvement, (3) demonstrate collaborative relationships with members of the staff and other administrators, (4) participate in staff development and other learning activities focused on the improvement initiative, (5) utilize the evaluation process to monitor improvement and assess the degree of implementation, (6) discuss the successes and setbacks experienced during the improvement process, and (7) highlight the successes of individuals as they engage in improvement (Duke, 2004; Fullan, 2005; Hall & Hord, 2006; Kouzes & Posner, 2002). Hence, to be successful, schools need consistently energetic, well-informed, and focused leaders (Kaplan, Owings & Nunnery, 2005).

Furthermore, Usdan, McCloud & Podmostko (2000) listed the following items as the requirements for fulfilling the roles of principals: (1) knowledge of academic content and pedagogy, (2) working with teachers to strengthen skills, (3) collect, analyze and use data, (4)

bring together all stakeholders to increase student performance, and (5) possess the leadership skills to fulfill the role.

In addition, effective school leaders strike a balance in managing buildings, maintaining higher accountability standards for student achievement, promoting teacher professional development and advising parents and community members in school-related decisions (Childs-Bowen, 2005; Hurley, 2001; Lashway, 2003). In responding to increased standards for student achievement, effective principals recognize that they alone cannot be the sole instructional leader but must lead, coach, mentor and empower teachers and other staff members in the common pursuit of reform for school improvement (Barth, 2001; Hurley, 2001).

Moreover, school leaders can enhance teachers' learning by organizing and managing several programs concerning their professional development and by offering individual mentoring to them (Leithwood & Jantzi, 2006). Such leadership practices create encouraging working conditions to motivate and influence teachers in the process of schools' primary goal achievement (Leithwood & Jantzi, 2006).

Some of the leadership strategies which could increase teachers' motivation are positive and supporting feedback, experience sharing with peers and open communication to explain in details the aims and actions that should be applied (Leithwood & Jantzi, 2006). Positive feelings gained as a result of personal goal achievement and positive feedback from the principal also have motivational value on teacher's performance and success (Leithwood & Jantzi, 2006).

Since the effectiveness of employees is highly influenced by their level of satisfaction and motivation in the working settings (Burton, 2012), leaders are expected to give great attention to raise teachers' job satisfaction and work motivation (Heller, Clay & Perkins, 1993). One of the factors reported by researchers to improve teachers' motivation and effectiveness is

the autonomy they have on their job. The more autonomous on their job teachers are, the more they get satisfied and motivated (Hall, Pearson & Caroll, 1992). Thus, the principal should not only expect to provide teachers with the opportunity to take initiatives but also to allow them to be involved in several managerial and decision-making processes (Bogler, 2001). Latham (2007) indicated that involving teachers in decision making procedures promotes their motivation level. Teachers are reported to be more motivated when they perceive that their principal is a trustworthy person, shares experience and facilitates communication in the school context (Nguni, Sleegers & Denessen, 2006).

Organizational commitment and organizational citizenship are other important factors concerning employees' effectiveness and motivation (Nguni, Sleegers & Denessen, 2006). Organizational commitment refers to "the employee's emotional attachment to, identification with, and involvement in a particular organization" (McShane & Von Glinow, 2005: 112). Teachers' organizational commitment is achieved when: (a) the goal-orientation of the school is broadly accepted; (b) teachers desire to remain in the school community; and, (c) they are willing to apply adequate effort for the school progress (Nguni, Sleegers & Denessen, 2006). School leaders can influence teachers' organizational commitment by acting as a role model and inspiring teachers through creating a vision for the future of the whole school community (Nguni, Sleegers & Denessen, 2006). Strongly motivated and inspired teachers as a result of their principal's actions remain in their school and contribute their part for the achievement of their school's vision (Nguni, Sleegers & Denessen, 2006).

School leaders also affect organizational citizenship behavior of teachers (Nguni, Sleegers & Denessen, 2006). Organizational citizenship refers to an individual's willingness to go beyond the formal requirements of the job to engage in productive functions to enhance

organizational effectiveness (Nguni, Sleegers & Denessen, 2006). Hence, organizational citizenship, in educational context, refers to teachers' willingness to offer help without necessarily expecting rewards (Nguni, Sleegers & Denessen, 2006). Teachers' organizational citizenship behavior could be facilitated through the principal's commitment to involve teachers in the processes of a specific vision accomplishment, clarifying teachers on a minimum expected standards concerning their work performance, and, promoting collaborative working conditions towards the achievement of common goals (Organ, Podsakoff & Mackenzie, 2006). These factors help teachers to think that they have responsibilities to contribute something for the effectiveness of their school (Nguni, Sleegers & Denessen, 2006).

In a study conducted in Tanzania, Nguni, Sleegers & Denessen (2006) explored the effects of transformational and transactional leadership practices on teachers' job satisfaction, organizational commitment and organizational citizenship behavior. Based on their investigation, they concluded that transformational leadership practices seem to have a strong positive effect on teacher's motivation and job satisfaction. Nguni, Sleegers & Denessen (2006) also indicated that transactional leadership behavior has a weak effect on teacher's commitment and work motivation. Leithwood and Jantzi (2006) described that transformational leaders built common goals among followers in order to guide them towards a specific direction through offering individualized support. Transformational leadership enlists and motivates followers to identify with the leaders and to develop empathy for collective goals and visions (Eyal & Roth, 2011). Transformational leadership inspires individuals to exceed their expected behavior (Yukl, 2006). On the other hand, transactional leadership involves an exchange process between the leader and the follower, intended to increase followers' compliance to the leader and the organizational rules (Yukl, 2006). It is based on rewards for compliance (Eyal & Roth, 2011).

Teachers are more motivated when they perceive that their leaders are knowledgeable, strong and goal-oriented, but at the same time, flexible, encouraging, supportive helpful, and create very close relationship with them (Flores, 2007). Principals play great roles in stimulating inspiration and motivation of teachers and in supporting and guiding teachers' efforts towards the right direction for the achievement of schools primary goals (Leithwood & Jantzi, 2006). In general, research findings indicated that principals' practices to promote teachers involvement and commitment directly contribute to teachers' work motivation and effectiveness.

2.3 Measuring Leadership

Kouzes and Posner (2002) identified a set of essential human relations skills that leaders should have to possess to promote success within organizations they are leading. These exemplary leadership practices, according to Kouzes & Posner, are categorized into five major areas. These are: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart (Kouzes & Posner, 2002).

Modeling the Way refers to leader's ability to demonstrate the guiding principles and the shared vision of the organization through the leader's personal thoughts and actions and encouraging others within the group to act in a similar fashion (Kouzes & Posner, 2002). According to Kouzes and Posner (2003) the first step to be a good leader is using words guided by the leader's personal beliefs and values rather than the words of someone else. This strong commitment to beliefs and a clear set of values lends credibility to the leader (Kouzes & Posner, 2003). To inspire goals and improve achievements at the highest levels words alone are not enough but leaders' deeds are far more important than their words (Kouzes & Posner, 2002).

The second major area, Inspiring a Shared Vision, has to do with a leader's vision of the future and the leader's vision ability to inspire others to see the ultimate possibilities for success

(Kouzes & Posner, 2003). Kouzes and Posner stated that people are not willing to follow someone that is not forward-looking. Hence, leaders should have a desire to make something happen, to change the way things are, to create something that no one else has ever created before (Kouzes & Posner, 2003). In general, Kouzes and Posner (2007) stated that, "Leaders breathe life into the hopes and dreams of others and enable them to see the exciting possibilities that the future holds" (p.18).

The third major area, Challenging the Process, stresses the issue that the leader must constantly search for opportunities to challenge the status quo (Kouzes & Posner, 2007). Leaders are expected to find new ways to improve the organization through seeking, developing, and encouraging innovation (Kouzes & Posner, 2007). Effective leaders are willing to take risks to bring improvements in their organizations (Kouzes & Posner, 2003).

The fourth area, Enabling Others to Act, focuses on leadership practices directed towards facilitating collaboration and team building within an organization (Kouzes & Posner, 2003). Exemplary leaders foster collaboration, build trust, involved stakeholders, and create an atmosphere of mutual respect (Kouzes & Posner, 2007). When leaders establish an environment where people feel strong, capable, and committed greater achievement is possible (Kouzes & Posner, 2002).

The fifth major area, Encouraging the Heart, addresses exemplary leadership practices for celebrating the successes of individuals and that of the organization as a whole (Kouzes & Posner, 2003). According to Kouzes & Posner (2003) leader's positive feedbacks keep people to engage and focus themselves on goals of the organization. It is very important for a leader to show appreciation for people's contributions, and this has to lead to a culture of genuine celebration (Kouzes & Posner, 2002).

The Leadership Practices Inventory (LPI) is developed by Kouzes and Posner in 1993 as an instrument to measure or quantify these five exemplary leadership practices. Abu-Tineh, Khasauneh and Omary (2009) explained the LPI as a survey instrument that has been field tested and proven tool in identifying the behaviors that make a difference in leaders' effectiveness.

2.4 Motivation

2.4.1 Historical Development of Employee Motivation

A manager's assumptions about employee motivation and use of rewards depend on the manager's perspectives on motivation (Daft & Marcic, 2007). As a result, different managers may use different approaches to motivate their employees. However, the evolution of employee motivation can be classified into four general distinct perspectives: the traditional approach, the human relations approach, the human resource approach, and the contemporary approach (Daft & Marcic, 2007).

The traditional motivation approach dominated from 1900s to 1930s (Daft & Marcic, 2007). This approach to motivation is connected mostly to the thinking of Frederick W. Taylor in the scientific school of management (Griffin, 2002). This approach focuses on the systematic analysis of an employee's job for the purpose of increasing efficiency (Daft & Marcic, 2007). Taylor and his colleagues have assumed that workers generally do not want to work, and need to be motivated by financial reward (Griffin, 2002; Daft & Marcic, 2007). As a result, Taylor and his colleagues proposed the provision of economic rewards to employees for high performance that finally led to the development of incentive pay system in which people were paid for the quantity and quality of their work outputs (Griffin, 2002; Daft & Marcic, 2007).

However, over time it became evident that the model was not applicable to all circumstances or people as the approach failed to consider other motivational factors (Griffin,

2002). Workers appeared to be motivated in different ways and at the same time they started to observe lack of equitability of their remuneration with that of their productivity (Daft & Marcic, 2007). As a result, workers started to manifest dissatisfaction (Griffin, 2002) and finally it was replaced by a more social approach called the human relations model (Daft & Marcic, 2007).

The human relations approach dominated between 1930s and 1960s (Daft & Marcic, 2007). The Hawthorne studies at a Western Electric plant served as a landmark for the beginning of this approach (Daft & Marcic, 2007). In this model, noneconomic rewards such as friendly work groups that met social needs of the workers were identified as an important motivator than money (Griffin, 2002). For the first time, workers were studied as people, and the concept of the social man was born in this approach (Daft & Marcic, 2007).

Although the human relations school represented a considerable advancement on traditional thinking, it could not provide a complete explanation for the occurrence of different behavior in the workplace (Daft & Marcic, 2007). As a result, it gradually vanished and was replaced by the human resource approach of motivation (Daft & Marcic, 2007).

The human resource approach of motivation started to become popular in the 1960s (Daft & Marcic, 2007). The human resource approach tried to integrate the concepts of economic man and social man to introduce the concept of the whole person (Daft & Marcic, 2007). Proponents of the human resource approach believed that earlier approaches had tried to manipulate employees through economic or social rewards (Daft & Marcic, 2007). As a result, they recommend managers to enhance organizational performance through encouraging participation, creating conducive working environment and assuming that employees are competent and are able to make major contributions (Griffin, 2002). Finally, the human resource approach laid a foundation for contemporary perspectives on employee motivation (Griffin, 2002).

The contemporary approach is dominated by three types of theories: content theories, process theories, and reinforcement theories (Daft & Marcic, 2007). Content theories stress the analysis of underlying human needs (Griffin, 2002). They provide insight into the needs of people in organizations (Daft & Marcic, 2007). Process perspectives are concerned with how motivation occurs (Griffin, 2002). Process theories focus on why people choose certain behavioral options to satisfy their needs and how they evaluate their satisfaction after they have attained these goals (Griffin, 2002). In general, they focus on how employees seek rewards in work circumstances (Daft & Marcic, 2007). Reinforcement theories focus on employees learning of desired work behaviors (Daft & Marcic, 2007).

2.4.2 Contemporary Theories of Motivation

Theories of motivation are generally classified into three categories depending on the particular approach adopted: content theories, process theories, and reinforcement theories (Daft & Marcic, 2007).

2.4.2.1 The Content Theories of Motivation

Content theories are also referred to as needs-based theories due to their explanation that needs motivate people (Mullins, 2005). These theories propose that internal states within individuals energize and direct their behavior (Daft & Marcic, 2007). These internal states are typically referred to as drives, needs or motives in these theories (Mullins, 2005). Maslow's hierarchy of needs theory, McGregor's Theory X and Theory Y, Alderfer's ERG theory, Herzeberg's two factor theory and McClelland's acquired needs theory are examples of the content theories.

Maslow's Hierarchy of Needs Theory: One of the most famous and most often-quoted content theories of motivation is that of Abraham Maslow's hierarchy of needs (Daft & Marcic,

2007). The basic assumption of the theory was that people are motivated by their quest to satisfy their needs, or deficiencies that occur in a specific hierarchy (Gomez-Mejia, Balkin & Cardy, 2008) where lower order needs have to be satisfied before those of a higher order nature (Griffin 2002). According to this theory, once each level has been met, an individual will be motivated by the desire to progress to satisfy the next higher level of need (Gomez-Mejia, Balkin & Cardy, 2008). Hence, according to this theory people always pursue what they do not yet have and as a result, those needs that have already been satisfied, no longer provide motivation for action (Schultz & Schultz, 1998). Maslow identified five general types of motivating needs in order of ascendance. These needs include: Physiological Needs, Safety Needs, Belongingness Needs, Esteem Needs, and Self-actualization Needs (Gomez-Mejia, Balkin & Cardy, 2008).

Physiological Needs are related to basic survival needs and include food, water, sexual derives, and other subsistence needs (Griffin, 2002). In the organizational settings, they include the needs for adequate heat, air, and base salary to ensure survival (Daft & Marcic, 2007).

Safety Needs are needs for a safe and secure physical and emotional environment and freedom from threats, violence and needs for orderly society (Griffin, 2002; Pettinger, 2002). These physical safety and personal security include shelter, a safe home environment, employment, a healthy and safe work environment, access to health care, and other basic necessities (Griffin, 2002). In an organizational workplace, safety needs reflect the needs for safe jobs, fringe benefits, and job security (Daft & Marcic, 2007).

Belongingness Needs are the desire to be accepted by one's peers, have friendships and be part of a group, creating social contact and interaction, and getting various types of support from others (Griffin, 2002). In organizational settings, belongingness needs include the desire for

creating good relationship with coworkers, participation in a work group, and developing a positive relation with leaders (Daft & Marcic, 2007).

Esteem Needs are related to the desire for a positive self-image and to receive attention, recognition, and appreciation from others (Griffin, 2002; Pettinger, 2002). In general, these needs involve a person's desire to be respected by others and by him/herself and include status, recognition, and positive regard (Griffin, 2002; Pettinger, 2002). Within an organization, esteem needs reflect a motivation for recognition, an increase in responsibility, high status, and credit for contributions to the organization (Daft & Marcic, 2007).

Self-actualization Needs are a person's needs for self-fulfillment or striving towards the full development of one's potential (Griffin, 2002). In other words, these needs include the desire for achievement, personal growth and development, and autonomy (Griffin, 2002; Pettinger, 2002). In organizational settings, self-actualization needs include the desire for the opportunities to grow, to be creative, and to acquire trainings for challenging assignments and advancement (Daft & Marcic, 2007).

Maslow's needs theory is useful from a theoretical perspective, however, little empirical evidence has been produced to support the idea of a needs hierarchy, or the idea that as needs are satisfied, their importance diminishes (Baron, Henley, McGibbon & McCarthy, 2002).

Alderfer's ERG Theory: Clayton Alderfer proposed a modification of Maslow's theory in an effort to simplify it and respond to criticisms of its lack of empirical verification (Daft & Marcic, 2007). Alderfer reduced Maslow's five levels of needs into three: (1) Existence - which pertains to Maslow's first two needs (physiological and safety needs); (2) Relatedness - which addresses belonging needs or social needs; and, (3) Growth – which combines esteem and self-actualization (Griffin, 2002). Alderfer emphasized that these needs do not occur in a hierarchy,

but rather on a continuum, and may in fact be experienced simultaneously (Spector, 2003). He suggested that individuals were motivated to move forward and backward through the levels in terms of motivators (Daft & Marcic, 2007). Alderfer also added his frustration-regression principle, which postulated that individuals will move in and out of the various levels, depending upon the extent to which their needs were being met (Griffin, 2002). Alderfer's ERG theory has intuitive appeal, is more directly applicable to employee motivation and has greater empirical support (Daft & Marcic, 2007) than Maslow's levels of needs theory.

Herzberg's Two Factor Theory: Frederick Herzberg's theory of motivation was postulated in 1954 (Daft & Marcic, 2007). The basic assumption of Herzberg's theory is that motivation originates from the job itself, and not from other external characteristics (Daft & Marcic, 2007). Those factors leading to job satisfaction are separate and distinct from those leading to job dissatisfaction (Gomez-Mejia, Balkin & Cardy, 2008). According to Herzberg these two separate dimensions contribute to an employee's behavior at work (Daft & Marcic, 2007). Herzberg's two-factor includes: Motivation factors and Hygiene factors (Griffin, 2002).

The Hygiene factors may be equated with the lower level needs in Maslow's theory which includes physiological, safety and belongingness needs (Gomez-Mejia, Balkin & Cardy, 2008). These factors involve circumstances surrounding the task which do not lead to job satisfaction, but prevent dissatisfaction, if maintained adequately (Daft & Marcic, 2007). Examples of these maintenance factors include the level of supervision, job status, work circumstances, service conditions, company policy and administration, salary and remuneration, interpersonal relationships, and security (Daft & Marcic, 2007).

Motivators, on the other hand, have a direct positive effect on the work situation, and lead to improved productivity (Gomez-Mejia, Balkin & Cardy, 2008). Motivators may be equated

with higher order needs in Maslow's theory such as esteem and self-actualization needs (Gomez-Mejia, Balkin & Cardy, 2008). Motivators are also placed along a continuum from a highly motivated to a highly unmotivated state (Daft & Marcic, 2007). Motivators include aspects of the job itself, such as achievement, level of recognition, pleasure of performance, increased responsibility, and opportunities for advancement and promotion (Daft & Marcic, 2007).

In general, Herzberg's two-factor theory is an easily understood approach suggesting that individuals have desires beyond the hygiene factors that motivators are very important to them (Daft & Marcic, 2007). The theory has also contributed to the redesigning of many jobs in organizations to allow for greater participation of employees in planning, performing and evaluating their own work (Schultz & Schultz, 1998). Moreover, motivator-hygiene theory has been very successful in focusing attention on the importance of providing employees with work that is meaningful to them (Spector, 2003).

However, Herzberg's assumption that motivators and hygiene factors are independent of each other is a matter of some controversy (Gomez-Mejia, Balkin & Cardy, 2008). Studies of other scholars have shown some factors to fall within both groups and other factors declared by Herzberg as hygiene factors are found to be classified as motivators (Gomez-Mejia, Balkin & Cardy, 2008). The theory has also accumulated little empirical support (Daft & Marcic, 2007).

McGregor's Theory X and Theory Y: In 1960, Douglas McGregor introduced a theory that was closely related to that of Maslow's hierarchy of needs theory (Daft & Marcic, 2007). Similar to Maslow, McGregor believed that factors that act as motivators to people at work are arranged and satisfied in a hierarchy (Daft & Marcic, 2007).

McGregor's Theory X and Theory Y represent an extension of his ideas that motivation directs and controls employees in the workplace (Boddy, 2005). Theory X articulates the

traditional approach to motivation. People are not keen on work; they are egocentric and strive for security and financial compensation only (Daft & Marcic, 2007). Employees do not at all worry about organizational goals; they lack ambition, and try to avoid responsibilities (Boddy, 2005; Daft & Marcic, 2007). As a result, it proposes that employees must be coerced and controlled by punitive measures to perform effectively (Boddy, 2005; Daft & Marcic, 2007).

Theory Y, in contrast, reflects a more modern approach to motivation (Daft & Marcic, 2007). Theory Y assumes that, under proper conditions, members of an organization can achieve their own goals best by directing their efforts towards the success of the organization (Boddy, 2005). According to this theory, under proper conditions, most people are keen to do well and to commit themselves to goals of their organization; they seek responsibilities; and are capable to solve problems (Boddy, 2005). According to Daft and Marcic (2007), McGregor regarded Theory Y as a more accurate and realistic interpretation of human behavior, since it represents the integration of individual and organizational goals. However, he also recognized that the theory does not offer a complete explanation for employee motivation (Daft & Marcic, 2007).

McClelland's Acquired Needs Theory: David McClelland's theory was introduced in 1967 and it is also referred to as the 'Three-Needs' theory (Daft & Marcic, 2007) or the 'Achievement Motivation' theory (Schultz & Schultz, 1998). The basic idea of McClelland's theory is that needs are acquired throughout life; they are not innate, but are learned or developed as a result of one's life experiences (Daft & Marcic, 2007). Hence, the theory is based on the assumption that achievement-oriented people share three major needs, which are not innate, but acquired through learning and experience (Daft & Marcic, 2007). These three needs include: The Needs for Achievement, Affiliation, and Power (Griffin, 2002).

The Needs for Achievement emphasizes the desire to accomplish something difficult, attain a high standard of success, master complex tasks, and surpass others (Daft & Marcic, 2007). It is viewed as behavior directed towards competition with standards of excellence (Daft & Marcic, 2007). The Need for Affiliation refers to the desire to establish and maintain satisfying relationships with other people and avoid conflicts (Daft & Marcic, 2007). The Need for Power denotes the need to control others, influence their behavior, be responsible and have authority over others (Daft & Marcic, 2007).

In general, McClelland's theory of motivation, although not highly influential, was certainly instrumental in focusing attention on the unusual needs of employees with a strong need to achieve (Daft & Marcic, 2007).

To sum up, content theories focus on people's basic needs to motivate behavior. The content theories help managers to understand what motivate people. Hence, managers can draw out appropriate and successful work behaviors from employees by designing work that meet their needs.

2.4.2.2 The Process Theories of Motivation

Process theories of motivation explain how workers select behavioral actions to meet their needs and determine if their choices were successful (Daft & Marcic, 2007). Process theories do not focus directly on work as a potential source of motivation, but rather on the cognitive processes, such as thoughts, beliefs and values, which people use to make choices regarding their behavior at work (Schultz & Schultz, 1998). Examples of process theories include equity, expectancy and goal-setting theories.

Equity Theory: Equity theory was first introduced by Stacy Adams in 1965 (Beardwell, Holden & Claydon, 2004). Its basic assumption is that people are motivated when they perceive

that they are treated equitably in their dealings with other people, and with the organizations they work for (Beardwell, Holden & Claydon, 2004). If people perceive their compensation as equal to what others receive for similar contributions, they will believe their treatment has been fair and equitable (Daft & Marcic, 2007).

According to equity theory people make judgments or comparisons between their own inputs at work (e.g. their qualifications, experience, effort and ability) and the outcomes they receive (e.g. pay and fringe benefits, status, recognition and working conditions) and then they assign weights to these inputs and outputs according to their relevance and importance to themselves (Beardwell, Holden & Claydon, 2004). Accordingly, if a person's output / input ratio is equal to that of another person, equity exists (Beardwell, Holden & Claydon, 2004). On the other hand, if a state of inequity exists among employees it leads to tension and psychological discomfort, which the individual tries to reduce by changing one or more elements of the ratio, e.g. increase or reduce efforts, modify outputs, leave the situation etc (Beardwell, Holden & Claydon, 2004). Hence, according to this theory, perceived inequity by the person is the basis for motivation (Baron, Henley, McGibbon & McCarthy, 2002).

This theory helped to provide the basis for studying the motivational implications of perceived unfairness and injustice in the workplace. It also laid the foundation for more recent theories on distributive justice (how much is allocated to each person) and procedural justice (how rewards and job requirements are determined) (Beardwell, Holden & Claydon, 2004). In a meta-analysis of many of these theories, Cohen-Charash and Spector found that both distributive and procedural justice were related to job performance, job satisfaction and the intention to quit (Cohen-Charash & Spector, 2001).

Equity theory has stimulated much research work; however, lately researchers' interest has declined because of its inability to predict people's perception of the equitability of their specific situation (Beardwell, Holden & Claydon, 2004). For example, some employees are far more sensitive to perceptions of inequity than others or even when inequity is perceived to exist, employees may show some tolerance by justifying the reason for the inequity (Beardwell, Holden & Claydon, 2004). Nevertheless, the theory has served to direct attention to the importance of treating employees fairly, and to the consequences of failing to do so (Spector, 2003).

Expectancy Theory: Victor Vroom was the first scholar who elaborates expectancy theory in relation to motivational context (Daft & Marcic, 2007). The theory suggests that motivation depends on people's expectations about their ability to perform tasks and receive desired rewards (Daft & Marcic, 2007). Expectancy theory is concerned not with identifying types of needs but with the thinking process that individuals use to achieve rewards (Marchington & Wilkinson, 2006).

Essentially, expectancy theory explains how rewards lead to behavior, through focusing on internal cognitive states that lead to motivation (Gomez-Mejia, Balkin & Cardy, 2008). In other words, people are motivated to action if they believe those behaviors will lead to the outcomes they want (Beardwell, Holden & Claydon, 2004). Hence, expectancy theory is based on the relationship among the individual's effort, the individual's performance, and the desirability of outcomes associated with high performance (Beardwell, Holden & Claydon, 2004). The cognitive states in this theory are: expectancy, valence and instrumentality (Spector, 2003). Expectancy is the perceived probability that a person has regarding his ability to perform the behavior required for achieving the desired outcome; Valence is the value or the

attractiveness of the outcome to the person; and, Instrumentality is the perceived probability that a given behavior will lead to the desired outcome (Spector, 2003).

The theory considers two types of expectancies. Effort-performance expectancy is the employee's perception of how hard it will be to achieve a particular behavior and the probability of achieving that behavior (Marchington & Wilkinson, 2006). Performance-outcome expectancy assumes that in the employee's mind, every behavior is associated with outcomes (Beardwell, Holden & Claydon, 2004). In general, according to Beardwell, Holden & Claydon (2004), in expectancy theory employees ask themselves three questions to behave in some way: "What is in it for me? How hard will I have to work to get what is in it for me? What are my real chances of getting the reward if I do what my boss wants?" (p. 16).

Expectancy theory has represented a popular and influential approach since its introduction (Boddy, 2005). However, it has been criticized for its assumption that people are calculating and rational in their decision-making and for failing to take adequate account of people's cognitive limitations (Baron, Henley, McGibbon, & McCarthy, 2002).

Goal-setting Theory: Goal-setting theory was first proposed by Edwin Locke in 1968 (Baron, Henley, McGibbon, & McCarthy, 2002). The major assumption of the theory was that people's behavior is motivated by their internal intentions, objectives or goals, or by what people consciously want to achieve (Spector, 2003). According to the theory, specific and challenging goals increasing motivation and performance when the goals are accepted by subordinates and these subordinates receive feedback to indicate their progress toward goal achievement (Boddy, 2005; Daft & Marcic, 2007).

According to Beardwell, Holden and Claydon (2004) there are at least four key components of goal-setting theory. These are goal specificity, goal difficulty, goal acceptance,

and feedback. (1) Goal specificity refers to the degree to which goals are concrete and clear. (2) Goal difficulty indicates that harder goals are more motivating than easy ones. Easy goals provide little challenge for employees and do not require them to increase their output. Highly ambitious but achievable goals ask people to stretch their abilities. (3) Goal acceptance refers to employees' willingness to "buy into" the goals and be committed to them. Participating people in setting goals is a good way to increase acceptance and commitment. (4) Feedback refers to providing employees with information about how well they are doing in progressing toward goal achievement. Managers must provide performance feedback on a regular, ongoing basis. In this theory there are assumptions that feedback: (1) increase the employee's feeling in achievement; (2) increase the sense of personal responsibility for the work; (3) reduce uncertainty; and (4) refine performance (Beardwell, Holden & Claydon, 2004).

Commitment to specific goals; more challenging but specific goals; regular feedback on the person's performance towards attaining the goals are the major components of goal-setting theory to motivate employees.

This theory has an intuitive appeal because of its clear relevance to the workplace (Schultz & Schultz, 1998). It is well supported by empirical research evidence (Daft & Marcic, 2007). A meta-analysis of 72 on-the-job studies pointed out that goal setting produces substantial increases in employee output (Wood, Mento & Locke, 1987 cited in Daft & Marcic, 2007). It is currently one of the most popular theories informing organizational approaches to employee motivation (Spector, 2003).

Similar to content theories, process theories have their own weaknesses. Beardwell, Holden and Claydon identify three weaknesses of the process theories of motivation. First, process theories tend to assume an overly rational view of human decision-making and as a

result they completely ignore human habitual or unconscious decision-making process. Second, the theories not acknowledge that when making choices people do not have complete knowledge of the possible results of their behavioral options. Third, process theories does not consider why an individual does value nor does not value particular outcomes, the theories only focus on how the motivation develops (Beardwell, Holden & Claydon, 2004).

2.4.2.3 Reinforcement Theories of Motivation

Reinforcement theories focus on learning of desired behaviors (Griffin, 2002). They are based on behaviorist approaches that reinforcement conditions behavior (Baron, Henley, McGibbon & McCarthy, 2002). More specifically, proponents of reinforcement theories argue that behavior that has been rewarded in the past will tend to be repeated, whereas behavior that has been punished previously will tend to be extinguished (Daft & Marcic, 2007; Griffin, 2002). The theories' major assumption is that people's behavior is determined by its perceived positive or negative consequences (Baron, Henley, McGibbon & McCarthy, 2002). Reinforcement theories focus on changing or modifying the employees' job behavior through the appropriate use of immediate rewards and punishments (Daft & Marcic, 2007).

Reinforcement focuses on four tools that cause a certain behavior to repeat or to extinguish (Daft & Marcic, 2007). The four reinforcement tools are positive reinforcement, avoidance learning, punishment and extinction (Daft & Marcic, 2007; Gomez-Mejia, Balkin & Cardy, 2008). Each type of reinforcement is a consequence of a pleasant or unpleasant event being applied or withdrawn following a person's behavior (Daft & Marcic, 2007).

Positive reinforcement is the administration of a pleasant and rewarding consequence following a desired behavior (Griffin, 2002). A good example of positive reinforcement is immediate praise for an employee who arrives on time or does a little extra work (Daft &

Marcic, 2007). Avoidance learning, sometimes called negative reinforcement, is the removal of an unpleasant consequence following a desired behavior (Gomez-Mejia, Balkin & Cardy, 2008). Punishment is an unpleasant consequence following undesired behavior (Gomez-Mejia, Balkin & Cardy, 2008). Extinction is the withdrawal of a positive reward (Griffin, 2002). Extinction involves withholding pay raise, praise, and other positive outcomes. The idea is that behavior that is negatively reinforced will be less likely to occur in the future (Daft & Marcic, 2007).

Reinforcement theory was highly influential in firmly establishing the ideas relating to incentive and reward systems that are applied in most organizations today (Spector, 2003). According to Schultz and Schultz (1998), reinforcement theory provided the basis for the notion that rewards should be contingent with individual units of productivity.

However, the application of reinforcement theory has fallen somewhat out of favor (Spector, 2003), as it merely describes relations between reinforcement and behavior, but gives little insight into motivational processes, e.g. whether or not a person wanted a specific reward, or why (Spector, 2003).

To summarize, each of the above discussed theories have contributed much to the development of current perspectives and to the understanding of the concept of motivation in workplace. Content theories, for example, emphasize that employees' behavior at work is motivated by highly individualized innate needs and desires (Daft & Marcic, 2007). Process theories of motivation stress that, besides innate needs and desires, employees may apply deliberate conscious thought to their behavior at work (Griffin, 2002). Reinforcement theories have contributed much towards the establishment of a linkage between performance and reward incentive systems applied in organizations all over the world today (Gomez-Mejia, Balkin & Cardy, 2008).

2.4.3 Types of Motivation

Frequently scholars classify motivation in to two major types, namely, intrinsic and extrinsic motivation. Intrinsic motivation refers to the satisfaction of a desire, expectation, or goal without being influenced to do so by another person, or by an external incentive or reward (Claeys, 2011). Intrinsic motivation is sometimes referred to as self-motivation (Ryan & Deci, 2000). Intrinsic motivation is self-generated factors that influence people to behave in a particular way or to move in a particular direction (Bennell & Akyeampong, 2007). These factors include responsibility, feeling that the work is important and having control over one's own resources, freedom to act, scope to use and develop skills and abilities, interesting and challenging work and opportunities for advancement (Armstrong, 2007).

On the other hand, extrinsic motivation refers to a force to do something or act in a certain way because of external factors (Boddy, 2005). This might include incentives and rewards or even punishments (Ryan & Deci, 2000). The goals or expectations of this type of motivation may be determined by someone else (Boddy, 2005). Extrinsic motivations include rewards such as increased pay, praise, or promotion, and punishments, such as disciplinary action, withholding pay or criticism, (Armstrong, 2007). It is also influenced by external factors such as salary, providing better working and living conditions and opportunities for in-service training (Boddy, 2005).

2.5 Teacher Motivation

Motivated workers are more dedicated to their organization, have better job satisfaction, and work more productively than unmotivated workers (Osterloh, Bruno & Frost, 2001). For this reason, managers motivate their employees to use their knowledge and skills towards organizational aims (Lindner, 1998). Similarly school principals have to keep in mind that,

teachers who do not have job satisfaction and work motivation may weaken educational programs (Snowden & Gorton, 2002).

Teacher motivation is defined as "a state of being influenced by material and psychological factors which may induce activeness (or reluctances) in achievements associated to teaching" (Bennell & Akyeampong, 2007). It includes all the psychological processes that influence teachers' behavior towards the achievement of educational goals (Bennell, 2004).

From the above definitions, in general, it is possible to extract that motivating teachers refers to the process of stimulating teachers to an action to achieve desired educational goals. It refers to the process of influencing teachers to exert their efforts to the maximum to facilitate schools' primary goal achievement mainly students learning and academic outcomes.

According to Eres (2011) one of the crucial factors that affect teachers' motivation is the school principal. A school principal's willingness in involving teachers in different decision making processes, in sharing of authority and responsibility, in providing rewards can improve teachers' motivation (Kocabas & Karakose, 2005). Another factor that motivates teachers is constructive communication and interactions they have with their colleagues and students (Guclu, 1996 cited in Eres, 2011). The physical conditions of the school and the availability of tools and different materials that will be used during the teaching learning process also contribute to teachers' motivation (Eres, 2011). The relationship that teachers create with families and other community members around their schools also plays important role in teacher motivation (Eres, 2011; Wu, 2003). Useful communication and interactions teachers establish with families positively impacts students' success and creates conducive working environment for teachers (Eres, 2011).

Principals can also play a decisive role on teachers' motivation through: (1) creating conducive working environment, issuing important materials and making schools compounds attractive; (2) establishing constructive communication and interaction among teachers and between teachers and students; and (3) creating positive relationship among teachers, families and the community around schools (Eres, 2011; Wu, 2003).

Principals must have the necessary understandings on what motivate teachers and how to stimulate their motivation to enhance teaches' energy to facilitate the achievement of their schools primary objectives (Adair, 2002; Eyal & Roth, 2011). Moreover, for the reason that one factor may not motivate all teachers in the same way (Eres, 2011), the principal must have the quality and adequacy to treat and motivate teachers based on their particular individual needs and interests (Eyal & Roth, 2011).

According to Nyam and William-west (2014) and Ololube (2006) teachers who are very satisfied with their jobs do not need to change their institution and profession. They further explained that satisfied and motivated teachers instead contribute their part for effective performance of their school (Nyam & William-west, 2014; Ololube, 2006). On the other hand, a teacher who is not satisfied with work can perform poorly and create bad relationships with students, which can have a negative impact on a school's overall efficiency (Nyam & William-west, 2014; Snowden & Gorton, 2002).

Hence, work motivation in schools is important as it positively contributes to the effectiveness of the teaching and learning process. Positive work motivation of teachers promotes students' achievement (Rowan, Correnti & Miller, 2002), students' study and academic success (Blandford, 2000; Sharma & Jyoti, 2006), and students' social, emotional, and intellectual development (Blandford, 2000).

2.6 Factors Affecting Teacher Motivation

There are different studies that identify various factors that affect teachers' motivation. According to Dornyei (2001) a school's general climate and the existing school norms, class sizes, school resources and facilities, general expectations regarding student potential, school's leadership and decision-making structure and restricted autonomy are among the major factors that affect teacher motivation. A study specifically conducted in developing countries by Education for All (EFA) indicated that, insufficient earnings in developing countries negatively affect teachers' motivation (EFA, 2005). Similarly, Bennell (2004) asserted that one of the factors that negatively affect teachers' motivation in developing countries is too low pay and other material benefits.

A similar study conducted in Bangladesh reported that Bangladeshi teachers were dissatisfied with their salary levels (Tasnim, 2006). Zembylas and Papanastasious (2004) also indicated that one of the factors that dissatisfy Cyprus teachers was low salary. Akinwumi (2000) cited in Adelabu (2005) asserted that the primary desires of low-income earning teachers, in their life, is getting a significant increase in their salary. Consequently, Akinwumi (cited in Adelabu, 2005) suggested that a relatively good payment for teachers would significantly enhance teachers' commitment and performance.

Work environment is another important factor repeatedly reported by scholars in determining teacher motivation. For example, Adelabu (2005) indicated that one of the issues that affect teachers' motivation in developing countries is shortage of basic materials and facilities. By comparing the motivation levels of teachers in private and public schools, Adelabu (2005), concluded in his study that private school teachers appear more motivated than public school teachers. Regular payments of salaries, better school working environment and much

lower pupil-teacher ratios at private schools were listed as key reasons for a better motivation of private school teachers than public school teachers (Adelabu, 2005).

However, there are inconsistencies among findings on what motivates teachers in relation to their gender, age group and other factors. For example, Saeed and Muneer (2012), Gupta, Pasrija and Bansal (2012) reported that female teachers were found to be more motivated to their work than male teachers. To the opposite, Kaur and Sidana (2011) asserted that level of work motivation of male teachers was greater than their female counterparts. To the contrary, Gupta and Gehlawat (2013) reported the absence of significant difference in the work motivation of male and female teachers.

Gupta and Gehlawat (2013), on the other hand, reported that teachers working in private schools possessed higher work motivation than those working in government schools; less experienced teachers possessed significantly higher work motivation than the more experienced teachers. Teachers with graduate qualifications possessed significantly higher work motivation than the post-graduate qualifications.

Srivastava and Krishna (1994) indicated that the 'need for achievement' and 'self-control' were the most dominant motivating forces for male as well as female teachers, whereas the 'monetary gain' was the least effective motivator for them. Others list demographic variables such as age, gender, teaching experience, marital status and monthly income as significant variables affecting work motivation of teachers (Kumar, Udayasuriyan & Vimala, 2008).

In general, scholars classified factors affecting teacher motivation as intrinsic and extrinsic factors (Salifu & Agbenyega, 2013). Intrinsic factors are those which come from within a person whereas extrinsic motivation are those which are determined basically by the level and type of external rewards that are available (Bennell & Akyeampong, 2007).

The major extrinsic factors that affect teachers' motivation may include attractive remuneration, student discipline, good working conditions, favorable educational policies and high occupational status (Chiresha & Shumba, 2010; Dolton & Marcenaro-Gutierrez, 2011; Salifu & Agbenyega, 2013).

Attractive remuneration refers to competitive salaries and benefits that help to attract and retain competent teachers in the teaching profession (Dolton & Marcenaro-Gutierrez, 2011). It has been found that attractive remuneration improves teachers' work motivation and job satisfaction, work performance, involvement and commitment to their profession (Chiresha & Shumba, 2010; Hanushek, Kain, & Rivkin, 1999). Teachers' work motivation and commitment in turn assure successful implementation of educational reforms (Dolton & van der Klaauw, 1999) and improve students' achievement (Bishay, 1996; Nyam & William-west, 2014)

Student discipline is another important factor for teacher motivation (Agezo, 2010). It refers to the readiness or ability to respect school authority, have self-control, restraint, respect for self and respect for others (Adesina, 1990). Farkas, Foleno and Johnson (2000) indicated that students are a central source of professional enthusiasm to boost teachers' motivation. Teachers could be motivated to work effectively if students are willing to cooperate and respect them (Haggard, Slostad & Winterton, 2006). On the other hand, students' bad discipline negatively affects teachers' enthusiasm, love and passion for their profession and thus forces them to leave (Adelabu, 2005; Agezo, 2010).

Another factor that affects teachers' motivation is good working conditions (Bennell, 2004). Teachers' working conditions include the physical and material environment such as appropriate number of class size, availability of enough furniture and materials, opportunity to

participate in decision making, opportunity for promotion, recognition, and encouraging incentive packages, and good social relationships (Javaid, 2009).

When teachers have good relationships among themselves, with students and have good leadership from principals they are likely to be motivated and satisfied (Adelabu, 2005; Bennell, 2004; Mathew, 2005). However, large class size, unusual hours of work, multi grade teaching, unhealthy relationship amongst teachers and bad leadership destroy teachers' motivation and commitment (Adelabu, 2005; Bennell, 2004; Mathew, 2005). Similarly, poor incentive packages, lack of career advancement, poor housing and living environments, poor supervision (Adelabu, 2005; Bennell, 2004; Mathew, 2005), lack of administrative support and lack of participation in decision-making (Ingersoll, 2001), shortage of resources at schools (Agezo, 2010) are among factors that negatively affect teacher motivation and satisfaction.

Favorable educational policies like hardship allowances because of unfavorable working environment and weather condition, and allowances for extra work promote teacher motivation (Kubberud, Helland & Langley, 1999). On the other hand, policy related issues like continuous change on school curriculum frustrate teachers and reduce their motivation (Adelabu, 2005; Bennell, 2004; Bennell & Akyeampong, 2007).

Occupational status is among the factors that affect teacher motivation and it refers to the esteem and recognition teachers have in the society as professionals (Coolahan, 2003). Research studies indicated that teachers are motivated by the satisfaction they derive from higher-order needs, such as social relations and esteem (Muller, Alliata & Benninghoff, 2009). Coolahan (2003) reported that teaching in some countries like Ireland generally enjoys high social status. However, Bennell (2004) noted that in Africa and South Asia teachers have low occupational statuses as they do not have equivalent level of academic qualifications as compared to other

professionals like medical doctors, engineers and lawyers. According to Bennell (2004) teachers in Africa and South Asia are considered to have low status for the reason that they are considered relatively as a larger group, have lower professional standards, and allow easy entry into the profession as compared to other professions.

Besides extrinsic factors, intrinsic factors also have been identified to have effects on teacher motivation. Ryan and Deci (2000) defined intrinsic motivation "as the doing of an activity for its inherent satisfactions rather than for some separable consequence" (p. 56). According to Ryan and Deci, an intrinsically motivated person is stimulated to act not as a result of external prods, pressures, or rewards but rather as a result of the fun or challenge entailed with the action. Intrinsic motivation is done for internal reasons; it is for self-satisfaction and not for the fear of a consequence (Burton, 2012). According to Burton, in intrinsic motivation, reward does not need external forces to drive behavior; it is within the action itself. Intrinsic motivators, for teachers, are those factors that relate to the internal desires for personal and professional development and retain teachers to work in educational settings (Claeys, 2011). An intrinsically motivated teacher undertakes a task for its own sake, for the satisfaction it provides, or for the feelings of accomplishment (Covington, 2000; Ryan & Deci, 2000).

Intrinsic factors, according to Burton (2012), that tend to make tasks more interesting, enjoyable and psychologically rewarding can be classified as: (1) achievement, (2) recognition, (3) work itself, (4) responsibility, (5) advancement, (6) possibility of growth, and (7) status. In relation to educational settings, Dweik & Awajian (2013), Gangwani (2012) and Gultekin & Acar (2014) extracted internal desire to teach, meaningful, varied and challenging work, achievement (or accomplishment), responsibility, task autonomy, participatory decision making, learning opportunities, and opportunities for advancement as intrinsic factors.

2.7 Teachers' Motivation in Ethiopia

Different research findings reported low teachers' motivation and job satisfaction in Ethiopia (Ayalew, 1991; Kemppainen, Lasonen & Raheem, 2005; VSO, 2008). Studies identified low respect for teachers, low status of teachers in the community, inadequate salaries, mostly unplanned and spontaneous educational reforms, poor living conditions of teachers, and weak school management and leadership (VSO, 2008) as major reasons for teachers' low motivation in the country.

According to VSO (2008), the teaching profession is one of the professions given the lowest regard in Ethiopia and teachers are no longer highly respected by virtue of their education. As a result, the poor status they have in the community is the most often mentioned cause for teachers' low level of motivation and job satisfaction (VSO, 2008). In addition, VSO (2008) indicated that teachers in Ethiopia have experienced poor management and leadership that contribute to their dissatisfaction and low motivation. More specifically, Ayalew (1991) indicated that poor teaching environments, low status, and insufficient salaries contribute to low teachers' motivation in Addis Ababa.

2.8 The Effect of Principal Leadership on Teacher Motivation

School principals have a crucial effect on the total climate of the school and the motivation of teachers (Butt *et al*., 2005, Evans, 1997, Kelley, Thornton & Daugherty, 2005; Rhodes, Nevill & Allan, 2004) and they are the key figures in raising teacher morale and commitment (Evans, 1997). Studies that focus on specific factors of principals leadership found inviting leadership that focuses on compassion and respect for the individual through collaboration and mutual respect (Egley & Jones, 2005) and transformational leadership traits (Nguni, Sleegers & Denessen, 2006) to have a positive correlation to teacher motivation.

On the other hand, Evans and Johnson (1990) with their survey in Florida / USA on middle and high school teachers indicated that principals can increase or decrease stress level of teachers based on the handling processes they employed. However, from their analysis they reported that principal behaviors have no significant relationship with teacher motivation. As a result, they concluded that principals do not have much impact on teacher work motivation (Evans & Johnson, 1990). Similarly, Hunter-Boykin and Evans (1995) in their investigation of the relationship between high school principals' leadership and teacher motivation found a low positive correlation between the principal's leadership style and teacher motivation.

To sum, from the above discussion, research findings indicated that principal leadership practice plays a vital role in motivating teachers. Studies' results asserted that leadership behaviors, based on the type of behavior the leader manifested, may have positive or negative association with teacher motivation.

2.9 Student Achievement

Many researchers have discussed different factors that affect student academic performance. Some listed various factors that affect students' academic performance. Nevertheless, Waters and Marzano (2006) asserted that identifying the most contributing variables to quality of academic performance is a very complex and challenging job. Among the different factors that have been identified and studied for many years as important factors that play decisive role on student academic success include school environment, personal characteristics of learners, school personnel, and members of families (Goddard, 2003).

Some researchers classified the factors that strongly affect students' performance as classroom factors and non-classroom factors (Mushtaq & Khan, 2012). Classroom factors include class schedules, class size and general environment of the class, learning facilities,

course delivery methods and examinations systems, complexity of the course and curriculum materials, teachers role in the class, and technology used (Mushtaq & Khan, 2012). Non-classroom factors include extracurricular activities, family related factors, social factors and other related issues (Mushtaq & Khan, 2012).

More specifically conducted studies indicated that parental socioeconomic status such as parental education, occupation, income, and facilities, affect student academic success. They affirmed that parental education and family socioeconomic levels positively correlated with students' achievement (Jeynes, 2002; Mitchell & Collom, 2001; Ma & Klinger, 2000). Students from families with better level of socioeconomic status perform better than students with low level of socioeconomic status (Eamon, 2005; Kahlenberg, 2006; Kirkup, 2008).

On the other hand, Karemera (2003) found that students' performance is significantly correlated with school's environment and facilities like library, computer laboratory and competencies of teachers and school principal.

Numerous studies revealed the tremendous impact schools and teachers can have on student achievement. For example, a study conducted by Sanders and Horn (1994, reviewed in Marzano, 2003) indicated a 39 percentage-point difference in student achievement between students with "most effective" and "least effective" teachers. In classrooms headed by teachers characterized as "most effective," students scored achievement gains of 53 percentage points over the course of one academic year, whereas in classrooms led by "least effective" teachers; students scored achievement gains of 14 percentage points (Marzano, 2003).

Moreover, some study findings also indicated that school principals' daily leadership practices have a remarkable relationship with students' achievement. Waters, Marzano and

McNulty (2003) asserted that there is a .25 average effect size between school principals' leadership and students' achievement.

Findings of studies also indicate that high teacher motivation resulted in a better academic environment (Houchard, 2005; Hunter-Boykin & Evans, 1995). When teacher motivation level in a school is high and the school environment is healthy, teachers develop a positive feeling about themselves, each other and their teaching, which in turn affects student achievement (Debbie, 2007). On the other hand, low teacher motivation level has a negative effect on student achievement (Wentworth, 1990). Araki (1982) found that both perceived leadership of the principal and teacher motivation level are significantly correlated to student achievement.

Though varied factors were indicated and discussed to influence student achievement, in this study, however, focus was given on addressing the relationships of principals' leadership practices and teachers' motivation factors subjected to principals' activities with students' achievement. The reason for focusing on these variables was for the assumptions that the following factors have relatively similar influence on students' achievement in Addis Ababa City Government secondary schools.

First, it was assumed that students in government secondary schools came from parents with similar socio-economic status. Most students who enrolled to government schools in the city were from the mass and from parents with low income. It is clear that those parents who are with better income and can pay school fees send their children to private schools. Hence, it was assumed that factors related to parents' background and socio-economic status influence academic achievement of all students in government secondary schools in a similar way.

Second, school related factors such as number of students in a class, pupil-teacher ratio, school infrastructures and facilities were almost similar at all schools in the city (AACGEB, 2015). Hence, it was assumed that these factors also influence all government secondary schools students and their academic achievement in a similar way.

Third, teacher related factors such as educational qualification, experiences, and teachers salary were almost comparable at all government secondary schools in Addis Ababa. According to Addis Ababa education bureau report (AACGEB, 2015) almost all secondary school teachers in the city have the required level of qualification and they were also well experienced. Moreover, teachers' salary throughout the country was based on a scale endorsed by the federal government/Ministry of Education. Hence, these factors were assumed to have similar effect on all government secondary school teachers and their motivation. In addition, it was also assumed that external factors like teachers' status and acceptance in the community were almost similar for all government secondary school teachers in the city.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

This chapter presents the research method employed for this study, location of the study, target population, sample groups, sample size, and sampling techniques employed to select participants for the study. It also presents the data collection instruments employed and the sources of data investigated. The chapter summarizes the procedures followed in data collection, the types of data collected for the study and the statistical tools employed to analyze the collected data. The final subsection presents the ethical considerations followed throughout the process of the study and in dealing with the participants of this study.

3.1 Research Method

This study followed a mixed research methods approach. From the mixed methods approach the QUAN-qual model (or the explanatory mixed methods design) was used. This model was chosen for it helps to refine and explain the general pictures of the research problem obtained by the quantitative data and results through qualitative data (Subedi, 2016). Hence, the study focused on and gave more emphasis on the quantitative approach. The qualitative data were used to interpret quantitative data and to elaborate quantitative results. Surveys and interviews were used to collect data. Quantitative data were collected using the LPI and the TMQ. Moreover, document analysis was conducted to gather quantitative data regarding students' achievement on grade ten national exams. Qualitative data were collected using interviews from selected experienced teachers in the sample schools.

3.2 Location of the Study

This study was conducted in the City Government of Addis Ababa. Addis Ababa is the largest city and the capital of the Federal Government of Ethiopia. It also serves as a political, economic, cultural and historical center of the country. It is where the African Union (AU) and

the United Nations Economic Commission for Africa (UNECA) and numerous other continental and international organizations are based.

Addis Ababa is divided in to ten sub-cities which are the second administrative units next to the city government. The sub-cities are Addis Ketema, Akaki-Kality, Arada, Bole, Gullelie, Kirkos, Kolfe-Keranio, Lideta, Nifas Silk-Lafto, and Yeka (see Appendix H). The total population of the city was estimated to be 3,048,631 in 2013 (AACGBoFED, 2013) which was 3.71 percent of the total population of the country. The country's total population was estimated to be 84.3 million in the indicated year (AACGBoFED, 2013). The city's total population was also estimated to account for 22.42 percent of the total urban population in the country that was estimated to be 14 million in 2013. Population growth rate of the city was estimated to be 2.1 percent per year (AACGBoFED, 2013).

In 2014/15, there were a total of 1,548,041 students at different levels in the city. Of these 163,289 were kindergarten (KG) students, 12,055 were alternative basic education students, 505,619 were primary school students, and 147,947 were secondary school students (AACGEB, 2015). Similar year data indicated that there were a total of 2,808 schools in the city of which 1,108 were KG, 154 were ABE centers, 814 were primary schools, and 310 were secondary schools (9-12). From the 310 secondary schools 75 were government secondary schools. There were also about 33 government technical and vocational education and training institutions, one metropolitan university and five federal government universities and colleges in the city.

3.3 The Target Population

The target population of this study was all government secondary schools in Addis Ababa City Government. More specifically, all government secondary school teachers, principals and students were the target population of this study.

3.4 Quantitative Phase

3.4.1 Sources of Data and Data Collection Instruments

The primary sources of data for this study were sample teachers and principals selected from the ten sample schools. Documents were used as secondary sources. Two survey instruments were employed in this study, the Leadership Practice Inventory (LPI) and the Teacher Motivation Questionnaire (TMQ). Both the LPI-self and LPI-observer formats were used to collect data from sample school principals and teachers respectively. The TMQ was employed to collect data regarding teachers' motivation.

The Leadership Practices Inventory (LPI) was designed and developed by Kouzes & Posner for the first time in 1993 and revised for the fourth time in 2012 (Kouzes & Posner, 2012). During the revisions some items of the survey were rephrased, modified and/or replaced by other items based on data from practical field tests and feedbacks from practitioners and experts (Kouzes & Posner, 2012). LPI-observer was used to collect data from teachers regarding their principal's daily leadership practices. LPI-self was distributed to principals to rate their own leadership practices. Both formats consist of 30 questions answered on a ten point scale. The reliability of both formats was established through test-retest reliability and their sub-groups reliability coefficients rested between 0.88 and 0.92 (Kouzes & Posner, 2012).

Both LPI-self and LPI-observer contain questions pertaining to the five categories of leadership practices or the Five Practices of Exemplary Leaders. The five categories are: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart (Kouzes & Posner, 2012). The 30 questions in the surveys are categorized in to the Five Practices of Exemplary Leaders as indicated in Table 1.

Table 1: LPI Category Questions

	Category	Questions
1	Modeling the Way	1, 6, 11, 16, 21, 26
2	Inspiring a Shared Vision	2, 7, 12, 17, 22, 27
3	Challenging the Process	3, 8, 13, 18, 23, 28
4	Enabling Others to Act	4, 9, 14, 19, 24, 29
5	Encouraging the Heart	5, 10, 15, 20, 25, 30

The LPI is applicable to the education sector to collect data about school principals' leadership practices. Many researchers were employed the LPI to conduct studies in the education sector. For example, Abu-Tineh, Khasawneh and Omary (2009) in Jordan, Houchard (2005) and Moore (2012) in USA, Perera (2015) in Malaysia, and Godfrey (2007) in Nigeria are among the scholars conducted studies in the education sector using the LPI.

In this study, for the purpose of analysis, mean scores on LPI less than half of the total score (i.e. <150) were considered as low, mean scores between half and two thirds of the total score (i.e. greater than or equal to 150 but less than 200) were categorized as moderate. And mean scores greater than or equal to two thirds (i.e. ≥ 200) were considered as high.

The Teachers' Motivation Questionnaire (TMQ*)* contains 40 questions answered on a 4-point Likert scale to record the responses of teachers in relation to their motivation. The content validity of the TMQ was checked by an expert panel composed of PhD candidates in Educational Policy and Leadership in Addis Ababa University. Its internal consistency of reliability was tested during pilot study. Its Cronbach's alpha test was resulted to .86. Finally, improvement was made on the survey as per the comments from the expert panel and respondent teachers during pilot test before it was used for actual data collection. The TMQ was also administered to the same sample teachers selected to fill in the LPI to rate their own motivation level.

For analysis purpose, in this study, mean scores greater than 110 on TMQ were considered as high. Mean scores between 90 and 110 (inclusive) were considered as moderate and mean scores less than 90 were categorized as low.

In addition to the LPI and TMQ, interview guides were used to extract rich information for the study. Analysis of documents was also done to obtain quantitative data regarding student achievement. Students' achievement for three consecutive years (2013/14 – 2015/16) on EGSECEs was analyzed. The source documents were schools' reports on students' achievement and summary documents of grade ten national exams obtained from the sample schools.

3.4.2 Sample, Sample Size, and Sampling Techniques

The ten sub-cities in AACG were used as strata to select sample schools for the study. Stratified random sampling technique was preferred to increase diversity and representativeness of the sample schools. Then a sample school was selected from each sub-city by using a simple random sampling method. To select a sample school from each sub-city all government secondary schools in each sub-city were listed and written on pieces of paper, except those that participated in pilot testing. Among the schools in each sub-city one school was drawn using lottery method. The drawn ten schools, one from each sub-city, were used as sample schools.

To select the sample teachers Cochran (1977) formula was used at 95% confidence level and margin of error (e = .05).

$$n = \frac{n_o}{1 + \frac{(n_o - 1)}{N}}$$

Where n is the sample size, n_o is the value obtained from Cochran's Table (n_o = 384) and N is total population size.

Accordingly, using the formula indicated, from the total of 6,756 teachers in government secondary schools in Addis Ababa City in 2015/16 academic year 363 teachers were selected to be included in the study. Then from the ten sample schools, the 363 sample teachers were selected proportionally based on the total number of teachers in each sample school. The sample teachers were selected among teachers with a minimum of three years experience in their respective schools using simple random sampling method. The assumption for focusing on experienced teachers was that they have rich information about their principals' leadership and have well established perceptions and feelings about their own motivation.

3.4.3 Pilot Test

Prior to commencing the main study, the research instruments for this study were tested in two secondary schools that were excluded from the actual sampling and data collection process. Regarding the importance of pilot study, Teijlingen and Hundley (2001), identified the following as its prime purposes: to identify an appropriate methodology for this study; to develop a research plan; to collect preliminary data; to develop and test the adequacy of research instruments; to assess the feasibility of a (full-scale) study / survey; to determine what resources (finance, staff) are needed for a planned study; to identify logistical problems which might occur using proposed methods; and to convince funding bodies that the main study is feasible and worth funding.

Accordingly, the pilot test was conducted in this study to exercise compliance with research procedures, to test the validity of the instruments and to substantiate the aims of the study. Moreover, the purpose of the pilot study was to check clarity of the questionnaire items and instructions; to eliminate poor wordings; to check understanding levels of the respondents; to

gain feedback on the time required to complete the questionnaire; to gain feedback from the respondents on the suitability of the questionnaire items; and to identify irrelevant items.

In this study, the LPI-observer and the TMQ were tested in two government secondary schools that were excluded from the actual study. The two secondary schools were selected from two sub-cities with relatively high number of government secondary schools as compared to other sub-cities. The two schools in which the pilot test took place were Dj/ Belay Zeleke secondary school selected from Arada sub-city and Kolfe secondary school selected from Kolfe-Karanio sub-city. Twenty teachers selected by simple random sampling method from each school and a total of 40 teachers were participated in the pilot testing process.

In addition to filling the questionnaires the teachers were invited to comment on the items that were not clear for them. Then the collected data were analyzed and the commented items were identified. Comments from the pilot testing on the TMQ were used to revise or replace vague or unclear items by other similar items, to rephrase and replace items that have similar concepts or ideas by other items, and to delete items that were considered as irrelevant.

Concerning the LPI-observer, the comments collected during the pilot study were used as a basis for giving explanations during the actual data collection on items that were considered as not clear by pilot study participants. The items of the LPI were not revised or replaced, but explanation was given on unclear points to the participants during the administration of the surveys. The LPI-self was not pilot tested as the investigator of this study assumed that comments from the LPI-observer also serve for that of the self. Moreover, conducting a pilot test for the LPI-self was not found to be feasible since its administration for a pilot test would have to cover most of the government secondary schools in the city to get valuable results. As a result LPI-self was not subjected to a pilot test in this study.

Finally, to check the reliability of the instruments Cronbach's alpha was conducted. The result of the pilot test indicates a .86 Chronbach's alpha for the TMQ and .89 for the LPI-observer. Furthermore, the content validity of the surveys was checked by an expert panel of PhD students of Educational Policy and Leadership in Addis Ababa University. Based on the comments obtained from the respondents and the scholars the TMQ survey was revised before it was used for the actual data collection purpose. Moreover, the feedback from the expert panel helped to upgrade and omit unnecessary errors in the instrument.

3.4.4 Reliability and Validity

Reliability and validity are important concepts in research as they are used for enhancing the accuracy of the assessment and evaluation of a research work (Tavakol & Dennick, 2011). They are the most important concepts that a researcher has to critically address to assure that the collected data will lead to meaningful conclusions.

Twycross and Shields (2004) defined reliability as "the consistency, stability and repeatability of results, i.e. the result of a researcher is considered reliable if consistent results have been obtained in identical situations but different circumstances" (p.36). On the other hand, validity is "the extent to which the measuring instrument measures the characteristics or dimensions that the researcher intends to measure" (Thatcher, 2010:125). The reliability and validity of the survey instruments employed in this study were addressed as follows.

3.4.4.1 Reliability and Validity of the LPI

The Leadership Practices Inventory (LPI) has been field tested and proven reliable in identifying the behaviors that make a difference in leaders' effectiveness (Abu-Tineh, Khasauneh & Omary, 2009). The Leadership Practices Inventory (LPI-2012) is "highly acclaimed for its 'sound psychometric properties' and is used to predict leadership effectiveness" (Kouzes &

Posner, 2013:2). The LPI has "very strong reliability" and its constructs are known to be highly correlated with one another (Perera, 2015).

Internal reliability, the extent to which items in a scale are associated with one another, is quite strong (Perera, 2015). All five leadership practices have internal reliability scores that are above .75 for the self-version, and all scores on the observer-version are consistently above .85 levels (Abu-Tineh, Khasawneh & Omary, 2009). Test-retest reliability scores are also very strong and routinely above .90 (Perera, 2015). Tests showed no significant social desirability bias in the LPI (Abu-Tineh, Khasawneh & Omary, 2009; Carless, 2001; Perera, 2015).

In addition to the above presented research findings about reliability of the LPI, for its use in this study, the following issues were addressed to check its reliability in Addis Ababa secondary education system and school leadership context. In order to determine the reliability of both LPI-observer and self in this study, Cronbach's alpha was computed for each of them to measure the internal consistency in addition to the test that was made during the pilot study on the LPI-observer. The result of the Cronbach's alpha was found to be. 82 for LIP – observer and .89 for LPI-self version based on the data obtained from the ten sample schools.

Scholars indicated that Cronbach's alpha reliability test value needs to be greater than or equal to .70 to conclude that the survey instrument is reliable (McMillan & Schumacher, 2010). Thus, the reliability values of both LPI-observer and self formats for this study were greater than the minimum criteria .70.

Regarding the validity of LPI, Carless (2001) was among the scholars that had investigated the construct validity of the LPI and attempted to examine if the LPI measures transformational leadership behavior as addressed in Kouzes and Posner. Carless (2001) concluded that the "LPI assessed an over-arching higher order transformational leadership" (p.

233) and suggested its applicability to different sectors and contexts to measure leaders' leadership practices.

Validity of the LPI-observer was addressed empirically by looking at how LPI scores are correlated with other measures, typically with work motivation, employee commitment, work group productivity, credibility, and sales performance (Kouze & Posner, 2002). LPI scores were used to successfully predict performance levels of managers (Kouze & Posner, 2002). Leadership, as measured by the LPI, has consistently been found by researchers to be related to positive employee and organizational outcomes (Pugh, Fillingin & Thomas, 2011). These relationships have been reported across industries and disciplines, within public and nonprofit organizations as well as in private sector businesses (Pugh, Fillingin & Thomas, 2011). The findings were relatively consistent both within and across United States -based and non-United States -based organizations and countries around the globe (Pugh, Fillingim & Thomas, 2011; Kouze & Posner, 2002).

In addition to the above presented research about validity of the LPI, before it was used as a data collection instrument in this study, a trial was made to check its validity in Addis Ababa secondary education system and school leadership context. The content validity of the LPI was checked. Content validity, as defined by Thatcher (2010), is "the extent to which the measuring instrument (e.g., test, questionnaire or inventory) shows that it fairly and comprehensively covers the domain or items that it purports to cover" (p. 125). Thus, in this study, content validity of the LIP was judged by the expert panel and from the feedback collected from respondents during pilot test. Their comments, in general, indicated that the LPI-observer is comprehensive and covers all aspects of school leadership context in Ethiopia.

3.4.4.2 Reliability and Validity of the TMQ

Reliability of the TMQ was tested using Cronbach's alpha. The result of Cronbach's alpha based on the data collected from the sample teachers from the ten sample schools resulted to .84. Hence, internal consistency of the questionnaire was found to be good. According to McMillan and Schumacher (2010), the reliability of a survey is acceptable if the value of Cronbach's alpha is equal to .70 or higher.

Concerning validity of the TMQ, two important aspects were addressed in this study. The first one is the content validity, which is about the extent to which the measuring instrument (e.g., test, questionnaire or inventory) shows that it fairly and comprehensively covers the domain or items that it purports to cover. Thus, in this study, content validity is concerned with checking the degree to which the TMQ items fairly and accurately represents all its components. The components include assignment of teachers to subject areas and grade levels, teachers' weekly load, benefits and recognition, interpersonal relationship, and working environment. Thus, in this study, content validity of the TMQ was judged by the expert panel and from the feedbacks collected from participants during pilot test.

The second aspect was the face validity which refers to the appearance of the survey items. It is where, on the surface, the survey instrument appears, at face value, to measure what it is designed to measure (Balnaves & Caputi, 2001; Birmingham & Wilkinson, 2003). Like content validity, face validity of the TMQ was judged by the expert panel and from the feedbacks collected from respondents during pilot test. Accordingly, based on the comments collected seven items were omitted and replaced by other items, twelve items were revised or restated, and minor modifications were made on nine items.

3.4.5 Data Collection Procedures

After the ten sample schools were identified, letters asking for cooperation were personally distributed to all the sample schools by the investigator of the study. The letters were written and signed by the head of the Department of Educational Planning and Management, Addis Ababa University. After the letters were distributed the researcher personally contacted the sample schools' principals to briefly introduce them with the purpose of the study and to get their consents. Then appointment was fixed with each sample school principal to obtain list of teachers that included their background information like total experience in the teaching profession and year of services in their current schools.

After having the list of teachers, those teachers with less than three years experience in their respective schools were omitted from the list. Finally, list of teachers fulfilling the criterion, serving a minimum of three years in their current school, was arranged in alphabetical order and given codes. The codes were written on relatively equal size pieces of paper, rolled up and mixed. Someone available around and whose name not in the list was invited to draw the required number of rolls among the rolled pieces of paper. The codes on the drawn rolls were checked against the list and teachers with drawn codes were used as sample member. The same procedure was used in all the ten sample schools to select the sample teachers.

After sample teachers of the ten schools were identified, orientations were given to them at their respective schools on the purpose of the study and on how to complete each questionnaire. Then both the questionnaires (the LPI-observer and the TMQ) were distributed to each of them. After the surveys were distributed explanations was given on some items of the LPI-observer based on comments during the pilot test. Finally, they were given a week to complete the surveys.

The LPI-self was also distributed to all sample schools' principals to rate their own leadership practices. After a week the surveys were collected back from both the sample teachers and principals and the obtained data were organized and arranged in the SPSS software to facilitate the analysis process.

Moreover, documents like school reports on students' achievement and summarized data of grade ten national exams were obtained from all the sample schools to analyze students' achievement. The obtained data were screened and grade ten students achievement on EGSECEs were focused on. Accordingly, the three consecutive years (2013/14- 2015/16) students' achievement on grade ten national exams of each sample school were organized and arranged in ways that suit the analysis process (see Appendix A).

3.4.6 Data Analysis

This sub-part presents the statistical tools that were used to analyze the data collected in order to answer the research questions and the corresponding hypotheses. As it is stated under the first chapter, the major purpose of this study was to answer the following research questions and to test the hypotheses indicated under each question.

Q1. Is there a statistically significant relationship between principals' daily leadership practices and teachers' motivation in AACG secondary schools?

Ho: There is no statistically significant relationship between principals' leadership practices (combined score and individual scores), as measured by the LPI, and teachers' motivation, as measured by the TMQ in the AACG secondary schools.

To answer this research question and to test the hypothesis indicated, quantitative values of the combined LPI scores and its five sub-category scores and the total TMQ scores were

analyzed using descriptive statistics, one way ANOVA, eta squared, t-test and Pearson r. Descriptive statistics were used to obtain means and standard deviations of each sample school on the LPI and the TMQ. One way ANOVA was used to test the relationship between principals' leadership practices and teachers' motivation. According to Venkatesh, Brown and Bala (2013) the relationships between two variables can be examined by using one way ANOVA via comparing the mean of the dependent variable between two or more groups within the independent variable. Accordingly, in this study, the participant schools were divided into three groups based on their scores on the independent variable. Then the means of the three groups on the dependent variable were compared to each other. The advantage of using ANOVA test is that its post-hoc tests allow to better control type-one error (Hopkins, 2000). Therefore, in order to control type-one error, one way ANOVA was used as data analysis technique for this study.

Eta squared was used to check the strength of the relationship between the independent variable (Principal Leadership Practices) and the dependent variable (Teacher Motivation). Pearson r was also used to test the strength of the relationship between the two variables. Fisher's protected t-test was calculated to check pair wise significance difference between the means of the high, moderate and low groups on the TMQ.

Q2. Is there a statistically significant relationship between principals' leadership practices and students' achievement in the AACG secondary schools?

Ho: There is no statistically significant relationship between principals' leadership practices, as measured by the LPI, and students' achievement, as measured by the Ethiopian General Secondary Education Certificate Examination (EGSECE) in the AACG secondary schools.

To answer this research question and to test the hypothesis stated, the Leadership Practices Inventory (LPI) and student achievement scores on EGSECEs were analyzed using

descriptive statistics, one way ANOVA, eta squared, and t-test. Descriptive statistics were used to calculate the means and standard deviations of each sample school on the LPI and the means and standard deviations of students' achievement. The one way ANOVA was used to test the relationship between principals' leadership practices and students' achievement. Eta squared was used to check the strength of the relationship between the independent variable (Principal Leadership Practices) and the dependent variable (Student Achievement). Fisher's protected t-test was used to check pair wise significance differences.

Q3. Is there a statistically significant relationship between teachers' motivation level and students' academic achievements in the secondary schools of the AACG?
Ho: There is no statistically significant relationship between teachers' motivation level, as measured by the TMQ, and students' achievement, as measured by the EGSECE, in the AACG secondary schools.

To answer this research question and to test the hypothesis stated, the quantitative values of Teachers Motivation Questionnaire (TMQ) scores and students' achievement scores were analyzed using descriptive statistics, one way ANOVA, eta squared, and t-test. Descriptive statistics were used to obtain the means and standard deviations of the TMQ and students' achievement for each sample school. The one way ANOVA was used to test the relationship between the independent variables (teachers' motivation) and the dependent variable (students' achievement). Eta squared was used to check the strength of the relationship between the independent variable and the dependent variable. Fisher's protected t-test was employed to check pair wise significance difference between the means of the high, moderate and low groups on students' achievement.

3.5 Qualitative Phase

As explained under the research method subsection in this chapter this study follow a QUAN-qual method in which the quantitative is dominant and the qualitative one is aimed at supplementing the quantitative data and result. More focus was given to the quantitative method for the reason that it was more appropriate to answer the research questions and test the hypotheses stated under the sub-sections 1.4 and 1.5. As a result, to increase the internal validity of the study, to clarify and understand the findings, and to give a complete picture to the quantitative results a less dominant qualitative phase was conducted.

3.5.1 Sampling

For the qualitative phase, the participants were selected using purposive sampling. Participants were selected, from the same sample schools used for quantitative phase, based on their services in their current school. Teachers' names were arranged on a list based on years of experience in their respective school from the highest to the lowest. Those teachers selected to complete the surveys were removed from the list. Then two teachers from each sample school with highest years of experience were approached. A teacher willing to be interviewed was directly selected and a teacher not willing was replaced by the next teacher with highest years of service. Accordingly, from the ten sample schools, a total of twenty teachers, two from each sample school, were interviewed. All the interviewed twenty teachers have at least five years experience in their respective schools. Focus on the experienced teachers was given purposely in order to obtain rich information for the study.

In addition to the twenty key participants interviewed, four additional teachers were selected for the second round interview from school 009. The second round interview was conducted after the quantitative data were analyzed and results were known. School 009 was

found to be with deviated results in the relationship between the independent and dependent variables in this study. It was the only school in which low mean scores of principals' leadership and teachers' motivation were associated with high mean score of students' achievement. Hence, the second round interview was conducted to understand reasons for the deviated results of the quantitative analysis. The teachers selected for the second round interview were not selected to complete the surveys as well as not being interviewed in the first round.

3.5.2 Qualitative Data Collection Instruments and Procedures

For this phase of data collection, interview guides were used. The guides were developed to gain rich information and to obtain reasons for quantitative results. The first round interview items were developed based on the important themes raised by the quantitative surveys. The alignment of the interview items with the research questions were checked by the expert panel, PhD candidates in Educational Policy and Leadership in Addis Ababa University, before the questions were used. Based on their comments, the items were modified or replaced by other items. The alignment of the research questions with the corresponding interview items are in Appendix F.

The second round interview items were developed to obtain reasons for the deviated results of the quantitative analysis. The interviews were conducted with four experienced teachers from school 009. The interviews were conducted after the quantitative data analysis was made to identify reasons for the deviated results regarding the relationship between the independent and dependent variables in school 009 (see Table 11, Table 17, and Table 18 for the deviated results).

As indicated under the sampling subsection, for the first round interviews, two purposely selected teachers from each sample school, with at least five years services in their respective

schools and not selected to complete the surveys, were contacted to introduce them with the purposes of the study and to arrange time for interviews. After consent was obtained from the selected teachers time for interview was arranged with each of them and the interviews were conducted accordingly in all the sample schools. The same procedure was used to select and interview the four teachers for the second round from school 009. In both rounds, the interview items were presented to each interview respondent in the same order as presented in Appendix F.

3.5.3 Trustworthiness of the Qualitative Data

Trustworthiness refers to honesty, richness, authenticity, depth, and strength of the qualitative data (Cohen, Manion & Morrison, 2007). The most practical way of achieving greater validity in qualitative method is to minimize bias (Cohen, Manion & Morrison, 2007). Hence, to ensure trustworthiness or increase validity in this qualitative phase, the investigator of this study followed the following methods.

First, the investigator spent at least five days in each sample school to submit the permission letter, to select sample teachers, and to distribute and collect the survey instruments. Interviews with participants were held after the survey instruments were collected. During his stay in each sample school, the researcher tried to observe the general work environment including informal discussion among teachers, communication between teachers and principal. This helped him to get a general picture about the relationship between teachers and principal in each sample school and accordingly to refine responses of the interviewees.

Second, in addition to written notes taken by the interviewer, investigator of this study, tape recorder was used during interviews under the consent of the interviewees. Recording was done to minimize the investigator's bias and for reference purpose during the analysis. In relation to this Seidman (2006) explained that tape recordings guaranteed researchers to access original

data during the analysis process. Immediately, after interview with each respondent was completed, the researcher carefully listened to the recorded response and compared it with the written notes he took. Points missed were included and integrated with the written note and final summary of each respondent's response to each question was prepared. The prepared summary of each interviewee was rechecked by each of them and signed for agreement (see for a sample in Appendix H).

3.5.4 Analysis of Qualitative Data

In this study qualitative data were analyzed using the following procedures: First, the summarized respondents' responses were changed in to a transcript. Then the transcript was summarized, arranged and organized into themes. Second, major and comprehensive ideas given by specific respondents in relation to basic themes were identified, summarized and coded to be presented under each research question and to materialize the results of the quantitative analysis. Third, both the original and the summarized data were given to an external person to compare them and provide comments if some basic ideas were omitted. The external person was a secondary school teacher working in a school out of the Addis Ababa city and who was a graduate student of school leadership. Finally, the summary was revised based on the comments of the external evaluator and presented in the analysis part under Chapter Four of this study.

3.6 Ethical Consideration

Each participant was included in the study based on their willingness. After the purpose of the study was clearly explained participants were invited to participate on informed consent and freely without any deception. Individuals who were not willing to participate in the study were omitted and automatically replaced by other participants that were selected using the same

sample selection procedure. In addition, tape recorder was used during interviews after permission was obtained from each interviewee.

The surveys were coded before they were distributed to the participants so that participants were not required to write their names on the surveys. Moreover, their responses were used only for research purpose and were kept confidential. In addition, sample schools were presented using codes in the analysis part. In general, information and data obtained from the participants were used only for research purposes and not transferred to any other third party.

Students' scores on EGSECEs were used after permission was obtained from the sample school principals. Moreover, name of students were omitted and replaced by code numbers by the school principals or by record officers before they were received by the investigator of this study. Hence, the researcher of this study analyzed the documents without having information about the names of the students.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

This Chapter deals with the presentation and analysis of data collected from the sample schools and teachers. The first subsection of this chapter presents data about participants' demographic characteristics and return rate of survey instruments. The second subsection presents the analysis of data pertaining to principals' leadership practices. The third subsection presents the summary of data about teachers' motivation. The fourth subsection presents summarized data about students' achievement. In the fifth subsection, principals' leadership practices scores are analyzed against teachers' motivation scores for each sample school. The last subsection presents analysis of students' achievement scores against teachers' motivation scores and principals' leadership practices scores.

4.1. Sample Schools and Respondents' Characteristics

4.1.1 Sample Schools

For the sake of confidentiality, sample schools are presented using codes. Accordingly, school 001 is a code for a school selected among ten government secondary schools in Kolfe-Karanio sub-city. School 002 was selected among six government secondary schools in Gulele sub-city. School 003 was selected from six secondary schools in Bole sub-city. School 004 was selected among ten secondary schools in Nifassilk-Lafto sub-city. School 005 was selected among four secondary schools in Lideta sub-city. School 006 was selected among nine secondary schools in Akaki-Kality sub-city. School 007 was selected from eight secondary schools in Yeka sub-city. School 008 was selected from four secondary schools in Kirkos sub-city. School 009 was selected among thirteen secondary schools in Arada sub-city. School 010 was selected among five secondary schools in Addis Ketema sub-city.

4.1.2 Respondents' Characteristics

Table 2: Demographic information of the participants

No	***School Code***	***No of teachers***			***Sample teachers***			
		M	***F***	***T***	***M***	***F***	***T***	***%***
1	001	97	29	126	39	11	50	39.68
2	002	71	12	83	29	4	33	39.76
3	003	51	14	65	20	6	26	40.00
4	004	57	17	74	25	5	30	40.54
5	005	46	8	54	18	4	22	40.74
6	006	37	16	53	15	6	21	39.62
7	007	89	30	119	35	13	48	40.34
8	008	88	24	112	36	9	45	40.18
9	009	75	15	90	31	5	36	40.00
10	010	97	35	132	40	12	52	39.39
Total		***712***	***197***	***908***	***288***	***75***	***363***	***39.96***

Source: Compiled based on data obtained from the sample schools

Table 2 presents each school's number of participants and their characteristics. All the participant teachers selected to complete the surveys have at least three years of service in their respective schools. The sample teachers were selected proportionally from each school. The average proportion of sample teachers covered about 39.96 percent of the total teachers in each sample school.

The proportion of female teachers in the total sample ranges from about 12 percent to 29 percent. Female teachers account for the highest proportion in school 006 and they covered about 29 percent of the total sample teachers selected from the school. The least proportion of female teachers was observed in school 002 and they covered only about 12 percent of the total sample teachers of the school. In general, female teachers covered about 21 percent of the total sample teachers of this study.

Twenty teachers, two from each of the ten sample schools were selected for an interview. In addition, four key respondents were selected from school 009 for the second round interview.

Totally, 24 teachers were interviewed in this study. All the 24 teachers selected for interviews have served at least for five years in their respective schools. Five of the 24 interviewed teachers were female. In the first round, four female teachers, one from each of school 001, 006, 007, and 008, were interviewed. In the second round, one female teacher was interviewed.

All the 24 respondents were not selected to complete the surveys. The four teachers selected from school 009 for the second round interview were not also interviewed in the first round. This was done to increase diversity of ideas and to gain rich information for the study.

4.1.3 Survey Instruments Return Rate

Table 3: Return rate of the survey instruments

No	***School Code***	***Sample teachers***			***Return rate***			
		M	***F***	***T***	***M***	***F***	***T***	***%***
1	001	39	11	50	36	9	45	90
2	002	29	4	33	29	4	33	100
3	003	20	6	26	17	4	21	80.77
4	004	25	5	30	23	5	28	93.33
5	005	18	4	22	18	4	22	100
6	006	15	6	21	12	6	18	85.71
7	007	35	13	48	34	11	45	93.75
8	008	36	9	45	26	6	42	93.33
9	009	31	5	36	31	5	36	100
10	010	40	12	52	40	12	52	100
Total		***288***	***75***	***363***	***276***	***66***	***342***	***94.21***

Source: Own survey

As indicated in Table 3, in schools 002, 005, 009 and 010 the returned rate was 100 percent. All the sample teachers in these schools completed the surveys and returned. School 003, on the other hand, was a school with the lowest return rate; only 21 (80.77%) of the distributed questionnaires were completed and returned. Sixty six (88%) of the 75 sample female teachers completed and returned the surveys, whereas 276 (95.83%) of the male teachers returned the survey instruments. There were 342 surveys returned, which represented 94.21% of

the sample. All the collected questionnaires were complete and no questionnaire was excluded because of errors or incompleteness.

4.2 Analysis of the LPI Scores

Before directly analyzing the data collected from the sample teachers about their principals' daily leadership practices, the principals' self rating scores were evaluated against the teachers' rating scores of their principals. To evaluate the principals' self evaluation against teachers' evaluation of their leadership practices a two-tailed t-test of alpha level 0.5 was used as indicated in Table 4.

Table 4: Analysis of the total LPI scores, self against observer

No	Item	n		Mean		SD		t-value	t-crit
		P	T	Self	Obser	Self	Obser		
1	Total LPI	10	342	292.1	186.14	4.12	53.06	33.63	1.96
2	Modeling the way			59	36.24	0.94	10.67	34.98	
3	Inspiring a shared vision			58.4	37.38	1.17	10.66	30.69	
4	Challenging the process			58.1	36.16	1.1	11.43	30.94	
5	Enabling others to act			58.7	38.53	1.42	11.26	26.64	
6	Encouraging the heart			57.9	37.81	1.45	11.83	25.53	

Source: Data obtained from survey instruments

Table 4 depicts that the scores of principals' self-evaluation mean scores on the total LPI as well as on its subcomponents were far greater than the mean scores of teachers' evaluation of their principals. The t-values indicated significant difference between the mean scores of the observers' evaluation and the self-evaluation. All the principals rate their leadership practices higher than the teachers rate them.

Most principals mean evaluation scores of observers rest in the range of moderate except for some principals that were rated high by their teachers on the total LPI score as well as in some subcomponents (see Tables 5-10). On the other hand, all the principals rate their leadership

practices higher and all of them rest in the range of high score. As a result further analysis using the LPI-self score was not made since it may leads to a wrong conclusion. Hence, all the analysis and comparisons with other two factors, teachers' motivation and students' achievement, made below depends on the LPI–observer scores.

Analysis of the total LPI

To analyze the obtained data from the LPI-observer and categorize the school principals' scores as high, moderate and low, mean scores of each school on the LPI was calculated. For the purpose of this study, school principals' mean scores less than half of the total score or below 150 out of 300 were considered as low score, mean scores that rest between half of the total score and two thirds of the total score (or greater than or equal to 150 but less than 200) were categorized as moderate, and mean scores greater than or equal to two thirds (or 200) were grouped as high score. Accordingly, the categorization was made as indicated in Table 5.

Table 5: Total LPI- observers' scores and sample schools categorization

School	n	Min	Max	Mean	SD	Category
001	45	141	251	201.71	23.00	High
002	33	94	229	185.79	36.30	Moderate
003	21	73	242	170.92	51.74	Moderate
004	28	91	239	167.8	49.24	Moderate
005	22	62	239	188.74	53.87	Moderate
006	18	114	268	200.48	38.34	High
007	45	104	274	205.67	41.40	High
008	42	113	250	207.56	36.66	High
009	36	33	270	136.31	72.20	Low
010	52	72	289	201.13	60.76	High

Source: Data from survey instruments

Based on the criteria indicated, the mean scores of school principals of schools 001, 006, 007, 008 and 010 were categorized as high score on the LPI –observer as shown in Table 5.

Mean scores of school principals from schools 002,003, 004, and 005 were categorized as moderate and the only mean score categorized as low score was that of school principal of school 009. Moreover, the categorization on the five components of the LPI was made as follows.

In order to analyze the obtained data from the LPI- observer on each component and to categorize the school principals' scores as high, moderate and low, mean scores of each school principal on each component of the LPI was calculated. For the purpose of this study, mean scores less than half of the total score of each component of the LPI or below 30 out of 60 were considered as low score. Mean scores between half of the total score and two thirds of the total score (or greater than or equal to 30 but less than 40) on each component of the LPI were categorized as moderate. And mean scores on each component of the LPI greater than or equal to two thirds (or >= 40) were grouped as high score. The categorization is summarized as indicated in tables 6 - 10.

Table 6: Mean score of each sample school on Modeling the Way and categorization

School	n	Min	Max	Mean	SD	Category
001	45	23	49	37.82	5.707	Moderate
002	33	14	46	36.58	8.344	Moderate
003	21	15	47	34.04	9.820	Moderate
004	28	16	47	32.31	10.789	Moderate
005	22	12	49	36.67	11.586	Moderate
006	18	24	53	37.87	8.792	Moderate
007	45	21	54	40.67	8.362	High
008	42	23	51	40.47	7.148	High
009	36	7	53	27.64	13.672	Low
010	52	11	56	39.00	12.444	Moderate

Source: Data from survey instruments

As indicated in Table 6, based on the evaluation scores of the subcomponent of the LPI, Modeling the way, mean scores of principals from schools 007 and 008 were categorized as high score, whereas mean score of school principal from school 009 was categorized as low score.

The remaining seven schools (001, 002, 003, 004, 005, 006 and 010) mean scores were categorized as moderate score.

Table 7: Mean score of each sample school principal on Inspiring a Shared Vision

School	n	Min	Max	Mean	SD	Category
001	45	24	51	39.60	6.28	Moderate
002	33	14	47	37.27	7.41	Moderate
003	21	13	50	34.42	10.04	Moderate
004	28	18	48	34.00	9.82	Moderate
005	22	13	51	38.11	10.55	Moderate
006	18	20	53	39.83	9.09	Moderate
007	45	22	53	41.48	8.72	High
008	42	17	51	40.72	8.50	High
009	36	6	50	27.58	13.87	Low
010	52	15	58	41.38	11.56	High

Source: Data from survey instruments

As indicated in Table 7, based on Inspiring a Shared Vision, mean scores of principals from schools 007, 008 and 010 were categorized as high score. On the other hand, mean score of a principal from school 009 was categorized as a low score and the remaining other school principals' mean scores on Inspiring a Shared were categorized as moderate scores.

Table 8: Sample school principals' mean scores on Challenging the Process

School	n	Min	Max	Mean	SD	Category
001	45	27	53	42.21	2.24	High
002	33	14	48	35.45	7.86	Moderate
003	21	14	46	33.62	10.10	Moderate
004	28	15	48	32.37	11.19	Moderate
005	22	12	48	36.78	10.81	Moderate
006	18	22	58	39.43	9.01	Moderate
007	45	20	57	39.06	10.13	Moderate
008	42	27	54	39.88	7.56	Moderate
009	36	5	58	26.58	15.46	Low
010	52	11	56	37.54	13.78	Moderate

Source: Data from survey instruments

As indicated in Table 8, in relation to Challenging the Process, mean score of a principal from school 001 was categorized as a high score and that of school principal from school 009

was categorized as a low score. The remaining eight school principals' mean scores were categorized under a moderate group.

Table 9: Principals' mean scores on Enabling Others to Act and categorization

School	n	Min	Max	Mean	SD	Category
001	45	31	51	40.97	4.72	High
002	33	20	49	38.85	7.66	Moderate
003	21	13	49	34.15	10.95	Moderate
004	28	17	51	35.00	10.15	Moderate
005	22	12	53	39.26	12.63	Moderate
006	18	20	55	42.91	8.66	High
007	45	18	56	42.52	8.91	High
008	42	21	53	41.97	6.82	High
009	36	7	55	28.36	15.45	Low
010	52	14	60	42.31	12.72	High

Source: Data from survey instruments

As indicated in Table 9, based on Enabling Others to Act, five of the ten principals' mean scores, mean scores of principals from schools 001, 006, 007,008, and 010, were categorized under high score. Mean score of school principal from school 009 was categorized as a low score. The remaining four school principals' scores were categorized under the moderate group.

Table 10: Principals' mean scores on Encouraging the Heart and categorization

School	n	Min	Max	Mean	SD	Category
001	45	27	52	41.56	5.48	High
002	33	20	45	36.79	8.15	Moderate
003	21	14	55	34.62	12.02	Moderate
004	28	18	49	34.11	10.15	Moderate
005	22	11	49	37.93	11.12	Moderate
006	18	28	54	40.43	7.56	High
007	45	17	59	41.94	10.63	High
008	42	25	56	44.50	8.41	High
009	36	5	56	26.14	15.89	Low
010	52	19	60	40.97	12.86	High

Source: Data from survey instruments

As indicated in Table 10, regarding Encouraging the Heart, mean scores of principals of five schools (schools 001, 006, 007, 008 and 010) were categorized as a high score, whereas the

mean score of a principal from school 009 was categorized as a low score. The remaining four school principals' mean scores were categorized under a moderate group.

4.3 Analysis of the Motivation Scores

Sample teachers were invited to rate their motivation level on the survey that contains 40 items with four rating scales (1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree). The score of this survey ranges from 40 (a teacher that rate his/her motivation to the lowest score 1 on all items) to 160 (a teacher who rate his/her motivation level to the highest score 4 on all items). Table 11 presents the minimum, maximum, means and standard deviation scores of teachers' motivation from the ten sample schools, as they evaluated themselves on the teacher motivation survey.

Table 11: Sample schools teachers' motivation scores and categorization

School	n	Min	Max	Mean	SD	Category
001	45	78	136	110.21	14.93	High
002	33	96	159	103.61	11.95	Moderate
003	21	64	141	105.35	23.02	Moderate
004	28	64	136	101.40	19.62	Moderate
005	22	63	139	111.70	22.58	High
006	18	89	144	113.61	14.96	High
007	45	64	148	116.33	18.41	High
008	42	93	146	114.06	18.58	High
009	36	49	122	82.89	26.12	Low
010	52	84	157	112.15	19.24	High
Total	342	49	159	106.70	21.45	Moderate

Source: Data from survey instruments

From Table 11, it is clear that almost all sample schools' teachers have rated their motivation level between the total mean plus or minus the total standard deviation (106.70 ± 21.45) except one school's teachers that have rated their motivation level below the total mean minus one standard deviation (106.70 – 21.45 = 85.25). Teachers of school 009 rated their motivation level to the lowest level as compared to other sample schools teachers.

4.4 Analysis of Students' Achievement

This sub-topic presents analysis of students' achievement for three consecutive years on grade ten national examinations. A summary of students' achievement is presented in Appendix A. However, a brief explanation of each school's student achievement is presented as follows.

School 001 has averaged 1476 students for the last three consecutive years (2013/14 – 2015/16) for grade ten national exams. Among these students only 6.46% achieved 3.00 and above total grade point average. About 62% of the total students achieved between 2.00 and 3.00. From the total students who sat for the national exams in the indicated years in this school, on average, more the 30% achieved below 2.00. The three years mean of the total students' scores for school 001 was M = 2.25 and the standard deviation was found to be SD = .56.

In school 002, a total of 1763 students sat for the national exams for the last three years. About 21% achieved 3.00 and above. About 60% achieved between 2.00 and 3.00. The remaining 19% achieved below 2.00. The three years mean and standard deviation of the total students scores for school 002 were found to be M = 2.51 and SD = .63.

In school 003, from the average 1551, about 15% achieved a total grade point of 3.00 and above in the indicated three consecutive years. About 62% achieved between 2.00 and 3.00 grade point average. The remaining 20% of the total students achieved below 2.00. The three years mean and standard deviation of the total students scores for this school were found to be M = 2.45 and SD = .60.

School 004 has averaged a total of 1536 students for grade ten national exams for the indicated three years. About 18% scored a total grade point average of 3.00 and above. About 65% of them achieved a grade point average between 2.00 and 3.00. The remaining 16% scored

below 2.00. The three years mean and standard deviation of the total students scores for this school were found to be M = 2.52 and SD = .58.

In school 005, an average 922 students sat for the national exams for the last three years. Among the total students, only about 6% scored a total grade point average of 3.00 and above. About 61% achieved a total grade point average between 2.00 and 3.00. The remaining 33% scored below 2.00. The three years mean and standard deviation of the total students' scores for school 005 were found to be M = 2.23 and SD = .57.

In school 006, an average of 1774 students sat for grade ten national exams for the last three consecutive years. On average about 20% scored 3.00 and above total grade point average. About 68.50% of the total students scored between 2.00 and 3.00, whereas the remaining 11% achieved below 2.00. The three years mean and standard deviation of the total students scores for this school were calculated to be M = 2.60 and SD = .55.

School 007 has averaged a total of 2309 students for grade ten national exams for the last three consecutive years (2013/14 – 2015/16). On average about 27% achieved 3.00 and above, while only about 9% on average achieved below 2.00. The remaining 64% achieved between 2.00 and 3.00. The three years mean and standard deviation of the total students scores for school 007 were found to be M = 2.68 and SD = .56.

In school 008, an average of 2144 students sat for grade ten national exams for the last three consecutive years. Among these students about 18% scored a total grade point average of 3.00 and above, whereas about 26% scored below 2.00. The remaining 56% scored a total grade point average between 2.00 and 3.00. The three years mean and standard deviation of the total students scores for school 008 were calculated to be M = 2.43 and SD = .66.

In school 009, an average of 2690 students sat for grade ten national exams for the last three years. About 35% scored a total grade point of 3.00 and above, whereas only about 3% were achieved below 2.00. The remaining 62% achieved between 2.00 and 3.00. The three years mean and standard deviation of the total students scores for this school were calculated and found to be M = 2.82 and SD = .53.

School 010 has averaged a total of 2867 students for grade ten national exams for the last three years. About 18% achieved a total grade point of 3.00 and above, while about 20%, on average, achieved a total grade point below 2.00. The remaining 62% scored a total grade point between 2.00 and 3.00. At school 010, the three years students' mean score on EGSECES was found to be M = 2.49 and the standard deviation of the total students scores for the three years was found to be SD = .62.

4.5 Analysis of Teachers' Motivation against Principals' Leadership Practices

Six one way ANOVA were calculated to analyze and check the relationship between principals' leadership practices and teachers' motivation in order to answer the research question and the hypothesis.

Q1: Is there a significant relationship between principals' leadership practices (aggregate and each subcomponent) and teachers' motivation?

Ho1: There is no significant relationship between principals' leadership practices (aggregate and each of its five subcomponents) and teachers' motivation.

In order to answer this basic question and test the hypothesis, principals' leadership practices and its five subcomponents were used as independent variables and teachers' motivation was used as a dependent variable. Accordingly, the total score of the LPI (observer)

and its five subcomponents were used as the independent variable scores and the total motivation score was used as the dependent variable score. The total score of the LPI and its five subcomponents were categorized as high, moderate and low based on the criteria set for this study and explained in this chapter (see Tables 5 - 10). Accordingly, the sample schools were categorized as schools with high, moderate, and low scores of the total LPI and its subcomponents and the teachers' motivation scores of the sample schools were analyzed in relation to these six categories.

Analysis of total teacher motivation scores against total LPI scores

Table 12 presents the summary of total motivation mean scores categorized based on the total LPI scores. As indicated in the table, the calculated one way ANOVA ($F(2, 339) = 39.75$) is much greater than the F critical value (3.00) at alpha level ($\alpha = .05$). This value indicated statistically significant differences between the mean scores of the three groups in motivation of teachers. The result implied a strong relationship between principals' leadership practices and teachers' motivation. Hence, the null hypothesis stated that there is no statistically significant relationship between principals' leadership practices and teachers' motivation was rejected.

Moreover, the strength of the relationship between the independent variable (principals' leadership practices) and the dependent variable (teacher motivation) was tested by using eta squared (η^2). The value of the eta squared ($\eta^2 = .19$) indicated a strong relationship between the variables. The value of an eta squared ($\eta^2 >= .14$) indicates a strong relationship (Cohen, 1988). In addition, Pearson r was also calculated to check the strength of the relationship. Pearson r ($r = .88$) was high and statistically significant at $p < .05$. The effect size as measured by r^2 was large ($r^2 = .77$) that almost 77% of the variance in teachers' motivation levels was accounted for by principals' leadership practices.

Table 12: ANOVA table for teacher motivation level and principal leadership practices

Total LPI	*n*	*M*	*SD*	*df*	*F*	η^2	*r*	*p*
Low	36	82.89	26.12	2, 339	39.75	0.19	0.88	<.05*
Moderate	104	105.16	19.56					
High	202	113.19	17.43					
Total	342	106.70	21.45					

*significant at .05 level

Since the one way ANOVA test was found statistically significant, F (2, 339) = 39.75 at (p < .05), it is important to conduct post hoc comparisons to evaluate pair wise significance differences between the means of the three groups. The result of the one way ANOVA is not indicating whether there are significant differences or not between the means of the high, moderate and low groups. Hence, pair wise analysis was conducted to evaluate the existence of a significant difference between any two means. For this purpose, Fisher's protected t-tests procedure was selected since it is more appropriate to test significant difference between means of samples with different sample sizes.

The conducted Fisher's protected t-test indicated a significant difference between the means of the high group and the moderate group. The t-value (t = 15.26), with df = 339, and at α = .05, is greater than the t-critical (t = 1.96). Hence, the mean of the high group (M = 113.19, SD = 17.43) was significantly higher than the mean of the moderate group (M = 105.16, SD = 19.56). Similarly, the t-value (t = 26.43) indicated a significant difference between the mean of the moderate group and the lower group. The mean of the moderate group (M = 105.16) was significantly higher than the mean of the lower group (M = 82.89). Consequently, the mean of the high group was significantly greater that the mean of the low group (t = 38.40).

Analysis of Teachers motivation against each of the five subcomponents of the LPI

1. Modeling the Way

Sample schools were categorized as low, moderate and high based on scores on Modeling the Way. One way ANOVA was conducted to evaluate the difference between the mean of the three groups' in total motivation scores. As presented in Table 13 the calculated one way ANOVA, F (2, 339) = 35.63, was statistically significant at alpha level (α = .05). Thus, there was a significant difference between the mean scores in teachers' motivation between the mean scores of the high, moderate and low groups. This indicated a significant relationship between the independent and independent variables. Hence, the null hypothesis stated as there is no statistically significant relationship between teachers' motivation and principals' leadership practices subcomponent, Modeling the Way, was rejected.

The strength of the relationship between the independent variable (Modeling the Way) and the dependent variable (Teacher Motivation) was also tested using eta squared. The value of the eta squared (η^2 = .17) indicated a strong relationship between the two variables. Table 13 presents the summary of the means, standard deviations, one way ANOVA and eta squared statistics for the motivation of teachers by levels of Modeling the Way.

Table13: ANOVA table for teacher motivation level and Modeling the Way

Modeling the Way	*n*	*M*	*SD*	*df*	*F*	η^2	*p*
Low	36	82.89	26.12	2, 339	35.63	0.17	<.05*
Moderate	219	108.10	18.61				
High	87	115.22	18.61				
Total	342	106.70	21.45				

*significant at .05 level

Since the one way ANOVA test indicated a statistically significant difference between the means of the three groups, post hoc comparisons were conducted to evaluate pair wise significance difference between any two means. For the pair wise significance analysis Fisher's protected t-tests was employed since the groups were with different number of sample sizes.

The conducted Fisher's protected t-test indicated a statistically significant difference between the means of the high group and the moderate group. The t-value ($t = 2.88$) at $df = 339$, $\alpha = .05$ was statistically significant. The mean of the high group ($M = 115.22$, $SD = 18.61$) was significantly higher than the mean of the moderate group ($M = 108.10$, $SD = 18.61$). Similarly, the calculated t-value ($t = 7.18$) indicated a significant difference between the means of the moderate group and the low group. The mean of the moderate group ($M = 108.10$) was significantly greater than the mean of the low group ($M = 82.89$). The mean of the high group was also significantly greater than the mean of the low group ($t = 7.99$).

2. Inspiring a Shared Vision

Table 14 presents the summary of total motivation mean scores of the high, moderate and low groups categorized based on Inspiring a Shared Vision. To evaluate the difference between the three groups' mean scores a one way ANOVA was calculated. As indicated in the table, the calculated one way ANOVA, $F (2, 339) = 37.01$, was significant at alpha level ($\alpha = .05$). It showed a significant difference between the mean scores of the three groups in total motivation and indicated the existence of a relationship between the independent and the dependent variables. Hence, the null hypothesis stated as there is no significant relationship between teachers' motivation and principals' leadership practices subcomponent, Inspiring a Shared Vision, was rejected.

In addition, to check the strength of the relationship between the independent variable (Inspiring a Shared Vision) and the dependent variable (Teacher Motivation) an eta squared test was conducted. The value of the eta squared ($\eta^2 = .18$) indicated a strong relationship between the two variables.

Table 14: ANOVA table for total motivation level and Inspiring a Shared Vision

Inspiring a Shared Vision	*n*	*M*	*SD*	*df*	*F*	η^2	*p*
Low	36	82.89	26.12	2, 339	37.01	0.18	<.05*
Moderate	167	107.21	18.40				
High	139	114.07	18.68				
Total	342	106.70	21.45				

*significant at .05 level

Since the one way ANOVA test indicated a statistically significant difference between the means of the three groups in total motivation, post hoc comparisons were conducted to evaluate pair wise significance differences between any two mean scores. To make the pair wise significance analysis, Fisher's protected t-tests procedure was used.

Fisher's protected t-test indicated a significant difference between the means of the high and the moderate groups. The t-value (t = 3.08) at df = 339, $\alpha = .05$ is greater than the t-critical (t = 1.96). Hence, the mean of the high group (M = 114.07, SD = 18.68) was significantly greater than the mean of the moderate group (M = 107.21, SD = 18.40). Similarly, the difference between the mean of the moderate and the lower groups was also statistically significant (t = 6.80). The mean of the moderate group (M = 107.21) was significantly higher than the mean of the lower group (M = 82.89). In the same way, the mean of the high group was significantly greater than the mean of the low group (t = 8.54).

3. Challenging the Process

Table 15 presents the summary of the three groups mean scores in total motivation categorized based on Challenging the Process. As indicated in the table, the result of one way ANOVA, F (2, 339) = 30.34, was statistically significant at alpha level ($\alpha = .05$). It indicated a statistically significant difference between the mean scores of the three groups in total motivation. This showed the existence of a relationship between teachers' motivation and Challenging the Process. Hence, the null hypothesis stated as there is no statistically significant relationship between teachers' motivation and principals' leadership practices subcomponent, Challenging the Process, was rejected.

Moreover, to check the strength of the relationship between the independent (Challenging the Process) and the dependent (Teacher Motivation) variables an eta squared was conducted. The result of the test ($\eta^2 = .15$) indicated a strong relationship between the two variables.

Table 15: ANOVA table for total motivation and Challenging the Process

Challenging the Process	*n*	*M*	*SD*	*df*	*F*	η^2	*p*
Low	36	82.89	26.12	2, 339	30.34	0.15	<.05*
Moderate	261	109.68	19.26				
High	45	110.21	14.93				
Total	342	106.70	21.45				

*significant at .05 level

Since the one way ANOVA test was statistically significant, post hoc comparisons were conducted to evaluate pair wise significance differences between the mean scores of the high, moderate and low groups. To make the pair wise significance analysis, Fisher's protected t-tests procedure was selected since it is appropriate to analyze the significant difference between the means of two groups with different sample sizes.

The conducted Fisher's protected t-test indicated no significant difference between the means of the high and the moderate groups. The calculated t-test ($t = .17$, $df = 339$, $\alpha = .05$) is less than the t-critical ($t = 1.96$). Hence, the mean of the high group ($M = 110.21$, $SD = 14.93$) was not significantly greater than the mean of the moderate group ($M = 109.68$, $SD = 19.26$). On the other hand, there was a statistically significant difference between the means of the moderate group ($M = 109.68$) and the low group ($M = 82.89$). The calculated t-value ($t = 7.69$) indicated a significant difference between the two means. The mean of the moderate group was significantly greater than the mean of the low group. Similarly, the mean of the high group was significantly greater than the mean of the low group ($t = 6.25$).

4. Enabling Others to Act

Table 16 presents the value of one way ANOVA computed to evaluate the difference between the three groups' mean scores in total motivation of teachers categorized based on the scores of Enabling Other to Act. The value one way ANOVA, $F (2, 339) = 39.75$, was statistically significant and indicated a significant difference between the mean scores of the three groups in teachers' motivation. This indicated the existence of a relationship between teachers' motivation and principals' leadership practices subcomponent, Enabling Other to Act. Hence, the null hypothesis stated as there is no significant relationship between the two variables was rejected.

The strength of the relationship between the independent variable (Enabling Others to Act) and the dependent variable (Teacher Motivation) was also checked using eta squared. The value of the eta squared ($\eta^2 = .19$) was indicated a strong relationships between the variables. The summary of the means, standard deviations and ANOVA statistics for the motivation of teachers by levels of Enabling Others to Act are presented in Table16.

Table 16: ANOVA table for total motivation and Enabling Others to Act

Enabling Others to Act	*n*	*M*	*SD*	*df*	*F*	η^2	*p*
Low	36	82.89	26.12	2, 339	39.75	0.19	<.05*
Moderate	104	105.16	19.56				
High	202	113.19	17.43				
Total	342	106.70	21.45				

*significant at .05 level

Since the value of the one way ANOVA indicated a statistically significant difference between the three mean scores, post hoc comparisons were conducted to evaluate pair wise significance differences between any two means of the three groups.

Accordingly, the computed Fisher's protected t-test (t = 3.47) indicated a significant difference between the means of the high and the moderate groups at (df = 339, α = .05). The mean of the high group (M = 113.19, SD = 17.43) was significantly greater than the mean of the moderate group (M = 105.16, SD = 19.56). Similarly, the calculated t-value (t = 6.01) showed a significant difference between the means of the moderate and the low groups. The mean of the moderate group (M = 105.16) was significantly greater than the mean of the lower group (M = 82.89). Likewise, the difference between the mean of the high group and the mean of the low group was statistically significant (t = 8.74). The mean of the high group (M = 113.19) was significantly greater than the mean of the low group (M = 82.89).

5. Encouraging the Heart

Table 17 presents the value of the one way ANOVA computed to evaluate the difference between the mean scores of the three groups in total motivation of teachers categorized by scores of Encouraging the Heart. The calculated one way ANOVA, F (2, 339) = 39.75, was significant

at alpha level ($\alpha = .05$) and indicated a statistically significant difference between the mean scores of the three groups in teachers' motivation. This indicated a relationship between the independent variable (Encouraging the Heart) and the dependent variable (Teachers' Motivation). Hence, the null hypothesis stated as there is no significant relationship between the two variables was rejected.

Moreover, the calculated eta squared value ($\eta^2 = .19$) indicated a strong relationship between the subcomponent of principals' leadership practices, Encouraging the Heart, and teacher motivation level. The summary of the means, standard deviations and ANOVA statistics for the motivation of teachers by levels of Encouraging the Heart are presented in Table 17.

Table 17: ANOVA table for total teacher motivation and Encouraging the Heart

Encouraging the Heart	*n*	*M*	*SD*	*df*	*F*	η^2	*p*
Low	36	82.89	26.12	2, 339	39.75	0.19	<.05*
Moderate	104	105.16	19.56				
High	202	113.19	17.43				
Total	342	106.70	21.45				

*significant at .05 level

Since the one way ANOVA test indicated a statistically significant difference between the three groups' means, post hoc comparisons were conducted to evaluate pair wise significance differences between any two means. The conducted Fisher's protected t-test, $t = 3.47$, at $df = 339$, $\alpha = .05$, indicated a significant difference between the means of the high and the moderate groups. The mean of the high group ($M = 113.19$, $SD = 17.43$) was significantly greater than the mean of the moderate group ($M = 105.16$, $SD = 19.56$). Similarly, the t-value ($t = 6.01$) indicated a statistically significant difference between the mean of the moderate group and the low group.

The mean of the moderate group (M = 105.16) was significantly greater than the mean of the low group (M = 82.89). Likewise, the difference between the mean of the high group and the mean of the low group was statistically significant (t = 8.74). The mean of the high group (M = 113.19) was significantly greater than the mean of the low group (M = 82.89).

In general, the conducted one way ANOVA and the t-tests indicated statistically significant relationships between teachers' motivation and principals' leadership practices. The results of the analysis indicated significant relationships between teachers' motivation and principals' leadership practices and all its five subcomponents. Moreover, the conducted eta squared (η^2) tests indicated strong relationships between the dependent variable (teachers' motivation) and the independent variable (principals' leadership practices and its five subcomponents). Schools with high total scores on the LPI and its subcomponents have also high scores on teachers' motivation and vice versa. Hence, principals' daily leadership practices have direct and strong relationship with teachers' motivation.

4.6 Relation between Principals' Leadership Practices and Students' Achievement

One way ANOVA was used to check the relationship between principals' leadership practices and students' achievement.

Q2: Is there a significant relationship between principals' leadership practices and students' achievement?

Ho2: There is no statistically significant relationship between principals' leadership practices and students' achievement.

To facilitate the analysis process, sample schools were categorized as high, moderate and low groups based on their scores on the LPI. The categorization was made based on the criteria indicated and presented in Table 5. Accordingly, schools 001, 006, 007, 008, and 010 were

categorized under a high group. Schools 002, 003, 004, and 005 were categorized under a moderate group. And school 009 was categorized under a low group (see Table 5). In computing the one way ANOVA, principals' leadership practices was treated as an independent variable and students' achievement was considered as a dependent variable.

Table 18 presents the mean scores of the three groups, the value of one way ANOVA and other related statistical values. The value of one way ANOVA to evaluate the difference between the means of the three groups was statistically significant. The calculated value of F (2, 19029) = 2933.65 is much greater than the F-critical (F = 3.00) at alpha level (α = .05). Thus, there were statistically significant differences between the mean scores of the three groups in students' achievement. This indicated the existence of a relationship between the independent variable and the dependent variable. Hence, the null hypothesis stated as there is no statistically significant relationship between principals' leadership practices and students' achievement was rejected.

Moreover, the strength of the relationship between the independent variable and the dependent variable was also tested using eta squared. The value of eta squared (η^2 = .24) was high and indicated a strong relationship between principals' daily leadership practices and students' achievement. Table 18 presents the statistical values.

Table 18: ANOVA table for student achievement and principal leadership practices

Total LPI	*n*	*M*	*SD*	*df*	*F*	η^2	*p*
Low	2690	2.84	0.53	2, 19029	2933.65	0.24	<.05*
Moderate	5775	2.45	0.10				
High	10570	2.50	0.13				
Total	19032	2.54	0.12				

*significant at .05 level

Since the one way ANOVA test was statistically significant, post hoc comparisons were conducted to evaluate pair wise significant differences between any two means of the three groups. To make the pair wise significance analysis, Fisher's protected t-tests procedure was employed since the groups were with different sample sizes.

The conducted Fisher's protected t-test indicated a significant difference between the mean score of the high group and the mean score of the moderate group. The calculated t- value ($t = 13.40$ at $df = 19029$, $\alpha = .05$) is greater than the t-critical ($t = 1.96$). Hence, the mean of the high group ($M = 2.50$, $SD = 0.13$) was significantly greater than the mean of the moderate group ($M = 2.45$, $SD = 0.10$). Similarly, the calculated t-value ($t = 73.25$) indicated a statistically significant difference between the mean of the moderate group and the mean of the low group. However, it indicated that the mean of the low group ($M = 2.84$) was significantly greater than the mean of the moderate group ($M = 2.45$). Likewise, the difference between the mean of the high group and the mean of the low group was statistically significant ($t = 69.04$). The analysis, however, indicated that the mean of the low group ($M = 2.84$) was significantly greater than the mean of the high group ($M = 2.50$).

In general, data from nine schools indicated a strong and direct relationship between principals' daily leadership practices and students' achievement. The computed analysis of variance and the eta squared indicated a strong and direct relationship between the two variables. Sample schools with high mean scores of the LPI were also with high mean scores of students' achievement and vice versa.

However, the computed Fisher's protected t-test indicated that students' achievement mean score of a school categorized as low group was significantly greater than the mean scores of schools categorized as high and moderate groups based on the mean scores of the LPI. In

other words, the three years mean score of students' achievement on the EGSECEs of school 009, categorized as a low group on the LPI, was significantly greater than the mean scores of the schools categorized as high and moderate groups on the LPI.

4.7 Relationship between Teachers' Motivation and Students' Achievement

One way ANOVA was computed to answer the research question.

Q3: Is there a significant relationship between teachers' motivation and students' achievement?

Ho3: There is no statistically significant relationship between teachers' motivation and students' achievement.

To investigate the relationship between teachers' motivation and students' achievement, sample schools were categorized in to three groups based on their mean scores on teachers' motivation. Sample schools with mean scores greater than 110 on teachers' motivation were categorized as a high group. Schools with mean scores between 90 and 110 on teachers' motivation were categorized as a moderate group. Schools with mean scores less than 90 on teachers' motivation were categorized as a low group. Accordingly, schools 005, 006, 007, 008, and 010 were categorized under the high group; schools 001, 002, 003, and 004 were categorized under the moderate group; and school 009 was categorized under the low group (see Table 11).

To investigate the relationship between teachers' motivation and students' achievement, one way ANOVA was used to compare the mean scores of the three groups on grade ten national exams students' achievement. In this analysis, teachers' motivation was considered as the independent variable and students' achievement was considered as the dependent variable.

Table 19 presents the mean scores of the three groups in students' achievement and the value of the computed one way ANOVA. The value of the analysis of variance was statistically significant, $F(2, 19029) = 2252.98$, at alpha level ($\alpha = .05$) and indicated significant differences

between the mean scores of the three groups in students' achievement. This result implied a strong relationship between the independent and the dependent variables. Hence, the null hypothesis stated as there is no a significant relationship between teachers' motivation and students' achievement was rejected.

Moreover, the strength of the relationship between the independent and the dependent variables was measured using eta squared. The value of the eta squared ($\eta^2 = .19$) indicated a strong relationship between teachers' motivation and students' achievement.

Table 19: ANOVA table for student achievement and teacher motivation level

Total LPI	*n*	*M*	*SD*	*df*	*F*	η^2	*p*
Low	2690	2.84	0.53	2, 19029	2252.98	0.19	<.05*
Moderate	6326	2.44	0.11				
High	10016	2.52	0.14				
Total	19032	2.54	0.12				

*significant at .05 level

Since the one way ANOVA test was statistically significant, post hoc comparisons were conducted to evaluate pair wise significance differences between the means of the three groups. Fisher's protected t-tests procedure was employed to conduct a pair wise significance analysis, since the sample size of the groups were different from each other.

The conducted Fisher's protected t-test, $t = 18.96$ at $df = 19029$, $\alpha = .05$, indicated a significant difference between the means of the high group and the moderate group. The mean of the high group ($M = 2.52$, $SD = 0.14$) was significantly greater than the mean of the moderate group ($M = 2.44$, $SD = 0.11$). Similarly, the calculated t-value ($t = 66.16$) indicated a significant difference between the mean of the moderate group and the mean of the low group. However, it indicated that the mean of the low group ($M = 2.84$) was significantly greater than the mean of

the moderate group (M = 2.44). Likewise, the difference between the mean of the high group and the mean of the low group was statistically significant. The calculated t-value, t (19029) = 56.14, indicated a significant difference between the two means. However, result of the analysis indicated that the mean of the low group (M = 2.84) was significantly greater than the mean of the high group (M = 2.52).

In general, the results of the analysis of variance and the eta squared indicated a strong and direct relationship between teachers' motivation and students' achievement. The data obtained from nine sample schools substantiate this result. However, further analysis using the Fisher's protected t-test identified that the mean score of students' achievement of a school (school 009) categorized as the low group based on its score on the TMQ was significantly greater than the mean scores of the moderate and the high groups. In other words, in school 009 low mean score in teachers' motivation was associated with high mean score in students' achievement as compared to other sample schools.

4.8 Analysis of the Qualitative Data

Qualitative data were obtained from sample respondents using interviews to identify reasons for quantitative results. The interviews were conducted in two rounds. The first round interview was conducted with a total of twenty teachers, two from each sample schools. The second round interview was held with four additional teachers selected from a school with deviated result of the quantitative analysis.

The first round interview schedule contains four questions and the second round interview schedule contains three questions (See Appendix E). The sample respondents were invited to respond to the questions accordingly. Summary of the responses of the participants are presented as follows.

Relationship between Teachers and Principals

Respondents from schools 001, 006, 007, 008 and 010 indicated that the relationship between teachers and principals in their school was good since the principals involve teachers in different decision making activities and the principals communicate in a friendly and collegial ways. However, all the respondents from all sample schools expressed their concern about the process that the city education bureau followed in principals' recruitment, selection and assignment. The respondents explained that principals were not assigned on merit basis and such kind of assignment sometimes spoils the relationships between teachers and principals.

However, respondents from schools 001, 006, 007, 008 and 010 explained that even though their principals were not assigned on merit basis they were competent and tried to exerted efforts to create conducive working environment in their schools. In relation to this, a respondent from school 007, a teacher with eighteen years service in teaching and with nine years serve in his current school, explained that:

> Our principal is assigned to our school before six year, in 2011, from somewhere outside our school. At the beginning most teachers protested his assignment and personally himself…. As a result we were not cooperative to him. However, after a few months we got him an excellent person…. He created a good relationship with almost all staff members. He is supportive, open and follows a collective decision making method. In my opinion, at present, all teachers are happy with his leadership and love to work with him.

On the other hand, respondents from school 009, a school with low mean scores of the LPI and TMQ, explained that their principal was not supportive and not involve and listen to teachers. One of the respondents, a teacher with six years service in the school, explained that: "Our principal is not working towards creating a friendly and attractive working environment for

teachers…. He [the principal] focused on punishing teachers for each and every mistakes rather than helping them to draw lessons from their mistakes."

Principals' Leadership Practices and Students' Achievement

Interview respondents of schools 002, 003, 007 and 010 explained efforts made by their principles and the improvement observed in their schools regarding students' achievement. For example, they explained that their principals arrange tutorial classes and encourage teachers to help students (eight respondents); The principals established students' study groups in which students help each other (five respondents); The principals visit classes and discusses with students on academic issues and tried to solve problems raised by students (four respondents). Specifically, a respondent from school 010, with more than 20 year teaching service and with six years service in her current school explained that:

> Our principal is a devoted leader; his attention is always on how to improve students' learning and achievement. He tried all his bests to help students. Every year, he allocates budgets for tutorial classes, encourages teachers to arrange tutorial classes, and motivates students to attend the tutorial classes regularly, especially those students whom we prepare for national exams. As a result, we observed some improvement in students' achievement last few years, though it is not comparable with the efforts we [the principal and teachers] exerted. I don't know what the problem is…. May be our school's surrounding.... It is not convenient.... It is a business area. May be that divert the attention of our students.

On the other hand, respondents from school 009 explained that their principal was not concerned about students' learning and achievement. Regarding this, one of the respondents from the school, with a total of 23 years service in teaching and 14 years service in his current

school, explained that "Our principal is not worried about students' achievement…. He [the principal] spent most of his time on a political involvement. He is a politician….

Teachers' Motivation and Students' Achievement

Concerning teachers' motivation and students' achievement, more than half of the respondents explained that most teachers at their respective school were well experienced and tried to exert efforts to help students. Pertaining to this issue, a respondent from school 006, with nine years teaching service and six years service in his current school, explained that:

> As much as we [teachers] can, we are exerting all our efforts and energy to help our students. Most teachers in my school are competent and energetic to contribute to the improvement of students' achievement. As a result, improvements in students' achievement are registered from year to year, although it is minimal. I think the problem is with the students themselves…. They give less attention to their education.

Second round interview

The second round interview was held with four selected teachers from school 009. The second round interviews were conducted based on the results of the quantitative data analysis. The results of the quantitative data analysis of this school deviated from the results of other sample schools in relation to the association between the dependent and the independent variables. As a result second round interviews were conducted with selected four experience teachers to identify the reasons for the deviated results.

All four interviewed teachers explained that there was no good relationship between their school principal and teachers. They explained that the principal is autocratic and does not involve teachers in different decision making activities. They further explained that their principal focuses on punishment even for minor mistakes. He deducts teachers' salaries for each

and every mistake. According to their explanations, such punitive and domineering behavior of the principal may forced teachers to rate the principal's leadership as well as their motivation to the lowest level.

The participants also explained that, however, teachers of the school were well qualified and experienced as well they are devoted to the profession and as a result most teachers share all what they know to their students without waiting for the principal reinforcement. For example, a teacher with eleven years service in this school explained that: "It is our profession that governs us [teachers], not the principal….. We [teachers] are here to share all what we have to our students…."

The interviewees also explained that they have been discharging their responsibilities not by the control and enforcement of other bodies but for the sake that they have the passion, commitment and dedication to the profession. One of the interviewees, with 24 years of teaching experience and seven years in his current school, explained his commitment to the profession as follows:

> I don't need to join other profession…. if I need there have been so many alternatives especially in Addis to change my profession…. However, I was born to be a teacher, there is no any force that pushes me out of this profession and restrained me from giving what I have and know to my students, except the nature.

Hence, according to the respondents from school 009, the commitment and dedication of the school's teachers to the profession as well as to the learning of their students may contribute to the betterment of students' achievement in their school.

In addition, the respondents indicated that the school is found in a calm area and surrounded by huge governmental organizations that can serve as model institutions to be joined

by educated individuals. Moreover, they explained that the school is free from resident houses and slum areas in which different unnecessary practices took place like what was observed around some schools in Addis. So, that the students are free from such practices, at least around the school, that may divert their attention. Hence, according to their explanation, this may help the students to fully focus their attention on their education and may also help them to achieve better scores on national exams.

4.9 Results of the Study

This study was aimed at identifying the relationships between principals' leadership practices, teachers' motivation and students' achievement. The LPI was used to measure principal leadership practices. TMQ was employed to collect data about teachers' motivation. Data about students' achievement were based on the Ethiopian General Secondary Education Certificate Exams (EGSECE). Three consecutive years (2013/14 – 2015/16) students' achievement on EGSECEs were collected from the sample schools and analyzed. One way ANOVA, t-tests, Pearson's r, eta squared and other descriptive statistics like mean, standard deviation were used to analyze the collected data. In addition, qualitative data were analyzed and presented in descriptive way. Consequently, the following results were obtained.

Q1. Is there a statistically significant relationship between principals' daily leadership practices and teachers' motivation?

Ho 1: There is no significant relationship between principals' leadership practices (in aggregate form and with each of its five subcomponents) and teachers' motivation.

In order to answer this research question and test the hypothesis one way ANOVA, eta squared and Pearson r were employed. The result of the one way ANOVA for the total LPI ($F=39.75$) and eta squared ($\eta^2 = .19$) indicated a strong and direct relationship between

principals' daily leadership practices and teachers' motivation. The computed Pearson r also indicated a strong and direct relationship between principals' daily leadership practices and teachers' motivation. Mainly the calculated Pearson r (r = .88) asserted that principals' leadership practices accounts for almost 77% of the variance in teachers' motivation.

The same significant relationships were obtained between each of the subcomponents of the LPI and teachers' motivation. The values one way ANOVA (F = 35.63) and eta squared (η^2 = .17) indicated a strong and direct relationship between teachers' motivation and Modeling the Way. Similarly, the values of one way ANOVA (F= 37.01) and eta squared (η^2 = .18) implied a strong and direct relationship between Inspiring a Shared Vision and teachers' motivation. The values of one way ANOVA, F= 30.34, and eta squared (η^2 =.15) indicated a strong and direct relationship between Challenging the Process and teachers' motivation. Moreover, a strong and direct relationship was obtained between teachers' motivation and Enabling Others to Act. The values of one way ANOVA (F = 39.75) and eta squared (η^2 =.19) indicated a strong relationship between the variables. The values of one way ANOVA (F = 39.75) and eta squared (η^2 =.19) also indicated a strong and direct relationship between Encouraging the Heart and teachers' motivation.

Q2. Is there a significant relationship between principals' leadership practices and students' achievement?

Ho 2: There is no statistically significant relationship between principals' leadership practices and students' achievement.

To answer this research question and test the hypothesis, one way ANOVA, eta squared and t-tests were conducted. The result of the one way ANOVA (F = 2933.65) and eta squared (η^2= .24) indicated statistically significant relationship between principals' leadership practices

and students' achievement. In other words, principals' daily leadership practices have a strong and direct relationship with students' achievement.

However, the conducted post hoc pair wise analysis of t-test indicated that the mean of students' achievement for a school categorized as low group (school 009) based on total score of the LPI was found significantly greater than the mean scores of the high and moderate groups. This result indicated that in school 009 low mean score in the LPI was associated with high mean score in students' achievement as compared to other sample schools.

Q3. Is there a significant relationship between teachers' motivation and students' achievement?

Ho3: There is no statistically significant relationship between teachers' motivation and students' achievement.

To answer this research question and test the hypothesis, a one way ANOVA, eta squared and t-tests were conducted. The result of the one way ANOVA ($F = 2252.98$) and eta squared ($\eta^2 = .19$) indicated statistically significant relationship between teachers' motivation and students' achievement. The results implied that teachers' motivation level has a strong and direct relationship with students' achievement.

However, a post hoc pair wise analysis of the t-test indicated that the mean score of students' achievement of school 009, categorized as low group based on its score on the TMQ, was significantly greater than the mean scores of students' achievement in the high and moderate groups. The results of the t-test identified an association between low mean score of TMQ and high mean score of students' achievement in school 009. In other words, in school 009, low mean score of teachers' motivation was associated with high mean score of students' achievement as compared to other sample schools.

4.10 Discussion

This study was conducted to investigate the relationship between principals' leadership practices, teachers' motivation and students' achievement. Accordingly, the findings of the study indicated a strong and direct relationship between principals' leadership practices and teachers' motivation. Principals' daily leadership practices in general as well as its subcomponents in particular were significantly associated with teachers' motivation. Similar results were obtained in the studies of Sharma and Jyoti (2006), Kocabaş and Karakose (2005), Ma and MacMillan (1999), and Evans and Johnson (1990). School principals' leadership style and their daily leadership practices play important roles in influencing teachers' motivation and job satisfaction. Principals, who provide teachers with the necessary support (Evans & Johnson, 1990; Ma & MacMillan, 1999), develop a positive working climate in schools (Atakli, 1996 cited in Eres, 2011), communicate openly, and, respect and treat teachers fairly (Guclu, 1996 cited in Eres, 2011), and provide necessary compensation and rewards (Kocabaş & Karakose, 2005) can enhance teachers' motivation and job satisfaction.

The qualitative data obtained from the interviews also strengthen this result. Respondents from schools 001, 002, 005, 006, 007,008 and 010, even though they were not happy with the principals' assignment process the city education bureau followed, they explained their principals' efforts to create conducive working environment to motivate teachers in their schools as follows: The principals communicate openly and friendly with teachers (12 respondents); the principals follow participatory leadership approach (nine respondents); the principals encourage teachers to do their best to help students (eight respondents).

Specifically, a respondent from school 007, a teacher with eighteen years service in the teaching profession and with nine years service in his current school, explained that:

> Our principal is assigned to our school before six year, in 2011, from somewhere outside our school. At the beginning most teachers protested his assignment and personally himself…. As a result we were not cooperative to him. However, after a few months we got him an excellent person…. He created a good relationship with almost all staff members. He is supportive, open and follows a collective decision making method. In my opinion, at present, all teachers are happy with his leadership and love to work with him.

On the other hand, respondents from school 009, a school with low mean scores of the LPI and TMQ, explained that their principal was not supportive and not involve and listen to teachers. One of the respondents, a teacher with six years service in the school, explained that: "Our principal is not working towards creating a friendly and attractive working environment for teachers…. he focused on punishment. He punishes teachers for each and every mistakes rather than helping them to draw lessons from their mistakes."

Principals' leadership practices were also found to have a statistically significant relationship with students' achievement. Similar results were obtained in the studies of Leithwood, Day, Simmons, Harris, and Hopkins (2006) and Marzano, Waters, and McNulty (2005). The findings affirmed that principals' daily leadership practices that contributed towards creating conducive teaching and learning environments positively influence student achievement. In relation to this, Leithwood, Louis, Anderson and Wahlstrom (2004) asserted that "leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school" (p. 5).

Interview respondents of schools 002, 003, 007 and 010 explained efforts made by their principles and the improvement observed in their schools. For example, they explained that their principals arrange tutorial classes and encourage teacher to help students (eight respondents);

The principals established students' study groups in which students can help each other (five respondents); The principals visit classes and discusses with students on academic issues and tries to solve problems raised by students (four respondents). Specifically a respondent from school 010, with more than twenty years teaching services and with six years service in her current school explained that:

> Our principal is a devoted leader; his attention is always on how to improve students' learning and achievement. He tried all his bests to help students. Every year, he allocates budgets for tutorial classes, encourages teachers to arrange tutorial classes, and motivates students to attend the tutorial classes regularly, especially those students whom we prepare for national exams. As a result, we observed some improvement in students' achievement last few years, though it is not comparable with the efforts we [the principal and teachers] exerted. I don't know what the problem is…. May be our school's surrounding.... It is not convenient.... It is a business area. May be that divert the attention of our students.

On the other hand, the post hoc analyses made using t-test identified an association between low mean score on the LPI and high mean score in students' achievement in school 009. At school 009, the mean score of the LPI was the least, whereas mean of students' achievement on EGECEs was the highest as compared to other sample schools. To understand the reason for this result, second round interview was conducted with selected four experienced teachers in this school. The respondents explained that their principal was not worried about students' learning and achievement. They explained that the principal spent most of his time on political activities not on academic issues. To the interviewees this may force sample teachers to rate the principal's leadership practices to the lowest level on the LPI.

On the other hand, the interview respondents explained that most teachers in the school are well qualified and experienced and most teachers of the school are committed and willing to share all what they know to their students without waiting for the principal reinforcement. For example, a teacher with an eleven years service in this school explained that:

> We [teachers] always arrange tutorial classes for our students, mainly for grade ten students. We provide them with worksheet and additional reading materials that help them for the national exams…. It is our profession that governs us, not the principal…. We are here to share all what we have to our students.…

They also explained that the school is located in a calm area and surrounded by huge and model governmental organizations that can motivate students to focus on their education to be member of the organizations in the future. In addition, the respondents indicated that the school is free from resident houses and places in which unnecessary practices that divert the attention of students take place. According to their explanation, the students are safe, at least around the school, from such practices and this may help them to focus their attention on their education.

According to the respondents' explanations, the commitment of the school teachers to their profession and students' learning as well as the location of the school may contribute to the betterment of students' achievement from year to year on national exams.

The other result of this study indicated a strong and direct relationship between teachers' motivation and students' achievement. Similar studies conducted by different scholars also obtained the same results. For example, Adeyinka, Asabi and Adedotun (2013), Devidson (2007), Gitonga (2012), Marzano, (2000, 2003), McKinney (2000), Nyakongo (1011), Rivkin, Hnusheck and Kain (2005), and UNESCO (2006) reported the same results that teachers' motivation has a direct and strong impact on students learning and performance.

Other similar studies conducted in relation to teachers' motivation (e.g., Agezo, 2010; Cogneau, 2003; Dolton & Marcenaro-Gutierrez, 2011; Lambert, 2004; Ololube, 2006; Salifu & Agbenyega, 2013; Sargent & Hannum, 2005) also reported that teachers' motivation level is directly associated with students' learning outcomes. In a cross-country analysis, Dolton and Marcenaro-Gutierrez (2011) detected that countries with poor records of teacher's motivation have low teacher commitment and as a result characterized by poor educational outcomes and students' achievement. VSO (2002) also affirmed that teachers' work performance in contributing to student learning is strongly influenced by their motivation level, which in general, influence the quality of education provided in a given education system.

However, further analyses in this study identified an association between low mean score in teachers' motivation and high mean score in students' achievement in school 009. The school was with the lowest mean score in teachers' motivation but with the highest mean score in students' achievement as compared to other sample schools. To understand the reason for this result, a second round interview was conducted and the respondents explained that most teachers are disappointed by: (1) the arrogant behavior of the principal; (2) unfair, unfriendly and unattractive working environment created in the school because of the principal; and (3) teachers' salary deduction even for simple mistakes. According to their explanation, these actions of the principal may lead the sample teachers to rate their motivation to the lowest level.

Hence, the qualitative data from school 009 suggest that the commitment and dedication of teachers to students' learning and the place where the school is located (quiet area, surrounded by huge and model organizations, free from resident houses) contribute to the betterment of students' achievement, whereas the principal's unfair treatment of teachers, unfriendly communication and arrogant behavior contribute to low teachers' motivation.

Chapter Five: Summary, Conclusions and Recommendations

This chapter briefly presents the summary of the research processes and results obtained in relation to each basic question. Conclusions are also presented under this chapter. Finally, the chapter presents recommendations to improve practices regarding the problems treated in this study. Recommendations for future research are also presented.

5.1 Summary

This study was aimed at investigating the interrelationship among principals' leadership practices, teachers' motivation and students' achievement. Leadership Practice Inventory (LPI-self and observer formats) was employed to measure principals' leadership practices. Teacher Motivation Questionnaire (TMQ) was used to collect data about teachers' motivation. Data about students' achievement were based on the Ethiopian General Secondary Education Certificate Exams (EGSECE). Students' achievement of three consecutive years (2013/14 – 2015/16) on EGSECEs were collected from the sample schools. To analyze the collected data one way ANOVA, Pearson r, eta squared, and other descriptive statistics like mean and standard deviation were employed. Accordingly, the following results were obtained in relation to the research questions and the corresponding hypotheses.

Research question 1:

Is there a significant relationship between principals' leadership practices and teachers' motivation?

Ho: There is no significant relationship between principals' leadership practices (in aggregate form and in each separate subcomponent) and teachers' motivation.

In order to answer this basic question and test the hypothesis one way ANOVA, eta squared and Pearson r were computed. The results of one way ANOVA described a significant relationship between principals' leadership practices (in aggregate and with its five sub-components) and teachers' motivation. The computed eta squared and Pearson r also indicated a strong and direct relationship between principals' leadership practices and teachers' motivation. More specifically, the result of Pearson's r (r = .88) indicated that principals' leadership practices accounts for almost 77% of the variance in teachers' motivation levels.

Research question 2:

Is there a significant relationship between principals' leadership practices and students' achievement?

Ho: There is no statistically significant relationship between principals' leadership practices and students' achievement.

To answer this research question and test the hypothesis, one way analysis of variance and eta squared were conducted. The results of the one way ANOVA and eta squared indicated statistically significant relationship between principals' leadership practices and students' achievement. More specifically, the results demonstrated that principals' leadership practices have a strong and direct relationship with students' achievement.

Research question 3:

Is there a statistically significant relationship between teachers' motivation and students' achievement?

Ho: There is no statistically significant relationship between teachers' motivation and students' achievement.

To answer this basic question and test the hypothesis, one way analysis of variance and eta squared were conducted. The results of the one way ANOVA and eta squared indicated a statistically significant relationship between teachers' motivation and students' achievement. In other words, the results demonstrated a direct and strong relationship between teachers' motivation and students' achievement.

5.2. Conclusions

The results of this study indicated principals' leadership practices in general and its five subcomponents in particular have direct and strong relationships with teachers' motivation and students' achievement. Schools with relatively better score in principals' leadership practices also have better scores in teachers' motivation level and in students' achievement as compared to their counterpart. These results imply that principals' ability to demonstrate the guiding principles and the shared vision of their schools through their personal thoughts and actions, their ability to inspire visions and goals and their ability to encourage teachers to act in a similar way would improve teachers' motivation and students' achievement.

In addition, principals' desire to find new ways to improve their schools through seeking, developing, and encouraging innovation, their ability to facilitate collaboration, to build team spirit and trust, to involve stakeholders, and to create an atmosphere of mutual respect may also contribute to teachers' commitment and motivation and ultimately would improve students' overall learning in general and their academic achievement in particular.

Another result of this study indicated a strong and direct relationship between teachers' motivation and students' achievement. Schools with relatively better score in teachers' motivation level have also better score in students' achievement as compared to schools with low score in teachers' motivation. This leads to the conclusion that teachers who are satisfied with

their principals' leadership, who perceived that they are fairly treated, who got the access to communicate openly with their principals and who are involved in different decision making processes might practice a productive teaching learning process in the classroom and would contribute to the improvement of student learning in general and their achievement in particular.

5.3 Recommendations

5.3.1 Recommendations to Improve Practices

To improve current practices the following recommendations are presented:

1. The results of this study indicated that principals' basic knowledge about leadership plays a major role in improving schools performance. However, during the data collection process for this study, it was observed that most sample school principals' qualification was from other fields of study and most of them were on pursuing their further education in school leadership after holding the position. Hence, this study recommends to the AACGEB to make leadership training and qualification a prerequisite to recruit and assign individuals into a principal position to contribute to improved school quality through greater professionalization, to improve satisfaction of principals in their jobs and possibly to increase number of candidates for school leadership positions.
2. Among the 20 interviewed respondents, 14 indicated that they were not happy with the way principals were recruited and assigned to their schools. They stated that individuals were assigned to principal positions based on unclear criteria without considering their leadership abilities and qualifications. Hence, this study recommends to the AACGEB and the sub-city education offices to use clear strategies in which qualified, competent and committed individuals will hold principal positions on a merit basis. Clear strategies may help teachers to prepare themselves to compete as well as to avoid complaint.

5.3.2 Recommendations for Future Researchers

The results of this study indicated a direct and strong relationship between: (a) principals' leadership practices and teachers' motivation; (b) principals' leadership practices and students' achievement: and (c) teachers' motivation and students' achievement. Conversely; the results of post hoc analysis in a single sample school indentified an association between low mean score of the LPI and high mean score of students' achievement and also between low mean score of the TMQ and high mean score of students' achievement as compared to other sample schools.

The investigator of this study strongly believes that basic and clear information and knowledge about the relationships between the identified variables as well as about their cause-effect relationship on each other play major roles in the efforts being made by the AACGEB, MoE and other stakeholders to improve the quality of education provided in the city as well as in the country as a whole. Hence, the investigator of this study recommends for:

1. A more comprehensive and deep study that will incorporate most government secondary schools in the city to check whether the deviated results observed in this study in a single sample school is an aberration or not.
2. A similar but comprehensive and deep analysis that will employ Structural Equation Modeling (SEM) to identify the relationships between the variables in secondary schools of the City Government that will include government, private, religious and community secondary schools.
3. A nationwide comprehensive and deep study that will focus on identifying the cause-effect relationships between the variables treated in this study to inform policymakers in relation to principals' recruitment, selection and training, teachers' motivation, and in relation to education quality improvement programs.

5.3.3 Recommendation for Policymakers

The results of this study indicated that principals' leadership practices have direct and strong relationship with teachers' motivation and students' achievement. Hence, this study recommends the following measures to be taken by the city education bureau and MoE to improve the quality of the secondary education system provided in the city:

1. In short term, the education bureau should have to revisit the working strategy for secondary school principals' recruitment and selection. The bureau should have to redesign strategies that will invite competent, committed and qualified teachers to the position on a merit basis.
2. AACGEB in collaboration with the MoE, in a long range, should have to develop and strictly implement school leadership framework that will bring uniformity to principals' recruitment, selection and assignment processes. The framework should have to contain detailed procedures that serve as a guideline for principals' recruitment, preparation and selection. It should have to also contain essential characteristics of effective school leadership that contributes to students' learning and academic achievement. Moreover, the frameworks have to incorporate major tasks and responsibilities to be performed by effective school leaders to contribute to the overall improvement of the secondary education system of the city.

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APPENDIXES

Appendix A

Summary of students' achievement for three consecutive years

School Code	Year	No	< 2.00 in %	2.00–2.99 in %	3.00–3.49 in %	> = 3.50 in %	M	SD
001	2013/14	643	32.31	62.42	4.41	0.86	2.25	.56
	2014/15	487	29.89	61.90	6.38	1.82		
	2015/16	346	30.53	63.54	5.21	0.72		
	Average	1476	30.96	62.58	5.32	1.14		
002	2013/14	534	15.92	53.00	12.92	18.16	2.51	.63
	2014/15	642	22.27	62.93	9.03	5.76		
	2015/16	587	18.74	64.22	11.75	5.28		
	Average	1763	19.17	60.35	11.12	9.36		
003	2013/14	664	18.31	65.47	10.29	6.37	2.45	.60
	2014/15	496	20.98	63.44	11.56	4.02		
	2015/16	391	23.08	61.78	9.74	6.40		
	Average	1551	20.64	63.41	10.36	5.55		
004	2013/14	547	12.61	68.37	12.98	6.03	2.52	.58
	2014/15	482	15.77	64.73	16.39	3.11		
	2015/16	507	19.53	63.71	15.38	1.38		
	Average	1536	15.88	65.69	14.84	3.58		
005	2013/14	347	38.33	56.20	4.61	0.86	2.23	.57
	2014/15	276	35.51	59.42	3.62	1.45		
	2015/16	299	25.08	67.56	6.36	1.00		
	Average	922	33.19	60.84	4.88	1.08		
006	2013/14	674	12.91	68.55	11.26	7.27	2.60	.55
	2014/15	562	9.43	67.44	19.40	3.74		
	2015/16	538	10.04	69.52	16.36	4.09		
	Average	1774	10.94	68.49	15.39	5.19		
007	2013/14	809	9.38	62.67	20.15	7.90	2.68	.56
	2014/15	752	8.38	64.23	21.54	5.85		
	2015/16	748	9.04	65.92	19.78	5.26		
	Average	2309	8.92	64.23	20.48	6.37		
008	2013/14	724	32.46	53.73	10.08	3.73	2.43	.66
	2014/15	567	10.23	64.02	19.58	6.17		
	2015/16	853	30.13	52.64	14.89	2.34		
	Average	2144	25.65	56.02	14.50	3.82		
009	2013/14	846	4.14	57.45	36.05	2.36	2.82	.53
	2014/15	767	3.39	55.99	38.72	1.90		
	2015/16	1077	2.41	68.80	27.58	1.21		
	Average	2690	3.41	61.23	33.24	2.12		
010	2013/14	933	19.40	65.49	7.29	7.82	2.49	.62
	2014/15	1038	15.13	61.46	17.24	6.16		
	2015/16	896	24.55	59.71	11.27	4.46		
	Average	2867	19.46	62.22	12.14	6.17		

Source: Compiled from data obtained from the sample schools

Appendix B

LEADERSHIP PRACTICES INVENTORY (Observer)

James M. Kouzes and Barry Z. Posner

To what extent does your principal typically engage in the following behaviors? Choose the response number that best applies to each statement and circle it under that statement.

1 = Almost Never **3** = Seldom **5** =Occasionally **7** =Fairly Often **9** = Very Frequently

2 = Rarely **4** = Once in a While **6** = Sometimes **8** = Usually **10** = Always

He or She:

1	Sets a personal example of what he/she expects of others	1	2	3	4	5	6	7	8	9	10
2	Talks about future trends that will influence how our work gets done	1	2	3	4	5	6	7	8	9	10
3	Seeks out challenging opportunities that tests his/her own skills and abilities	1	2	3	4	5	6	7	8	9	10
4	Develops cooperative relationships among the people he/she works with	1	2	3	4	5	6	7	8	9	10
5	Praises people for a job well done	1	2	3	4	5	6	7	8	9	10
6	Spends time and energy making certain that the people he/she works with adhere to the principles and standards we have agreed on	1	2	3	4	5	6	7	8	9	10
7	Describes a compelling image of what our future could be like	1	2	3	4	5	6	7	8	9	10
8	Challenges people to try out new and innovative ways to do their work	1	2	3	4	5	6	7	8	9	10
9	Actively listens to diverse points of view	1	2	3	4	5	6	7	8	9	10
10	Makes it a point to let people know about his/her confidence in their abilities	1	2	3	4	5	6	7	8	9	10
11	Follows through on the promises and commitments that he/she makes	1	2	3	4	5	6	7	8	9	10
12	Appeals to others to share an exciting dream of the future	1	2	3	4	5	6	7	8	9	10
13	Searches outside the formal boundaries of his/her organization for innovative ways to improve what we do	1	2	3	4	5	6	7	8	9	10
14	Treats others with dignity and respect	1	2	3	4	5	6	7	8	9	10

15	Makes sure that people are creatively rewarded for their contributions to the success of our projects	1	2	3	4	5	6	7	8	9	10
16	Asks for feedback on how his/her actions affect other people's performance	1	2	3	4	5	6	7	8	9	10
17	Shows others how their long-term interests can be realized by enlisting in a common vision	1	2	3	4	5	6	7	8	9	10
18	Asks "What can we learn?" when things don't go as expected	1	2	3	4	5	6	7	8	9	10
19	Supports the decisions that people make on their own	1	2	3	4	5	6	7	8	9	10
20	Publicly recognizes people who exemplify commitment to shared values	1	2	3	4	5	6	7	8	9	10
21	Builds consensus around a common set of values for running our organization	1	2	3	4	5	6	7	8	9	10
22	Paints the "big picture" of what we aspire to accomplish	1	2	3	4	5	6	7	8	9	10
23	Makes certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on	1	2	3	4	5	6	7	8	9	10
24	Gives people a great deal of freedom and choice in deciding how to do their work	1	2	3	4	5	6	7	8	9	10
25	Finds ways to celebrate accomplishments	1	2	3	4	5	6	7	8	9	10
26	Is clear about his/her philosophy of leadership	1	2	3	4	5	6	7	8	9	10
27	Speaks with a genuine conviction about the higher meaning and purpose of our work	1	2	3	4	5	6	7	8	9	10
28	Experiments and take risks, even when there is a chance of failure	1	2	3	4	5	6	7	8	9	10
29	Ensures that people grow in their jobs by learning new skills and developing themselves	1	2	3	4	5	6	7	8	9	10
30	Gives the members of the team lots of appreciation and support for their contributions	1	2	3	4	5	6	7	8	9	10

Appendix C

LEADERSHIP PRACTICES INVENTORY (Self)

James M. Kouzes and Barry Z. Posner

To what extent do you typically engaged in the following behaviors? Choose the response number that best applies to each statement and circle it under that statement.

1 = Almost Never **3** = Seldom **5** =Occasionally **7** =Fairly Often **9** = Very Frequently

2 = Rarely **4** = Once in a While **6** = Sometimes **8** = Usually **10** = Always

I:

1	Set a personal example of what I expect of others	1	2	3	4	5	6	7	8	9	10
2	Talk about future trends that will influence how our work gets done	1	2	3	4	5	6	7	8	9	10
3	Seek out challenging opportunities that tests my own skills and abilities	1	2	3	4	5	6	7	8	9	10
4	Develop cooperative relationships among the people I work with	1	2	3	4	5	6	7	8	9	10
5	Praise people for a job well done	1	2	3	4	5	6	7	8	9	10
6	Spend time and energy making certain that the people I work with adhere to the principles and standards we have agreed on	1	2	3	4	5	6	7	8	9	10
7	Describe a compelling image of what our future could be like	1	2	3	4	5	6	7	8	9	10
8	Challenge people to try out new and innovative ways to do their work	1	2	3	4	5	6	7	8	9	10
9	Actively listen to diverse points of view	1	2	3	4	5	6	7	8	9	10
10	Make it a point to let people know about his/her confidence in their abilities	1	2	3	4	5	6	7	8	9	10
11	Follow through on the promises and commitments that I make	1	2	3	4	5	6	7	8	9	10
12	Appeal to others to share an exciting dream of the future	1	2	3	4	5	6	7	8	9	10
13	Search outside the formal boundaries of my organization for innovative ways to improve what we do	1	2	3	4	5	6	7	8	9	10
14	Treat others with dignity and respect	1	2	3	4	5	6	7	8	9	10

15	Make sure that people are creatively rewarded for their contributions to the success of our projects	1	2	3	4	5	6	7	8	9	10
16	Ask for feedbacks on how my actions affect other people's performance	1	2	3	4	5	6	7	8	9	10
17	Show others how their long-term interests can be realized by enlisting in a common vision	1	2	3	4	5	6	7	8	9	10
18	Ask "What can we learn?" when things don't go as expected	1	2	3	4	5	6	7	8	9	10
19	Support the decisions that people make on their own	1	2	3	4	5	6	7	8	9	10
20	Publicly recognize people who exemplify commitment to shared values	1	2	3	4	5	6	7	8	9	10
21	Build consensus around a common set of values for running our organization	1	2	3	4	5	6	7	8	9	10
22	Paint the "big picture" of what we aspire to accomplish	1	2	3	4	5	6	7	8	9	10
23	Make certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on	1	2	3	4	5	6	7	8	9	10
24	Give people a great deal of freedom and choice in deciding how to do their work	1	2	3	4	5	6	7	8	9	10
25	Find ways to celebrate accomplishments	1	2	3	4	5	6	7	8	9	10
26	Am clear about my philosophy of leadership	1	2	3	4	5	6	7	8	9	10
27	Speak with a genuine conviction about the higher meaning and purpose of our work	1	2	3	4	5	6	7	8	9	10
28	Experiment and take risk, even when there is a chance of failure	1	2	3	4	5	6	7	8	9	10
29	Ensure that people grow in their jobs by learning new skills and developing themselves	1	2	3	4	5	6	7	8	9	10
30	Give the members of the team lots of appreciation and support for their contributions	1	2	3	4	5	6	7	8	9	10

Appendix D

Teacher Motivation Questionnaire

Part I: Personal Information

Please put an (X) mark on the space provided to indicate the one that best describes you and your teaching position at this time.

1. Gender: Male ☐ Female ☐

2. Age: Less than 30 ☐ 30-39 ☐ 40-49 ☐ More than 50 ☐

3. Total number of years served in this school as a teacher:

Less than 6 ☐ 6 -10 ☐ 11 – 15 ☐ More than 15 ☐

4. Total number of years employed as a teacher:

Less than 6 ☐ 6-10 ☐ 11 – 15 ☐ 16 – 20 ☐ More than 20 ☐

5. Highest degree earned: Diploma ☐ Bachelor ☐ Master ☐

10. Your monthly income:

Less than 1000 birr ☐ 1000 – 1500 birr ☐

1501- 2000 birr ☐ More than 2000 birr ☐

Part II: Main Body

Listed below are a number of items that describe how you might feel about or react to various aspects of your job. Please use the scale to the right of each item to indicate the extent to which you agree or disagree with each item. Read each statement carefully and then indicate whether you strongly disagree (SD), disagree (D), agree (A) or strongly agree (SA) with each statement. Circle one response for each item that best describes your reactions frankly. Please **do not** record your name on this document.

No	*Item*	*SD*	*D*	*A*	*SA*
1	I am proud to work in this school because my achievements are recognized properly and very well	1	2	3	4
2	I feel satisfied with my job because my school initiates me to set goals for myself and to exert efforts to achieve them	1	2	3	4
3	I feel satisfied with my job because it gives me feelings of accomplishment	1	2	3	4
4	The continuous improvement I observed in students learning and achievement is the major reason that retains me to stay in the teaching profession	1	2	3	4
5	I feel I have contributed towards my school in a positive manner	1	2	3	4
6	I prefer career advancement rather than monetary incentives	1	2	3	4
7	My job allows me to learn new skills for career advancement	1	2	3	4
8	I feel teaching as the mother of all profession and as an important job	1	2	3	4
9	My work is exciting and I have a lot of variety in the tasks that I do	1	2	3	4
10	I am empowered enough to do my job	1	2	3	4
11	My job is challenging and exciting	1	2	3	4
12	I feel appreciated when I achieve or complete a task	1	2	3	4
13	My principal always thanks me for a job well done	1	2	3	4
14	My principal always appreciate the effort I invested in teaching	1	2	3	4
15	I receive adequate recognition for doing my job well	1	2	3	4
16	My school community think I am a good teacher	1	2	3	4
17	I am proud to work in this school because I feel I have grown as a person	1	2	3	4
18	My job allows me to grow and develop as a person	1	2	3	4
19	My job allows me to improve my experience, skills and performance	1	2	3	4
20	The attitude of the principal is very accommodative in my school	1	2	3	4
21	I am proud to work in this school because the school policy is favorable for its workers	1	2	3	4
22	The policies of my school system allow me to do my job effectively	1	2	3	4

23	I completely understand the mission of my school	1	2	3	4
24	It is easy to get along with my colleagues	1	2	3	4
25	My colleagues are helpful and friendly	1	2	3	4
26	My colleagues and I have open channels of communication	1	2	3	4
27	My colleagues are supportive and important to me	1	2	3	4
28	My colleagues are cooperative in sharing experiences and materials	1	2	3	4
29	I feel a safe working condition at my school	1	2	3	4
30	I believe my job is secure	1	2	3	4
31	Our school is located in an area where I feel comfortable	1	2	3	4
32	I feel my performance has improved because of the support from my principal	1	2	3	4
33	I feel satisfied at work because of my good relationship with my principal	1	2	3	4
34	My principal is strong and trustworthy leader	1	2	3	4
35	I have an open channels of communication to interact with my principal	1	2	3	4
36	My principal values my educational opinions	1	2	3	4
37	I am encouraged to work harder because of my salary	1	2	3	4
38	I believe my salary is fair and reasonable for the amount of work I do	1	2	3	4
39	I feel satisfied because of the comfort I am provided at my school	1	2	3	4
40	I am proud to work for my school because of the existing pleasant working conditions	1	2	3	4

Appendix E

Interview Guides

First Round

1. How do you evaluate the relationship between teachers and the principal in your school? How do you explain it?
2. What efforts have been made by your school principal to improve teachers' motivation? What measures has he/she taken?
3. What efforts have been made by your principal to improve students' achievement, mainly in national exams? Explain some measures he/she has taken.
4. To what extent do teachers are committed to their profession and to improve students' achievement? Explain using specific examples.

Second Round

In your school teachers motivation level, as measured by TMQ, was found to be low as compared to other sample schools selected for this study. In addition, sample teachers of this school rated your principal's leadership practices to the lowest level as compared to other sample schools. On the other hand, students' achievement on EGSECE (for three consecutive years) was found to be better than that of the students from other sample schools. So:

1. What do you think were the reasons for teachers low motivation score in this school?
2. Why do you think that sample teachers rate your principal's leadership to the lowest?
3. What do you think contributed to students' achievement to be better than other sample schools?
4. What other factors do you think contribute to better students' achievement in this school as compared to other sample schools?

Appendix F

Research questions and corresponding interview guide items

Research Questions	Interview questions raised to in relation to the research questions
1. Is there a statistically significant relationship between principals' leadership practices and teachers' motivation?	1.How do you evaluate the relationship between teachers and the principal in your school? How do you explain it? 2.What efforts have been made by your school principal to improve teachers' motivation? What measures has he/she taken?
2. Is there a statistically significant relationship between principals' leadership practices and students' achievement?	1.What efforts have been made by your principal to improve students' achievement, mainly in national exams? Explain some measures he/she has taken.
3. Is there a statistically significant relationship between teachers' motivation and students' achievement?	1.To what extent do teachers are committed to their profession and to improve students' achievement? Explain using specific examples.

Appendix G

March 24, 2017

Dear Shimelis Zewdie:

Thank you for your request to use the LPI®: Leadership Practices Inventory® in your dissertation. This letter grants you permission to use either the print or electronic LPI [Self/Observer/Self and Observer] instrument[s] in your research. You may ***reproduce*** the instrument in printed form at no charge beyond the discounted one-time cost of purchasing a copy; however, you may not distribute any photocopies except for specific research purposes. If you prefer to use the electronic distribution of the LPI you will need to separately contact Joshua Carter (jocarter@wiley.com) directly for further details regarding product access and payment. Please be sure to review the product information resources before reaching out with pricing questions.

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Best wishes for every success with your research project.

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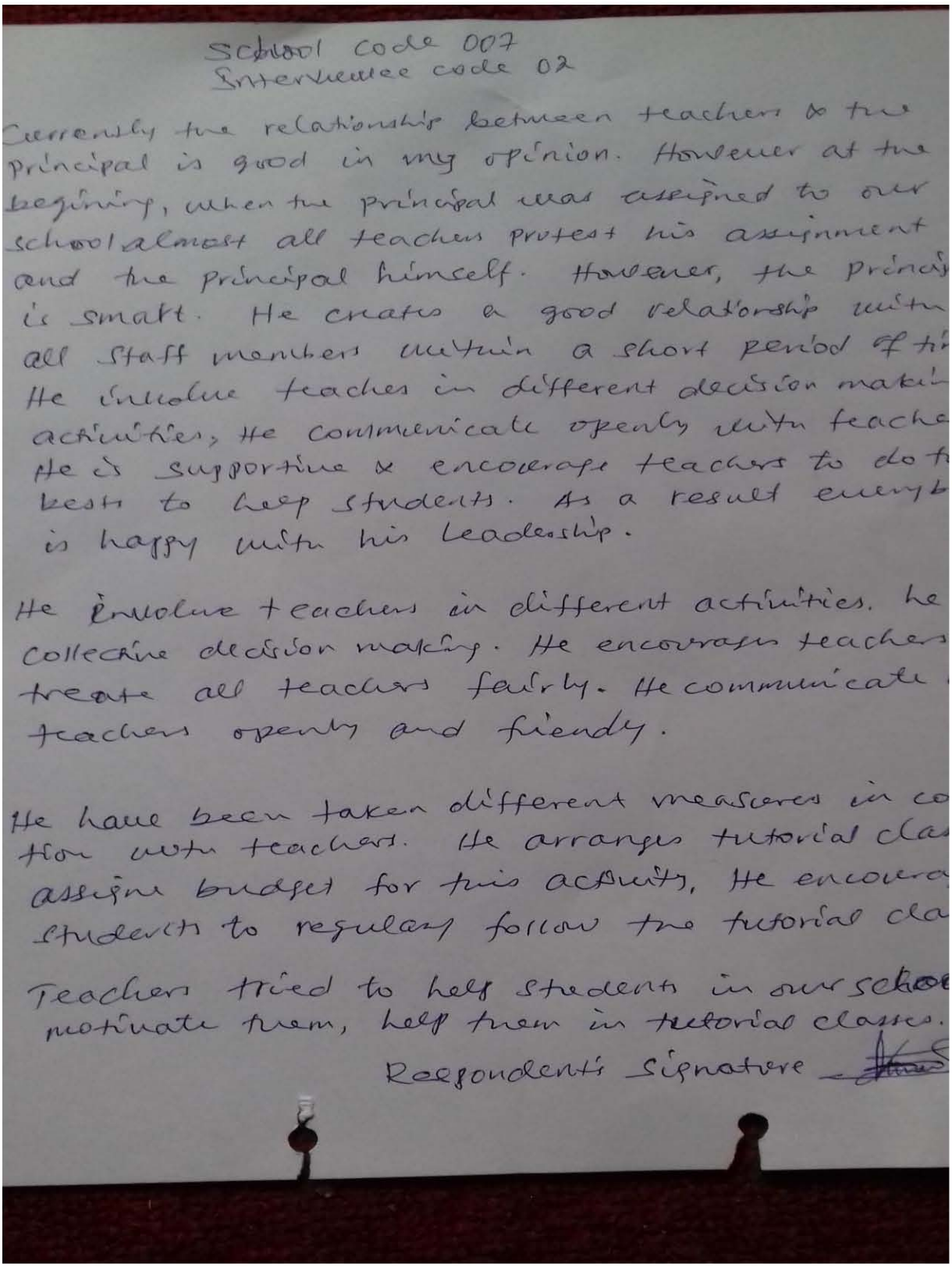
Appendix H



School code 007
Interviewee code 02

Currently the relationship between teachers & the principal is good in my opinion. However at the beginning, when the principal was assigned to our school almost all teachers protest his assignment and the principal himself. However, the princi is smart. He creates a good relationship with all staff members within a short period of ti He involve teaches in different decision maki activities, He communicate openly with teache He is supportive & encourage teachers to do t best to help students. As a result everyb is happy with his leadership.

He involve teachers in different activities. he collective decision making. He encourages teachers treate all teachers fairly. He communicate teachers openly and friendly.

He have been taken different measures in co tion with teachers. He arranges tutorial cla assigne budget for this activity, He encoura students to regularly follow the tutorial cla

Teachers tried to help students in our schoo motivate them, help them in tutorial classes.

Respondent's Signature

Appendix I

Map of Addis Ababa City Government