ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

School Leadership in Somali Regional State: Policies, Practices and Student Achievement

By:

Abdi Ahmed Garad

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ABDI AHMED GARAD

APPROVAL BY BOARD OF EXAMINERS

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Abstract

The purpose of this study was to examine the practices of school leadership (defining school mission, managing instructional program and developing positive school learning climate) within the context of Somali region and how these practices influence student academic achievement (natural, social and grade 10 students) and the effect of school context (school level, location and size) on the school leadership practices of the school principal. Explanatory correlational research design was used. Data were collected from six zones, 5 city administrations, 3 woredas, 10 schools, 337 teachers, 10 school principals and 10 school supervisors by using multi-stage sampling. Principal Instructional Management Rating Scale (PIMRS) which consists of three dimensions and 10 leadership functions were used to measure school leadership practices. Student academic achievement is measured by grade 10^{th} and 12^{th} national examination result. In this study, the three highest rated subscales are framing school goals (M=2.95, SD=0.70), communicating school goals (M=2.77, SD=0.72) and maintaining high visibility (M=2.76, SD=0.79). The three lowest rated subscales were providing incentives for teachers (M=2.36, SD=0.87), providing incentive for learning (M=2.60, SD=0.88) and promoting professional development (M=2.62, SD=0.80). The leadership dimensions of defining school mission, managing instructional program and developing positive school climate were compared with school location, level and size, there was no significant difference in the means for secondary and preparatory schools; or whether the school is located in pastoralist or agro-pastoralist areas; or the size of the school is small, medium or large; and the magnitude of the difference in the means was very small. In the last seven years, 40,587 natural science students, 25,118 social science students and 136,051 grade 10 students took grade 10^{th} and 12^{th} national examinations in Somali region. 48.49%, 44.15% and 25.69% of natural science, social science and grade 10 students respectively failed to join in higher education institutions. For grade 12, natural science students, there was strong positive correlation between student academic achievement and framing school goals ($r=0.93$, $p < 0.01$), communicating school goals ($r=0.75$, $p < 0.05$), supervising and evaluating instruction ($r=0.64$, $p < 0.05$) and protecting instructional time ($r=0.68$, $p < 0.05$). For social science student, there was strong positive correlation between student academic achievement and framing school goals ($r=0.80$, $p < 0.05$). For grade 10 students, there was strong positive correlation between student academic achievement and

framing school goals ($r=0.72$, $p < 0.05$), communicating school goals ($r=0.85$, $p < 0.01$), coordinating curriculum ($r=0.67$, $p < 0.05$), providing incentives for teachers ($r=0.71$, $p < 0.05$) and providing incentive for learning ($r=0.74$, $p < 0.05$). Ethiopian school leaders' standard is not Ethiopian standard, because the main purpose of Ethiopian school principal's standard is the Australian school leaders' objective and the central role of the Ethiopian principal is the England's head teachers' role. . For the student academic achievement of preparatory school students, the education system of the region favors more the promotion of agro-pastoralist male natural science and female social students. For grade 10 students, it favors more the promotion of pastoralist female grade 10 students. School principals should be aware and trained on generally accepted instructional leadership practices and should create and develop policies, practices, expectations, norms, and rewards that forces students to master basic skills, earn good grades, complete school successfully, and go on to higher education.

Acronyms and Abbreviation

AITSL: Australian Institute for Teaching and School Leadership

CSA: Central Statistical Authority

DFID: Department for International Development

DPA: Dutch Principal Academy

E.C: Ethiopian Calendar

EGSECE: Ethiopian General Secondary Education Certificate Examination

EUEE: Ethiopian University Entrance examination

ESDP: Education Sector Development Program

GEQIP: General Education Quality Improvement program

ISLLC: Interstate School Leaders Licensure Consortium

MOE: Ministry of education

NCSL: National College for School Leadership

NEAEA: National Educational Assessment and Examination Agency

NPQH: National Professional Qualification for Headship

OECD: Organization for Economic Cooperation and Development

PIMRS: Principal Instructional Management Rating Scale

QEI: Qatar Education Institute

SES: Socioeconomic Status

SREB: Somali Region Education Bureau

USAID: United States Agency for International Development

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Chapter One

Introduction

This chapter consists of background of the study, statement of the problem, objectives, significance, conceptual framework, delimitations, and definition of basic terms and organization of the study.

1.1 Background of the Study

After the fall of the Derg regime, the Ethiopian government began to give more emphasis to increasing the enrollment rate of primary education. For example, in ESDP II (2002), the government stated that enrollment increased from 3.1 million students to 7.4 million students between 1998-2001. As more and more children enrolled in the primary and secondary schools, the focus of the government moved from school enrollment to the improvement of the quality of schooling because access was achieved at the expense of quality of education.

As a reaction to the declining quality of education, the Ethiopian government developed a General Education Quality Improvement program (GEQIP) to improve the quality of general education throughout the country and to address the critical components of quality of education. Among other things, the program focused on the development of head teachers to improve school leadership and management (MOE, 2008). Despite a huge investment in the quality of school inputs such as teachers, books, buildings and other school infrastructures, national learning assessments indicated deteriorating trends in student achievement (ESDP IV, 2010). So, the government became more interested in school improvement through the development of school leadership policies and practices that might influence student academic achievement (MOE, 2011).

Bush (2008) stated that one characteristic of successful or an improved school is having a competent and sound school leadership. Bush also argued that there is a relationship between inadequate school leadership and failure of the school. School principals have a powerful impact on the process related to school effectiveness and school improvement and schools that bring improvements in their students' learning are led by effective leaders (Hallinger & Heck, 1998). Leithwood, Day, Sammons, Harris, & Hopkins (2006), stated that "there is not a single

documented case of a school successfully turning around its pupil achievement trajectory in the absence of talented leadership" (p. 15). Moreover, there is increasing recognition that the quality of leaders, and leadership, is very important for the learning of students.

Murphy, Hallinger, Weil, & Mitman (1982) noted the school leadership process should begin with the formulation of policies based on the characteristics of effective schools. Then practices should be developed according to these policies. And lastly, behaviors should be exercised consistent with policies. Evidence indicates both practices and behaviors of the school principal are guided by the policies of school leadership. In short, the most effective school leadership model should be developed within the policy - practice- behavior framework.

However, developers of school policies often neglect to examine the internal operation of schools, particularly the leadership aspect of the schooling such as influencing student time on task, principal and teacher behaviors etc. Instead, they focus on teacher experience and education, per pupil expenditure, number of books in the library etc., which has little relevance for school outcome unless combined with effective practices and behaviors of the principal and teachers (Murphy & Hallinger, 1984). Leithwood et al. (2006) asserted "that leadership serves as a catalyst for unleashing the potential capacities that already exist in the organization" (p. 15).

According to Murphy & Hallinger (1984) school effectiveness research provided evidence that indicates the existence of a relationship between school policies and school outcomes. Because of the evidence of school effectiveness research, different countries such as Ethiopia, the United States, England, Australia, and Qatar developed their school leadership policies in the form of standards in 2013, 1998, 2004, 2011 and 2007 respectively (Australian Institute for Teaching and School Leadership Limited, 2011a; DFES 2004; English 2003; MOE, 2013; QEI, 2007). The Ethiopian school leadership framework consists of three domains: school vision and community leadership, instructional leadership and administrative leadership (MOE, 2013).

In the school vision and community leadership domain, school leaders are expected to set an improvement agenda for the school and influence school teachers and staff to achieve the goals of the school by creating positive school learning climate through community participation. Instructional school leadership domain involves improving school curriculum and student

assessment. Lastly, the administrative leadership domain refers utilizing effectively both human and financial resources of the school (MOE, 2013).

Elmore (2000) stated the underpinning assumption of school policies is to hold schools and school systems accountable for their contribution to student achievement and to allocate reward and sanctions based on their performance. Making schools and Woreda education offices accountable for their performance, is a concept that is missing in the dictionary or rhetoric language of the Ethiopian education system (Davison, Berhanu, & Berkie, 2010). Whether the concept of accountability exists or not, school principals are expected to translate those school leadership policies into effective practices and behaviors. The practices and behaviors of school leadership depend on how they conceptualize school leadership. The three dominating frameworks that researchers of school leadership mostly use are instructional leadership, transformational leadership and distributed leadership.

Instructional School Leadership

Murphy, Hallinger, Weil, & Mitman (1982) developed an instructional leadership model that combines three most significant dimensions of school leadership: type of principal activity, functions employed by the principal and organizational processes used. The first dimension includes the functions of school leadership, which are further delineated into ten leadership practices: framing school goals and objectives; promoting high expectation; developing and promoting standard; assessing and monitoring student performance; protecting instructional time; knowledge of curriculum and instruction; promoting curricular coordination; promoting and supporting instructional improvement; supervision and evaluation of instruction; and creating productive work environment.

The second dimension, organizational processes, incorporates six leadership processes that school leaders are expected to perform: communication, conflict resolution, group process, decision-making, change process, and environmental protection. These processes are utilized in order to facilitate the implementation of school leadership practices. The last dimension, type of principal activity, involves policies, practices and behaviors of school leadership.

Transformational Leadership

Regarding transformational school leadership, Leithwood et al. (2006) proposed what they called core leadership practices or basics of successful school leadership which can be important parts of the techniques, abilities, or skills required from an effective principal, whether that school leader works in a primary or a secondary school, or school district, or s/he works in Europe, North America or Asia. They suggested four broad categories of practices: setting direction, developing people, redesigning the organization and managing the instructional (teaching and learning) program. The category of setting direction focuses on efforts to motivate colleagues and further subdivided into three specific sets of behaviors: building shared vision, fostering the acceptance of group goals and high-performance expectation. In the second category, developing people, the primary objective is to build the knowledge and skills of the staff, as well as, to improve their commitment and resilience. This category also consists of three sets of behaviors: providing individualized support/consideration, intellectual stimulation and providing an appropriate model.

The third category of core leadership practices is redesigning the organization, which gives more emphasis the working conditions of the staff, which makes conducive to accomplish the school objectives. In this practice, three categories are included: building collaborative cultures, restructuring, building productive relationships with families and communities, and connecting the school to its wider environment. The last category is managing instructional (teaching and learning) program. It involves leadership activities associated with what happening in the classroom and comprises four sets of leadership practices: staffing the program, providing instructional (teaching and learning) support, monitoring school activity and buffering staff from distractions to their work (Leithwood et al., 2006).

Distributed Leadership

In distributed school leadership, Bolden (2011) mentioned that leadership is a social process emerging through interaction of different individuals. It is not the monopoly or responsibility of one person sitting in the highest position of school hierarchy. Distributed leadership involves the openness of boundaries of leadership, with the assumption, that the knowledge and expertise of leadership practices and behaviors are distributed across many individuals, not the few.

Based on the literature on school leadership, practices and behaviors are what effective school principals do. According to Leithwood et al. (2006) school leaders are not expected to always do all these things. Rather, what matters is how they match these activities with culture and context of their schools.

School Effectiveness and Improvement

Above I discussed the importance and conceptualization of school leadership policies, practices and behaviors. But it is also essential to mention the history and contributions of school leadership. School leadership in its current form was triggered (Sammons, Hillman, & Mortimore, 1995) by the findings of Coleman et al. (1966), which stated that "family background account for far more variation in school achievement than do variations in school characteristics" (p. 228). Based on this finding, researchers (e.g., Hallinger et al., 1983) began to conduct various school effectiveness studies and found that school level factors such as strong school leadership, can strongly influence student academic achievement. Later on, these factors were translated into school leadership policies, practices and behaviors (Edmonds, 1979).

Wrigley (2001) clearly described school effectiveness research by stating:

> About 30 years ago, we came to understand the impact of poverty (family background) on schooling. ... Researchers then began to examine variations within the pattern, with evidence of significant differences between schools serving similar populations: *School Effectiveness* was born. As significant factors were identified which appeared to correlate with greater success, a basis was laid for the arrival of *School Improvement*. The new baby was quickly welcomed. School leaders wanted better results for their students (though sometimes seeking quick-fix solutions under pressure). Politicians (within an increasingly competitive global environment, with its own league tables) sought to drive up 'standards. (p. 1)

The effect of school leadership on student outcomes begins by rejecting the concept that asserts: family background is the principal cause of student achievement (Edmonds, 1979) and ends by organizing school level factors in a way to achieve higher student achievement. Edmonds (1979) argued that the concept which states that the family background of the student is the major

contribution to student achievement relieves school principals from their obligation to improve student achievement. In short, although student family background is a factor that influences student achievement, there is the possibility that schools can improve student achievement, irrespective of their family background, and school principals are expected to overcome the negative impact of the family background.

Leithwood, Harris, & Hopkins (2008) reviewed the most important results of previous school leadership studies and concluded that "school leadership is second only to classroom teaching as an influence on pupil learning" (p. 28). They also found that leadership accounts for 27% of the variation in student achievement across schools. This means that school leaders can improve student achievement indirectly through influencing teacher satisfaction and school climate. Moreover, schools can also be categorized into effective or ineffective schools or improving or declining schools based on their student achievement.

Student Achievement

Student achievement is the ultimate goal that the school leaders are expected to achieve and can be divided into academic and non-academic. Student academic achievement is measured by test or examination scores of the students. The students' non-academic achievement includes student attitude, which can be clustered into student self-concept, locus of control and educational aspirations. Glasman & Biniaminov (1981) stated that student self-concept involves student perceptions such as brightness, ease of learning and speed of instruction. Locus of control includes the extent to which the performance of the student or outcomes are attributed to self-action (internals) or to fate, luck, chance and powerful others (externals). Educational aspirations refer to student motivation which is measured by the percentage of students planning to continue their education.

Teacher satisfaction

In Ethiopia, Tadele Akalu (2014) studied the relationship between transformational school leadership and teachers' job satisfaction. Data were collected from 320 teachers in 20 government secondary schools in Addis Ababa. Tadele found that the transformational leadership practice of school principals has a positive effect on teachers' job satisfaction. He

suggested that school leaders emphasize more on developing efficient team work and the expression of warm concern for the teachers.

School Climate

Regarding school climate, Bellibas & Liu (2016) examined the influence of principals' instructional and distributed leadership practices on school climate. Using the Teaching and Learning International Survey, which was carried out by the Organization for Economic Cooperation and Development (OECD) in 2013, researchers identified school delinquency and violence and staff mutual respect as dependent variables. This study also identified principals perceived instructional and distributed leadership practices as independent variables. They found that principals' instructional and distributed leadership practices have a positive impact on staff mutual respect, which stimulates a higher level of cooperation between and among staff members. However, the researchers found that there is no relationship between leadership type and school delinquency and violence variable.

Positive school climate influences the variation between effective and ineffective schools. Student academic achievement dictates which schools are effective and ineffective; or improving or declining, because schools exist to improve the academic performance of their students. According to Leithwood, Janzti, & McElhron-Hopkins (2006), there are various ways to approach the improvement of student academic achievement. These approaches can be categorized into internal and external. The external approach involves the creation of school markets, school restructuring, setting standards, and whole school reform. The internal mechanism includes creation of professional learning communities, building collaborative cultures, providing school based professional development for teachers, and involving teachers in action research.

In sum the factors of school climate, teacher satisfaction and instructional program of the school again directly influence student achievement and school performances. Schools are categorized into effective or ineffective or improving or declining schools based on the result of their students' academic achievement.

Somali Region Context

In the Ethiopian context, Mitchell (2015) stated that the Ethiopian school improvement model contains four domains: teaching and learning, student environment, leadership and management, and community involvement. He also indicated that the framework is imported with the help of the United States Agency for International Development (USAID), Department for International Development (DFID), and other development partners, without considering the social context of the country. Whether Ethiopian school improvement is imported or home grown, the factors discussed above determine the effectiveness or ineffectiveness of schools in relation to different contexts. But what remains is the skeleton or the process that connects these factors in order to create a school wide environment that establishes academic press. The starting point is the school leader's practices that influence school climate, teacher satisfaction, and the instructional program of the school. School principals' practices are also influenced by school leadership policies, environmental factors, and their personality.

Somali region is one of the ten regional states of the country. The region is known for natural and manmade disasters. However, since the end of the Siad Bare invasion and long and tragic civil war in 1991, the region has enjoyed a period of relative peace, albeit one accompanied with a brief instability from the anti peace elements. Beginning in 1992, the central government set in motion a profound reform in governance to replace the centralized power structure of the communist era with a federal system in which regional and sub regional governments play explicit and substantive roles in the country's decision-making process including education sector.

Somalis are the third ethnic group in the country, after the Oromo and Amhara ethnic groups, and geographically the region is the second largest region (Central Statistical Authority, 2013). Its population grew from 3.5 million in 1997 to 5.3 million in 2012, which indicates a 52 percent increase in only less than two decades, or a growth rate averaging 3.5 percent a year during this period. The population is spread across the region's 9 zones in the following proportions in 2012: Faafan zone 21.8%; Siti zone 10.3%; Jarar zone 10.8%; Doolo zone 6.9%; Korahe zone 7%; Nogob zone 7.8%; Shebele zone 10.5%; Afder zone 12.8%; and Liban zone 12.1% (Central Statistical Authority, 2013).

For Somali region, evary year, more than 894,000 students attend more than 3358 schools (Ethiopian Somali Education Bureau, 2011) in the hopes that they will finish 12 years of schooling; however, very few students reach and finish grade 12 (Ethiopian Somali Education Bureau, 2011). This indicates the magnitude of the student achievement problem that exists in Somali region education sector. At regional level, key factors relating to low student learning outcomes include marginalization of the pastoralist areas under past government, failure on the part of management bodies at regional and woreda levels to give due attention to the education sector, high turnover of educational officials and ineffective school leadership (MOE, 2007).

Although there is extensive literature about school leadership policies and practices directed toward the improvement of student performance, we know less about how these policies and practices are undertaken or enacted in the context of Somali region and whether these policies and practices influence student academic achievement or not. Therefore, the purpose of this study is to examine the practices of school leadership within the context of Somali region and how these practices influence student academic achievement.

1.2. Statement of the Problem

There is common agreement between lay and professional circles that school leadership influences the performance of teachers, students and schools, and most scholars in the field of school leadership mentioned that principals make difference in student achievement (Hallinger & Heck, 1996b).

According to Leithwood & Levin (2005) school leadership plays a key role in the attempts of the government to improve schooling systems. The literature on school leadership also indicates that school leadership strongly influences student academic achievement. Leithwood and his colleague argued that the contributions of school leadership are highest where they are needed most. Because leadership stimulates and facilitates the impact of the capacity of factors that already exist in the school. Moreover, Hallinger & Heck (1998) reviewed the literature on school leadership by investigating the contributions of the principal and concluded that school leadership practices have a meaningful and statistically significant effect on student academic achievement and school effectiveness.

In the Ethiopian context, due to the declining quality of education (World Bank, 2008), the government prepared the General Education Quality Improvement Program (GEQIP I) by investing in the factors related to the quality of education such as revision and upgrading of the curriculum; development and provision of new textbooks; improving pre-service and in-service teacher education; enhancing the capacity of school leaders, parent teacher associations, and school boards; developing the planning and budgeting skills of regional and federal ministry education experts; and developing national learning assessments.

Since this program was based on the findings of school effectiveness research (World Bank, 2008), the government gave more emphasis to the implementation of school improvement programs (ESDP III, 2005) which focus on school leadership and management, parent and community partnership, student centered learning, professional development and collaboration, and quality instructional program. Despite all these investments in the quality of school input, such as providing additional funds, improving teacher qualification, providing new text books, and constructing buildings and related infrastructures, national learning assessments show deteriorating trends in student academic achievement (ESDP IV, 2010). For example, student achievement in math, reading, and English language in grade four declined from 47.9% in 2000 to 40.9% in 2008, whereas student achievement in math, English language, and science subjects in grade eight also declined from 41.1% in 2000 to 35.6% in 2008.

Wiliam (2009) emphasized that higher student achievement matters because it has a benefit for both the individual student and society. For the individual, higher student achievement results increased life time salary, improved health, and resulted in a longer life. For society, higher student achievement brings higher tax revenues, lower health care costs and reduced criminal justice costs. So as to achieve this, school leaders must create positive school climate and high level of teacher job satisfaction. Moreover, Harlen (2007) noted that student academic achievement can be used to monitor the progress of students and to evaluate the performance of schools, local authorities and the country as a whole. In short, low student academic achievement indicates the poor performance of the teachers, schools, woreda and regional education offices, and the country as a whole.

Oplatka (2004) reviewed the literature on school leadership and investigated the distinction and similarities between developed and developing countries. He argued that Anglo-American scholars constructed the concept of school leadership based on the ideal dimensions of western countries such as competitive market like environment of education. As a result, conducting school leadership research in the context of developing countries challenges ontology, epistemology and methodology of existing school leadership theories. Such research may also provide new insights on school leadership practices based on cultural, national and sociological aspects of developing countries. According to Oplatka "we need to look at the principalship as an organizational function that is generated and applied within the specific and unique social context of a country" (p. 442).

Past research on school leadership ignored the importance of considering the context particularly in developing countries. So, the purpose of this study is to examine the practices of school leadership within the context of Somali region and how these practices influence student academic achievement. Specifically, this study addresses the following questions:

1. What activities do school principals perform in their leadership practices, functions and behaviors?
2. To what extent do the contextual factors affect school leadership practices in the Somali region?
3. What is the status of student academic achievement of the students of Somali region?
4. To what extent do the school leadership practices influence the student academic achievement of the Somali region?
5. What value do school leaders place on different aspects of their school leadership practices?

1.3. Objectives of the Study

1.3.1. General Objective

This study investigated the practices of school leadership in the context of Somali region and attempted to determine the extent these practices influence student academic achievement.

1.3.2. Specific Objectives

The specific objectives of the study were:

- To identify the school leadership practices, behaviors and functions of school principals of Somali region.
- To identify the extent contextual factors, affect school leadership practices in the Somali region.
- To determine the status of student academic achievement of the Somali region.
- To determine the extent school leadership policies and practices influence student academic achievement.
- To determine the value school leaders, place on different aspects of their school leadership practices?

1.4. Significance of the Study

By examining the practices of school leadership in the context of the Somali region and determining how these practices influence student academic achievement, school leaders will better understand the practices or factors of school leadership that are crucial to student academic achievement and school performance. Policy makers also are in a position to formulate better school policies that facilitate the teaching learning process of the schools that make teachers and schools accountable for their performance. The finding of the study guide researchers to isolate school leadership variables and develop models that are more related with the context of developing countries like Ethiopia.

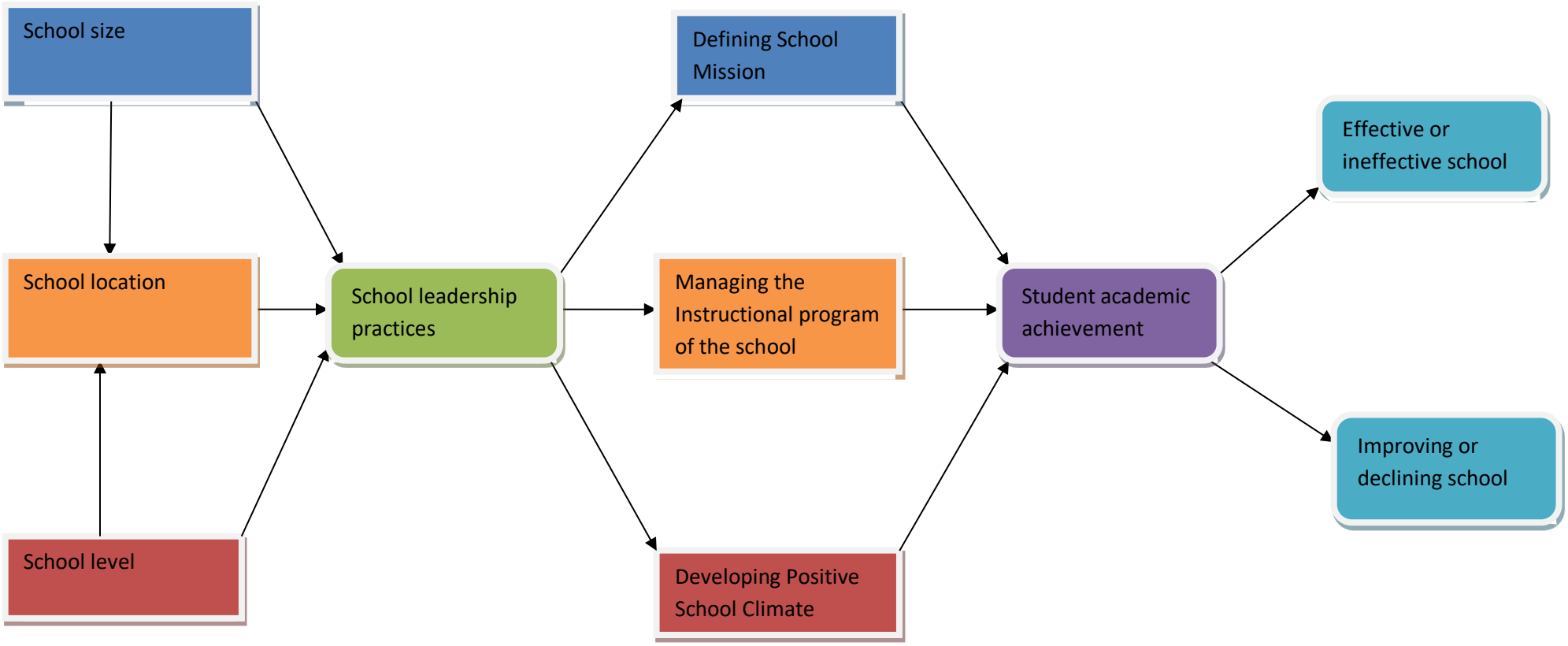
1.5. Conceptual Framework of the Study

The conceptual model of the study is based on the Bossert, Dwyer, Rowan, & Lee (1982) model of the principal's instructional leadership role; Heck, Larsen, & Marcoulide's (1990) predictive model of principal leadership; Hallinger & Murphy's (1985) model of instructional management behavior of principals; and my own reading of the literature. Figure 1.1 indicates my conceptual model. In this model, school principals' practices of defining school mission, managing the

instructional program of the school and developing positive school learning climate influence student academic achievement. Based on student academic achievement, schools can be categorized into effective or ineffective schools, or improving or declining schools. Moreover, school leaders' practice is also influenced by the contextual factors such as the level, location and size of the schools. Put differently, school principals' nature of work affects student performance and is influenced by contextual factors.

Figure 1.1

Conceptual framework of the study



1.6 Delimitations of the Study

The study is delimited to the practices of school leadership and how these practices influence student academic achievement. The practices are limited to only those that have an effect on the day-to-day activities of school principals. Instructional, transformational, and distributed school leadership are the focus of this study. The study investigated the national examination results of grade 10 and 12 students' academic achievement in the last seven years. Moreover, the study was carried out within the boundary of the Somali region.

1.7 Limitation of the Study

In the process of conducting this study certain constraints were met. For example, there was transportation problem to reach some of the sample schools such as Wardher and Harshin seconadary and preparatory schools. For Harshin, Somali region Education Bureau provided me a vehicle, whereas for Wardher I used the public transport which travels only in the night. There was also lack of willingnes for some of the respondents to fill the questionnaires although at the end, I convinced them to fill. Regarding the sample schools, I changed one of the sample schools due to the insecurity problem that existed in the area.

1.8 Definition of Terms

1. **Distributed school leadership** is a process involving the interaction of individuals across boundaries, where people with expertise and skills work together to fulfill leadership roles in the school. This promotes the school's academic capacity (Bellibas & Liu, 2016).
2. **Effectiveness:** is concerned with the ability to produce a desired result or goal
3. **Instructional School leadership** includes the policies, practices, and behaviors initiated by the school principals.
4. **Policy** is the intention of the people in the organization to solve an organizational problem.
5. **Seconadry school** is the first cycle of the secondary education which consists of grade 9 and 10.
6. **Preparatory school** is the second cycle of the secondary education which consists of grade 11 and 12.
7. **School climate** is the personality or the health of the school.

8. **School effectiveness** means the process of comparing and contrasting schools based on the performance of their students after controlling student background conditions.
9. **School improvement** means comparing and contrasting the performance of the students within a school based on the factors of school effectiveness.
10. **School leadership practice** is a product of what the school leader knows, believes, and does, in and through particular social, cultural, and material contexts.
11. **School leadership** refers to the practices of the school principal in coordinating the knowledge, skills and commitments of teachers, students, parents and other stakeholders in order to achieve common goal.
12. **Student academic achievement** is the national examination result that indicates student transition or retention status, i.e., passing or failing in the case of grade 10 examination results; or placing or not placing student in different fields of study in the university in the case of grade 12 examination result.
13. **Transformational school leadership** is a school leadership theory which gives more emphasis to the accomplishment of school wide objectives rather than classroom objectives

1.9 Organization of the Study

The study is organized into five major chapters. In the first chapter, I discussed the background of the study including the importance of school leadership, statement of the problem, the conceptual frame work and limitation of the study. In chapter two, I reviewed the three major theories of school leadership: instructional, transformational and distributed school leadership. In this chapter, I also stated the contribution expected from school leaders such as higher student achievement, positive school climate, satisfaction of the teachers, and effective or improved schools.

In chapter three, I emphasized the research design and methodology including the methods of data collection and analysis. I also mentioned the theoretical frameworks of school leadership that the researchers of school leadership employed in the last four decades. In chapter four, I presented, analyzed and interpreted the collected data. In the last chapter, I summarized the major findings and then made the conclusion and recommendation of the study.

Chapter Two

Review of Related Literature

The literature review is organized in to five sections. The first section briefly reviews the importance of school leadership. The second section is about the conceptualization and measurement of school leadership; particularly, it focuses on the concepts of instructional, transformational and distributed school leadership, in addition to how the effects of school leadership are measured. The third part involves the contribution or outcome of school leadership such as student achievement, teacher satisfaction, positive school climate, establishing effective and improved school systems etc. Then policies, behaviors and practices of school leadership were revisited in light of concepts and theories of school leadership. Lastly, I discuss different theoretical frameworks of school leadership and select the most comprehensive framework of school leadership that locates the nature of the principal's work within both in-school processes and environmental contexts.

2.1. School Leadership

Recently, school leadership became a high priority issue in education policy globally. It not only influences and motivates teachers and other school personnel, but it also improves the efficiency and equity of the schooling. As societies become more developed, what is expected from schools and school leaders increased. On the other hand, due to the decentralization schools are more autonomous and accountable for their results and school leaders perform activities that they were not required in the past such as accounting and public relation tasks (Pont, Nusche, & Moorman, 2008).

Importance of School Leadership

School leadership is very important for the learning of students. Leithwood et al. (2006) argued that school leadership has very considerable impact on the quality of school organization and on pupil learning. They provided different types of empirical evidences in their review of successful school leadership. The first was qualitative case studies conducted in exceptional school setting. These studies reported very large effects both on student learning and school condition. The second and third type of their empirical evidences was large-scale quantitative studies that examined overall leader effects and the effect of specific leadership practices. Leithwood et al.

(2006) concluded from these studies that school leadership is positively and directly or indirectly linked with improved student performance and educational experiences.

According to Groddard and Miller (2010), school leadership has been increasingly viewed as a driver for change and performance improvement in schools, and as a means through which to support America's ambitious policy goals for school improvement, student learning and the closing of achievement gaps. To achieve these goals, requires professional development programs that equip principals the skills necessary to become high quality instructional leaders and collaborate with stakeholders in schools and local communities.

Leithwood, Seashore Louis, Anderson, and Wahlstorm (2004) stated that current school reforms attempt to improve teaching and learning of students by employing different approaches. For instance, some reformers try to improve all schools in a district, state or country at the same time, while others make an effort to improve the overall education system by focusing one school at a time. There are also other reformers who may address one part of within one school's program and strive for wide spread implementation in all other schools of the district or the state, if that innovative approach achieves. They also argued that:

> All these approaches to school reform depend for their success on the motivations and capacities of local leadership. The chance of any reform improving student learning is remote unless district and school leaders agree with its purposes and appreciate what is required to make it work. Local leaders must also, for example, be able to help their colleagues understand how the externally-initiated reform might be integrated into local improvement efforts, provide the necessary supports for those whose practices must change and must win the cooperation and support of parents and others in the local community. So “effective” or “successful” leadership is critical to school reform. (p. 4)

Effective and Ineffective School Leadership

To meet these demands requires the practice of good school leadership rather than bad school leadership. According to Heber, Saravanabhavan, and Hader-Popp (2010), good school leadership is strongly linked to the notion of learning which is supposed to concern learning of all stakeholders (i.e., students, teaching staff, parents and the school leaders). Good school

leadership is also responsible to establish an optimal learning environment for all and motivate all stakeholders by providing learning characterized by enthusiasm, goal orientation, and collegiality. According to Heber et al., in school context, "leadership is not rigid but like a 'bamboo cane' adaptable to different situations and flexible and at the same time, however, consistent and by no means unpredictable" (p. 7). In addition, one of the roles expected from good school leadership is the capacity to mediate between different levels, between internal and external stakeholders and between teachers and students and parents.

In contrast, bad school leadership can be recognized by using objective facts such as low student achievement, poor student results in national and international achievement tests, little value added and high rate of absenteeism among students and teachers. Mostly, this results in a disagreeable school and learning climate characterized by fear, a lack of mutual respect, distrust, a lack of integrity and cooperation, a climate of secrecy and suspicion, and a lack of ethical and moral values. Moreover, bad school leadership is known by a dictatorial, authoritarian, opaque leadership style which does not allow the participation of others. Bad school leadership also shows a lack of knowledge, little interest in other people and a lack of capacity to understand and create leadership as a dynamic process (Heber et al., 2010).

According to Krüger (1993), what differentiates good and bad school leadership is the awareness of the school purpose and active commitment to achieve the school's mission. Krug described five main categories which good school leaders perform when they involve tasks of managing their schools. These are defining mission, managing curriculum and instruction, supervising teaching, monitoring student progress, and promoting an effective instructional climate. School leaders can use these categories to unify and direct their instructional activities.

Fidler (1997) clustered the activities that school leaders perform under the functional and process approach. Under the functional approach, he grouped the five categories mentioned by Krug. These functional components of school leadership provide a clear picture of the tasks that are required from effective school leaders, but it gives little insight in to how they may be achieved. According to Fidler (1997), these tasks can be accomplished by using different linkages such as bureaucratic, interpersonal and cultural linkages. In structural mechanism, school leaders use

policies, rules and procedures, plans and schedules, vertical information systems, supervision, and evaluation to link their activities to classroom teaching. To achieve this, school leaders clarify what and how it should be done tasks in the school by setting up information system to monitor and evaluate school outcomes and processes.

School leaders also attempt to influence teachers' classroom practice by observing, interacting and directly working with individual teachers. They may invite curriculum or instruction experts from outside the school to work with the teachers and encourage collaboration between departments. Curriculum leadership activities can be implemented by working with the heads of the departments and by influencing the culture of the school (Fidler, 1997).

Moreover, school leaders can create shared meanings and assumptions through which, they can influence implicitly teachers' classroom practices. School culture not only illuminates how we do things but it also describes the appropriate way of doing tasks. For instance, "what leaders pay attention to, matters a great deal" (Fidler, 1997, p. 33) and there should be a close relationship between what is declared as priorities and what is seen to command time and resources. Thus, symbolic actions are very important to influence the culture of the school.

In the last 20 years, schools have been given more autonomy and school leaders have become responsible for the quality of their teaching and the effectiveness of their schools. According to Krüger (2009), school reforms were originally initiated by governments or schools themselves and there were specific starting and ending points. However, today schools are in a continuous process of school improvement, without having beginning or end points and this demands a new form of school leadership. Schools are expected to develop their own way of managing their performance by providing information relating to different indicators such as the results of student academic achievement, parents' satisfaction with the school, and teachers' job satisfaction. To achieve this, school leaders must know how to lead the teaching learning process at all levels of the school.

Krüger (2009) indicated researchers of school leadership have emphasized the importance of the activities that have a direct link with instruction. She indicated that if principals are able to spend

more time on tasks that are directed towards teaching learning process, the learning result of the students will be improved. Krüger put forward a number of school leadership behaviors that are important for the school effectiveness such as mission-orientation, dissemination of the school's vision, the establishment of high expectations for students, emphasis on basic subjects, involvement with instructional methods, coordination of instructional programmes, evaluation of student progress, supervising and supporting teachers, and provision of an orderly atmosphere and learning climate.

Krüger (2009) also mentioned that these tasks can be clustered under competencies or professional profiles. For example, in the Netherlands, the Association of Secondary Education established a task force consisting of academicians, consultants, school leaders, and members of governing bodies with the intention of creating a professional profile for school leaders in the form of basic competences that replace the existing profile. The original profile contained a long list of abilities which become difficult to deal with and outdated due to the evolving new perspectives of school leadership. Based on the current research on effective leadership practices, the group formulated basic school leadership competencies by employing the effective leadership model of Bossert et al. (1982).

The task force formulated five general basic competencies of school leaders. These competencies were vision orientation, context awareness, deployment of strategies that match new forms of leadership, organization awareness, and higher order thinking. They also proposed four steps that school leaders should adhere to in order to exercise the competencies. These sub competencies describe a situation and based on the analysis, the school leader is expected to identify the competencies that match with the situation and set personal development targets of the staff that excel the performance of the school. Krüger (2009) concluded that to be effective in using these competencies and sub competencies depends largely on the organizational situation and context of the school as well as the development stage of particular school.

The leading, teaching and learning process necessitates that school leaders be acquainted with the knowledge of most effective leadership personalities, characteristics, styles, behaviors and ways of thinking. In studies conducted in non-education contexts, Yukl (2008), for example,

stated that the earliest approach to studying leadership was the trait approach, which gives more emphasis to the personality, motives, values and skills of the leaders. Leaders were seen as individuals whose own qualities differentiate them from their subordinates. Tireless, energy, penetrating intuition, authority and diligence were among the first traits to be considered. However, the research efforts to establish a relationship between personality characteristics and leadership effectiveness failed. In short, the assumption that effective school leaders should have certain personality traits was not supported.

Yukl (2008) also mentioned that many researchers became discouraged with the personality approach. They began to pay closer attention to what leaders actually do on the job rather than who they are. These researchers provided the foundation for the studies that attempted to identify exactly what effective school leaders do in their day-to-day activities. For example, Daft & Marcic (2009) mentioned the leadership studies of the Ohio State University and Michigan State University, which grouped the types of leadership behavior that most likely influence subordinate satisfaction and performance under two meta categories. These broadly defined categories are concern for tasks or task-oriented behavior as well as people-oriented behavior. Crossing the two dimensions yields four styles of leadership based on the skill and readiness level of the subordinates. These are delegating, participating, selling and telling styles of leadership.

For delegating, the leader gives the subordinates the responsibility of making decisions and their implementation because subordinates have the skill required to perform the task and they are confidence enough to carry out it. In participating style, the leader shares ideas with subordinates and invites them to take part in decision making. For the selling style, the leader provides a chance to ask questions and gain clarity and understanding about their work. Because the leader assumes that the subordinates do not have the skills necessary to perform the task, but they are willing to do it. Lastly, in telling style the leader gives the subordinates directions required to perform the activity. The leader believes that the staff lacks both the skill and commitment required to accomplish the task (Daft & Marcic, 2009).

2.2. Conceptualization of school leadership

Leadership can be conceptualized in different ways and researchers should attempt to find the appropriate manner to conceptualize and measure variables and constructs of leadership when they formulate and test leadership theories and practices (Yukl, 2008). Conceptualizations of school leadership offer various lenses to view and understand the manner in which leadership is enacted in the schools. Different conceptualizations of school leadership often serve to reflect and inform changes in school leadership practices (Bush & Glover, 2014). These conceptualizations provide various perspectives that explain events and behaviors in the schools. Bush & Glover (2014) indicated that conceptualizations of school leadership "widens horizons and avoids drawing only on the inevitably limited individual or collective experience of any school's leaders" (p. 565).

Hallinger & Heck (1998) mentioned that during last fifteen years two conceptualizations dominated in the study of school leadership: instructional leadership and transformational leadership. Recently, distributed leadership also became a useful and important theoretical lens through which researchers can study and analyze the practices and contributions of principal leadership.

2.2.1. Instructional School Leadership

Instructional leadership is the oldest concept that relates leadership with learning. Different names or constructs, such as learning centered leadership, pedagogic leadership, curriculum leadership, and leadership for learning, are used to describe this relationship. Instructional leadership focuses on the activities that have impact on school and student outcome (Bush & Glover, 2014). Niedermeyer (1977) classified three conditions that effective instructional leadership must fulfill: having common understanding of school goals, determining whether school objectives are achieved, and providing the necessary resource to achieve the objectives of the school. He argued that the skills and competencies that students must acquire should be defined in clear measurable ways so as to determine to what extent they achieved the expected result.

In Singapore, Ng, Nhuyen, Wong, and Choy (2015) reviewed the literature, both published and unpublished, on instructional leadership in Singapore, to examine the dimensions of instructional leadership practiced by Singapore school principals and strategies employed to meet the requirement of their instructional leadership roles. They found that school principals give more emphasis to developing the school vision, creating a good learning climate, and developing and improving the school wide curriculum domain and less attention to the dimension of instructional supervision and evaluation. These researchers also found that primary school principals mostly focus on the instructional leadership role, which involves day-to-day activities of the teaching and learning process at classroom level such as observing classroom practices, providing feedback and modeling instruction when necessary. While their high school counterparts concentrate school level activities including acquiring or recruiting high quality teachers, supporting teachers, and providing resources to be successful in classroom practices.

Herman and Stephens (1989) mentioned four prerequisite conditions that should be met before the school principal becomes an effective instructional leader. The first is allowing the school principal to practice a high degree of autonomy by adopting the policies that spell out the focus and direction set by the school board including skills and knowledge students are expected to learn, and the learning climate that is to be provided in the school. The second requirement is giving the principal sufficient authority to decide the utilization of human and financial resources, in addition to setting the school schedule within the framework of school policies. The third condition is assuming the responsibility of the progress and performance of the school based on the empirical evidences of students' accomplishments. The last is acquiring the support of central office and board of education especially the resources needed for successful instructional leadership.

Hallinger & Murphy (1985) examined the instructional leadership behavior of principals in terms of specific job functions and how organizational and personal factors influence the practice of principal leadership behavior. They developed a comprehensive model of instructional leadership role of the principal. This model contains three main components: defining the school mission, managing instructional program, and promoting a positive school-learning climate.

The first component, which is defining school mission, involves two sub elements i.e., framing and communicating school goals. In these elements, school leaders clearly define and communicate what the school is trying to accomplish to the school staff and students in order to create a sense of common purpose. In framing school goals, school principals use data on past and current student performance to determine areas that school staff should focus during a given school year. School principals ensure that teachers, students and parents understood the importance of school goals by discussing and reviewing them thorough formal and informal communications.

Managing the instructional program includes supervising and evaluating instruction, coordinating curriculum, and monitoring student progress. School principals are expected to make sure that school goals are translated into effective classroom practices by comparing school objectives and classroom objectives and monitoring classroom instruction through informal classroom visits. School principals also ensure a high degree of horizontal and vertical coordination of the curriculum across classes and grade levels. School principals use test results for examining student strength and weakness, setting goals, assessing the curriculum and measuring progress toward school goals.

The last component of this model is promoting a positive school learning climate, which focuses on protecting instructional time, promoting professional development, maintaining high visibility, providing incentives for teachers, developing and enforcing academic standard and providing incentives for learning. By creating a positive school climate, school principals can increase uninterrupted classroom learning time; support teachers' effort to improve instruction; increase their interaction with students and teachers; and establish a work structure that recognizes and rewards teachers for their performance.

The practices, behaviors, or functions school leaders are expected to assume are not fixed but vary from time to time and from place to place based on the context that school leadership is practiced. For example, Bridges (1967) indicated that in the literature on instructional leadership, there are four roles that school leaders are required to perform: evaluator, helper, integrator, and designer. In evaluator, the behaviors of school leaders emphasize making judgments whether the school goals are achieved and to determine the extent that the school policies and procedures are

followed and respected by the staff of the school. Based on the judgments, the school principal determines the number of teachers to be retained, promoted, transferred or dismissed.

In the second role, the principal acts as a consultant or helper. S/he observes the activities of the teachers and reports her or his view to the teachers by suggesting alternative way to improve teaching learning process of the school in the form of advice or assistance. In the third role, the principal is expected to act as integrator by coordinating the interest of the school and teachers. The school leader informs teachers what is expected and provides data on their performance. He then translates these data into school improvement goals and communicates that the support of the teachers is needed in order to achieve school goals.

According to Bridges (1967), the fourth role of school leaders is acting as a designer "which involves the production of a unique mix of persons, facilities, materials, and activities that is most effective for that situation" (p. 138). In this role, the principal must perceive the school as a system with clear understanding of what its component parts are, what they do and how they work together, in addition to its relationship with its environment such as the community, district or state authorities. Bridges argued that another important role of the school principal is missing which facilitates shifting from one role to another role based on the school context. He suggested the school leaders establish experimental social system in which the principal becomes an experimenter. So instructional leadership provides a tool-kit through which school leaders deploy different strategies for action, where they can be evaluator, helper, integrator, designer or experimenter depending on the context.

According to Bush and Glover (2014), the concept of instructional leadership has some deficiencies. First, this concept places more emphasis on teaching rather than learning. Secondly, the school principal is conceptualized as s/he is the center of school power and authority and more knowledgeable than other staff of the school. Moreover, instructional school leaders emphasize more on practices at the classroom level, whereas, transformational school leaders focus on school wide activities.

Moreover, Bass & Riggio (2006) developed a full range leadership model that conceptualizes three forms of leadership in a continuum: transformational, transactional and laissez-faire leadership theories.

Laissez-faire Leadership

Laissez-faire leadership is the absence or avoidance of leadership. Laissez-fair leaders do not use their authority; they ignore their leadership responsibilities, delay actions, and important decisions are not made at all. According to Bass & Riggio (2006):

> Laissez-faire leaders delay and appear indifferent to what is happening. They avoid taking stands on issues, do not emphasize results, refrain from intervening, and fail to perform follow-up. ... laissez-faire leaders avoid making decisions, abdicate responsibilities, divert attention from hard choices, refuse to take sides in a dispute, are disorganized in dealing with priorities and talk about getting down to work but never really do. (p. 206)

This is the most inactive and ineffective leadership style. When compared with transactional leadership, in laissez-faire leadership no transaction occurs or exists at all.

Transactional Leadership

Transactional leadership focuses the transaction or exchange that happens between leaders, colleagues, and followers. Transactional leadership exists when the leader rewards or punishes the follower depending on her or his performance. The base of transactional leadership is reinforcement whether it is positive or negative. Positive reinforcement is a contingent reward which motivates followers to achieve higher level of performance. Negative reinforcement can be the active or passive forms of management by-exception. In active management by-exception, the leader strictly monitors the gap between the planned and actual performance and takes corrective action accordingly. In passive management by-exception, the leader waits until mistakes or errors happen and then take corrective action (Bass & Riggio, 2006).

2.2.2. Transformational School Leadership

The next level or expansion of transactional leadership is transformational leadership. Transformational school leadership is a reflective, educative, and ethical process. It attempts to transform the culture and social relations in schools into shared cultures and social systems by investigating and changing the taken-for-granted aspects of school life and work (Southworth, 1999). The characteristics of transformational leadership are inspiring followers, challenging

them to become innovative problem solvers and developing their leadership capacity. Bass & Riggio (2006) identified four distinct behavioral constructs of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

Idealized influence, which means charisma or vision, is the most important characteristics of transformational leadership. Awamleh and Gardner (1999) indicated that the starting point to transform the organizations is creating and communicating vision to the followers. It is a precondition for the leader to become a transformational leader. Vision is a future image that the leader wants his or her followers to achieve. Positive follower attributions and increased trust are the product of creatively articulated vision.

Barnet & McCormick (2003) conducted an empirical study that examined one important transformational leadership behavior, the vision of the school. This study focused on creating and communicating vision to the followers and others. These researchers employed a qualitative approach and used semi-structured interview to collect data from four government high schools in New South Wales, Australia. With respect to the creation of the vision, they found that principals and teachers develop a school vision together through a lengthy collaborative process in which both the school principal and teachers process the school data and produce the vision. School principals and teachers perceive school vision as the future direction or picture of the future and stimulus for change, which emphasizes student needs, and improvement of teaching and learning.

According to Barnet and McCormick, principals communicate the school vision to their staff through leadership behaviors that are consistent, trustworthy, honest, and moral. They also practice leadership behaviors that involve individual concern, recognition and reward, and shared power and responsibilities. All these activities enable the school principal to establish the legitimacy to influence his or her staff to achieve excellence in teaching and learning. These principals consider school vision as glue that binds the school community together.

Barnet and McCormick (2003) concluded, "vision by itself was not enough to influence what most teachers actually did" (p. 69). However, vision that involves creating a shared vision,

developing consensus and commitment, and expression of high expectations is an important transformational behavior. Moreover, school vision must clearly reflect the needs, interests, values, and beliefs of the school community.

In the schooling context, Leithwood & Sun (2012) synthesized the results of 79 unpublished studies of transformational school leadership to investigate the practices of transformational school leaders that have impact on school organization, teachers' internal states and behavior, and student achievement. Using the meta-analytic review technique, they found four dimensions of transformational school leadership: setting directions, developing people, redesigning the organization, and improving the instructional program. These dimensions were further divided into 11 practices of transformational school leadership as follows: developing a widely shared vision, holding high performance expectations, providing individualized support, providing intellectual stimulation, modeling idealized influence, strengthening school culture, building collaborative structures, providing community focus, focus on instructional practices, contingent reward, and management by exception.

The first two practices, developing a widely shared vision and holding high performance expectations, are included in the first dimension. These practices involve identifying, developing, and articulating a common purpose and holding high expectation for students and teachers. The second dimension assumes that school leaders play the role of mentor, coach or high ethical model for the school staff and treat them as equals. School staff also evaluates their performance based on the advice provided by the principal.

The third dimension comprises three transformational leadership practices - strengthening school culture, building collaborative structures, and providing community focus. This dimension emphasizes creating shared school culture, ensuring staff participation in decision making and involving parents the education of their children both in the school and home. The fourth dimension points to the importance of focusing instructional development of the students, establishing reward system and utilizing management by exception.

Leithwood & Sun (2012) concluded that transformational school leadership practices have an effect that varies between moderate, significant, and positive on different aspects of school conditions such as shared goals, working environment and improved instructions. They also

asserted that these leadership practices have high to moderate effect on teacher states and behaviors as a whole, as well as student academic achievement. These results make clear that transformational school leadership practices have effect on student academic achievement and school outcome.

2.2.3. Distributed School Leadership

Distributed school leadership is disseminating the responsibilities of school leadership among the staff of the school. Distributed leadership is less dependent on the actions of a single leader, rather the leader coordinates the diverse competencies of the school staff. Leadership competencies vary among the people and complementing the skill and knowledge of one person to that of another person in the school is what is expected from skillful school principal (Copland, 2003; Elmore, 2000).

Spillane, Halverson, & Diamond, (2004) described distributed school leadership as conceptual framework that consists of four essential elements: leadership tasks and functions, task-enactment, social distribution of task-enactment, and situational distribution of task-enactment. They emphasized that the practice of distributed leadership should be based on the interaction between school leaders, followers and aspects of their situation through an interactive web of actors, artifacts and context.

According to Elmore (2000), the intention of distributed leadership practice is not to make no one responsible for the performance of the school, rather to ensure that certain number of people with different skills and knowledge are in charge, the guidance and direction of the school and hence responsible its outcome. He constructed a distributed school leadership model that consists of two important functions: describing the underpinning assumptions of distributed school leadership and identifying and sharing the main responsibilities of school leadership among and between school stakeholders.

Regarding the basic assumptions of distributed leadership, Elmore identified five principles. The first one is creating learning environment, which promotes high expectation of student achievement. The second principle is establishing learning context, which view learning as individual and collective goods, where both the individual and collective ideas and practices are examined and scrutinized by colleagues. Elmore (2000) also stated that "privacy of practice

produces isolation; isolation is the enemy of improvement" (p. 20). School leaders must be in a condition that enables them to model the learning, which they expect others to perform. In addition, their leadership influence must emanate from their knowledge and expertise, not from their formal position in the organization. The last principle is building the capacity of teachers to perform what is expected.

Elmore (2000) translated these principles into five leadership functions: policy, professional, system, school, and practice. In policy leadership, the model emphasizes coordinating political interests of different entities into common content and performance standards. Professional leadership emanates from the research community, professional associations and knowledgeable experts in the field and produces the best available knowledge at any given time regarding the common standard. Administrative leadership designs strategies, which facilitates the implementation of the standard.

Copland (2003) argued school leadership is not the function of a single individual, but it is the product of the interactions between different people with diverse skills and knowledge holding various positions in the hierarchical authority of the organizations. He suggested distributed leadership is collective activity that emphasizes clearly defined common goals. It involves spanning the internal boundaries of leadership, and decisions about who leads depend on who has the skill and knowledge to solve the problem, not where one sits in the hierarchy.

Woods, Bennett, Harvey, & Wise (2004) reviewed the literature on distributed leadership and identified three distinctive elements of the concept of distributed leadership: emergent property of leadership, openness the boundaries of leadership, and leadership according to expertise. In emergent property, leadership is considered as phenomenon which arises from group or network of interacting individuals rather than from a single hero individual. The concept of distributed leadership blurs the boundaries of leadership by widening the conventional net of leaders. The tasks of leadership are stretched over between various school leaders and staff. In distributed leadership, roles of leadership emanate from the expertise required to perform the task at hand, not dictated by the formal structure of the school.

Woods et al. also highlighted a number of variables that are important in understanding the development, nature and impact of distributed school leadership. These are the context, control

and autonomy, source of change and development, dynamics of team working, forms of distributed leadership, and conflict resolution mechanisms. Both external and internal context of the school may stimulate or hinder the adoption of distributed leadership. Distributed leaders create and stimulate positive critiquing culture in the school by taking their leadership style toward the autonomy side of control-autonomy continuum. A change towards a distributed leadership style can be started by different factors such as external initiatives of restructuring the school or internal initiatives that involve senior leadership and actors in the lower level of the hierarchy of the school.

On the other hand, distributed school leadership has some shortcomings. For example, Storey (2004) noted that distributed leadership creates misunderstandings and conflicts between different competing school leaders with respect to their vision; models and ideas of success; good practices; appropriate performance measurement at whole school, departmental and individual level; and boundaries of responsibility. She illuminated that these conflicts stem from lack of demarcation of boundaries of responsibility, and clash of leadership styles and difference in expectations and agenda. For example, the agenda of the school principal may be school effectiveness whereas the agenda of department head may be school improvement and the focus of school effectiveness and school improvement differ. School effectiveness mostly emphasizes on strong educational administration, promoting basic skills, and orderly and safe environment, whereas school improvement involves developing the capacity of the staff, professional growth and increasing the participation of the staff in decision making.

Storey (2004) argued that the source of power is not based on the competence and expertise of the individual leader as advocates of distributed leadership mentioned, rather it emanates from where the individual belongs in the hierarchy of the schooling structure. For example, senior leadership such as school principal may use positional power, whereas the department heads try to get a peer support and they may use to some extent reputational power.

Summary

Leithwood, Louis, Anderson, & Wahlstrom (2004) reviewed the literature on school leadership and stated that different types of leadership were identified using adjectives such as instructional, participative, democratic, and transformational and distributed. However, irrespective of the adjectives used, all these leadership styles are expected to achieve two targets: setting direction

for the organization and influencing the employees toward the organizational goals. Moreover, Crawford (2012) asserted that school leadership research should focus on leadership forms that reflect the cultural and policy context of school leaders by utilizing theoretical lens of both solo and distributed school leadership.

2.3. Contributions of School Leadership

If we review the history of school leadership, we can see that different names were given to school leaders such as super teacher, school administrator, school manager and school leader and these names imply in one way or another, what is expected school leaders will contribute. Similarly, the focus of school leadership studies conducted during the last forty years varies. For example, Lipham (1964) stated that in the beginning of the 1960s, most of the studies conducted regarding administrator behavior gave more emphasis to the behavioral antecedents rather than the behavior of the administrator or the organizational outcome. The dominant themes were related to the operation of the organization, organizational roles, measurement of personality variables and the study of cultural and individual values.

Bridges (1982) reviewed studies conducted between 1967 and 1980 on school administration. He analyzed 322 research reports from dissertation abstracts international and published journals of interest to researchers and practitioners in the field of educational administration. In his analysis, Bridges focused on the job title of the administrators, the institutional setting in which administrators were working in, the basic research design used in the investigation, the approach of data analysis, the frame of reference of the researcher as well as the major constructs or variables used in the studies. To examine the focus of the research, Bridges (1982) used Halpin's (1966) model of administrative behavior which consists of three facets: "the behavior of administrators in their officially designated roles, the antecedents of the behavior and the outcomes which are attributable, at least in part, to the administrator" (p. 17).

Regarding antecedents of administrative behavior, researchers emphasized person related variables, and role related variables. For person related variables, researchers studied attitudes and traits of school administrators. The most studied attributes of school administrators are:

"What they like or dislike, what they find satisfying and dissatisfying, what they consider to be pleasant and unpleasant, and what they think important and unimportant" (Halpin, 1966, p. 17).

Bridges (1982) found that researchers investigated the administrator traits or his/her personal attributes under three major categories: demographics, experiential background and personality characteristics. The personality trait studies examined motives, needs, ideologies, belief systems, values and abilities of the school leaders. Whereas the experiential background studies of school administrators focused on professional preparation such as knowledge for particular topic, years of formal education, recency of formal education and type of training. Under demographic category, researchers investigated gender, race, and ethnic background of educational leaders.

Bridges (1982) also stated that the researchers analyzed both the expectation and power factors of the school principal. In the expectation construct, researchers examined the difference between what is expected from the school administrator and their actual activity in the work place, in addition to the extent of the agreement or disagreement between school principal and school stakeholders with respect to the role of the principal. Studies that investigated power examined the organizational outcomes related with different types and sources of power.

According to Bridges (1982), researchers also examined the administrative behavior of the principal using three approaches: uni-dimensional, multi-dimensional, and work activity. In the uni-dimensional approach, researchers investigated the variables such as rule administration, informal communication, supportiveness, mobility, risk taking, evaluation and troubleshooting or the management of disruption. For the multi-dimensional approach, researchers mostly used leadership behavior description questionnaire or organizational climate description questionnaire instruments. In the work activity approach, researchers focus on two dimensions of the school leaders' work: the content of the work and its characteristics. Under the content, the dominant variables that researchers investigated were the actual activities that leaders perform and why. The studies that investigated work characteristics emphasized where managers work, with whom they work and what media they use.

When evaluating the effect of school leaders on school outcome, researchers gave more emphasis to organizational maintenance and organizational achievement (Bridges, 1982; Ericson, 1967; Krüger, 2009). Organizational maintenance activities are those related with the work environment of the schools such as promoting a safe learning climate and teacher satisfaction; setting educational goals; and developing the school's mission. The tasks that are directed toward the organizational achievements mainly consisted of the activities that affect student performance such as working closely with teachers in instructional matters and discussing teachers' classroom practices.

From this we can deduce four types of school outcomes, which school leaders can influence directly, indirectly or reciprocally. These school outcomes or products can be categorized into individual and school level based on the selected level of the unit of analysis. At individual level outcomes are student academic achievement and teacher satisfaction whereas at school level outcomes are school climate and school effectiveness or school improvement.

2.3.1. Student Academic Achievement

School leaders are very important for running day-to-day activities of schools. School leaders can also influence their school's student academic achievement through their leadership behaviors. School leaders perform certain behaviors, as instructional leaders or as administrative managers. For instructional leadership, school leaders give more emphasis to classroom related activities such as supervising and monitoring teachers, coordinating curriculum and handling student discipline. As administrative managers, school leaders prepare the budget of the school and manage the school facilities (Miller, 2013). School leaders are also expected to motivate and encourage students, teachers, parents and community to have an effect on the students' academic achievement and improve the overall productivity of the school.

Researchers (Heck, Larsen, & Marcoulides, 1990; Krüger, 2009; Miller, 2013) of school leadership attempted to study the contribution of the principal to student academic achievement by using a single dimension, two factor model or multidimensional model of school leadership in addition to meta-analysis or review studies. Employing multidimensional model, Heck et al. (1990) found that how the principal governs the school affects the work structure of the school

which consists of school climate and school instructional organization and these two constructs will directly affect student academic achievement.

Heck et al. (1990) tested whether a causal relationship exists between selected instructional leadership behaviors of the principal and the schools' student academic achievement. One hundred eighteen schools, 322 teachers and 56 principals participated in the study. The data were clustered in to elementary and high schools and low achieving and high achieving schools. Employing structural equation modeling, results show that principals can directly influence their school's student academic achievement through their leadership practices. These finding can be used as the basis for evaluating the effectiveness of principal performance and effective preparation of school leaders.

Heck et al. (1990) utilized four latent variables. The three independent variables were governing school structure, school instructional organization, and school climate. The dependent variable was student academic achievement. The construct of school governing structure consists of different variables such as the extent to which principal involves staff in making crucial decisions that affect instruction, the degree to which the principal is perceived to involve parents and advisory groups in the school program, the extent to which the principal protects teachers from undue pressures so their primary focus is on instruction and the extent to which the principal leaves teachers alone to do their work.

The school climate variable contains various activities that principals perform in influencing student academic achievement. These activities are defining and communicating the school's educational purposes; setting high expectation and establishing a system for rewarding or sanctioning for achieving those expectations and providing information to the community regarding the academic achievement of their students; and creating a safe and orderly environment with clear discipline code.

The school instructional organization construct reveals principal behaviors that related to the classroom practices such as ensuring that school instructional goals are developed in line with district policies; coordinating the school instructional program: ensuring that teachers monitor

student progress; and making regular visits to the classrooms. The student academic achievement variable is test scores of the students.

Leithwood and Montgomery (1982) noted that reviews of research, large scale evaluations of federally funded change projects, and clinically oriented investigations of educational change all indicated that elementary school principals are critical determinants in the process of improving school outcomes. However, a small proportion of these principals recognize this potential. Even those who understand their role confront pervasive norms of teacher autonomy and they have minimal control over classroom practices of the teachers. In spite of these problems, some school principals are successful while others are not.

To solve this puzzle, Leithwood and Montgomery (1982) reviewed 39 studies that employed different designs such as survey, case study, ethnography and pre-experiment method. They grouped the studies in to three categories - studies that focus on leadership, management, and administration concepts; studies that emphasizes school change and educational innovations; and school effectiveness studies. Utilizing the content analysis method, Leithwood and Montgomery found three potentially critical dimensions of principal behavior that differentiate between effective and typical school leaders, in addition to obstacles principals may face in their work sitting. These dimensions included goals, factors, and strategies that school principals use. The most obstacles faced by school leaders include problems related with the teachers; the complexity and ambiguity of the principal's role; principal ship role incumbents lack of knowledge, skill and motivation; lack of agreed upon priorities, clear directions, policies and procedures between schools and school districts; the failure of school districts to provide adequate resources; and community related problems.

The goal dimensions developed by effective and typical school principals differ. Effective principals set goals in terms of basic orientations toward students, teachers, and the larger school systems. The first priority of effective school principals is student achievement and happiness. The relationship between effective principals and school teachers is based on the task of improving the school outcome. They are also ready to sacrifice smooth interpersonal relationship with the teachers for the sake of improved student academic achievement. For school wide

relationship "effective principals view the actions of parents and the wider school community as potential instruments for fostering goals being pursued by the school and shape their relationships with the community to serve this end" (Leithwood & Montgomery, 1982, p. 321).

For typical school principals, their first priority is the smooth running of the school and being major school disciplinarians. With respect to the teachers, typical school principals give more emphasis to the existing professional competence of the teachers and the value of "leaving teachers alone to teach" (Leithwood & Montgomery, 1982, p. 322). The main difference between effective and typical school principals is the lack of student achievement orientation on the side of typical school principals.

Another important category of principal behavior mentioned by Leithwood and Montgomery (1982) is the factor dimension which potentially affects student experiences. The factor dimension can be clustered into two groups -the factors those concern students' classroom experiences and those that influence students' school wide experiences. The factors that affect student classroom experiences include teacher selection and assignment, objectives teachers work toward with students, instructional strategies, and the nature and degree of curriculum integration. The principal behaviors that influence students' school wide experiences include staff competence, the acquisition of non-classroom materials and resources, and community relationship. However, there is no difference between effective and typical school principals in their attempt to use the factors that influence student experience except their perception toward the importance of each factor.

The last dimension of principal behavior is strategies, the activities principals are involved in to influence the factors that relate the in-class and out-of-class experiences of students. Strategies employed by the school principals include building and maintaining interpersonal relationships, providing staff with the knowledge and skills they need, collecting a wide array of information, maintaining school discipline, providing information to the staff, planning and setting goals and priorities, and establishing procedures to handle routine matters. Leithwood and Montgomery (1982) stated that effective and typical principals differ with respect to the strategies they utilize. For example, in the decision-making strategy, effective principals treat teachers as equal partners while typical principals do not treat teachers as equal partner. Moreover, effective principals make widespread use of regular and frequent staff meetings.

In sum, effective principals can promote teaching and learning activities in their schools by employing enlightened principal interventions in the design and evaluation of classroom instructions. At the school level, effective principals can influence the learning outcomes of their students by implementing and utilizing assertive achievement-oriented leadership. Leithwood and Montgomery (1982) reported that:

> Effective principals are able to define priorities focused on the central mission of the school and gain support for these priorities from all stakeholders. Their actions impinge on almost all aspects of the classroom and school that are likely to influence achievement of these priorities. They intervene directly and constantly to ensure that priorities are achieved. Such principals nicely fit the widely shared image of the British head teacher. (p. 335)

The impact of socioeconomic status on schools

Hallinger and Murphy (1986), in a study of the social context of effective schools, contrasted the difference and similarities between low and high socioeconomic status (SES) schools. They also attempted to apply the findings of effective school principals' behavior from low SES elementary schools to secondary schools, suburban and rural schools and schools that serve middle and upper middle-class students. Using qualitative analytic techniques, researchers analyzed seven characteristics of effective schools: clear school mission, tightly coupled curriculum, opportunity to learn, instructional leadership, home-school cooperation and support, widespread student rewards, and high expectations. Data were collected from eight elementary schools; two served low SES communities, two lower-middle-SES communities, two middle-income communities, and two upper-middle-SES communities. Data collection instruments utilized in the study included surveys to parents, teachers, and students, observations of classrooms and the schools, interviews with teachers and the principal, and the collection of school documents.

An exploratory study by Hallinger and Murphy (1986) found a difference between low and high SES effective schools on all factors. Both high and low SES effective schools asserted that the most important school goal is the student achievement. However, they differed in the degree and area of focus. The high SES effective schools gave more emphasis in meeting the needs of the

whole child. While low SES effective schools focus on the mastery of basic math and reading skills.

With regard to the opportunity to learn, researchers found difference between high and low SES effective schools in terms of their allocations of instructional time to reading and math and their assignment of homework. They indicated that principals in low SES effective schools allocate more time for basic skill instructions and they give students less or very few homework assignments with the view that their parents lack the time and expertise to support and monitor their children's homework. However, principals in high SES effective schools allocate less time to the basic skill instructions, instead they encourage their staff to implement broader curricula, by providing more homework assignments with the assumption that their students' parent may support them. Moreover, they provide students more homework assignments with the perception that parents are more knowledgeable and willing to support their children.

For the instructional leadership role of the principal, low SES effective schools' principals tend to be more tasks oriented whereas high SES effective schools' leaders are more relationship oriented. Both high and low SES effective schools maintained high expectations for their students, but they differ the source and nature of these expectations. In low SES effective schools, staff tried their best to create high expectations within the school itself. Parents of these students were less well schooled and less involved in the life of their schools, as a result if teachers did not push students, the likelihood for the students to achieve will be very low. For high SES effective schools, parents were the primary source of the schools' expectations for student achievement and they become frustrated if their children's progress did not meet their expectations.

The researchers concluded that there is a relationship between schools, communities and student academic achievement. The home environment is very important because it provides the material resources that both the schools and students need and shapes children's attitudes and beliefs about learning based on the expectations of the parents. Hallinger and Murphy (1986) noted that "parents from low socioeconomic communities often prefer an emphasis on social and vocational education, whereas parents from high-SES communities generally prefer an emphasis on intellectual or academic goals" (p. 348).

Effective schools for the urban poor provide a climate of high expectations that is also available in high SES schools but absent in low SES schools. Therefore, effective low SES schools isolate themselves from the home environment of their students which typically promotes failure.

Bastian and Henry (2015) investigated pathways to the principalship and examined the relationship between personal principal characteristics and those their prior work environments and adjusted average student achievement gains. Collecting data from 981 principals, and using student test scores as a dependent variable, researchers examined how principal characteristics such as demographic traits, human capital indicators, principal preparation, and his or her job experience influence students' academic achievement. For demographic variables, researchers focused on gender of the principal and its ethnicity. With respect to principal preparation, they examined the type of qualification that school principals hold and whether they earned it from inside or outside the state's higher education institutions or whether the institution was publicly or privately owned. With experience of the principal, the researchers investigated prior to becoming school principal, whether they held assistant principalship position in their school, school district or school level.

Employing education production function, which assumes the principal as a key input in the process that produces educational outcome, Bastian and Henry (2015) found that the majority of the principals are homegrown. They are appointed as a school principal in the same districts in which they were a teacher or assistant principal. For the preparation of the principals, there is a gap of an average 4.15 years between the completion of formal training and assuming the principalship. Principals that hold master's degrees were associated with higher student academic achievement.

With respect to experience, these researchers found that experience as an assistant principal contributed to future principal performance and school principals who were assistant principals before they became principals were more effective than those who lacked this experience. Minority (non-White) principals were significantly correlated with lower student academic achievement. On average, minority principals lead schools with many more minority, high poverty and lower performing students. Female school principals are also not associated with significantly larger adjusted average achievement gains. In sum, school principals can contribute

toward higher levels of student academic achievement through creating high level of teacher satisfaction conducive school climate and establishing effective or improved school systems.

2.3.2. Teachers' Job Satisfaction

The second output that the effective or successful school leader is expected to achieve is a high level of teacher job satisfaction. No institution can down play the importance of their employees' job satisfaction, because it is very important for the organization's success and productivity (Al-Mahdy, Al-Harthi, & Salah Eldin, 2016). Job satisfaction is an end itself and a positive output that is highly valued. Jorde-Bloom (1986) indicated that many school leaders believe that job satisfaction or dissatisfaction can have a strong positive or negative impact on the school outcome. One challenge that the construct of job satisfaction confronts is difficulty in defining and measuring it. For example, is job satisfaction the absence of job dissatisfaction? Does the absence of the satisfiers in the school work environment create dissatisfaction? Although there is no commonly agreed definition of job satisfaction, most scholars believe that "job satisfaction is a composite of attitudes, evaluations or emotional responses an individual has about the many facets of particular job" (Jorde-Bloom, 1986, p. 168).

For defining and measuring job satisfaction, Jorde-Bloom (1986) stated that social scientists emphasized different theories to explain the job satisfaction phenomena. He mentioned some scholars applied the traditional approach, which states that if the existence of a certain variable in the work environment creates satisfaction of the staff, then its absence will bring job dissatisfaction. Others used the two-factor theory: motivation and hygiene factors. The motivation factors are achievement, recognition, and the intrinsic nature of the job itself. Hygiene factors are related to the context of the work such as pay, security, supervision and physical working condition. The absence of the hygiene factors could result in employee dissatisfaction and their improvement can only eliminate dissatisfaction, but not lead to satisfaction (Bolin, 2007). Jorde-Bloom concluded that school leaders can promote confidence, competence and overall commitment to the instructional tasks of the school by creating a work environment that provides clarity and harmony in the roles and expectations of their school teachers.

In a literature review of teachers' job satisfaction, Hongying (2007) found that school leaders need to understand teachers' job satisfaction, because it affects teaching, the effectiveness of the school administration, and overall quality of the school. In China, scholars mainly used surveys, interviews, and statistical analysis to identify the factors that influence teachers' job satisfaction and to determine the dimensions emphasized by studies of teachers' job satisfaction. These studies mainly focused on the nature of the job, job intensity, physical conditions, education system and social environment, social status, income, interpersonal relationships, administration, student quality, work environment, opportunities for advanced studies, and promotion and self fulfillment. According to Hongying (2007), these studies can be clustered under three main constructs: overall job satisfaction, dimensions of job satisfaction, and the influencing factors.

In the Ethiopian context, Tadele Akalu (2014) investigated the relationship between the five components of transformational leadership and teachers' job satisfaction factors such as intrinsic and extrinsic factors. He collected data from 20 secondary schools and 320 teachers. Instruments of data collection were a transformational leadership scale and a teacher job satisfaction questionnaire. The transformational leadership questionnaire consisted of five parts including, idealized influence, both attribute and behavior, inspirational motivation, intellectual stimulation and individualized consideration. In addition, the information regarding the demographic aspects of the respondents were also collected.

Based on the perceptions of teachers, Tadele Akalu (2014) noted that school principals practice a moderate to high level of transformational school leadership behavior. Teachers also have a low to moderate level of overall satisfaction, although they were highly satisfied with their principals' recognition, encouragement they got from their colleagues, leaving them to do alone their work, satisfaction with their teaching profession and positive relationship they have with their students. The low to moderate teacher satisfaction indicates that they are less satisfied with some aspect of their work such as unfair salary, not treating them as equals, poor relationship among staff and lack of high expectation of student achievement.

Tadele Akalu (2014) found that there is a moderate positive significant correlation between school principals' transformational leadership behavior and secondary school teachers' job satisfaction. With respect to the level of influence of each component of transformational leadership, idealized influence (attribute) has the highest impact, whereas inspirational

motivation has the lowest affect. The remaining three factors - idealized influence (behavior), intellectual stimulation, and individualized consideration do not have any effect on teachers' job satisfaction. Tadele Akalu (2014) suggested increasing teachers' salary and benefits, although this alone may not bring the expected result of improving teachers' morale and work conditions.

Bolin (2007) studied the influence of school leadership, perceived social status, exam stresses and personal background on teachers' job satisfaction in self-fulfillment, job intensity, income, and their relationship with leaders and colleagues. The researcher collected data from seven secondary schools and 434 teachers and grouped the schools into key (good) schools, ordinary schools, and low (poor) schools. Using a teacher job satisfaction scale, Bolin (2007) found that the influence of school leadership, perceived social status, exam stresses, and personal background factors on teachers' job satisfaction is relatively high in self-fulfillment, low in work intensity and income and moderate in their relations with their leaders and colleagues. This indicates teachers are facing high work load and low salary when compared with the average non-teaching employees.

With respect to the relationship between personal background factors and work satisfaction of the teachers, Bolin found that there is significant gender difference in income. There is also a lower degree of satisfaction among female with respect to their salary than their male counterparts. Workload satisfaction is also significantly low both among teachers teaching core courses and teachers teaching graduating classes. In contrast, the job satisfaction of school teachers increases when they feel that their school leader’s behavior in job performance and group maintenance is strong. As a result, school leaders are expected to give more attention to their teachers who involve the core practices of the school. Bolin (2008) concluded that when societies increase the remuneration of their teachers, they should not forget other needs of the teachers such as self-fulfillment and work intensity. Otherwise, it will end up low teacher moral even though they increased the salary of the teachers.

Al-Mahdy, Al-Harthi, and Salah Eldin (2016) examined the perception of teachers toward the relationship between the five-factor model of school principals’ servant leadership behavior and the three-factor model of teachers' job satisfaction and the influence of demographic differences on their perceptions. Data were collected from 356 teachers; 33% were male and 67% were

female. With respect to the school level, 205 teachers taught grades 1-4, 105 taught grades 5-10, and 20 teachers taught grades 11-12. The remaining teachers taught other grade levels.

The researchers used two instruments, the servant leadership scale and teachers' job satisfaction survey. The servant leadership scale contained five major aspects of leaders' behavior such as altruistic calling, emotional healing, wisdom, persuasive mapping and organizational stewardship. The teachers' job satisfaction survey instrument measured the levels of teachers' satisfaction such as promotion, supervision, and the nature of the work. The demographic side of the teachers' gender, level of the school they teach and whether they teach in public or private school were analyzed. Al-Mahdy, Al-Harthi, and Salah Eldin (2016) found that teachers perceive their school principals to show a moderate level of servant leadership behavior and they are moderately satisfied with their promotion process, the nature of their work, and the type of the supervision they receive. For the demographic aspect, women teachers and teachers working in private schools were more satisfied than male teachers and teachers working in government schools. For the level of the school, the teachers of lower-level grades were more satisfied than the teachers of higher-level grades. Regarding the factors related with teachers' job satisfaction, teachers were more satisfied with the nature of their work, the type of supervision they received, and lastly their promotion process.

These researchers concluded that there is significant and positive relationship between the school principals' servant leadership behaviors and teachers' job satisfaction. The perception of female teachers, private school teachers and lower grade teachers is higher toward the servant leadership behavior of the school principal and their level of job satisfaction.

Ilgan, Parylo, and Hilmi (2015) analyzed teachers' perception of principals' instructional supervision behaviors and examined the level of teachers' job satisfaction with respect to managerial satisfaction, adequateness of work life, and economic facilities, self-development and security, in addition to personal characteristics of the teachers and school level. The researchers then investigated school principal's instructional supervision behavior as a predictor of teachers' job satisfaction. They distributed questionnaires to 800 teachers in 92 schools, with a return rate of 79.13%. The schools were grouped into elementary, middle school, general high school and vocational high school.

According to Ilgan et al. (2015), teachers mentioned that their school principals were mostly involved in activities such as monitoring students' academic performance, making teachers aware about the new developments in education and discussing teachers' instructional challenge. In rare cases, school principals may reward successful teachers and encourage them to participate in peer observations. Overall, teachers reported an average level of job satisfaction.

Regarding personal characteristics of the teachers and school level, the result indicated that there was no statistically significant difference in the perception of female and male school teachers toward their school principals' instructional supervision. However, a difference in perception existed among the teachers who were working in different types of schools and those teachers who taught in different subjects. For example, teachers working at elementary schools and general high schools evaluated principals' instructional supervision behaviors significantly higher than the teachers working at middle schools and vocational high schools. Likewise, core subject teachers judged their principals' instructional supervision behaviors at a higher level than the teachers of vocational subjects such as art, music and physical education.

With respect to experience, teachers with 21or more years of experience gave higher assessments of school principals' instructional supervision behaviors than the teachers with less than 10 years of experience. Moreover, the researchers found that school principals' instructional supervision behaviors were a statistically significant predictor of teacher managerial satisfaction, the adequateness of work life as well as satisfaction with economic facilities, self-development and security. Ilgan et al. (2015) noted that "teacher job satisfaction and principals' instructional behaviors were correlated; the higher was teachers' assessment of principals' instructional supervision behaviors, the higher was their job satisfaction" (p. 81).

Sancar (2009) studied the perceptions of school teachers regarding the leadership behavior of their schools and the level of expressed public schools' job satisfaction, in addition to the association between perceived school principals' leadership behaviors and expressed teachers' job satisfaction. Data were collected from 599 teachers working at 47 public elementary and secondary schools in Cyprus. The researcher employed the leadership behavior description questionnaire and the Mohmrman-Cooke Mohrman job satisfaction scale to collect data from the respondents. According to Sancar (2009), perceptions of school teachers toward the leadership

behavior of their school principals shows high consideration and high initiation of structure behaviors. The data also indicates high expressed overall teachers' job satisfaction. With respect to the relationship between the school principals' leadership behavior and teachers' job satisfaction, data displays that the expressed teachers' job satisfaction is more related with the school principal's consideration behaviors than the initiation of structure behaviors. So based on the context, school leaders must display more consideration related behaviors in order to establish open and friendly school climate which can improve the student academic achievement and the effectiveness of the school.

2.3.3. Positive School Climate

In organizations, people feel differences in the overall atmosphere of their organizations and these differences may affect how they behave. Miskel and Ogawa (1988) noted that social scientists defined the internal characteristics of the organizations that differentiate one organization from another as climate of the organization. Hoy (1990) described school climate as "the relatively enduring quality of the school environment that is experienced by participants, affects their behavior, and is based on their collective perceptions of behavior in schools" (p. 152).

In schools, climate explains differences in the performance of the schools. In his comparison of improving and declining schools, Edmonds (1979) noted that school climate is one of the factors responsible for the difference between effective and less effective schools, particularly the climate that focuses on strong administrative leadership, high performance expectations, safe and orderly environment and a system of monitoring student performance.

Scholars of educational administration mentioned different aspects or dimensions of the concept of climate in the study of schools. For example, as stated in Miskel and Ogawa (1988), Tagiuri (1968) suggested that school climate consists of four dimensions: ecology, milieu, social system and culture. Ecology focuses on the physical and material dimension of the schools, such as the effect of school facilities (age, decoration, appearance and upkeep of school building and other materials in the school) on student academic achievement. Milieu involves the social dimension of the individuals and groups in the school. It emphasizes the effect of teacher characteristics (level of teachers’ salary, qualification and experience) and student characteristics (racial,

socioeconomic status and family background) on school performance. Social system addresses the relationship that exists between individuals and groups in the school. It focuses on the administrative organization of the school, the extent to which teachers participate the decision making of their school, as well as teacher to teacher, teacher to principal and teacher to student relationship and how these patterns influence school outcome. The culture aspect of school climate involves belief systems, values, cognitive structures, and meanings. It refers to the expectations that teachers and principal hold for the academic achievement of their student; the emphasis staff places on academics; and beliefs and norms shared by the students.

Other scholars mentioned different types of school climate and factors that produce such kinds of school climate. For example, Hoy (1990) compared school climate with the concept of personality and he noted that climate is for the school where as personality is for the individual, so climate can be considered as the personality of the school. Halphin and Croft (1963) developed an instrument that describes the organizational climate of primary schools. They classified school climate into six categories: open, autonomous, controlled, familiar, paternal, and closed climates. Each of these categories is determined by the teacher's view of eight aspects of school activities. Four factors (disengagement, hindrance, esprit, and intimacy) involve patterns of social interactions among the teachers and the remaining four (aloofness, production emphasis, thrust, and consideration) are connected with the leadership practices of the school principal since the principal is the center of school environment.

Principals and School Climate

According to Levenda (1979), the school principal is the climate leader of the school and no deputy or committee can assume this role. Most of the factors that affect school climate emanate from the school leader because s/he can influence the development of both positive and negative school climate. Therefore, school leaders can have an impact on both school climate and school performance.

Tajasom and Ahmed (2011) examined the relationship between principals' leadership style and school climate in secondary schools in northern Malaysia. By using social system theory, the researchers emphasized as independent variables two constructs of school leadership: transactional and transformational school leadership, and as dependent variables, they focused on

six psychosocial aspects of the schools: work pressure, innovation, participatory decision making, affiliation, resource adequacy, and professional interest. Data were collected from 170 teachers in 17 secondary schools. The researchers found that transformational school leadership is positively related with school climate whereas transactional leadership style does not have impact on school climate. So, equipping school principals with the practices of transformational leadership can contribute in improving student's learning and achievement.

In another study, Mendel, Watson, and MacGregor (2002) examined the relationship between directive, collaborative, and non-directive school leadership styles and school climate by comparing teachers' perception of the leadership style of their school principal and their perception of school climate. By utilizing the San Diego County Office of Education's effective schools' questionnaire, researchers collected data from 169 teachers in 34 schools. They found that the majority of the principals practice collaborative leadership styles which have the highest contribution on positive school climate.

Academic Achievement and School Climate

Brookover, Schweitzer, Schneider, Beady, Flood, and Wisenbaker (1978) investigated the relationship between student compositions, school climate and student academic achievement among elementary schools. They attempted to determine the relative contribution of composition variables and school climate variables to the differences in mean school academic achievement by using two student composition variables: socio-economic status and racial composition of the students, in addition to, fourteen school climate variables. Brookover et al. found that 50% of the variance in mean student achievement between schools is contributed by the combination of socio-economic status, racial composition and school climate variables. Moreover, the highest influence of school climate variables comes from students' sense of academic futility which is when "students feel they have no control over their success or failure in the school social system, the teachers do not care if they (students) succeed or not, and their fellow students punish them if they do succeed" (p. 314). In short, in schools where there is a high degree of futility, students feel a high degree of hopelessness, whereas in schools with a low degree of futility, students think they can master the circumstances of their school.

In a study of suburban schools, Sulak (2016) analyzed the relationship between student academic achievement and school climate factors such as school size, percentage of minority students, the occurrence disorder in the classrooms, racial and ethnic tensions, and bullying. By utilizing data collected from 2560 schools, the researcher found that there is a negative relationship between student academic achievement and percentage of minority students, presence of disorder in the classrooms, and racial and ethnic tensions and bullying. However, the researcher did not find an association between school size and student achievement.

In sum, school climate can influence the productivity and success of teachers and students by creating mutual respect, high standard and environment in which students, teachers and parents feel comfortable, valued and secure. By having such climate, schools become more effective and school principals more successful.

2.3.4. School Effectiveness

Most of the early school effectiveness research was conducted as a reaction to the findings of studies that reported that schools do not have a significant impact on student performance. Rather, most of the school effect comes from student family background. The school effectiveness studies emphasize the performance of poor or ethnic minority students and their basic skills in reading and math to show the effect of schooling (Sammons, Hillman, & Mortimore, 1995).

School effectiveness is about what is happening in and around the school and how schools run their daily operations. It specifically emphasizes the effect that school policies for teaching, school climate, and schools' perceived mission and focus have on schools' cognitive and non-cognitive outcomes. Schreens (2000) stated that school effectiveness involves the performance or the output of schools, which can be measured by using the schools' student academic achievement. Although the socioeconomic background of students may be similar, schools differ in their performance and this necessitates naming some schools as effective schools whereas others are less effective or ineffective schools.

According to Schreens (2000), to cluster schools into effective or ineffective schools, scholars emphasized different variables that may influence the performance of the schools. For example, economists, using input output models and education production functions, focused on resource input variables such as expenditure per student, teacher qualification, experience and salary, while educational psychologists concentrated on effective instructional strategies. Educational leadership researchers also emphasized different aspects of the leadership role of the school principals and how these roles influence on the school performance.

The studies conducted in the school effectiveness research can be grouped into studies that identify the characteristics of effective schools and studies in which researchers attempted to develop school effectiveness models that can be used to advance the knowledge base on school improvement programs. In determining generally accepted effective schools' variables, Murphy, Wiel, Hallinger, and Mitman (1985) developed a conceptual framework for school effectiveness. They identified fourteen school effectiveness variables and grouped them under technology and environment of the school.

Technological variables include tightly coupled curriculum, opportunity to learn, direct instruction, clear academic mission and focus, instructional leadership, frequent monitoring and structured staff development. The first three variables can be grouped under organizing for curriculum and instruction construct whereas the last four variables clustered under direct-control-review and upgrading construct. Technological factors provide the heart of all instructions and are closely related with the school curriculum and basic learning objectives for the students.

School environment or climate factors consist of opportunities for meaningful student involvement; widespread rewards and recognition; collaborative organizational process; high expectations; home school cooperation and support; safe and orderly environment; and student and staff cohesion and support. School social climate provide norms that guide behavior, organizational processes and conducive context for quality instruction. Murphy et al. (1985) argued that school social climate can be divided into two groups. The first group includes high expectations and safe and orderly environment while the remaining variables may or may not

exist in these schools. Environmental variables may not have a significant effect by themselves on student academic achievement although they facilitate or obstruct the impact of the technological factors. The driving forces for both technological and environmental variables may come from the school principals or teachers or the parents.

Edmonds (1979) reviewed studies of school effectiveness which compared high and low achieving schools. He found the main characteristics of high achieving schools are having strong school leadership, high expectations, strongly emphasizing student acquisition of basic skills, and monitoring student progress. Edmonds argued that schools can have a major effect on student performance irrespective of their family background and social class by designing appropriate teaching strategies, modifying curricular design, and improving textbook selection. He asserted that most of school effectiveness factors are under the schools' control and schools can teach all children the basic skills.

In the United Kingdom, Sammons, Hillman, and Mortimore (1995) examined factors that can be considered as the key determinants of school effectiveness both in primary and secondary schools. They identified eleven factors of effective schools: professional leadership; shared vision and goals; learning environment; concentration on teaching and learning; purposeful teaching; high expectations; positive enforcement; monitoring progress; pupil rights and responsibilities; home-school partnership; and learning organization. They argued that these factors contribute not only to the academic achievement of poor or minority students; they also promote the academic achievement of all students. These variables also stimulate schools to contribute more value to the cognitive and socialization outcome of their students. Educationally they develop their students higher than an average school context.

Vincenzi and Ayrer (1985) analyzed the methods used to determine effective schools and procedures school systems utilize in order to determine which schools are effective or ineffective. They identified two methods: between schools' analysis and within school analysis. To determine which schools are effective, they suggested using between school's analysis, which offers a list of factors that are closely related with the effective schools.

In creating effective schools, educational leaders can employ within school analysis that focuses on changes that may occur in the school in order to become an effective school. Using within school analysis, researchers can emphasize factors such as goal consensus, influence, program and staffing, rule enforcement, communication, conflict, leadership, discipline, morals and professionalism. However, both between and within school analysis are necessary if we want to identify which schools are effective and the factors within the school that contribute to the effectiveness of the schools.

Ralph and Fennessay (1983) compared two types of school effectiveness studies – 1. effective schools research, which emphasized school and classroom level variables that affect student academic achievement and differentiate between effective and ineffective schools, and 2. school effects research that focuses on within school variables such as family background of the students. In effective schools, students in different grade levels and classrooms must master basic academic skills and achieve this performance at least two consecutive years irrespective of student family background.

Hallinger and Murphy (1986) conducted an empirical study to analyze the effect of socioeconomic status of students on the operation of effective schools. They identified two factors of socioeconomic status of the students: high and low level and seven variables of effective schooling: clear school mission, tightly coupled curriculum, opportunity to learn, instructional leadership, home school cooperation and support, wide spread student rewards, and high expectations. Data were collected from eight elementary schools in California by conducting surveys with parents, teachers and students. Principals and teachers were interviewed, and schools and classrooms were observed. Secondary data were also collected from school documents. By using qualitative analytic techniques, the researchers found that there is a variation in the degree to which schools focused on variables such as clear school mission, tightly coupled curriculum and opportunity to learn. The focus of low socioeconomic status schools was narrower compared to the high socioeconomic status schools except that high socioeconomic status schools gave more homework assignments to their students than their counterparts.

With respect to the instructional leadership variable, Hallinger and Murphy found that principals in low socioeconomic status schools tended to use more task-oriented leadership behaviors whereas high socioeconomic status schools utilized more relationship-oriented practices. Parents of high socioeconomic status schools participate more in the educational programs of their children's school by contributing their time, money and their expertise; however, many parents in low socioeconomic status schools do not participate in the affairs of the schools of their children. Due to this, schools are more isolated and self-sustaining.

Hallinger and Murphy also found that low socioeconomic status schools reward their students more frequently by organizing public rewards for students' achievement and preparing the pictures of the students of the month. In contrast, high socioeconomic status schools rarely provided school rewards for their students. Both high and low socioeconomic status schools maintained high expectation for their children, but the difference was the source of these expectations. In low socioeconomic status schools, the source was internal (i.e., the staff and principal of the school) whereas in the higher socioeconomic status schools, the source was external (i.e., the parents of the children).

Regarding the studies in which researchers attempted to develop school effectiveness models, Glasman and Biniaminov (1981) proposed the structural model of school input and output variables to see changes in the schools' output that were caused by changes in school input. The structural model contains three levels. In the first level, student background variables have a direct impact on school condition, school-related student characteristics, and students' attitude. In the second level, school conditions affect instructional personal whereas school-related student characteristics influence student attitude. Lastly, in the third level both instructional personnel and student attitude effect school outputs.

The researchers reviewed the literature on school effectiveness and surveyed input and output variables of the schools. In doing so, they recognized that some of the variables could be used as both input and output factors. According to Glasman and Biniaminov, output of the schools can be subdivided into cognitive and non-cognitive output. Cognitive output is classified into standardized achievement tests and other tests. Non-cognitive output is further divided into

student attitude and other similar categories. School input also is subdivided into student input and school input. Student input includes student background characteristics, school-related student characteristics, and student attitude. School input also involves school conditions and instructional personnel.

Schreens and Creemers (1989) criticized the theoretical status of the five-factor effective schools' model by utilizing organizational theories and classroom effectiveness models. The main aspects of the five-factor theory of school effectiveness are strong educational leadership, high expectation of student achievement, emphasis on basic skills, safe and orderly climate, and frequent evaluation of pupils' progress. They argued that there is ambiguity whether these factors are causes or effects of high achievement. Moreover, it is not clear whether they are related with the leadership or the climate of the school.

Schreens and Creemers argued that more appropriate and comprehensive effective school models are required in order to advance our knowledge of effective schools. They developed a contextual multilevel model of school effectiveness which emphasizes different levels of schooling such as school, classroom or individual student level, in addition to contextual factors. At the school level, the variables that are linked with student achievement are frequent assessment of the student progress, tracking system, computerized test service system, absenteeism registration, procedures for school-based review and teacher assessment.

At the classroom level, mastery and cooperative learning, personalized and adaptive instruction, advanced organizers, national science curricula, high teacher expectation and good questioning techniques are important factors that contribute student performance. The model also incorporated variables at individual student level such as intellectual capacity of the students and home environment. Schools are also expected to adapt to their contextual environment by acquiring the necessary input resources and providing quality school output. In short, higher-level variables should be designed in such a way that they can facilitate the important processes that occur at lower levels of schooling.

In creating a school effectiveness environment that encourages students to work hard and achieve academically, Murphy, Wiel, Hallinger, and Mitman (1982) reviewed school effectiveness literature. They were interested in the relationship between staff beliefs and the academic press outcome of student academic norms, self-concept of academic ability, and sense of academic utility by establishing an integrated policy-practice-behavior framework. They suggested that staff expectation can be translated into school level policies and classroom level practices and behaviors.

School level policies can be grouped into school function and structure policies and student progress policies. School function and structure policies include school purpose, student grouping, protection of instructional time, and orderly environment policies. Student progress policies involve homework, grading, monitoring student performance, remediation, progress reports, and retention or promotion policies. Classroom-level practices and behaviors that promote academic press are an academically demanding climate, orderly well managed classrooms, student academic success, instructional practices that promote achievement, and opportunities for student responsibility and leadership. In order to implement these policies and to practice these behaviors, the school staff is expected to establish positive relationships with their students and be appropriate models of academic press behaviors.

School Effectiveness Studies in Ethiopia

Regarding school effectiveness research in the Ethiopian context, Mitchell (2015) reviewed the literature on school improvement and school effectiveness that has been conducted in Ethiopia during the last decade by emphasizing both national and international studies and the implications of these studies for school principals. He found that the school effectiveness variables in these studies can be clustered under individual student, classroom and school level, in addition to contextual factors. According to Mitchell, at the student level, researchers investigated gender and family background of the students. With respect to the classroom, class size, availability of textbook and language of instruction were examined. At the school-level researchers focused on the availability of latrines, teacher motivation, and violence. The distance between the home and the school and whether the school is located in a rural or an urban area can also be considered as contextual factors.

For student performance, according to Mitchell (2015), researchers measured student academic achievement in reading, writing, and numeracy skills by utilizing researcher prepared and administered tests that students are not familiar with and may not cover the whole curriculum. In addition, these studies cannot be considered as school effectiveness studies because data are not aggregated at the school or within school level.

Opponents of School Effectiveness Studies

Opponents of school effectiveness research argued that school effectiveness researchers employed weak theoretical frameworks and the number of research synthesis conducted in the area of school effectiveness exceeds the number of actual empirical studies (Sammons, Hillman, & Mortimore, 1995). Moreover, most of the empirical studies emphasized inner city schools and the characteristics of a small number of outlier schools that are either highly effective or highly ineffective. These studies measured the cognitive part of school performance by neglecting the non-cognitive or social outcome of the schools. Overall, these studies have a limited and more specific focus.

Ralph and Fennessay (1983) also found that school effectiveness models have been identified mistakenly as a scientific theory. Most of the empirical school effectiveness research consists of reports of state education departments, unpublished academic studies, and evaluations conducted by the research firms and all these are deficient from scientific standpoint of view. The researchers of school effectiveness models utilized simple case studies, comparative case studies, outlier and survey research studies and literature review and all these methodologies have a number of scientific shortcomings.

Proponents of School Effectiveness Research

On the other hand, proponents of school effectiveness research, such as Edmonds (1979), argued that accepting the findings of school effectiveness research as a scientific endeavor and rejecting the notion that most effects of school outcomes come from student family background, is a prerequisite to have a successful school improvement program. Accepting such arguments

creates an environment that suggests schools do not matter and relieves school staff from their obligation to improve the performance of their students and schools.

2.3.5. School Improvement

School leadership provides guidance and direction for school improvement. School improvement is another important outcome that school leaders is expected to achieve through coordinating the diverse competencies of school staff and community (Elmore, 2000). To define school improvement, scholars used different names such as educational change, innovation, reform, implementation and development. Irrespective of the term used, school improvement is a change process that takes place at the school level, which affects the practice of classroom activities and behavior of the students (Scheerens, 2001). School improvement is the effort to make schools better places for students to stay and learn by promoting school's capacity to provide quality education. The efforts of school improvement are expected to focus on the culture of the school, the quality of interpersonal relationships that exist in the school and the nature and content of learning experiences. In short, school improvement efforts create the appropriate conditions under which students can enhance their learning and improve their academic achievement (Hopkins, 2005).

Murphy (2013) developed a comprehensive framework that explains the main components of the school improvement concept. This model consists of five parts: essential equation, building material, construction principles, enabling support, and integrative leadership. According to Murphy, there are two important components in the equation of school improvement: "school improvement = academic press + supportive community" (p. 257). To maintain this equation, the other four components must be in place. The first is the content of school improvement concept that contain providing quality instruction and complete curriculum; personalizing learning environment of the students; creating professional learning environment for educators; establishing learning centered leadership and linkages with the school community; and monitoring the progress and outcome of the school. Murphy argued that the researchers give more emphasis to the content and less attention to rule that guide how these pieces fit each other. Lastly, integrative school leadership provides the base that makes all the components of school improvement to work appropriately.

Governments set different objectives that school improvement programs are expected to achieve. Some programs are aimed to improve the context of schooling, whereas others are expected to improve the inputs and process of educational systems. Still, certain school improvement programs are directed toward the improvement of school outcomes in terms of students' academic achievement (Scheerens, 2001). Hopkins and Lagerweij (2005) argue that school improvement efforts that are not centered on student academic achievement will remain ideological, semantic and vacuous. This means that schools which do not give more emphasis to their student achievement will not satisfy the expectation of their stakeholders.

To make attempts to improve schools successfully, Keefe & Kelley (1990) argued that an important condition for school improvement is achieving growth in the student academic achievement thorough careful planning. They mentioned that the planning process should emphasize reviewing the district's philosophy and goals; setting goals that the community expects schools to achieve; selecting a valid measure for each goal; developing an improvement plan that indicates timelines, responsibilities, and needed resources; deciding appropriate intervention strategies; and determining the extent schools achieved their goals.

Keefe and Kelley asserted that the school improvement plan should not be deficient and contaminated. Deficiency exists when the school evaluation system does not include student academic achievement, which is an important factor in determining the progress of the school. Contamination is present when the indicators used to assess school effectiveness and improvement are not measuring what they are expected to measure.

School improvement is determining how schools move from where they are to where they want to be. According to Adelman and Taylor (2007) an effective school improvement program requires a clear framework and map that supports schools to prepare their strategic development plan, which incorporates the necessity to have a strong science base, leadership, and adequate resources that play a role in the capacity building of the schools. However, in some instances, financial resources contribute to the collapse of school improvement programs, particularly if the effort is organized in the form of project mentality which has a beginning and ending points. As

a result, stakeholders often say, "It will end when the grant runs out or I have seen so many reforms come and go; this too shall pass" (p. 56).

Leithwood, Janzti, and McElhron-Hopkins (2006) developed and tested a school improvement model. The model was developed by revisiting the literature on school improvement and undertaking longitudinal case studies in ten schools. In this model, the school improvement planning process consists of four stages. The first stage includes setting directions, establishing different teams and conducting training and orientation about how the planning process will be carried out. In the second stage, schools develop their improvement plan by incorporating schools' mission, success indicators, responsibilities, intervention strategies and timing. In the third stage, school improvement plans are implemented in schools and classrooms. The school principal and school improvement team monitor the effect of the plan and determines whether the school is succeeding or not. The last stage is the evaluation of the improvement plan by deciding whether the school failed or succeeded in their school improvement efforts. School improvement planning is a continuous process and evaluation result serves as an input for the future school improvement plans.

Leithwood et al. tested the model of school improvement planning by collecting data from 362 elementary schools in seven districts in Canada. By using survey methods, the researchers found that implementation process had a significant impact on student academic achievement, whereas school leadership had strong relationship with the perceived student outcome. In short, a school improvement plan has a significant effect on student achievement and school leaders are critical to the success of the school improvement planning process.

MacGilchrist & Mortimore (1997) conducted a study to examine the effect of school improvement plans on school and classroom management, professional development of teachers, learning opportunities of the students, and whether these plans differ with respect to their effectiveness. By employing a mixed method approach data were collected using semi-structured interviews and classroom observation from nine primary schools in England. The researchers found variation in the performance of the schools based on the type of school improvement plan adopted. They identified four types of improvement plans - rhetorical plan, singular plan,

cooperative plan, and corporate plan. The quality of each plan decides the nature and extent of the effect the plan has on the performance of the schools.

According to MacGilchrist & Mortimore (1997), in a rhetorical plan there is no common purpose or shared sense of ownership, financial resources and in-service training are not connected with the plan, and there is no working document for the school. This created weak management and leadership, in addition to lack of monitoring and evaluation strategies in the school. Overall, the impact of the rhetorical plan on student outcome was negative. The singular plan has a common purpose and shared sense of ownership. But still, the plan is not working document of the school and its effect is limited.

The nature of a cooperative plan is multipurpose. The written plan is the working document of the school. It focuses on widespread improvement of school efficiency and effectiveness by establishing a relationship between financial resources and capacity building efforts of the school. The cooperative plan has a positive impact on the management of the school as well as the performance of teachers.

The corporate plan is a united effort to improve the school by creating a strong sense of ownership, involving teaching staff in the process and establishing a sense of responsibility for the outcome of the plan. According to MacGilchrist and Mortimore (1997), "The written plan is an open, working document and the leadership of the plan is shared among the senior management team" (p. 208). The plan has a significant impact on the whole school, classroom and students' learning.

Hopkins, Reynolds, and Gray (1999) studied how schools become and remain effective and strategies that make them maintain improvement over time. Utilizing a new paradigm that focuses on the challenges of the process and outcome of school improvement and linking effectiveness and improvement concerns, these researchers found that schools have different levels of school improvement such as above average, average and below average levels. Strategies employed by the schools' improvement teams are complex, interactive and intuitive.

Moreover, contextual factors such as socio-economic status of the school community and age of the teaching staff can facilitate or impede the progress of the improvement effort.

Hopkins et al. suggested three types of strategies designed to fit the schools that are at different levels of effectiveness. Type I strategies are intended to support failing schools. These schools need a high level of external assistance and strong supervision. These strategies include monitoring performance, giving extra classes for low achieving students, using codes of conduct, giving students greater responsibility, and establishing new examination boards. To create confidence and competence among the staff, these strategies should focus on a limited number of core curriculum activities and organizational issues.

Type II strategies are those that support average effective schools. Principally, it is possible for these schools to improve by themselves with or without external support. These strategies include creating coordinated response to the problems of school improvement, building the infrastructure of the school, establishing a common purpose among the staff, and focusing the classroom and learning level issues. Type III strategies are those strategies that support high level effective schools to remain effective over time. At this stage, schools can construct their capacity, develop new ideas and practices and external assistance is not needed.

In the Ethiopian context, Mitchell (2015) reviewed school improvement studies conducted in Ethiopia. The main components of Ethiopian mechanistic top-down school improvement programs are school self-evaluation with the aim of identifying the basic challenges that face the teaching learning process of the schools, preparing comprehensive school improvement plans, and organizing continuous professional development for the teachers. He indicated that the framework of school improvement consists of four domains: teaching and learning, student environment, leadership and management, and community involvement. Mitchell concluded that the Ethiopian school improvement program is a nationally mandated programme and "imported on the advice of the United States Agency for International Development (USIAD), Department for International Development (DFID) and other development partners and are implemented mechanistically without adaptation for societal or organizational cultural context" (p. 328).

In the Chilean context, Bellei, Vani, Valenzuela, and Contreras (2016) examined factors that explain how school become effective in the first place and sustain this condition over time. They employed an analytical framework that consists of eight key dimensions of school improvement processes. These dimensions are paths for improvement; path for improvement; focus on learning and learning priorities; institutional culture; teachers' professional culture; level of school performance; accumulated time; context; and level of institutionalization. Using this framework, the researchers identified four types or stages of school improvement trajectories: restricted improvement; incipient improvement; toward institutionalization; and institutionalized improvement.

In the restricted improvement stage, the focus of the school improvement process is giving more emphasis to the students' achievement tests, monitoring student progress, supervising teachers' activities, and providing remedial tutorial classes for low achieving students. These schools give less attention to creating common professional culture or to establishing healthy school climate. Incipient improvement process involves school restructuring and reorientation, establishing systematic planning process; focusing students basic academic learning; creating positive school climate and greater coherence among teachers; and introducing clear guidelines regarding student discipline, attendance and punctuality. In these schools, improvement is triggered from the external forces by appointing a new school principal or employing new teachers (Bellei et al., 2016).

For the schools progressing toward the institutionalization stage, the improvement process is cumulative, because the school leaders may stay long enough in the position to introduce the necessary changes and the successive leaders continue the achievements of their predecessors. The staffs of these schools believe the need to provide comprehensive education that goes beyond achieving standardized tests by improving the knowledge acquisition and cognitive skills of their students. Lastly, in the institutionalized school improvement stage, teachers and principals concentrate their role to equalize the educational opportunity of their students by developing various kinds of student talents that stimulate student achievement in all subjects. They also set as priority to create high level of student motivation, confidence and self-esteem.

2.4. School Leadership Policy, Behavior and Practices

2.4.1. School leadership policy

How to introduce change in school leadership and improve quality of education has been the concern of educational leaders for recent years. The concern for quality of education has progressively shifted its focus from the classroom activities to the whole school. As a result, school leadership becomes important for successful educational reform and school improvement (Zheng, Walker, & Chen, 2013). School principals have a powerful impact on the process related to school effectiveness and school improvement and schools that bring difference in their students' learning are led by effective leaders (Hallinger & Heck, 1998). Bush (2008) stated the characteristic of successful schools is having a competent and sound school leadership. They also found that there is relationship between inadequate school leadership and failure of the school.

These facts about the importance of school leadership created widespread concern and a need to set school leadership policies that focus on the recruitment, selection, preparation, in-service professional development and performance evaluation of school principals. As a result, governments around the world began to develop their school leadership policies in the form of standards. Leadership standards are very important for addressing these issues (Ingvarson, Anderson, Gronn, & Jackson, 2006).

Bolam (2004) noted that the conception of effective school leadership rests on specific national conditions and contexts. It is the product of a set of political, economic, social, cultural and historical circumstances of a country. Globally, there is agreement between policymakers and scholars that successful reform implementation requires school principals with greater knowledge, understanding and expertise.

In the 21st century, the interest in educational leadership is higher than the previous centuries due to the recognition that the quality of leadership makes a significant difference to school and student academic achievement (Bush, 2013). Marzano, Waters, and McNulty (2005) stated it is not a new idea to believe that an effective school principal is a necessary precondition for an effective school. They concluded that the studies of school leadership in the last 35 years

identified specific leadership behaviors for school principals and these behaviors have strong impact on student learning outcome.

Today, there is increasing complexity and change in the functions that school leaders are expected to perform. The pace of change for the roles that school principals are supposed to play exceeds the quality and supply of the training they get. Moreover, a number of responsibilities are taken down to the school level, such as mission building, financial management, managing reform, managing professional development and community relations. The complexities of the situation create a need for programs directed toward the school leaders. These programs must address what is important in the preparation, performance assessment, recruitment and conditions of work of the principals.

The standard of the school leaders is part of systematic reform of the education sector. It is based on the changing environment of schooling and evolving conceptions of educational leadership. It is the product of our understanding of leadership that can used to strengthen schools throughout the educational system. What is the most important connecting the standards to strategies of creating effective school principals (Murphy & Shipman, 1998). According to Murphy (2005), the guiding foundations of these strategies should be our knowledge about our schools, and the actions and values of the women and men who lead effective and productive school systems. In developing standard, the competencies should be supported by the empirical findings of effective schools.

Summary

Effective schools research indicated that most effective schools have high levels of student achievement results that are fairly distributed across the student population and outcomes that are attributable to the school. Research on school improvement also underscores different situations that supports to describe student learning such as opportunity to learn, direct instruction of basic skills, tightly aligned curriculum, careful and systematic monitoring of student performance. Murphy (2005) also stated important school effects that were absent from the education for most of the 20th century. These are backward mapping of student outcomes, the belief that all students can learn, understanding that schools are responsible for student outcomes, and the knowledge

that schools work best when they operate together rather than as collections of disparate systems and elements.

Establishing national standards for School Leaders

Setting standards for school leaders is a worldwide phenomenon. In England, the responsibility of developing standards was given to the National College for School Leadership (NCSL), in addition to the certification of mid-level leaders, aspiring and serving heads. NCSL commissioned a consultant to provide a review of leadership learning through focus group discussions, interviews and a literature review. These standards provide a guide for leadership preparation, assessment, and certification of aspiring school leaders through a compulsory National Professional Qualification for Headship (NPQH). The standards document indicates five stages of school leader's career from emergent to consultant leaders (Ingvarso et al., 2006).

England's National Standards for Head Teachers (2004) indicates six key areas that frame the role of the school leaders. These are shaping the future; leading learning and teaching; managing the organization; developing self and working with others; securing accountability; and strengthening community. The six domains are subdivided into professional qualities and actions. For example, securing accountability expands into knowledge about "the use of a range of evidence including performance data to support, monitor, evaluate and improve aspects of school life including challenging poor performance" (National Standards for Head Teachers 2004, p. 10).

In the Netherlands, standards for school principals were developed by the Dutch Principal Academy (DPA) which is an independent nongovernmental body. The standards were used to guide ongoing professional development and certification, although certification is voluntary. As stated in Ingvarso et al. (2006), the Netherland's professional standard for school principals in primary education focuses on eight competence areas grouped under two domains: personal effectiveness and organization effectiveness. Each competence is expanded into professional actions; knowledge; skills and values; and beliefs and attitudes. For example, in leadership competence, the school leader is expected to introduce in the school management a participative

leadership model where most stakeholders can participate in the decision-making process of the school.

In the USA, a widely used set of school leadership standards were prepared by the Interstate School Leaders Licensure Consortium (ISLLC). The development was based on the key question "what characteristics are desired for principals of tomorrow schools" (Ingvarso et al., 2006, p. 51). The standards are used for licensing assessment, preparation program improvement, evaluation of school principals, and guiding employer recruitment and induction process. The Interstate School Leaders Licensure Consortium (ISLLC) standards are grouped into six areas. Each standard is developed into knowledge, dispositions and performance. In knowledge aspects, the school leader is required to use the theories, models and principles of organizational development. In dispositions, the school principals are expected to trust the people and their judgments. In performance, the school management must have some knowledge regarding learning, teaching and student development that can be used as a base for the management decisions (Ingvarso et al., 2006).

In the gulf state of Qatar, the professional standard for school leaders were organized into seven domains and twenty-eight competence areas. Each standard indicates skills and knowledge required from the school principals in order to lead and manage their schools, in addition to, the performance expected. For example, the competence area which states the school leader must evaluate the school performance requires from the school principal the knowledge and understanding to use analytical skill in order to describe and interpret the qualitative and quantitative data about school performance (Education Institute, 2007).

Australian national professional standard for principals were prepared by the Australian Institute for Teaching and School Leadership (AITSL). Australian national professional standards contain three leadership requirements and five key professional practices. The leadership requirements and professional practices are integrated, interdependent and no hierarchy implied (Australian Institute for Teaching and School Leadership, 2011b). According to the Australian Institute for Teaching and School Leadership Limited (2011a), the preparation process underwent different stages. The first stage was reviewing critically the national and international leadership

standards, leadership theory and certification mechanism. Secondly, consultation workshops were conducted with the professional associations, educational institutions and other stakeholders to critically examine the proposed draft. Then, pilot studies were carried out to verify the authenticity, usability and value added of the proposed standards. Finally, the standards were refined based on the pilot studies launched. Australian national professional standards contain three leadership requirements and five key professional practices. The leadership requirements and professional practices are integrated, interdependent and no hierarchy implied (Australian Institute for Teaching and School Leadership, 2011b).

All five countries seem to understand the importance of school leaders to student outcome. In writing these standards, they give more emphasis to the basic core of successful leadership practices. Although the context of the five countries varies, still they set a similar standard for school leaders. The standards differ only in terms of wording such as shaping the future versus setting direction; or lead and manage learning versus leading teaching and learning.

Differing Opinions Regarding National Standards

The common problem in all standards is defining the standards through the domains where leadership can be practiced and given less emphasis about differentiating the level of performance that might be expected from the school leaders in general and in different levels of the career structure. Ingranson et al. (2006) stated that standards should be written by a group of academics and professional writer. It is also worthwhile not to give more emphasis for what the school leaders can do because this will change as the context of school leaders' change. Moreover, the writing process requires to consist of several stages. The writing process should undergo a systematic approach of validation by collecting data from professional organizations, unions, government agencies and researchers. Validation should be done through research rather than getting the popular opinion and social dominance.

On the other hand, the standards of school leaders have been criticized by the academic community (Murphy, 2000, 2005; English, 2006, 2003, 2000; Hess,2003; Romanowski, 2014). Murphy (2005) grouped the critiques of the ISLLC standards into six themes: lack of empirical base, too much emphasis on non-empirical ideals, not covering everything or not including X

concept or not examining Y concept deeply enough, over or under specifying of the standard, no legitimate place for dispositions in the standards, and exerting influence in the profession.

English (2006) and Romanowski (2014) stated that school leaders' standards are a part of the neoliberal global policy agenda to privatize educational preparation of school leaders and marketization of the preparation of school leaders. Moreover, ISLLC standards encourage the transfer of school leadership preparation from the university to market competitors. According to English (2006), the ISLLC standards lead the deprofessionalization of educational leadership because school leadership is reduced into a list of skills that may lead a decline in the salaries of the school leaders.

Romanowski (2014) indicated that neoliberalism considers education something that can be bought and sold in the market for those who have the resource power. In addition, neoliberalism exports all aspects of the education and education services such as national professional standards. In neoliberalism exporting knowledge is profit making business. For example, New Zealand exports its educational services to Asian countries and gets more profit from its education industry than its wine export business. Moreover, "in Australia, education services are the third largest export" (Romanowski, 2014, p. 178).

Comparing the training and development of teachers and school leaders, Hess (2003) argued that a lot of attention is given to the training and development of teachers whereas the training of school leaders is forgotten. Hess (2003) criticized selecting school leaders from only former teachers and states that this created:

> Educational leadership culture that is too-often hostile to accountability, ill-suited to manage by objective, and ill equipped to implement new technologies or use them as management tools. Most troubling, entrenched resistance to the precepts of accountability and reluctance to be held accountable for student learning exists among leaders. (p. 4)

He continued by arguing that only former teachers can lead a school is faulty assumption and it leads that:

> Architects need to have started as bricklayers, senators as civil servants, airline executives as pilots or baggage handlers, or hospital administrators as doctors. Rightly, we understand that different roles may require different talents and training, that competence in one role may not translate to another, and that narrow selection criteria stifle creative thinking, shrink the talent pool, and require us to push effective employees into jobs which may not play to their strengths. (Hess, 2003, p. 9)

English (2003) argued that standardization removes the school leaders' work from their context and it is a threat to the professoriate and academic freedom. The main objective of the standardization is the privatization of school leadership, practices, preparation and maximization of profit. Responding to English (2000), Murphy (2000) suggested that serious and sustained interrogation of the ISSLC standards can be accepted if the analysis is based on the design of the standards or on the standards themselves. But it is intolerable if it is rooted in "imaginative reading, academic sophistry and jejune deconstruction" (p. 411), as English did. In short, Murphy argued that English's critical reviews of the standards cannot be connected to the standard.

In Africa, Eacot and Asuga (2014) stated that the theories and models of African school leadership and development emanates from colonial legacy, deficit thinking and insistent aspiration to compete on global scale. Moreover, the main setback of African school leadership and management is the impact of donor logic that requires African school leaders to use the leadership models that are developed somewhere outside the continent without localizing it. The current Ethiopian leadership paradigm is input oriented and gives less emphasis to performance or student learning achievement (Davison et al., 2010). However, as part of the global phenomena of school leadership standards, the Ethiopian Ministry of Education developed national professional standards for school principals (MOE, 2013).

2.4.2. Practices, Functions and Behaviors of school leadership

Many governments prepare school leadership policies based on the school effectiveness research that identified factors that contribute to the effectiveness or ineffectiveness of the schools. Then they develop these policies in the form of standard that guides the training and practices of the school principals. So, school leaders are expected to translate the standards into specific

practices, functions and behaviors because school principals' practice connects policies of school leadership to the performance of the schools.

Hallinger, Murphy, Weil, Mesa, and Mitman (1983) argue school principals should change the dimensions of school leadership theories into actual behaviors that they perform in their schools in order to improve the performance of their students. For example, instructional school leadership consists of three dimensions. So, each dimension can be broken down into a number of functions and each function can also be divided into specific activities to be carried out. The dimension of defining school mission consists of two functions: framing and communicating the goals of the schools. Again, each of these functions can be divided into specific behaviors that the school principal can perform in her or his daily schedule. These behaviors may involve determining the level of student academic performance, using data on student academic performance when developing the school's academic goals, developing goals that seek improvement over current levels of academic performance and other similar activities.

Similarly, the dimension of managing instructional programs is composed of three practices: supervising and evaluating instruction, coordinating curriculum, and monitoring student progress. Each one of these practices can be clustered in specific behaviors. For instance, monitoring student progress practice can be separated into different behaviors such as meeting individually with teachers to discuss student progress, using test results to assess progress toward school goals and distributing test result in a timely fashion.

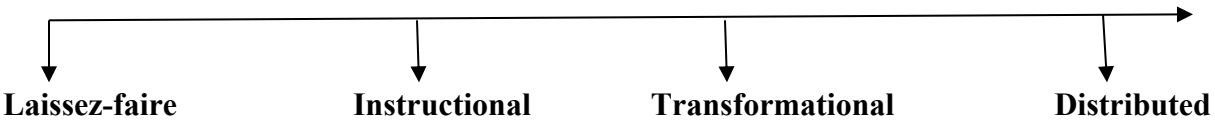
For transformational school leadership, school leaders can translate functions stated in the theory of transformational school leadership into specific behaviors. For example, the practice of redesigning the organization consists of building collaborative culture, structuring the organization to facilitate work, creating productive relations with families and communities, and connecting the school to its wider environment (Leithwood, Day, Sammons, Harris, & Hopkins, 2006). Again, school leaders can divide each of the functions of the redesigning the organization practice into more specific behavior in order to achieve higher gains of achievements for all students.

2.5. Theoretical Frameworks of School Leadership

In the study of school leadership, researchers attempted to measure the nature of the work of the school principals, and the effects or the contribution of the principals' role behavior on student academic achievement, as well as how contextual factors influence on the principals' practices. With respect to the work of the school principals, researchers have developed different theories that explain how school leaders perform their day-to-day activities. The three dominant conceptualizations of school principals' practices are instructional, transformational and distributed school leadership models. However, integrative school leadership will be employed in this study, because I consider leadership as a continuum, beginning where there are no leadership practices (Laissez-faire) and ending in a situation in which everyone practices some aspects of leadership (Distributed).

Figure 2.1.

Continuum of school leadership



Regarding avenues through which principals influence school outcomes, Hallinger & Heck (1996a, 1996b, & 1998) and Pitner (1988) described three theoretical models that can be used to study the effect of school principals on school outcome: direct-effect, mediated-effect, and reciprocal effect, in addition, there are two sub models for direct and mediated effect models by considering antecedent variables.

In the **direct-effects model**, the researcher does not consider both an antecedent and mediating variable. S/he manipulates only two variables: an independent variable, which is the school leaders' practices, and the dependent variable, which is the school outcome. The underlying assumption of this model is that school leaders' practice is not moderated or mediated by third variable (Pitner, 1988). This model was criticized for two short comings. First, it hides the

process by which school principals influences school outcomes. Second, it ignores the impact of the environmental or antecedent variables on the school principal.

The **direct-effects model** with antecedent variables is a partially improved direct effects model, which takes into account personal characteristics of the school principal, school characteristics, and other environmental factors. In this model, school principals' behavior is considered both as a dependent and an independent variable. With respect to the moderating variables, school leaders' practices are viewed as a dependent variable, but when we consider school principals behavior with the outcome of the school, it becomes an independent variable.

According to Hallinger & Heck (1998), the direct-effects model was the dominant theoretical framework of school leadership during 1980s and most studies conducted using this model found contradicting result. Sometimes they found no significant relationship, however at other times they found mixed or weak effects of school leadership. The direct-effect analytical methods are not in a position to determine reliably the effects of school principal's behavior. Hallinger and Heck concluded that "in the future, such studies offer little hope as a means of contributing substantially to our understanding of questions concerning either if or how leadership influences student outcomes" (p. 166).

A **mediated-effects model** assumes most of the effects of school leaders on school performance occur through manipulation or interaction with other aspects of the school such as teachers and the instructional programs of the school. The mediated-effect model is in line with the management notion which states managers achieve organizational objective through other people. According to Pitner (1988), in the mediated-effect model, the school principals' behavior can be considered both as indirect and direct effects. Regarding school outcome, school principals' behavior is indirect because it is mediated by a third variable. But when we view in line with the mediating variable, it affects directly the mediating variables.

A sub model of the mediated-effect model is a **mediated-effect model** with antecedent variables which is the product or combination of the direct-effect model with antecedent variable and mediated-effect model. This model approaches the study of school principals' effect in a comprehensive way by considering different levels of school organization. Hallinger & Heck (1996a) stated that the black box that dominated in the direct effect studies was cracked open in

the mediated-effect model with antecedent variables, because these studies attempted to make clear the complex relationship between organizational context, principal leadership, in-school process and school outcome. Moreover, the results of these studies even indicate more consistent pattern of positive indirect effects of school leadership on school performance.

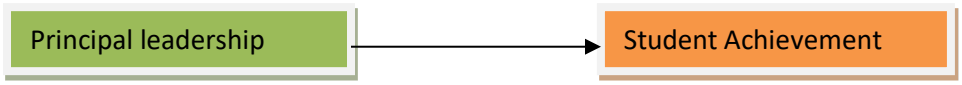
The last model is the **reciprocal-effect model**. In this model, the relationship between principal behavior, in-school process and school outcome is interactive, that is school principals' behavior causes certain school outcome which in turn influences subsequent behavior of the school principal. Both Hallinger & Heck (1996a, 1996b, & 1998) and Pitner (1988) did not find a study that utilized a reciprocal-effects model, although Hallinger and his colleague mentioned that this model holds promise for future investigations

In this study, I used the mediated-effect model with antecedent variables (Model B-1, Figure 3) as my conceptual framework. I chose this model because it is the most comprehensive theoretical model that captures the relationship between school environment, principal leadership, in-school process and school outcome. Moreover, Hallinger & Heck (1996a) stated that this model is the current state-of-the-art in terms of research in conceptualizing the effect of school leadership on school outcomes.

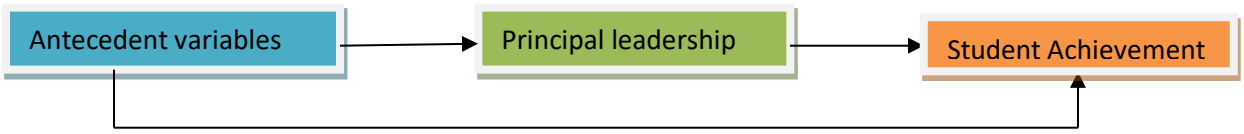
Figure 2.2

Theoretical Frameworks of principal effects on school outcomes

Model A: Direct-effect Model

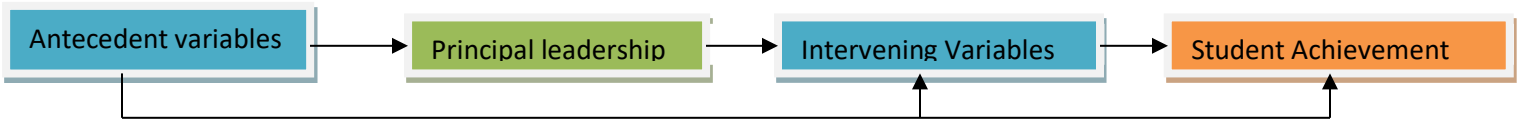


Model A-1: Direct-effects with Antecedent effects

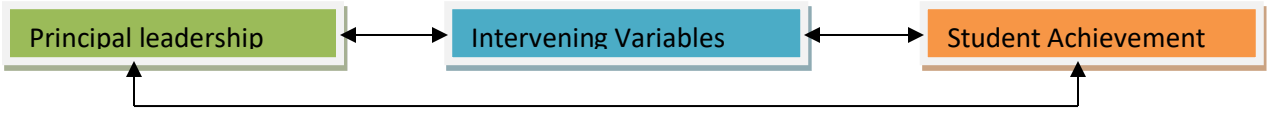


Model B: Mediated-effects

Model B-1: Mediated-effects with Antecedent variables



Model C: Reciprocal-effects



Chapter Three

Research Design and Methodology

Methodology is the process of constructing knowledge. It also indicates how the researcher organizes methods and techniques of data collection and analysis. This chapter focuses on the research design, conceptualizing and operationalizing of variables, sources of data, sampling and sampling technique, data collection instruments and procedures, and methods of data analysis.

3.1. Research Design

In this study, a quantitative correlational design (Creswell, 2015) was used to collect and analyze data. School leadership is a multidimensional construct rather than unidimensional, and to absorb this concept requires complete understanding of the policies and practices of school leadership, as well as how it influences student academic achievement. In order to get a comprehensive understanding about the concept of school leadership, correlational design was used. A quantitative correlational design is essential to determine the extent school leaders' practices influence school performance and to comprehend the complex process and interactions that occur between school context, the behavior of the principal, in-school factors, and school outcome.

According to Creswell (2015), in correlational design investigators describe and measure the relationship between two or more variables. By using this method, I determined school context variables that may stimulate or hinder school leadership practices; identified the practices, behaviors and functions of school principals; and established the extent school leadership practices influence student academic achievement in the context of the Somali region.

3.2. Conceptualizing and Operationalizing of Variables

In this section, I discuss how I conceptualize and operationalize important variables of the study. I examined principal leadership, antecedent or moderating variables, mediating variables, and school outcome variables.

Principal Leadership

According to Hallinger & Heck (1996b) in the last 25 years, the concept of principal leadership evolved from manager, to street-level bureaucrat, to change agent, to instructional manager, to instructional leaders, and lastly to transformational leader. In this study, principal leadership is conceptualized as integrative school leadership by combining the practices and characteristics of instructional, transformational and distributed school leadership. To do so, I used the modified version of the Principal Instructional Management Rating Scale (PIMRS) developed by Hallinger & Murphy (1985) which has three forms: teacher, principal and supervisor.

The Principal Instructional Management Rating Scale (PIMRS) consists of three dimensions. Under these three dimensions, there are 10 functions that school leaders are expected to perform. Again, under these 10 functions, there are 50 practices required from school leaders to carry out in their day-to-day activities. By using the Principal Instructional Management Rating Scale (PIMRS), I asked teachers, school principals, and school supervisors to what extent school leaders perform these fifty practices.

Antecedents and School Contexts

To understand how the school principal produces a positive school outcome, requires the knowledge of the context of the school and how it influences the expectations and requirements of school leadership. In this study, in relation to the school context, I investigated school level that is whether the school is a general secondary school or preparatory school and the location (pastoralist or agro-pastoralist areas), as well as the size (large, middle or small).

Variables Related to In-school Process

Variables related to in-school process mostly facilitate or hinder the effect of the school principal on student academic achievement depending on the type of leadership practice. According to Leithwood and Levin (2003), “Leadership acts as a catalyst ‘unleashing’ the potential of other factors contributing to the improvement of pupil learning" (p. 3). In this study, three factors of in-school processes were examined: defining school mission, managing instructional program, and developing a positive school learning climate. Under defining school mission, setting and communicating of school goals was discussed. With managing instructional program,

supervising and evaluating instruction, coordinating curriculum, and monitoring student progress was examined. Protecting instructional time, providing incentives for teachers, providing incentives for learning, promoting professional development, and maintaining high visibility was investigated in relation to the developing a positive school learning climate.

School Learning Outcome

Schools exist to produce an outcome or achieve certain level of performance. The learning outcome that is expected from the schools varies ranging from school and environmental effects such as parent satisfaction and community participation to student effects such as student academic achievement, attitude and retention. However, researchers conceptualize school outcome as student academic achievement and this study is no exception. In this study the main outcome that school leaders are expected to achieve is a higher student academic achievement, measured by grade 10^{th} and 12^{th} national examination results. I used the result of grade 10 and 12 national examinations in the last seven years i.e., 2005-11 E.C., because I believe that the result of the national examination is more accurate and reliable than teacher prepared tests. Due to this, I analyzed the academic achievement of more than 0.2 million grade 10 and 12 students, in order to see the trend of regional student academic achievement in the last seven years. I also analyzed 26,412 students' academic achievement for sample schools in order to see the relationship and influence between school leadership practices of the school principal and student academic achievement. From these students, 14,990 were grade 10 students, whereas 11,422 were grade 12 students. For these grade 12 students, 60.99% and 39.01% of them are in natural and social science streams respectively. The study also attempted to determine from student academic achievement of the sample schools whether schools are effective, ineffective, improving or declining.

3.3. Sources of Data

In this study both primary and secondary data were collected.

Primary Data

As a primary source of data for the study, questionnaires were distributed and collected from the teachers, supervisors and school principals. I also conducted interviews with the school principals, and Woreda educational experts.

Secondary Data

For secondary data, documents related to the school leadership policies were collected. These documents included National Professional Standard for School Principals, Ethiopian Education and training policy (1994), Education sector strategy (1994), and Education Sector Development Program I-V1 (1998-2025).

3.4. Sampling and Sampling technique

As we know, it is not practical logistically or feasible economically to collect data from every teacher who teaches in the secondary schools of Somali region. In order to select a representative sample, I determined the sample size and selected the sample from the population by using probability sampling. Probability sampling enables us to say, with a specific degree of confidence, how likely the patterns that exist in the sample are also available in the wider population.

The information obtained from Somali region education bureau indicates that the number of teachers who are working in the secondary and preparatory schools of Somali region are approximately 2500 teachers. In determining the sample size, I used small population formula since the size of my population is approximately 2500 teachers. According to, Rea & Parker, (2014), Anderson, Sweeney & Williams (2011) and Triola (2018) the formula used for calculating the sample size from a small population is as follows:

$$n = \frac{Z_a^2[p(1-p)]N}{Z^2[p(1-p)]+(N-1)ME_p^2}$$

In determining the appropriate sample size for the study, I felt it is important for the sample proportion to be accurate within 5 percent of the true proportion, and that 95 a percent confidence level would be satisfactory in order to effectively use the results of the study. By utilizing the above formula, I calculated the sample size for the study as follows:

$$n = \frac{(1.96)^2(0.25)(2500)}{(1.96)^2(0.25)+2499(0.05)^2} = 333.1067$$

Although the sample size was 334 teachers, to be conservative I prepared and distributed 350 questionnaires for teachers. The actual questionnaires used for analysis were 337 questionnaires; the remaining 13 questionnaires were incomplete and cannot be utilized.

In selecting this sample from the population of teachers in the secondary and preparatory schools of the region, I used multi stage sampling. In multi stage sampling, I utilized three steps to collect data from the population. In the first step, I employed cluster sampling to select 6 zones out of 9 zones of Somali region.

The Somali region consists of eleven zones. These zones can be categorized into old and new zones. The new zones are Erer and Daawo zones. These zones were established in 2009 E.C. Previously, these zones were part of Nogob and Liban zones respectively. In this study I used the classification of nine zones, since I utilized the student academic achievement of the last seven years and I considered Erer and Dawa zones as part of their previous Nogob and Liban zones respectively. Six zones were included in the study with the assumption that they represent the remaining 3 zones, based on my experience in the region as a primary school teacher, zone education office head, and a member of the regional council and cabinet. These zones are Fafan, Jerer, Qorahay, Shebelle, Nogob and Doolo. The Nogob and Doolo zones are more educationally disadvantaged and less researched zones due to natural and man-made disasters.

In the second step, I selected one secondary and preparatory school from each zone, except Fafan and shebele zones, because these zones have more secondary and preparatory schools, students and teachers than other zones. In Fafan and Shebelle zones I selected four and two schools respectively. From each zone schools were selected based on the following criteria:

- The school serves the highest number of students in the zone
- The school leader has been in the principal ship position at least in the last three years

I set these two criteria with the assumption that as the size of the school increases, the level of the complexity of leadership practices will also increase. Secondly, I could not determine the effect of the school principal unless s/he has been in the position of principal ship at least for three years.

Lastly, to select respondents from each school I used simple random sampling (Anderson, Sweeney & Williams, 2011). Based on this sampling technique, I collected data from six zones, 5 city administrations, 3 woredas, 10 schools, 337 teachers, 10 school principals and 10 school supervisors, as indicated in Table 3.1.

As shown in Table 3.1, Jigjiga Secondary and Preparatory school had the highest number of respondents whereas Wardher Secondary and Preparatory School had the lowest. Regarding the gender of the respondents, 18.40% of the respondents are female teachers.

Table 3.1

Total Number of Teachers in the Sample Secondary and Preparatory Schools of Somali Region

			Teachers		
Zone	**Woreda/City**	**School**	**Male**	**Female**	**Total**
Jarar	Dhegah Bur City	Dhegah Bur	24	4	28
Shebele	Godey City	Godey	28	2	30
		Sayid Mohamed	23	4	27
	Jigjiga City	Jigjiga	56	18	74
		Shekh Abdisalan	40	17	57
Fafan	Khabribayah City	Khabribayah	20	2	22
	Harshin	Harshin	11	5	16
Korahay	Kebridahar City	Kebridahar	38	5	43
Doolo	Wardher	Wardher	12	3	15
Nogob	Fik	Fik	23	2	25
	Total		275	62	337

As shown in Tables 3.2 and 3.3, 52.82% and 47.18% of the respondents are from secondary and preparatory school levels respectively. Regarding female respondents, there is more representation of female teachers in secondary schools (21.91%) compared to preparatory

schools (14.47%). This indicates as we go up in the ladder of the education system, the representation of female participant declines.

Table 3.2

Sample Teachers from Sample Secondary Schools of Somali Region

Zone	Woreda/City	School	Teachers		
			Male	Female	Total
Jarar	Dhegah Bur City	Dhegah Bur	9	3	12
Shebele	Godey City	Godey	15	1	16
		Sayid Mohamed	13	1	14
Fafan	Jigjiga City	Jigjiga	24	11	35
		Shekh Abdisalan	19	12	31
	Khabribayah City	Khabribayah	12	0	12
	Harshin	Harshin	5	3	8
Korahay	Kebridahar City	Kebridahar	21	4	25
Doolo	Wadher	Wardher	9	2	11
Nogob	Fik	Fik	12	2	14
	Total		139	39	178

Table 3.3

Sample Teachers from Sample Preparatory Schools of Somali Region

Zone	Woreda/City	School	Teachers		
			Male	Female	Total
Jarar	Dhegah Bur City	Dhegah Bur	15	1	16
Shebele	Godey City	Godey	13	1	14
		Sayid Mohamed	10	3	13
Fafan	Jigjiga City	Jigjiga	32	7	39
		Shekh Abdisalan	21	5	26
	Khabribayah City	Khabribayah	8	2	10
	Harshin	Harshin	6	2	8
Korahay	Kebridahar City	Kebridahar	17	1	18
Doolo	Wardher	Wardher	3	1	4
Nogob	Fik	Fik	11	0	11
	Total		136	23	159

3.5. Data collection Instruments and Procedures

For the data collection instruments, I used questionnaires, interviews and document analysis.

Questionnaires

To collect data from the teachers, supervisors and school principals, I used modified version of the Principal Instructional Management Rating Scale (PMRS) developed by Hallinger and Murphy (1985), to collect data that relates to the school leadership practices of the school principal. The questionnaires emphasize school mission, managing the instructional program of the school and developing positive school learning climate.

The questionnaires were translated into the Somali language for Somali speaking teachers and I used the English version of the questionnaire for non-Somali language speaking teachers. After the translation of the questionnaire into Somali language, I conducted the pilot testing of the questionnaire with 55 teachers from Wiil Waal and Xusen Giire primary schools, to check whether it can generate the desired information. Then comments and suggestions made by the respondents were incorporated in the questionnaire.

Interviews

I developed a semi-structured interview guideline based on the core practices of transformational school leadership prepared by Leithwood, Day, Sammons, Harris, & Hopkins (2006) and Leithwood (2012). The interview took approxiamely 40 minutes. With six school directors and four education officials, the focus of the interview was setting directions, developing people, redesigning the organization and the instructional program of the schools. Interviews were recorded and transcribed.

Document Review

To get additional evidence for the study, I analyzed Ethiopian national professional standards for school leader. This document defines the role of the school principal and unifies the profession by clarifying behaviors expected from the school leaders. It also concerns preprimary, primary and secondary school principals.

3.6. Reliability and Validity

Reliability means the consistency within which a measurement instrument provides similar responses across different settings and times (Hallinger & Wang, 2015). In this study, to measure the leadership practices of the school principals, I used the Principal Instructional Management

Rating Scale (PIMRS). PMIRS consists of three dimensions and 10 functional leadership roles that the school principal is expected to perform. The three dimensions are defining school mission, managing instructional program and developing school climate. Under each dimension there are certain leadership roles. For example, under defining school mission, there are framing and communicating schools' goals, under managing the instructional program, there are three leadership roles: supervising and evaluating instruction, coordinating curriculum and monitoring student progress. The remaining five leadership roles are under developing school climate dimension. Moreover, PIMRS consists of three forms: principal, teacher and supervisor form. All the items of the three forms are similar; only stems change to reflect the differing perspective of the role groups i.e., principals, teachers, and supervisors.

Hallinger (2011b) reviewed 130 doctoral dissertations completed over the past three decades that used the PIMRS and concluded "that teacher perceptions continue to constitute the preferred source of data on the principal's instructional leadership for both research and evaluation purposes" (p. 293). To determine the extent to which the instrument provides reliable data, I calculated the reliability coefficient of the teacher form of the scale. I also attempted to show the reliability coefficients in terms of the level of the scale (i.e., as a whole, three dimensions and 10 functions) and the school level (i.e., secondary and preparatory).

Table 3.4

Reliability of whole scale and three dimensions

Dimensions	**Reliability[a] (n=337)**	**Number of items**
Defines school mission	0.813	10
Manages the instructional program	0.890	15
Develops school climate	0.924	25
Whole scale	0.952	50

[a] Reliability estimates are Cronbach's *alpha* coefficients

As shown in Table 3.4, the whole scale alpha reliability estimate is 0.95. Reliability estimates for the three dimensions are 0.81 for defines the school mission, 0.89 for manages the instructional program, and 0.92 for develops a positive school learning climate. All these reliability estimates indicate high reliability level. As revealed in Table 3.4, as the number of items increase from 10 to 15 and then 25 items, the reliability estimates also increases. This indicates that the length of the instrument influences the reliability estimates of the scale.

Table 3.5

Reliability of Subscales

Subscales	**Reliability[a] (n=337)**	**Number of items**
Frames school goals	0.710	5
Communicates school goals	0.715	5
Supervises and evaluates instruction	0.766	5
Coordinates curriculum	0.780	5
Monitors student progress	0.809	5
Protects instructional times	0.730	5
Maintains high visibility	0.752	5
Provides incentives for teachers	0.822	5
Promotes professional development	0.812	5
Provides incentives for learning	0.842	5

[a] Reliability estimates are Cronbach's *alpha* coefficients

As shown in Table 3.5, the reliability estimates of the 10 instructional leadership function are above 0.7 which is the recommended standard for the reliability estimates for most of the instruments used for research purposes. The leadership function of provides incentives for learning (0.842) has the highest reliability estimate followed by provides incentives for teachers (0.822) and promotes professional development (0.812). As indicated in Table 3.5, the reliability estimates of the 10 instructional leadership functions are lower than the reliability estimates of full scale and the three dimensions.

Table 3.6

Reliability of Whole Scale and Three Dimensions by School Level

Dimensions	Reliability[a]		Number of items
	Secondary (n=178)	Preparatory (n=159)	
Defines school mission	0.809	0.818	10
Manages the instructional program	0.888	0.893	15
Develops school climate	0.926	0.922	25
Whole scale	0.954	0.950	50

[a] Reliability estimates are Cronbach's *alpha* coefficients

In Tables 3.6 and 3.7, I attempted to show the reliability estimates of the PIMRS instrument in terms of school level i.e., secondary and preparatory schools. Table 3.6 shows the reliability estimates of the whole scale and three dimensions. The reliability estimates of preparatory school respondents are higher in defining school mission and managing instructional program dimensions when compared with the secondary school respondents. In Table 3.7, I calculated the reliability estimates for the 10 instructional leadership functions disagregated by school level. All the reliability estimates are above 0.7 except the reliability estimate for the function of framing school goals for secondary school respondents which is 0.681.

The reliability estimates reported in this study are similar to the reliability estimates of studies conducted in other countries like the US. According to Hallinger and Wang (2015), the Principal Instructional Management Rating Scale (PIMRS) has good internal consistency in US, with a Cronbach alpha coefficient reported of 0.97 for the whole scale, 0.90 for defining school mission, 0.92 for managing the instructional program and 0.94 for developing school climate. In this study, the Cronbach alpha coefficient is 0.952 for the whole scale, 0.813 for defining school mission, 0.890 for managing the instructional program and 0.924 for developing school climate.

Table 3.7

Reliability of Subscales by School Level

Subscales	Reliability[a]		Number of items
	Secondary (n=178)	Preparatory (n=159)	
Frames school goals	0.681	0.743	5
Communicates school goals	0.713	0.719	5
Supervises and evaluates instruction	0.761	0.775	5
Coordinates curriculum	0.781	0.780	5
Monitors student progress	0.813	0.804	5
Protects instructional times	0.735	0.724	5
Maintains high visibility	0.719	0.786	5
Provides incentives for teachers	0.826	0.818	5
Promotes professional development	0.831	0.787	5
Provides incentives for learning	0.857	0.826	5

[a] Reliability estimates are Cronbach's *alpha* coefficients

Regarding the validity of the instrument, Hallinger and Wang (2015) conducted a validation study by using 13 independent PIMRS studies carried out between 2008 and 2012. They analyzed the data of these studies by using Rasch analysis and differential item function (DIF) and concluded that PIMRS instrument meets commonly applied standards of reliability and internal validity. Moreover, Hallinger (2011b) reviewed three decades of doctoral studies which used the Principal Instructional Management Rating Scale and concluded that "the PIMRS instrument appears to provide reliable and valid data on instructional leadership when the assessment come from teachers" (p. 298).

3.7. Methods of Data Analysis

Both the quantitative and qualitative data were analyzed and interpreted. Quantitative data were analyzed using SPSS software. First, a codebook was prepared to translate the data into a format suitable for the SPSS software. Then the data obtained through questionnaires were entered into

the computer and analyzed using both descriptive and inferential statistics. For descriptive statistics, percentage and mean scores were calculated to provide a better understanding of the data. For inferential statistics, independent sample t- test and one-way ANOVA was computed to generalize the data to the target population. For the qualitative data, a coding system was used to analyze the data.

Contents of the documents were analyzed using the framework of analyzing school leadership policies developed by Weinsten and Hernandez (2015) which is based on seven dimensions of school leadership policies: responsibilities and standards, autonomy in diverse areas of school management, recruitment process, and appraisal of performance, working conditions, school leadership teams, and training.

3.8. Ethical Considerations

In this study, I used methods that provide a higher level of objectivity in the process of data collection and analysis. I communicated the purpose of the study to the woreda education office heads, and school directors and tried to acquire their permission to collect data from the woredas, and schools. I also asked the participants for their consent to participate in the study after detailed explanation of the purpose of the study. In addition, I attempted as much as possible not to disturb the sites during the data collection. The anonymity of the respondents was maintained by informing them not to write their names on the questionnaires or to disclose it during the interview and focus group discussion sessions.

Chapter Four

Data Presentation, Analysis and Interpretation

In this chapter I discussed the characteristics of the respondents of the study, contextual factors that influence the practices of school leadership, school leadership practice, student academic achievement and the relationship or the influence between school leadership practices and student academic achievement. Lastly, I discussed the situation of the schools of the Somali region i.e., whether schools are improving or declining, effective or ineffective.

4.1 Characteristics of the Respondents

In this section, I described the characteristics of the respondents in terms of their gender, age, educational level and their experience working with the current school principal as well as their overall experience in teaching and the level of schooling they teach i.e., secondary or preparatory level. In this study, I collected data from 337 teachers, 10 school principals, 10 school supervisors, and four woreda education experts from 5 City administrations, 3 woredas and 6 zones of Somali regional state.

As shown in Table 4.1, data were collected from 337 teachers. From these teachers 81.6% are male while the remaining 18.4% are female. 50.1% of the respondents are from Fafan zone, followed by shabele (16.95%) and Qorahay (12.8%) zones. In terms of gender, 46.2% of male respondents and 67.7% of female respondents are from Fafan zone. As these figures indicate the majority of the female respondents are from Fafan zone. On the other hand, Doolo (3.2%) and Nogob (4.8%) zones have the lowest representation of female respondents.

Regarding school level, there were 178 teachers in secondary schools and 159 teachers in preparatory schools. As shown in Table 4.1, there are more secondary school teachers than preparatory school teachers. This is due to the number of the students in school, because mostly there are more students in the secondary schools than preparatory schools. The representation of female teachers declines as we go from secondary and natural science to social science. For example, the representation of female teachers in secondary, natural and social science is 21.9%, 17.5% and 8.9% respectively.

Table 4.1

Characteristics of the Respondents by Gender, Zone, School Level and School Location

		Gender				
		Male		Female		Total
		N	%	N	%	N
Zones						
Fafan		127	75.1	42	24.9	169
Jarar		24	85.7	4	14.3	28
Qorahay		38	88.4	5	11.6	43
Shabelle		51	89.5	6	10.5	57
Doolo		12	80.0	3	20.0	15
Nogob		23	92.0	2	8.0	25
	Total	275	81.6	62	18.4	337
School level						
Secondary		139	78.1	39	21.9	178
Natural Science		85	82.5	18	17.5	103
Social Science		51	91.1	5	8.9	56
	Total	275	81.6	62	18.4	337
School location						
Agro-pastoralist areas		229	81.5	52	18.5	281
Pastoralist areas		46	82.1	10	17.9	56
	Total	275	81.6	62	18.4	337

Most teachers who completed the questionnaires are from agro-pastoralist areas. For instance, 83.4% of the teachers are from agro-pastoralist areas, because the access of secondary and preparatory education is more available in agro-pastoralist areas than pastoralist, although the majority of the regional population is in pastoralist areas. Gender representation is also different

among the teachers in agro-pastoralist areas. For example, 83.9% of female respondents are from agro-pastoralist areas.

Table 4.2

Characteristics of the Respondents by Gender, Qualification, Age, and Ethnicity

	Gender				Total
	Male		Female		
	N	%	N	%	N
Qualification of teachers					
Diploma	15	83.3	3	16.7	18
B.A/BSc	239	80.5	58	19.5	297
M.A/MSc	21	95.5	1	4.5	22
Total	275	81.6	62	18.4	337
Age of the teachers					
20-29	132	79.5	34	20.5	166
30-39	77	88.5	10	11.5	87
40-49	44	73.3	16	26.7	60
More than 50	22	91.7	2	8.3	24
Total	275	81.6	62	18.4	337
Ethnicity of teachers					
Somali teachers	73	90.1	8	9.9	81
Non-Somali teachers	202	78.9	54	21.1	256
Total	275	81.6	62	18.4	337

As shown in Table 4.2, for secondary and preparatory school teachers, 5.3%, 88.1% and 6.5% are diploma, B.A/BSc and master's degree holders respectively. Regarding the gender of the teachers, there are more diploma holders among female teachers compared with second degree holders. For example, the percentage of female diploma holders (16.7%) is approximately four times higher than the percentage of second-degree holders.

Regarding the age of the respondents, 49.3%, 25.8%, 17.8% and 7.1% are in the age categories of 20-29, 30-39, 40,49 and 50 plus respectively. This reveals that as age increases, the number of the teaching staff in the secondary and preparatory schools decreases. In other words, there are more young teaching staff in the secondary and preparatory schools of the region. As shown in the Table 4.2, only 24.0% of the male respondents and 29.0% of female respondents are more than 40 years old.

As indicated in Table 4.2, the majority of the respondents are non-Somali language speakers. For example, 76.0% of the respondents are non-Somali language speakers. The rate is also higher among female respondents where 87.1% of female respondents are non-Somali language speakers. These percentages are almost the reverse of what Ethiopian Population Census commission reported in its 2007 population and housing census. The commission reported in its third population and housing census, which was conducted in May and November 2007 G.C., that 97.2% of Somali region population are Somali language speakers, while the remaining 2.8% are non-Somali language speakers who live in the region (Summary and statistical report of the 2007 population and housing census, 2008).

The secondary and preparatory schools of the region are expected to have a teacher population which almost has a mirror image of the existing regional population composition as reported by the census commission. This indicates the poor performance of Somali region education system and its failure to train enough teachers who are Somali language speakers for the secondary and preparatory schools.

Table 4.3

Characteristics of the Respondents by Gender, Experience Working with School Principal and Overall Experience

	Gender				Total
	Male		Female		
	N	%	N	%	N
Years working with the school principal					
1-4	240	83.0	49	17.0	289
5-9	24	85.7	4	14.3	28
10-15	11	57.9	8	42.1	19
More than 15	0	0.0	1	100	1
Total	275	81.6	62	18.4	337
Overall experience of the teachers					
1-4	112	80.0	28	20.0	140
5-9	61	85.9	10	14.1	71
10-15	40	83.3	8	16.7	48
More than 15	62	79.5	16	20.5	78
Total	275	81.6	62	18.4	337

As shown in Table 4.3, 85.8% of the respondents mentioned that they worked with their current school principal at most four years. This percentage also increases if we disagregate the respondents based on their gender. For example, 87.3% of male respondents and 79.0% of female respondents stated that they worked with their current school principal no more than four years. On the other hand, only 5.9% of the respondents worked with their current school principal at least 10 years. This indicates a high turnover among the school principals of the region. It also clear that, if the school principal does not stay enough time in the leadership position of its school, it is highly unlikely to influence or contribute the improvement of the student learning.

In terms of overall experience of the sample teachers from the secondary and preparatory schools, only 41.5% of the respondents had experience of less than four years; however, the percentage of respondents who worked with their school principal no more than four years was 85.8%. This indicates that teachers work with different school principal due to the high attrition rate among school principals. For example, 37.4% of the respondents have more than 10 years of experience but only 5.9% of them worked with their currect school principals.

As shown in Table 4.4, of 337 teachers, 52.8% are in the sample secondary schools while the remaining is in the sample preparatory schools. For preparatory schools, 64.8% of the preparatory school respondents are from natural science stream. As revealed in Table 4.4, the share of diploma holder teachers is highest among respondents from social science teachers followed by secondary school teachers. The respondents from natural science teachers have the lowest and highest percentages of diploma (1.9%) and master degree (9.7%) holders respectively. The percentage of first-degree holders among the respondents is almost similar between the secondary and preparatory school teachers.

As shown in Table 4.3, 41.5% of the respondents have less than four years of experience. But in the Table 4.3, 85.8% of the respondents worked with their school principal at most four years. This indicates although more respondents have an experience of more than four years but still they did not get a chance to work with their school principal more than four years due to the high turnover of the school principals. As revealed in Table 4.4, 32.6%. 41.7% and 44.7% of the respondents from secondary, natural and social science teachers respectively have more than 10 years of experience. Overall, the experience of the respondents from secondary and preparatory school are almost similar.

As revealed in Table 4.5, Shabelle zone (12.3%) has the highest percentage of the respondents who are diploma holders followed by Jarar (7.1%) and Doolo (6.7%) zones. The majority of the respondents who are the second-degree holders are in Fafan zone. For example, overall, there are 22 respondents of second-degree holders. From these 18 (81.8%) of them are in Fafan zone.

Table 4.4

Characteristics of the Respondents by School Level, Teacher Qualification and Experience

		School Level		
			Preparatory	
		Secondary	Natural	Social
		%	%	%
Qualifications of the teachers				
	Diploma	6.7	1.9	7.1
	B.A/BSc	89.3	88.3	83.9
	M.A/MSc	3.9	9.7	8.9
Teacher experience				
	1-4	43.3	43.7	32.1
	5-9	24.2	14.6	23.2
	10-15	11.8	16.5	17.9
	15+	20.8	25.2	26.8
Total	**N**	178	103	56
	Row %	52.8	30.6	16.6

Regarding the experience of the respondents, 84.0% and 80.0% of the respondents from Nogob and Doolo zones have less than four years of experience respectively, compared with 31.4% of the respondents from Fafan zone. On the other hand, only 0.0% and 4.0% of the respondents from Nogob and Doolo zones have more than 10 years of experience, whereas 50.9% and 40.3% of the respondents from Fafan and Shabelle zones respectively have more than 10 years of experience. Overall, Fafan zone has highly qualified and more experienced teachers followed by shabelle zone. In contrast, Nogob and Doolo zones have low qualified and low experienced teachers.

Table 4.5

Characteristics of the Respondents by Zone, Teachers Qualification and Experience

		Zones of Somali Region					
		Fafan	**Jarar**	**Qorahay**	**Shabele**	**Doolo**	**Nogob**
		%	%	%	%	%	%
Qualification							
	Diploma	4.1	7.1	0.0	12.3	6.7	4.0
	B.A/BSc	85.2	89.3	97.7	86.0	93.3	92.0
	M.A/MSc	10.7	3.6	2.3	1.8	0.0	4.0
Teacher experience							
	1-4	31.4	39.4	48.8	38.6	80.0	84.0
	5-9	17.8	46.4	23.3	21.1	20.0	12.0
	10-15	13.6	14.3	16.3	22.8	0.0	4.0
	15+	37.3	0.0	11.6	17.5	0.0	0.0
Total	**N**	169	28	43	57	15	25
	Row %	50.1	8.3	12.8	16.9	4.5	7.4

In this study, in addition to the teachers, data were also collected from 10 school principals and 10 school supervisors. From the school principals, 90% (9) are male and there is only one female school principal. The representation of female school principals in the principalship positions is almost similar to the female representation in the teaching staff of the sample schools which is 18.4%. In terms of location, 30% (3) of the school principals are from pastoralist areas. Most of the school principals are more experienced than the school teachers. For example, 70% (7) of the school principals have more than 5 years of experience. The characteristics of the school supervisors are similar to that of the school principals except that all supervisors in the sample schools are male.

4.2 School leadership Practices

To measure the school leadership practices and behaviors of the principals in the sample schools, I utilized the Principal Instructional Management Rating Scale (PIMRS) developed by Hallinger & Murphy (1985). PIMRS consists of three dimensions, 10 leadership functions, and 50 specific practices that the school leaders are expected to perform in their day-to-day activities. The dimension defining school mission has two leadership functions (framing and communicating schools). Under managing the instructional program, there are three leadership functions (supervising and evaluating instruction, coordinating curriculum and monitoring student progress) and the remaining five leadership functions are under the dimension of developing school climate.

In Tables 4.6 and 4.7, I present the mean scores and standard deviations for the three dimensions and 10 leadership functions of PIMRS. Overall, the engagement of the school principals with these functions and dimensions is very low. For example, the mean score of the three dimensions and 10 leadership functions is below the average which is 3.00.

Table 4.6

Means and Standard Deviations for the Three Dimensions as Perceived by the Teachers

Dimensions	Mean	Standard deviation	Skewness
Defines school mission	2.86	0.64	- 0.098
Manages the instructional program	2.70	0.69	-0.074
Develops school climate	2.61	0.66	0.048
Whole scale	2.68	0.60	-0.055

Note. -All ratings are based on a Likert Scale, which runs from 1--"almost never"-to 5--"almost always." Lower mean scores represent job functions that principals perform less frequently

As indicated in Table 4.6, teachers mentioned that their school principals relatively engage more with the defining school mission dimension (M=2.86; SD=0.64) followed by manages instructional program (M=2.70; SD=0.69) and lastly develops school climate (M=2.61; SD=0.66). When school principals involve more with developing school mission activities, they

can influence the instructional focus of the teachers. This creates a school climate which emphasis the school's most important task i.e., student academic achievement.

Table 4.7

Means and Standard Deviations for the 10 Functional Leadership Practices of School Principals as Perceived by the Teachers

Subscales	Mean	Standard deviation	Skewness
Frames school goals	2.95	0.70	-0.258
Communicates school goals	2.77	0.72	-0.057
Supervises and evaluates instruction	2.73	0.80	0.024
Coordinates curriculum	2.70	0.78	-0.166
Monitors student progress	2.66	0.83	-0.053
Protects instructional times	2.72	0.75	-0.136
Maintains high visibility	2.76	0.79	-0.122
Provides incentives for teachers	2.36	0.87	0.168
Promotes professional development	2.62	0.80	0.000
Provides incentives for learning	2.60	0.88	0.045

Note. -All ratings are based on a Likert Scale, which runs from 1--"almost never"-to 5--"almost always." Lower mean scores represent job functions that principals perform less frequently

As shown in Table 4.7, school principals invest their time more in framing school goals (M=2.95; SD=0.70) and communicating school goals (M=2.77; SD=0.72). In framing school goals, school principals define school goals in a manner that increases their usefulness for the purpose of instruction and assessment. The interview conducted with the members of parent teacher association also supports this. For example, a parent mention that " school principals set goals with the help of teachers or they may discuss with them, but rarely they discuss or inform these goals to the PTA memebers or students".

The school principals then communicate these goals to the school community by referring them in the formal or informal meetings with the teachers and students. Framing and communicating school goals compose the defining school mission dimension. This dimension assumes that the

school principal is responsible for creating a learner centered school and to establish such school, the school principal must engage more in these functions.

Table 4.7 indicates that the school principals spend some time in the second dimension which incorporates three leadership functions: supervising and evaluating instruction (M=2.73; M=0.80), coordinating curriculum (M=2.70; SD=0.78) and monitoring student progress (M=2.66; SD=0.83). In supervising and evaluating instruction, the school principal ensures the goals of the school are implemented as planned and monitors classroom instructions by making formal and informal visits.

The school principal is also involved in coordinating the curriculum content, sequence and materials across grade levels and ensuring the alignment between the syllabi, content taught and content tested. Under monitoring student progress, the school principals engage in providing teachers with test results, discuss test results with the staff, and provide interpretative analysis for teachers. Based on these data, teachers make adjustments in their instructional strategies. The school principals monitor student performance in order to determine the school's instructional progress toward the school goals. So, if the school principals are involved more in managing the instructional program dimension, they can have higher influence in managing the technical core of the school.

As shown in Table 4.7, school principals invest less time in providing incentives for teachers (M=2.36; SD=0.87), providing incentives for learning (M=2.60; SD=0.88), promoting professional development (M=2.62; SD=0.80), protecting instructional time (M=2.72; SD=0.75), and maintaining high visibility (M=2.76; SD=0.79). These functions compose the developing school climate dimension. By spending more time in this dimension, the school principals can create academic press which emphasizes norms, expectations and beliefs that reward continuous school improvement.

According to the interview conducted with the school princpals, they argue that they spent more time in maintaining high visibility in the school. For example, they stated that: "mostly we are available in the school and I can say that we are better in doing this activitity than any other activity you asked us".

As revealed in Tables 4.6 and 4.7, in the three dimensions, school principals invest relatively more time in framing school mission and less time in developing school climate. Similarly, in the 10 leadership functions, they engage more in framing school goals, communicating school goals and maintaining high visibility. They also involve less time in providing incentives for teachers, providing incentives for learning and promoting professional development of the teachers. In the focus group discussions, teachers mentioned that professional development opportunities are available for certificate and diploma holders' teachers, but not for the teachers who are first degree holders.

As indicated in Tables 4.7 and 4.6, I calculated the skewness of the three dimensions and 10 leadership functions. In the three dimensions, defining school mission has a very low moderate skewness (-0.098), whereas, in the 10 leadership functions, framing school goals (-0.258) and coordinating curriculum (-0.166) have higher moderate skewness compared with other functions. This shows that the data is approximately symmetric. Overall, the distribution of the three dimensions and 10 leadership functions indicates a normal distribution.

Table 4.8

Means and Standard Deviations for Instructional Leadership Practices of School Principals as Perceived by the Teachers, Principals and Supervisors

Dimensions and Subscales	Teachers (n=337)		Principals (n=10)		Supervisors (n=10)	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Defines school mission	**2.86**	**0.64**	**4.08**	**0.54**	**3.04**	**0.79**
Frames school goals	2.95	0.70	4.16	0.52	3.06	0.88
Communicates school goals	2.77	0.72	4.00	0.63	3.02	0.78
Manages the instructional program	**2.70**	**0.69**	**3.95**	**0.61**	**3.07**	**0.61**
Supervises and evaluates instruction	2.73	0.80	3.96	0.44	3.34	0.50
Coordinates curriculum	2.70	0.78	3.96	0.72	2.86	0.72
Monitors student progress	2.66	0.83	3.94	0.83	3.00	0.77
Develops school climate	**2.61**	**0.66**	**3.91**	**0.50**	**3.03**	**0.62**
Protects instructional times	2.72	0.75	4.04	0.62	3.24	0.84
Maintains high visibility	2.76	0.79	3.78	0.68	3.10	0.87
Provides incentives for teachers	2.36	0.87	3.82	0.59	2.96	0.80
Promotes professional dev't	2.62	0.80	3.78	0.70	2.76	0.52
Provides incentives for learning	2.58	0.88	4.14	0.48	3.08	1.04
Whole scale	**2.68**	**0.60**	**3.96**	**0.51**	**3.04**	**0.60**

Note. -All ratings are based on a Likert Scale, which runs from 1--"almost never"-to 5--"almost always." Lower mean scores represent job functions that principals perform less frequently

In Table 4.8, I compared the means and standard deviations for the perceptions of teachers, school principals and supervisors. The means and standard deviations show that principals reported high engagement (M=3.96; SD=0.51) on the three dimensions and 10 leadership functions, while teachers mentioned low principal involvement (M=2.68; SD=0.60) in

instructional management. The school supervisors stated that the school principals spend moderate time (M=3.04; SD=0.60) on the instructional management dimensions and subscales. As presented in Table 4.8, the mean and standard deviation scores of teachers, principals and supervisors indicate that school principals spend relatively more time in the defining school mission dimension, followed by managing the instructional program of the school and lastly developing positive school climate.

This indicates that school principals invest less time in promoting a positive school learning climate which facilitates establishing environmental forces that press for student academic achievement on a school wide basis. This suggests the sample schools lack school policies, practices, expectations, norms and rewards that require students to work hard and to do well academically. The absence of standards that emphasizes the importance of academic work, makes student engage in other acts of academic dishonesty, such as cheating, as mentioned by the members of the focus group discussions.

In Ethiopia, secondary education is divided into general secondary education which is grades 9 and 10 and preparatory school which covers grades 11 and 12. Moreover, preparatory schools are also divided into natural and social science streams. Table 4.9 indicates the perception of secondary and preparatory teachers regarding the involvement of their school principals in the instructional management of their schools. Based on the perception of the teachers, in both the secondary and preparatory schools, school principals engage relatively more in the defining school mission dimension (secondary schools M=2.87; SD=0.66; preparatory schools M=2.85; SD=0.62) and spend less time in the developing positive school climate dimension (secondary schools M=2.59; SD=0.68; preparatory schools M=2.62; SD=0.64). This shows the existence of deficiency in establishing academic press in these schools. The absence of the environmental forces that press students for academic achievement makes students feel that they are not capable of academic excellence and that their efforts will be meaningless. This also increases student tardiness, absenteeism and truancy.

Table 4.9

Means and Standard Deviations for Instructional Leadership Practices of school Principals as Perceived by the Teachers of Secondary and Preparatory Schools

Dimensions and Subscales	School level			
	Secondary (n=178)		Preparatory (n= 159)	
	Mean	Standard deviation	Mean	Standard deviation
Defines school mission	**2.87**	**0.66**	**2.85**	**0.62**
Frames school goals	2.99	0.70	2.91	0.70
Communicates school goals	2.75	0.75	2.79	0.70
Manages the instructional program	**2.69**	**0.70**	**2.70**	**0.67**
Supervises and evaluates instruction	2.72	0.83	2.75	0.77
Coordinates curriculum	2.69	0.81	2.71	0.75
Monitors student progress	2.67	0.84	2.64	0.82
Develops school climate	**2.59**	**0.68**	**2.62**	**0.64**
Protects instructional times	2.71	0.78	2.73	0.73
Maintains high visibility	2.73	0.78	2.79	0.82
Provides incentives for teachers	2.34	0.90	2.38	0.83
Promotes professional development	2.58	0.86	2.65	0.74
Provides incentives for learning	2.60	0.91	2.55	0.86
Whole scale	**2.68**	**0.62**	**2.62**	**0.64**

Note. -All ratings are based on a Likert Scale, which runs from 1--"almost never"-to 5--"almost always." Lower mean scores represent job functions that principals perform less frequently

Regarding the leadership functions, Table 4.9 reveals that both secondary and preparatory school principals are involved relatively more in framing schools' goals function (secondary schools M=2.99; SD=0.70; preparatory schools M=2.91; SD=0.70) and invest less time in providing incentives for teachers (secondary schools M=2.34; SD=0.90; preparatory schools M=2.38; SD=0.83). This indicates school principals do not reward teachers for their special efforts or their high level of performance. They also do not acknowledge teachers' exceptional performance by writing memos for their personal files. This affects the overall performance of the school and creates barriers to achieve school goals.

For the secondary schools, the principal's involvement in promoting the professional development function is not very different than providing incentives for teachers' function (M=2.58; SD=0.86). Similarly, for preparatory schools, principals spend less time providing incentives for learning (M=2.55; SD=0.86). This reveals that preparatory school principals do not recognize students who do superior work with formal rewards such as honor roll or use assemblies to honor students for academic accomplishments. In short, preparatory school principals do not reward teachers for their exceptional performance and students for their superior academic achievement and culture of recognition is not practiced in these schools. This problem also exists more in the natural science stream than social science as indicated in Table 4.10.

As shown in Table 4.10, natural science teachers perceive that preparatory school principals spend less times in practices and behaviors related to both providing incentives for teachers (M=2.35; SD=0.88) and providing incentives for learning (M=2.46; SD=0.87). This shows that preparatory school principals do not provide incentives for teachers and student learning. This means that school principals do not reward and recognize teachers for their efforts and performance. Moreover, they do not give appropriate value to the academic achievement of their students by rewarding and recognizing their achievement. This may be due to the lack of information that measures the performance of students and teachers.

Mostly, school principals do not collect information that can be used to identify teachers and students whose performance is either above or below the accepted level of performance. Based on the performance of teachers and students, school principals should provide incentives for high performers and take corrections measures against low performers. Without establishing strong a

reward and punishment system, it is difficult for school principals to create a school learning climate in which students give value to academic achievement and teachers achieve exceptional performance.

To determine whether there is a difference in the instructional leadership practices and behaviors of secondary and preparatory school principals, I conducted an independent-samples t-test to compare the leadership dimensions of defining school mission, managing instructional program and developing positive school climate for secondary and preparatory schools. For defining school mission there was no significant difference in the means for secondary (M = 2.87, SD=0.66) and preparatory schools (M=2.85; SD=-0.62; t (335) = 0.31, p = 0.76, two-tailed). The magnitude of the difference in the means (mean difference = 0.02, 95% CI: - 0.12 to 0.16) was very small (eta squared = 0.006).

For the managing instructional program dimension, there was also no significant difference in the means for secondary (M=2.69, SD=0.70) and preparatory schools (M=2.70; SD=0.67; t (335) = -0.31, p = 0.93, two-tailed). The magnitude of the difference in the means (mean difference = - 0.007, 95% CI: - 0.15 to 0.14) was very small (eta squared = 0.0009). Lastly, in developing positive school climate, there was no significant difference in the means for secondary (M = 2.59, SD = 0.68) and preparatory schools (M=2.62; SD=0.64; t (335) = 0.37, p = 0.71, two-tailed). The magnitude of the difference in the means (mean difference = - 0.03, 95% CI: - 0.17 to 0.12) was very small (eta squared = 0.002).

From the above analysis, it can be concluded that, there is no sufficient evidence to support the claim that there is a difference between secondary and preparatory school principals in their engagement of school leadership practices. The positive and negative sign for the mean difference indicates that school principals engage more in defining school mission practices and less in managing instructional program and developing positive school climate for secondary schools rather than the preparatory schools. However, this does not represent a statistically significant difference.

Table 4.10

Means and Standard Deviations for Instructional Leadership Practices of School Principals as Perceived by the Natural and Social Science Teachers

Dimensions and Subscales	Stream			
	Natural science (n=103)		Social science (n=56)	
	Mean	Standard deviation	Mean	Standard deviation
Defines school mission	**2.87**	**0.63**	**2.81**	**0.61**
Frames school goals	2.95	0.71	2.84	0.68
Communicates school goals	2.79	0.71	2.79	0.67
Manages the instructional program	**2.71**	**0.69**	**2.69**	**0.64**
Supervises and evaluates instruction	2.75	0.78	2.74	0.75
Coordinates curriculum	2.71	0.78	2.70	0.70
Monitors student progress	2.65	0.82	2.63	0.82
Develops school climate	**2.58**	**0.67**	**2.69**	**0.54**
Protects instructional times	2.71	0.73	2.76	0.74
Maintains high visibility	2.76	0.84	2.83	0.77
Provides incentives for teachers	2.35	0.88	2.44	0.78
Promotes professional development	2.63	0.75	2.70	0.73
Provides incentives for learning	2.46	0.87	2.72	0.81
Whole scale	**2.68**	**0.59**	**2.71**	**0.54**

Note. -All ratings are based on a Likert Scale, which runs from 1--"almost never"-to 5--"almost always." Lower mean scores represent job functions that principals perform less frequently

The secondary and preparatory schools of Somali region are located in agro-pastoralist and pastoralist areas of the region. As indicated in Table 4.11, school principals from pastoralist areas relatively spend more time in defining school mission (M=2.89; SD=0.72) and managing the instructional program (M=2.74; SD=0.77) dimensions, whereas the school principals from agro-pastoralist areas invest more time in developing positive school climate (M=2.61; SD=0.66) dimension. Both of the school principals from agro-pastoralist and pastoralist areas engage relatively more in the practices related with defining school mission dimension, followed by managing the instructional program of the school, and lastly developing positive school climate dimension.

This suggests that school principals invest less time in creating a school norm that emphasizes student academic achievement. This opens doors for the students to involve more in activities related to academic dishonesty, such as cheating. Regarding leadership functions, both of the school principals from agro-pastoralist and pastoralist areas are involved more in the leadership function of framing school goals (for agro-pastoralist M=2.94; SD=0.70, pastoralist M=2.98; SD=0.73) and spend less time on the function of providing incentives for teachers (for agro-pastoralist M=2.36; SD=0.87, pastoralist M=2.36; SD=0.85).

To examine whether there is a difference between the instructional leadership practices and behaviors of the school principals from agro-pastoralist and pastoralist areas, I conducted an independent-samples t-test to compare the leadership dimensions of defining school mission, managing instructional program, and developing positive school climate for the schools located in agro-pastoralist and pastoralist areas. For defining school mission there was no significant difference in the means for the schools from agro-pastoralist areas (M=2.86, SD=0.62) and pastoralist areas (M=2.89; SD=0.72; t (335) = - 0.35, p = 0.73, two-tailed). The magnitude of the difference in the means (mean difference = - 0.03, 95% CI: - 0.22 to 0.15) was very small (eta squared = 0.002).

For managing the instructional program of the school, similarly there was no significant difference in the means for the schools from agro-pastoralist areas (M=2.69, SD=0.67) and pastoralist areas (M=2.74; SD=0.77; t (335) = - 0.57, p = 0.57, two-tailed). The magnitude of the difference in the means (mean difference = - 0.06, 95% CI: - 0.27 to 0.14) was very small (eta squared = 0.002).

Table 4.11

Means and (Standard Deviations) for Instructional Leadership Practices of School Principals as Perceived by the Teachers from Agro-pastoralist and Pastoralist Areas

Dimensions and Subscales	School location			
	Agro-pastoralist area (n=281)		Pastoralist area (n=56)	
	Mean	Standard deviation	Mean	Standard deviation
Defines school mission	**2.86**	**0.62**	**2.89**	**0.72**
Frames school goals	2.94	0.70	2.98	0.73
Communicates school goals	2.77	0.70	2.79	0.86
Manages the instructional program	**2.69**	**0.67**	**2.74**	**0.77**
Supervises and evaluates instruction	271	0.77	2.85	0.94
Coordinates curriculum	2.71	0.77	2.63	0.85
Monitors student progress	2.64	0.83	2.76	0.83
Develops school climate	**2.61**	**0.66**	**2.59**	**0.65**
Protects instructional times	2.69	0.75	2.85	0.77
Maintains high visibility	2.77	0.79	2.67	0.81
Provides incentives for teachers	2.36	0.87	2.36	0.85
Promotes professional development	2.64	0.81	2.51	0.80
Provides incentives for learning	2.58	0.88	2.56	0.89
Whole scale	**2.68**	**0.59**	**2.70**	**0.63**

Note. -All ratings are based on a Likert Scale, which runs from 1--"almost never"-to 5--"almost always." Lower mean scores represent job functions that principals perform less frequently

Lastly, in developing positive school climate, there was no significant difference in the means for the schools from agro-pastoralist areas (M=2.61, SD=0.66) and pastoralist areas (M=2.59; SD=0.65; t (335) = 0.18, p = 0.86, two-tailed). The magnitude of the difference in the means (mean difference = 0.02, 95% CI: - 0.17 to 0.21) was very small (eta squared = 0.001).

Based on an independent-samples t-test, it can be concluded that, there is not sufficient evidence to support the claim that there is a difference between school principals from agro-pastoralist and pastoralist areas in their engagement of school leadership practices. The effect size is also very small i.e., only 0.20%, 0.20% and 0.10% of the variance in defining school mission, managing instructional program, and developing positive school climate respectively is explained by school location.

To investigate whether leadership practices of the school principals differ between different sizes of the schools, I categorized the sample schools into small, medium, and large size schools based on the number of students enrolled in the schools. As shown in Table 4.19, the perception of teachers indicates that principals from small size (M=2.90, SD=0.69) schools are involved more in defining school mission than the medium (M=2.85, SD=0.62) and large (M=2.79, SD=0.58) schools. Similarly, principals from small (M=2.80, SD=0.69) schools engage more in the leadership practices and behaviors related to managing the instructional program of the school than medium (M=2.62, SD=0.68) and large (M=2.64, SD=0.67) size schools.

All small, medium and large size school principals spend more time in the activities related with defining school mission, followed by managing instructional program and lastly developing positive school climate. This suggests that school principals lack strong academic orientation and give less emphasis the factors that press students to work hard in the school. Regarding the leadership functions, school principals of small, medium and large size schools invest less time in providing incentives for teachers and learning.

Table 4.12

Means and (Standard Deviations) for Instructional Leadership Practices of School Principals as Perceived by the Teachers from Small, Medium and Large School Sizes

Dimensions and Subscales	School size					
	Small (n=141)		Medium (n=139)		Large (n=57)	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Defines school mission	**2.90**	**0.69**	**2.85**	**0.62**	**2.79**	**0.58**
Frames school goals	2.93	0.76	3.00	0.67	2.86	0.62
Communicates school goals	2.87	0.76	2.70	0.70	2.71	0.65
Manages the instructional program	**2.80**	**0.69**	**2.62**	**0.68**	**2.64**	**0.67**
Supervises and evaluates instruction	2.87	0.83	2.67	0.75	2.55	0.81
Coordinates curriculum	2.77	0.78	2.62	0.82	2.73	0.68
Monitors student progress	2.76	0.81	2.57	0.83	2.64	0.85
Develops school climate	**2.71**	**0.65**	**2.53**	**0.67**	**2.53**	**0.63**
Protects instructional times	2.84	0.74	2.63	0.78	2.65	0.69
Maintains high visibility	2.81	0.81	2.70	0.82	2.77	0.71
Provides incentives for teachers	2.53	0.83	2.24	0.86	2.26	0.88
Promotes professional dev't	2.64	0.82	2.57	0.80	2.67	0.78
Provides incentives for learning	2.73	0.86	2.54	0.91	2.32	0.81
Whole scale	**2.77**	**0.60**	**2.62**	**0.60**	**2.62**	**0.57**

Note. -All ratings are based on a Likert Scale, which runs from 1--"almost never"-to 5--"almost always." Lower mean scores represent job functions that principals perform less frequently

A one-way between groups analysis of variance was conducted to explore the impact of school size on defining school mission, managing instructional program, and developing positive school climate as measured by the Principal Instructional Management Rating Scale (PIMRS).

Respondents were divided into three groups based on the number of students enrolled in each school (small: 475-1224 students; medium: 1225-5600; large: 5601 and above). For defining school mission, there was no significant difference at the $p < 0.05$ level for the three school sizes: F (2, 334) = 0.67, p = 0.51. The effect size calculated using eta squared was 0.004 which is very small.

There was also no significant difference at the $p < 0.05$ level in managing instructional program of the school for the three school sizes: F (2, 334) = 2.61, p = 0.08. The effect size calculated using eta squared was 0.02 which is very small. Lastly, in developing positive school climate, there was no significant difference at the $p < 0.05$ level for the three school sizes: F (2, 334) = 2.90, p = 0.06. The effect size calculated using eta squared was 0.02 which is very small. Based on the analysis of variance, there is no influence of school size on the three dimensions of the instructional leadership behaviors.

As indicated in Tables 10, 11 and 12, contextual factors such as school level, location and size do not influence school leadership practices of Somali region.

4.3. Student Academic Achievement

In this section, I analyzed student academic achievement for grade 10 and 12 of Somali Regional State to determine the status of student academic achievement in the region in the last seven years. The preparation, execution, and correction of grade 10 and 12 national examination are the responsibility of National Educational Assessment and Examination Agency (NEAEA). The agency also sets promotion rates for different types of students such as private and regular students, blind and deaf students, developed and developing, and pastoralist regions' students, as well as different entrance rates for different fields of study in the universities and various levels of study in the technical and vocational colleges. The focus of this study is the retention or transition status of students in developing and pastoralist regions, and how school leadership practices influence the retention or transition of students.

Table 4.13 shows the number of Somali Region preparatory school students who sat grade 12 national examinations in the last seven years, both at the regional and zonal level. At the regional level, 65,704 (47,700 male and 18,004 female) students sat grade 12 national examination. This number is approximately half of grade 10 students who attended the grade 10 national

examination in the same period. This indicates that approximately half of grade 10 students did not get a chance to reach grade 12 and take grade 12 national examinations. At the zonal level, Jigjiga or Fafan zone enroll 35.65 % (23,423 students) of these students, followed by Shabelle zone with 12.12 % (7,965 students). On the other hand, Doollo and Nogob zones have the lowest share of the student enrolment, enrolling 4.67% (3,068 students) and 4.78% (3,142 students) respectively.

As indicated in Table 4.13, at the regional level in 2005 E.C. 4,362 students sat grade 12 national examination, whereas in 2011 E.C. 12,752 sat the examination. This means that the percentage increase in the enrollment of preparatory students who sat grade 12 national examination in the last seven years is 192.34%, with annual growth of 27.48%. If we disagregate the percentage increase in the enrollment of the students into male and female students, the growth rate of female students is three times higher than the male students. For example, the percentage increase in the enrollment of female students who sat grade 12 national examinations in the last seven years is 406.81%, with an annual growth rate of 58.12%, whereas the percentage increase in the enrolment of male students is 144.69%, with an annual growth rate of 20.67%.

Table 4.13

The Number of Somali Region Students Who sat Grade 12 National Examination From 2005-11 E.C.at Regional and Zonal Level

Zones	Gender	Years							Total
		05	06	07	08	09	10	11	
Jarar	F	69	182	159	206	244	235	299	1394
	M	403	574	650	587	760	572	638	4184
	Total	472	756	809	793	1004	807	937	5578
Shabelle	F	51	173	238	225	349	386	424	1846
	M	420	709	881	839	979	1192	1099	6119
	Total	471	882	1119	1064	1328	1578	1523	7965
Fafan	F	336	684	858	807	1281	1298	1820	7084
	M	1091	2076	2305	1828	2673	2827	3539	16339
	Total	1427	2760	3163	2635	3954	4125	5359	23423
Qorahay	F	67	217	209	172	224	295	234	1418
	M	292	493	494	412	512	548	486	3237
	Total	359	710	703	584	736	843	720	4655
Liban	F	69	201	217	249	343	256	235	1570
	M	388	737	754	657	961	791	864	5152
	Total	457	938	971	906	1304	1047	1099	6722
Siti	F	30	126	285	277	497	401	492	2108
	M	170	369	823	688	1136	779	902	4867
	Total	200	495	1108	965	1633	1180	1394	6975
Doollo	F	76	110	148	105	200	152	175	966
	M	322	352	314	246	308	277	283	2102
	Total	398	462	462	351	508	429	458	3068
Afdher	F	58	140	152	156	164	124	231	1025
	M	233	520	555	484	422	419	518	3151
	Total	291	660	707	640	586	543	749	4176
Nogob	F	37	101	95	76	74	101	109	593
	M	250	392	362	297	417	427	404	2549
	Total	287	493	457	373	491	528	513	3142
Somali Region	F	793	1934	2361	2273	3376	3248	4019	18004
	M	3569	6222	7138	6038	8168	7832	8733	47700
	Total	4362	8156	9499	8311	11544	11080	12752	65704

At the zonal level, Siti and Fafan zone have the highest percentage increase in the enrollment of students with an increase of 597% and 275%, with an annual growth rate of 85.29% and 39.29% respectively. Nogob and Doolo zone had the lowest percentage increase student enrollment, 78.75% and 15.08%, with an annual growth of 11.21% and 2.15% respectively. However, in Doolo zone there was a decline of 12.11% in male student enrolment in the last seven years, with an annual decline of 1.73%.

As revealed in Table 4.13, the number of female students who sat grade 12 national examinations in 2005 E.C. lags far behind that of male students. The difference between the enrollment of male and female students measured by a gender disparity index was 0.2. However, in 2011 E.C. there was slight improvement and the gender disparity index reached 0.5. At the zonal level, in 2005 E.C. Fafan zone had the highest gender disparity index, which was 0.3, whereas both shabelle and Nogob zones had 0.1 gender disparity index. In 2011, E.C. Doolo zone scored the highest gender disparity index of 0.6 and gender disparity index of nogob and liban zones was 0.3. However, Doolo zone had the lowest gender disparity index in 2005 E.C. and the highest gender disparity index in 2011 E.C. due to the annual decline of 1.73% in the enrolment of male students.

4.3.1. Academic Achievement of Natural Science Students

In the last seven years, 40,586 (28,633 male and 11,953 female) natural science students were admitted to take grade 12 national examinations. This number is 62% of the overall preparatory school students who sat grade 12 national examinations. This is below the required number which is 70% of the students are in the natural science. At the zonal level, 42.03% of the natural science students are from the Fafan zone, followed by the Shabelle zone, which enrolled 10.48% of the natural science students. However, the percentage of natural science students enrolled in Nogob and Doolo zones is very low and only 4.39% and 5.27% of the natural science students were admitted to take grade 12 national examinations in these zones respectively.

As shown in Table 4.14, in the last seven years at regional level, the percentage increase in the enrolment of natural science students was 148.48%, with an annual growth rate of 21.21%.

Table 4.14

The Number of Somali Region Natural Science Students Who sat Grade 12 National Examination From 2005-11 E.C.at Regional and Zonal Level

Zones	Gender	Years							Total
		05	06	07	08	09	10	11	
Jarar	F	64	110	92	111	136	159	189	861
	M	293	360	363	312	389	316	375	2408
	Total	357	470	455	423	525	475	564	3269
Shabelle	F	39	111	134	114	173	194	268	1033
	M	346	429	456	394	446	544	607	3222
	Total	385	540	590	508	619	738	875	4255
Fafan	F	279	554	615	604	994	1005	1370	5421
	M	841	1488	1543	1281	1975	2024	2487	11639
	Total	1120	2042	2158	1885	2969	3029	3857	17060
Qorahay	F	59	158	127	96	91	143	113	787
	M	231	345	335	257	270	300	291	2029
	Total	290	503	462	353	361	443	404	2816
Liban	F	47	132	127	142	202	127	116	893
	M	194	397	373	258	417	289	347	2275
	Total	241	529	500	400	619	416	463	3168
Siti	F	24	98	167	188	311	239	272	1299
	M	123	220	445	333	594	426	469	2610
	Total	147	318	612	521	905	665	741	3909
Doollo	F	65	84	125	77	124	81	92	648
	M	166	184	180	119	171	162	151	1133
	Total	231	268	305	196	295	243	243	1781
Afdher	F	39	83	96	102	100	74	114	608
	M	128	273	280	246	207	205	242	1581
	Total	167	356	376	348	307	279	356	2189
Nogob	F	21	62	62	54	50	71	83	403
	M	203	276	215	192	279	300	271	1736
	Total	224	338	277	246	329	371	354	2139
Somali Region	F	637	1392	1545	1488	2181	2093	2617	11953
	M	2525	3972	4190	3392	4748	4566	5240	28633
	Total	3162	5364	5735	4880	6929	6659	7857	40586

At the zonal level, Siti and Fafan zones had a 404.08% and 244.37% increase in the enrolment of their natural science students, with an annual growth rate of 57.72% and 34.91% respectively. The percentage increase in the enrolment of natural science students of Nogob and Doolo zone is 58.04% and 5.19%, with an annual growth rate of 8.29% and 0.74% respectively. But, in Doolo zone there wass a decline in enrolment of male natural science students of 9.04%, with annual decline rate of 1.29%.

To determine the promotion and retention rate of the students, National Educational Assessment and Examination Agency (NEAEA) sets every year different promotion rates for different types of students such as regular and private students, deaf and blind students, pastoralist and developing regions students and night students based on the performance of the students. Based on the definition of national educational assessment and examination agency, Somali region is one of the pastoralists and developing region and the agency sets for Somali region a pastoralist and developing regions' promotion rate which is below the promotion rate of developed regions of the country. Mostly the agency sets six types of promotion rates i.e., two for natural science students, two for social science students and two for grade 10 students, based on the gender of the students.

Table 4.15 shows the promotion rates set for natural science students of Somali region in the last seven years. The promotion rates vary from year to year and between male and female students. For example, in 2005 E.C. the agency set 285 as a promotion rate for both male and female students, whereas in 2010 E.C. the promotion rate was 345 for male students and 330 for female students. In 2011 E.C. the agency reported misconduct. Table 4.22 also reveals that the agency sets the promotion rate of the students below the mean of the student achievement in some years as in 2005, 2006, 2007, 2009 and 2010 E.C. and above the mean in other years as in 2008 and 2011 E.C. Moreover, the agency also sometimes sets same promotion rate for both male and female students as they did in 2005 E.C. This system of setting the promotion rate created crises of student academic achievement in Somali region, particularly when the agency sets a promotion rate which is above the mean.

As Table 4.15 shows, the agency did not follow the educational policy (1994) when the agency set the promotion rate of the student academic achievement, because the policy clearly states that

"In order to get promoted from one level to the next, students will be required to have a minimum of fifty percent achievement" (p. 18). According to the policy, in the case of preparatory education, fifty percent achievement means 350, so in order to promote to the next level, the students must score 350 which did occur all the years indicated in Table 4.15.

Setting promotion rate is one of the most critical activities of National Educational Assessment and Examination Agency (NEAEA). Ensuring the setting of an appropriate promotion rate creates the difference between agency's success and failure. A critical factor in setting a promotion rate is the analysis and control of student academic achievement. By measuring the mean and standard deviation, the agency can predict the student academic achievement and monitor changes in the status of the promotion rates of pastoralist and developing regions. Using mean and standard deviation the agency can compute the z- score of the promotion rate that agency wants to set. Arithmetic mean indicates where the academic achievement of the majority of the student's lies and z-score helps us to determine how far a particular promotion rate is far from the mean. A positive z-score occurs for a promotion rate greater than the mean and negative z-score occurs for a promotion rate less than the mean. A z-score of zero indicates that the promotion rate is equal to mean.

Table 4.15

Promotion Rate, Mean, Standard Deviation, Z-score and Estimated Percentage of Retained Students of Natural Science of Somali Region from 2005-11 E.C.

Year	Gender	Promotion Rate	Statistics			Expected %
			Mean	Standard Deviation	z-score	
2005	F	285	334.48	60.74	-0.81	20.90
	M	285	334.03	56.91	-0.86	19.49
2006	F	305	312.40	68.71	-0.11	45.62
	M	305	307.72	78.32	-0.03	48.80
2007	F	300	342.71	77.33	-0.55	29.12
	M	305	335.16	87.97	-0.34	36.69
2008	F	315	245.94	72.17	**0.96**	**83.15**
	M	332	250.81	72.97	**1.11**	**86.65**
2009	F	335	362.37	68.04	-0.40	34.46
	M	340	360.40	67.32	-0.30	38.21
2010	F	330	394.41	57.16	-1.13	12.92
	M	345	392.12	55.79	-0.84	20.05
2011	F	156	134.38	33.92	**0.64**	**73.89**
	M	166	136.98	33.95	**0.85**	**80.23**

Note. A z-score is a promotion rate of a given year expressed as a number of standard deviation units that a promotion rate is far from the mean of student academic achievement of that year. The higher the positive z-score the higher the promotion rate and the higher the estimated percentage of retained students, as in 2008 and 2011 E.C., the higher the negative z-score, the lower the promotion rate, and the lower the estimated percentage of retained students as in 2005 and 2010 E.C.

Expected % = Estimated percentage of retained students from cumulative probabilities tables of standard normal probability distribution. The positive z-score and their estimated percentage of retained students are shown in boldface.

As Table 4.15 shows, the z-score values of 2008 and 2011 E.C. are positive. This means that the promotion rate was greater than the mean score of those years, whereas the z-score value of 2005, 2006, 2007, 2009 and 2010 E.C. is negative which means that the promotion rate of these years was less than the mean of those years. A z-score also indicates the number of standard deviations a promotion rate is below or above the mean. For example, in 2008 E.C. z = 1.11 for male students, this reveals that the promotion rate of male students in 2008 E.C. is 1.11 standard deviations greater than the mean. Similarly, in 2010 E.C. z = -1.13 for female students, this shows that the promotion rate of female students in 2010 E.C. is -1.13 standard deviations less than the mean.

As we know a student academic achievement is normally distributed and by using empirical rule, we can estimate the percentage of students that must be within a specified number of standard deviations of the mean. For example, by using the empirical rule in 2011 E.C. we can draw the following conclusions for natural science female student academic achievement:

- Approximately 68% of the female students have an academic achievement score between 122.08 and 189.92 CGPA (within one standard deviation of the mean).
- Approximately 95% of the female students have an academic achievement score between 88.16 and 223.84 ounces (within two standard deviations of the mean).
- Almost all-natural science female students have an academic achievement score between 54.24 and 257.76 CGPA (within three standard deviations of the mean).

Therefore, by using a bell-shaped distribution and the empirical rule for the natural science students' academic achievement, I estimated the percentage of natural science students retained or the percentage of natural science students whose academic achievement score is less than the promotion rate, using the standard normal probability tables.

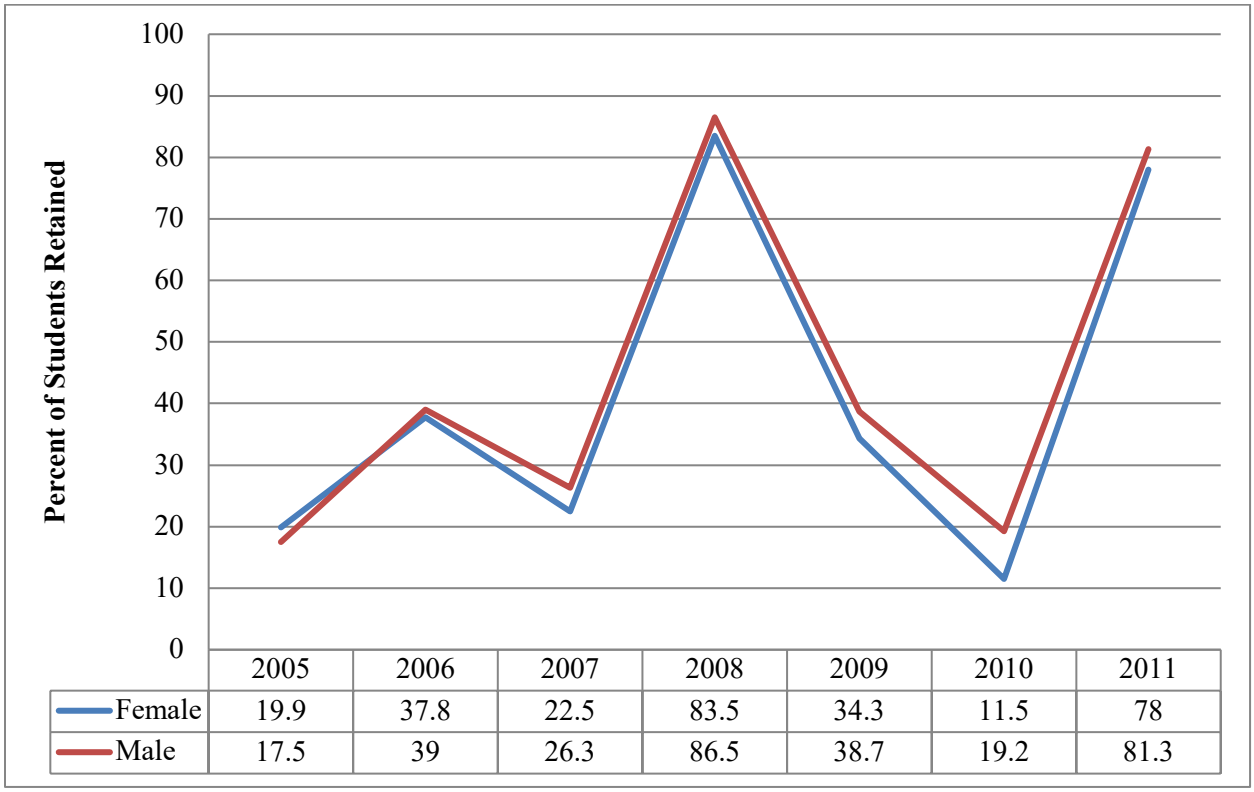
As Table 4.15 reveals the estimated percentage of retained students is very high in 2008 and 2011 E.C. compared to other years under study because the NEAEA set a promotion rate which was greater than the mean score of student academic achievement in 2008 and 2011 E.C. whereas in other years the promotion rate was less than the mean. Due to this problem, almost all-natural science students were retained in 2008 E.C. and the majority was also not promoted in

2011 E.C. In 2008 E.C., 86.5% of male students and 83.5% of female students were the estimated percentage of retained students, whereas in 2011 E.C. the estimated percentage of retained students was 80.23% and 73.89% for male and female students respectively.

The more interesting thing is these numbers are similar to the actual percentage of natural science students retained as Figure 3 indicates. The difference between Figure 4.1 and Table 4.15 is that Figure 4.1 reveals the actual percentage of natural science students retained, whereas Table 4.22 shows the estimated percentage. All these crises of student academic achievement are created by haphazardly setting the promotion rate of student academic achievement i.e., some years the promotion rate is greater than the mean and other years it is less than the mean.

Figure 4.1

Actual percentage of Somali Region natural science students retained from 2005-11 E.C.



	2005	2006	2007	2008	2009	2010	2011
Female	19.9	37.8	22.5	83.5	34.3	11.5	78
Male	17.5	39	26.3	86.5	38.7	19.2	81.3

Figure 4.1 indicates the actual percentage of natural science students retained in Somali region in the last seven years. As this figure reveals, in 2008 and 2011 E.C. more than 80% of the students failed, whereas in 2005 and 2010 E.C. almost less than 20% of the students were retained. With

regard to gender equity, more male natural science students are retained in all years except in 2005 E.C. where males out performed slightly their female counterparts. Although female students are less in number compared with male students, they performed better in their academic achievement. At the regional level, in the last seven years, on average 48.49% (19, 680) of natural science students were retained. In terms of gender, 45.40% (28,634) of male and 44.11% (5,272) of female natural science students were also not promoted to their next level of their education.

At zonal level, as Table 4.23 reveals, student academic achievement was better in 2005 and 2010 E.C. and was pooreer in 2008 and 2011 E.C. In 2008 E.C. student academic performance was the lowest of all years. For example, 100% of Doolo zone of both male and female natural science students, 100% of Qorahay zone female natural students, and 99.1% of Shebele zone female natural science students and 97.1% of Jarar zone male natural science students were retained. In 2010 E.C., Afdher zone was leading in the retention of male natural science students in the region, because 57.1% of its male natural science students were retained. While Liban zone has the highest number of female natural science students (33.9%) retained.

In 2011 E.C., almost all-natural science students of Shebelle, Fafan, Qorahay, Doollo and nogob zones were retained. And, almost 100% of natural science students of Shebelle and Doolo zones failed.

Table 4.16

Percentage of Natural Science Students Retained from 2005-11 E.C in the Nine Zones of Somali Region

Zones	Gender	Years (%)						
		05	06	07	08	09	10	11
Liban	F	6.4	50.6	7.1	**84.5**	61.9	33.9	48.1
	M	7.2	58.3	9.7	**88.0**	62.4	38.4	41.4
Afdher	F	33.3	19.3	39.6	**92.2**	61.0	24.3	43.0
	M	41.4	23.4	36.8	**95.9**	52.7	57.1	57.4
Jarar	F	26.6	57.3	16.3	**93.7**	52.2	13.8	67.2
	M	19.8	55.6	15.2	**97.1**	53.2	27.8	63.5
Siti	F	4.2	21.4	14.4	**96.8**	34.7	33.5	69.9
	M	0	19.5	17.1	**95.5**	33.8	36.2	72.9
Nogob	F	42.9	79.0	83.9	**92.6**	56.0	4.2	67.5
	M	27.1	72.4	75.3	**92.2**	71.3	15.7	**87.8**
Fafan	F	26.5	30.7	11.7	67.2	8.2	4.1	**81.7**
	M	22.6	32.1	19.8	74.2	15.6	8.7	**85.4**
Qorahay	F	10.2	26.7	47.2	**100**	95.6	8.4	**93.8**
	M	7.8	36.1	55.8	**93.4**	87.8	19.7	**92.1**
Shabelle	F	10.3	55.9	22.4	**99.1**	43.9	6.7	**95.9**
	M	15.6	59.4	26.8	**92.1**	37.9	13.8	**97.5**
Doollo	F	1.5	13.0	37.2	**100**	88.7	9.9	**97.8**
	M	0	13.1	31.1	**100**	86.0	30.2	**99.3**

Note. Percentage of students retained greater than 80% are shown in boldface.

On average, in the last seven years, Fafan zone had the lowest retention of students, whereas Nogob zone had the highest level. For example, on average in Fafan zone 38.93% of male natural science and 36.23% of female natural science students weree retained. While in the same period, in Nogob zone 61.75% of male natural science and 61.29% of female natural science students failed to join higher education.

As indicated in Table 4.17, the picture of student academic achievement of sample preparatory schools is not different than the image of students' academic achievement in their respective

zones. As in the zones, student academic achievement was relatively better in 2005 and 2010 E.C., whereas in 2008 and 2011 E.C. the academic performance of the sample schools was very low. In 2010 E.C., the performance of the students of Kebri dahar city preparatory school was also very poor. For 2008 E.C., 100% of natural science male students of preparatory schools of Dhegah bur, Godey, Khebribayah and Khebri dahar cities, and Wardher and Harshin woredas, as well as Sayid Mohamed preparatory school were retained. Regarding female students in 2008 E.C., 100% of female natural science students in preparatory schools of Godey and Khebridahar cities, and harshin and wardher woredas, as well as 98.7% of Sayid Mohamed preparatory school were also retained.

As shown in Table 4.17, the picture of student academic achievement in 2011 E.C., of the sample preparatory schools, is not different from 2008 E.C. For example, in 2011 E.C. 100% of both male and female natural science students of Dhegah bur city, Sayid Mohamed, Kebribayah city, in addition to 100% of female students in Godey City and 100% of male students in Wardher and Fiq woredas were retained. On average, in 2011 E.C., 95.97% of natural science students in the sample preparatory schools were retained.

Table 4.17

Percentage of Natural Science Students Retained from 2005-11 E.C in the Sample Preparatory Schools

Schools	Gender	Years (%) 05	06	07	08	09	10	11
Jig Jiga City	F	28.5	35.3	6.5	67.6	1.1	0	**84.5**
	M	21.9	36.0	8.5	74.8	0	0	**89.6**
Harshin	F	0	0	0	**100**	0	0	76.0
	M	0	6.8	9.4	**100**	4	20.6	**97.5**
Sh. A. Salan	F	-	-	9.6	42	0	0.3	**92.5**
	M	-	-	9.2	50.6	0.2	0.3	**91.1**
Kebri Dahar City	F	31.6	14.5	6.8	**100**	**96.6**	6.9	**99.1**
	M	17.2	11.1	12.4	**100**	**97.1**	17.0	**96.2**
Godey City	F	10.3	64.3	28.3	**100**	0	1.6	**98**
	M	15.6	65.4	28.9	**100**	0	0	**100**
Fiik	F	66.7	88.6	60.0	**94.1**	25.0	0	**100**
	M	71.9	75.0	60.5	69.4	40.0	0.9	**99**
Wardher	F	0	18.0	69.4	**100**	77.8	-	**-**
	M	0	19.2	66.7	**100**	46.7	-	**100**
Sayid Mahamed	F	-	-	0	**100**	0	0	**100**
	M	-	-	3.1	**98.7**	0	0	**100**
Dhegah Bur City	F	15.8	75.0	0	**100**	29.4	3.6	**100**
	M	9.3	63.6	16.3	**96.4**	44.3	0	**100**
Kebribayah City	F	40	70.5	38.9	**100**	16.7	58.8	**100**
	M	45.8	96.8	46.0	**96.8**	54.3	77.3	**100**

Note. Percentage of students retained greater than 90% are shown in boldface.

To analyze whether the education system of the Somali region favors the promotion of male or female students in grades 10 and 12, I used conditional probability. Conditional probability indicates to what extent a promotion system of the education sector of the region favors certain category of the students against the other segment.

To determine whether the promotion system of the education sector of the region favors male or female students, I calculated the probability of a promotion given that the student is a male or a female. If these two probabilities are equal, then the promotion system does not favor certain segment of the students. However, a difference in the two conditional probabilities indicates that the education sector of the region favors the promotion of certain category of the students against the other segment.

Table 4.18

Promotion status and Joint Probability of Natural Science Students of Somali Region from 2005-11 E.C

Promotion Status	Male	Female	Total
Promoted	15635	5272	20907
Not promoted	12999	6681	19680
Total	28634	11953	40587
Joint Probability			
Promoted	0.39	0.13	0.52
Not promoted	0.31	0.17	0.48
Total	0.70	0.30	1.00

As indicated in Table 4.18, in the last seven years in Somali region, 40,587 natural science students sat grade 12 national examinations. From the joint probability we can see that 70% of the students are male, 30% are female, 52% obtained promotion and 48% were not promoted. As

shown in this table, the promotion probability of the male students is 0.39, whereas the promotion probability of female students is 0.13.

We can compute from the data in this table, the probability that a student is promoted given that the student is male student. So, the probability of being promoted given that the student is male is 0.56. In other words, given that a student is a male, that student had a 56% chance of receiving promotion over the past seven years. On the other hand, the probability that a student is promoted given that the student is a female is 0.43. Since the promotion probability of the male students greater than the female, I can conclude that the education system of the region promotes more male natural science students than female students.

Table 4.19

Promotion Status and Joint Probability of Natural Science Students of Agro-Pastoralist and Pastoralist Woredas of the Sample Schools from 2005-11 E.C

Promotion Status	Agro-Pastoralist	Pastoralist	Total
Promoted	7710	887	8597
Not promoted	4929	872	5801
Total	12639	1759	14398
Joint Probability			
Promoted	0.54	0.06	0.60
Not promoted	0.34	0.06	0.40
Total	0.88	0.12	1.00

In Somali region. Woredas and City administration are categorized into pastoralist and agro-pastoralist areas. Three schools of the sample are located in pastoralist areas (Harshin, Fiq, & Wardher), whereas the remaining seven schools are in agro-pastoralist areas. In Table 4.19, I attempted to show whether the natural science students in the schools of agro-pastoralist areas have more chance of promotion than the students in the schools of pastoralist areas. As computed in Table 4.19, the probability of being promoted given that a student is from the sample schools

of agro-pastoralist areas is 0.61 whereas in the pastoralist areas it is 0.50. These probabilities indicate that the natural science students in the sample schools of agro-pastoralist areas had a higher chance of promotion than the students in the sample schools of pastoralist areas.

4.3.2 Academic Achievement of Social Science Students

In Somali region, as revealed in Table 20, in the last seven years 25,118 social science students sat grade 12 national examinations. From these 19,067 (75.90%) were male students while the remaining 6,051 (24.10%) were female students, with a gender disparity index of 0.3, which shows that the enrolment of female students lags far behind that of male students. On the other hand, in the last seven years, the percentage increase in the enrollment of social science students who sat grade 12 national examinations is 307.92% with annual growth of 43.99%. If we disagregate the percentage increase in the enrolment into male and female students, the percentage increase for female students (798.72%) is much higher than the male students (234.58%).

In terms of zones, 54.25% of social science students were enrolled only in three zones i.e., Fafan (25.33%), Shabelle (14.77%) and Siti (14.15%) zones. Nogob and Doolo zones had the lowest share. These zones enrolled 3.99% and 5.12% of the total social science students of Somali region in the last seven years respectively. Moreover, in Doolo zone the percentage decline in the enrolment of social science male students was 15.38% with an annual decline of 2.20%. As shown in Table 4.20, there was an increase of 37.04% of the enrolment of social students who sat grade 12 national examinations in 2011 E.C. compared to 2010 E.C. in Fafan zone. On the other hand, there was a 22.86% decline in the enrolment of social science students in Shabelle zone in the same period. Regarding gender equity, in 2011 E.C. the gender disparity index for Qorahay and Doolo zones was 0.6 whereas in Nogob and Afdher zone the gender disparity index was 0.2. This indicates Nogob and Afdher zones had a gender disparity index in favour of male students.

Setting the promotion rate of grade 12 social science students is the responsibility of the national examination agency. Setting promotion rate means disaggregating students into two groups based on their academic achievement scores, i.e., students with scores that are above and students with scores that are below the cut point (promotion rate). This process is called the substantive approach of combining categories, because this approach dichotomizes students into promoted and not-promoted students.

Table 4.20

The Number of Somali Region Social Science Students Who sat Grade 12 National Examination From 2005-11 E.C.at Regional and Zonal Level

Zones	Gender	Years							Total
		05	06	07	08	09	10	11	
Jarar	F	5	72	67	95	108	76	110	533
	M	110	214	287	275	371	256	263	1776
	Total	115	286	354	370	479	332	373	2309
Shabelle	F	12	62	104	111	176	192	156	813
	M	74	280	425	445	533	648	492	2897
	Total	86	342	529	556	709	840	648	3710
Fafan	F	57	130	243	203	287	293	450	1663
	M	250	588	762	547	698	803	1052	4700
	Total	307	718	1005	750	985	1096	1502	6363
Qorahay	F	8	59	82	76	133	152	121	631
	M	61	148	159	155	242	248	195	1208
	Total	69	207	241	231	375	400	316	1839
Liban	F	22	69	90	107	141	129	119	677
	M	194	340	381	399	544	502	517	2877
	Total	216	409	471	506	685	631	636	3554
Siti	F	6	28	118	89	186	162	220	809
	M	47	149	378	355	542	353	433	2257
	Total	53	177	496	444	728	515	653	3066
Doollo	F	11	26	23	28	76	71	83	318
	M	156	168	134	127	137	115	132	969
	Total	167	194	157	155	213	186	215	1287
Afdher	F	19	57	56	54	64	50	117	417
	M	105	247	275	238	215	214	276	1570
	Total	124	304	331	292	279	264	393	1987
Nogob	F	16	39	33	22	24	30	26	190
	M	47	116	147	105	138	127	133	813
	Total	63	155	180	127	162	157	159	1003
Somali Region	F	156	542	816	785	1195	1155	1402	6051
	M	1044	2250	2948	2646	3420	3266	3493	19067
	Total	1200	2792	3764	3431	4615	4421	4895	25118

As indicated in Table 4.21, if the examination agency set a higher promotion rate, it is highly likely that the majority of the students would fail to pass grade 12 national examinations as happened in 2008 and 2011 E.C. If the agency sets a lower promotion rate, the reverse is true as the estimated result of social science students' academic achievement in 2005 and 2010 E.C. shows.

To compare the promotion rates of student academic achievement from 2005-11 E.C., I converted the promotion rates of students into standardized scores or z-scores. In this case, a z-score is a promotion rate of a given year expressed as a number of standard deviation units that a promotion rate is far from the mean of the student academic achievement of that given year. A promotion rate with a z-score of zero is on average of student academic achievement of that year. If the z-score is negative the promotion rate is below the mean and if positive the promotion rate is above the mean. The larger the z-score the further the promotion rate is from the mean. For example, Table 4.21 shows a z-score of 1.48, which indicates the promotion rate was 1.48 standard deviations above the mean and hence 93.06% of the students were estimated to be retained.

By examining z-scores or standard deviations, I can judge or compare the promotion rates of 2005-11 E.C. for example promotion rates with positive z-scores as 2008 and 2011 E.C. rank above those with negative z-score as 2005, 2006, 2007 and 2010 E.C. So, 2008 and 2011 E.C. have the highest promotion rates, whereas 2005 and 2010 E.C. have the lowest promotion rates. For example, in 2008 E.C. the promotion rate of 1.48 units for male students and 1.37 units for female students was above the mean. This suggests that 93.06% of male students and 91.47% of females were expected not to pass the examination. On the other hand, in 2010 E.C. the promotion rate was 0.87 units for male students and 1.21 units for female students, which is below the mean. Hence, 19.22% of male students and 11.31% of female were estimated to fail.

As shown in Table 4.21, the promotion rate in 2010 E.C., which is 335 for male students and 320 for female students, was higher than the promotion rate in 2008 E.C. when the examinations agency set 310 for male students and 295 for female students. Despite the higher promotion rate of 2010 E.C., the z-score indicates that the promotion rate in 2008 E.C. was much higher than the promotion rate in 2010 E.C. The promotion rates set for students do not have absolute meaning but are relative to the distribution in which they occur. For example, in 2010 E.C., the majority

of the students obtained achievement scores which were above the promotion rate whereas in 2008 E.C. the examination was difficult and very few students had an achievement score that was above the promotion rate.

Table 4.21

Promotion Rate, Mean, Standard Deviation and Z-Score and Estimated percentage of retained students of Social Science of Somali Region from 2005-11 E.C.

Year	Gender	Promotion Rate	Statistics			Expected %
			Mean	Standard Deviation	Z-Score	
2005	F	268	318.21	70.36	-0.71	23.89
	M	270	332.07	64.24	-0.97	16.60
2006	F	270	301.35	64.00	-0.49	31.21
	M	275	301.30	73.03	-0.36	35.94
2007	F	270	314.31	61.06	-0.73	23.27
	M	275	315.46	77.15	-0.52	30.15
2008	F	295	222.47	53.02	**1.37**	**91.47**
	M	310	229.00	54.69	**1.48**	**93.06**
2009	F	315	328.58	58.74	-0.23	40.90
	M	320	331.54	55.30	-0.21	41.68
2010	F	320	381.53	50.82	-1.21	11.31
	M	335	379.84	51.32	-0.87	19.22
2011	F	154	141.03	37.60	**0.34**	**63.31**
	M	164	146.35	40.76	**0.43**	**66.64**

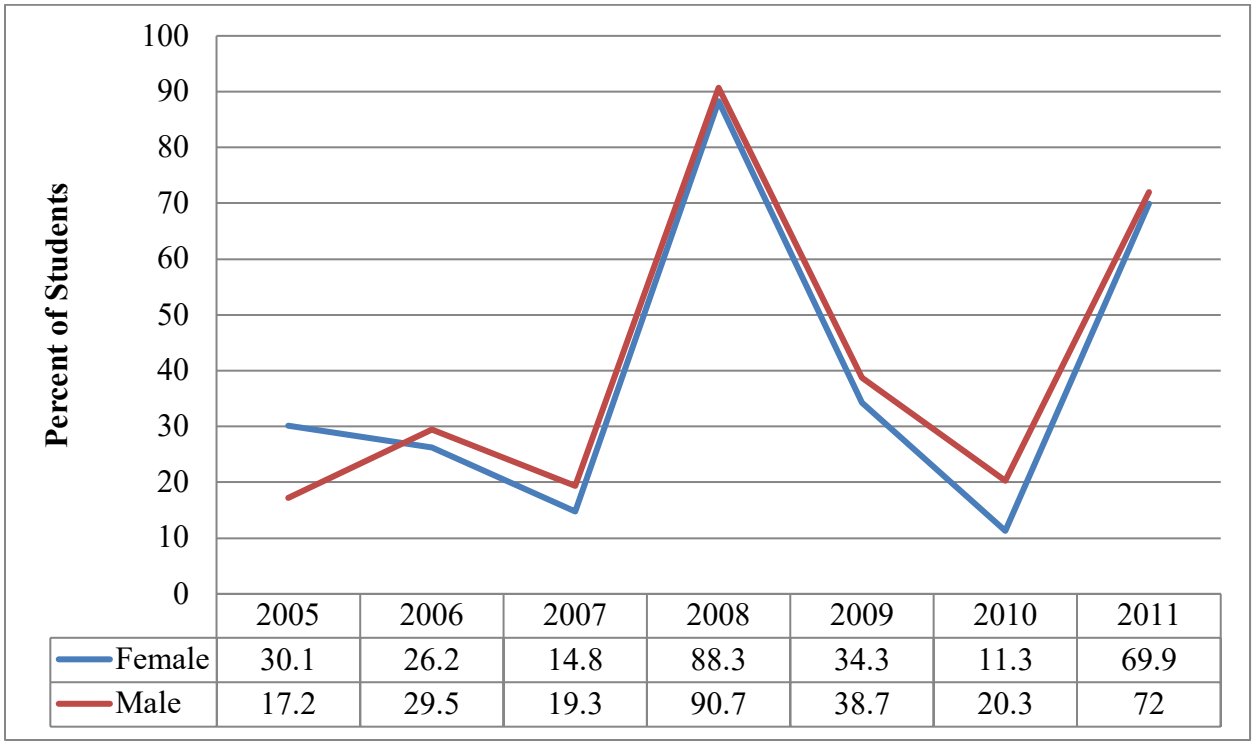
Note. A z-score is a promotion rate of a given year expressed as a number of standard deviation units that a promotion rate is from the mean of student academic achievement in that year. The higher the positive z-score the higher the promotion rate and the higher the estimated percentage of retained students.As in 2008 and 2011 E.C., the higher the negative z-score the lower the promotion rate and the lower the estimated percentage of retained students as in 2005 and 2010 E.C.

Expected % = Estimated percentage of retained students from cumulative probabilities tables of standard normal probability distribution. The positive z-score and the estimated percentage of retained students are shown in boldface.

In short, in the last seven years, the lowest promotion rate was set in 2010 E.C. and the highest promotion rate was set in 2008 E.C. This indicates that 2010 E.C. has the lowest percentage of students retained, whereas 2008 E.C. had the highest percentage of students retained due to the inappropriate setting of the promotion rate. So, knowing or unknowingly, the national examination agency is responsible for the painful crisis of student academic achievement of Somali Region social science students in 2008 and 2011 E.C.

Figure 4.2

Actual Percentage of Somali Region Social Science Students Retained from 2005-11 E.C.



	2005	2006	2007	2008	2009	2010	2011
Female	30.1	26.2	14.8	88.3	34.3	11.3	69.9
Male	17.2	29.5	19.3	90.7	38.7	20.3	72

As revealed in Figure 4.2, the highest number of social science students was retained in 2011 and 2008 E.C. In 2011 E.C. 72% of male students and 69.9% of female students were retained, whereas in 2008 E.C., 90.7% of male students and 88.3% of female students failed to join higher education. The actual percentage of social science students retained, as Figure 4.2 reveals, and

the estimated percentage as shown in Table 4.21 are similar. In the last seven years, as shown in Figure 4.2, more female social science students were promoted than male students, except in 2005 E.C., where the performance of male social science students was better compared with female students.

At zonal level, as shown in Table 4.22, Godey zone had the highest number of social sciences students retained in both 2011 and 2008 E.C., followed by Doolo, Korahay, Fafan and Jarar zones. For example, in 2008 E.C., 100% of both male and female social science students of Shebele and Doolo zones failed and in 2011 E.C., 97.8% of male students and 89.1% of female students of Shabele zone were also retained.

Table 4.22

Percentage of Social Science Students Retained from 2005-11 E.C in the Nine Zones of Somali Region

Zones	Gender	Years (%)						
		05	06	07	08	09	10	11
Jarar	F	0	29.2	23.8	**82.1**	48.1	10.5	**80.0**
	M	31.8	46.7	25.8	**88.0**	57.7	20.7	**81.7**
Shabelle	F	8.3	41.9	7.7	**100**	18.2	2.6	**89.1**
	M	8.1	46.8	11.8	**100**	12.0	3.5	**97.8**
Fafan	F	47.4	34.4	18.1	**90.6**	15.3	7.8	**86.9**
	M	28.4	39.2	21.7	**94.5**	35.1	22.2	**91.7**
Qorahay	F	12.5	13.6	4.9	**100**	89.5	3.9	**89.3**
	M	11.5	23.0	19.5	**88.4**	75.2	17.3	**89.2**
Liban	F	0	15.9	3.3	65.4	63.1	13.2	8.4
	M	0.5	20.3	7.1	73.2	49.8	16.5	17.0
Siti	F	0	10.7	10.2	**98.9**	47.2	28.4	59.5
	M	2.1	16.8	22.2	**99.2**	47.3	33.7	61.0
Doollo	F	0	7.1	30.4	**100**	64.5	12.7	**83.3**
	M	0	0	20.9	**100**	81.8	16.5	**81.9**
Afdher	F	26.3	1.8	19.6	66.7	18.8	22.0	48.2
	M	20.0	2.4	10.5	79.4	26.0	41.6	31.6
Nogob	F	81.3	53.8	48.5	**100**	58.3	16.7	30.8
	M	80.9	72.4	55.1	**93.3**	63.8	44.1	64.7

Note. Percentage of students retained greater than 80% are shown in boldface.

Regarding gender equality in achievement, both Figure 4.2 and Table 4.21 indicate that the performance of female students is better than male students in the last seven years. So, in Somali region academic achievement of male students falls behind those of female students. However, improvement in academic achievement of female students did not match progress in enrolment i.e., still gender disparity in enrolment is in favor of male students.

In 2011 E.C. as indicated in Table 4.30, approximately half of the sample schools, all of their social science students failed. For example, 100% of both male and female social science students of Fik, Wardher, Kebribayah city, Dhegah bur city and Sayid Mohamed preparatory schools were retained. In 2008 E.C. the status of student academic achievement of the sample preparatory schools was very poor. For example, 100% of both male and female students failed in 6 of the 10 sample schools.

On the other hand, in 2010 E.C. since the promotion rate was very low, half of the sample schools, all of their students passed. For example, in Dhegah bur city preparatory school, in 2010 E.C., 0% of its students were retained, whereas in 2011 E.C. 100% of its students was retained. Similarly, in Godey city preparatory school, in 2010 E.C. the percentage of students retained was 0%, whereas in 2011 E.C. the percentage of students retained was 97% for male students and 82.2% for female students. On the average in 2010 E.C., 19.61% of the social students of the sample schools were retained whereas this number reached 90.69% in 2011 E.C. This is mostly due to the haphazard setting of promotion rate, because the examination agency sets a very high promotion rate which no students can attain it and then the next year the agency sets a promotion rate that everyone can achieve it. So, the result is 100% of the students pass or fail based on how the promotion rate is set.

Table 4.23

Percentage of Social Science Students Retained from 2005-2011 E.C in the Sample Preparatory Schools

Schools	Gender	Years (%) 05	06	07	08	09	10	11
Harshin	F	0	0	0	**100**	68.8	-	21.4
	M	0	0	9.1	**100**	-	-	80.8
Sh. A. Salan	F	-	-	9.7	89.1	0	0	85.5
	M	-	-	19.8	**90.0**	0.5	0	88.6
Jig Jiga City	F	53.3	53.8	28.2	82.5	0	0	85.5
	M	32.5	52.2	20.8	81.2	0	0	**92.5**
Godey City	F	50.0	32.0	7.9	**100**	0	0	82.2
	M	8.7	41.9	9.0	**100**	0	0	**97.0**
Kebri Dahar City	F	**100**	4.8	4.3	**100**	**100**	2.3	**92.5**
	M	21.7	10.0	9.3	**100**	**100**	6.1	**97.1**
Sayid Mahamed	F	-	-	0	**100**	0	0	**100**
	M	-	-	0	**100**	0.8	0.7	**100**
Dhegah Bur City	F	0	19.2	37.1	**98.1**	41.5	0	**100**
	M	13.0	45.3	31.5	**98.0**	49.6	0	**100**
Kebribayah City	F	85.7	85.7	38.1	**100**	82.7	63.6	**100**
	M	42.9	60.0	56.4	**98.1**	62.5	64.7	**100**
Wardher	F	0	0	0	**100**	56.5	56.5	**100**
	M	0	5.1	3.2	**100**	21.7	81.0	**100**
Fiik	F	81.3	**94.1**	28.6	**100**	25.0	16.7	-
	M	80.9	5.9	64.7	**100**	77.8	61.3	**100**

Note. Percentage of students retained greater than 90% are shown in boldface.

In determining whether the education system of the region favors the promotion of male or female social science students, I prepared Table 4.24, which reveals the promotion status and joint probability of the social science students. As I indicated in the table in the last seven years 25,118 social science students took grade 12 national examinations. From the marginal probabilities of Table 4.24, 76% of the students are male, 24% are female, 56% were promoted and 44% were not promoted.

Table 4.24

Promotion Status and Joint Probability of Social Science Students of Somali Region from 2005-11 E.C

Promotion Status			
	Male	Female	Total
Promoted	10589	3439	14028
Not promoted	8478	2612	11090
Total	19067	6051	25118
Joint Probability			
Promoted	0.42	0.14	0.56
Not promoted	0.34	0.10	0.44
Total	0.76	0.24	1.00

The probability that a selected social science student is male or female and is promoted is 0.42 and 0.14 respectively. As I computed in Table 4.24, the probability that a student is promoted given that the student is male or female is 0.55 and 0.58 respectively. These probabilities reveal that female social science students have a slightly higher a chance of promotion than male students. So, the education system of the region favors the promotion of female social science students than that of male students.

Regarding the promotion status of social students in the sample schools of agro-pastoralist and pastoralist areas, I prepared Table 4.25. As shown in Table 4.25, in the sample schools, there were 8687 social science students. From these students, 90% were from agro-pastoralist areas and 10% from pastoralist areas; 54% were promoted and 46% were not promoted. To decide whether the education system of the region gives more emphasis to the education of agro-pastoralist or pastoralist social science students, I calculated the conditional probabilities of both male and female social science students in the sample schools of agro-pastoralist and pastoralist areas. The probability a student is promoted given that the student is from the sample schools of

agro-pastoralist is 0.54, whereas the probability a student is promoted given that the student is from pastoralist areas is 0.5. Since the conditional probability of the students from agro-pastoralist areas is higher than the promotion probability of the students from the pastoralist areas, I can conclude that the education system of the region gives more emphasis the education of the students in agro-pastoralist areas than pastoralist areas.

Table 4.25

Promotion Status and Joint Probability of Social Science Students of Agro-Pastoralist and Pastoralist Woredas of the Sample Schools from 2005-11 E.C

Promotion Status			
	Agro-Pastoralist	Pastoralist	Total
Promoted	4252	444	4696
Not promoted	3559	432	3991
Total	7811	876	8687
Joint Probability			
Promoted	0.49	0.05	0.54
Not promoted	0.41	0.05	0.46
Total	0.90	0.10	1.00

4.3.3 Academic Achievement of Grade 10 Students

In the last seven years, 136,051 (93,990 male and 42,061 female) students sat for grade 10 national examinations in Somali region with gender parity index of 0.4, which is in favor of male students. The percentage increase in the enrolment of grade 10 students who sat grade 10 national examinations in the last seven years is 45.18% (29.35% for male students and 90.27% for female students) with annual growth rate of 6.45%. This percentage increase is very low if we compare it with the percentage increase in the enrollment of grade 12 students who sat grade 12 national examinations in the same period which is 192.34% with an annual growth rate of 27.48%.

At zonal level, Table 4.26 indicates 34.93% of these students are enrolled in Fafan zone, followed by Liban (12.11%) and Siti (12.11) zones. These three zones account more than 60% of the students who took grade 10 national examinations in the last seven years. In terms of percentage increase in the enrolment, Liban (120.36%) and Siti (80.83%) zones have the highest percentage increase in enrollment, whereas in Jarar zone there is 0.86% decline in the enrollment of students who sat grade 10 national examinations. Moreover, the percentage declines in the enrolment of male students in Jarar, Doolo and Nogob zone are 16.89%, 4.74% and 4.33% respectively.

As in natural and social science students, the promotion rate of grade 10 students is also set by national examination agency. Table 4.26 shows the promotion rates set for grade 10 students in the last seven years. As in grade 12, the agency set a highest promotion rate for grade 10 students in 2008 E.C. and lowest promotion rate in 2010 E.C. For example, in 2008 E.C. the promotion rate was 0.18 units of standard deviations above the mean for male students and 0.13 units of standard deviations below the mean for female students. Whereas in 2010 E.C. the promotion rate was 1.09 and 1.49 units of standard deviations below the mean for male and female students respectively. This indicates that 57.14% of male and 44.83% of female of grade 10 students are expected to fail in 2008 E.C. whereas in 2010 E.C. 13.79% of male and 6.81% of female grade 10 students are estimated to fail.

Table 4.26

The Number of Somali Region Grade 10 Students Who sat Grade 12 National Examination From 2005-11 E.C.at Regional and Zonal Level

Zones	Gender	Years							Total
		05	06	07	08	09	10	11	
Jarar	F	370	456	472	389	456	512	550	3205
	M	1143	1276	1026	854	979	963	950	7191
	Total	1513	1732	1498	1243	1435	1475	1500	10396
Shabelle	F	442	456	572	698	609	772	758	4307
	M	1586	1635	1468	1667	1385	1682	1792	11215
	Total	2028	2091	2040	2365	1994	2454	2550	15522
Fafan	F	1705	1987	2161	2289	2024	2459	3010	15635
	M	4161	4671	4659	4452	3973	4546	5424	31886
	Total	5866	6658	6820	6741	5997	7005	8434	47521
Qorahay	F	302	288	336	413	355	387	457	2538
	M	819	746	809	840	661	759	827	5461
	Total	1121	1034	1145	1253	1016	1146	1284	7999
Liban	F	431	492	509	505	642	738	1059	4376
	M	1234	1617	1568	1459	1729	1880	2610	12097
	Total	1665	2109	2077	1964	2371	2618	3669	16473
Siti	F	426	635	874	657	828	880	1105	5405
	M	1269	1480	1719	1240	1584	1818	1960	11070
	Total	1695	2115	2593	1897	2412	2698	3065	16475
Doollo	F	269	251	333	337	397	437	454	2478
	M	760	644	650	602	609	704	724	4693
	Total	1029	895	983	939	1006	1141	1178	7171
Afdher	F	234	317	379	397	354	492	603	2776
	M	791	935	902	939	768	993	1131	6459
	Total	1025	1252	1281	1336	1122	1485	1734	9235
Nogob	F	160	220	177	123	129	272	260	1341
	M	601	699	585	457	438	563	575	3918
	Total	761	919	762	580	567	835	835	5259
Somali Region	F	4339	5102	5813	5808	5794	6949	8256	42061
	M	12364	13703	13386	12510	12126	13908	15993	93990
	Total	16703	18805	19199	18318	17920	20857	24249	136051

As shown in Table 4.27, the estimated examination result of grade 10 students is highly better than for both results of natural and social students as indicated in Tables 4.15 and 4.21. This is not the fact that grade 10 students are better than grade 12 students in terms of academic performance. However, the examination agency set a very low promotion rate for grade 10 students and a very high promotion rate for grade 12 students. For example, as revealed in Table 4.21, in 2008 E.C. 93.06% of male students and 91.47% of female students of social science were estimated to fail, because national examination agency set a very high promotion rate, which is 1.48 and 1.37 units of standard deviation above the mean for male and female students respectively. In the same year, as indicated in Table 4.27, 57.14% of male students and 44.83% of female students of grade 10 were also estimated to fail due to the relatively high promotion rate which is 0.18 units of standard deviation above the mean for male students and 0.13 units of standard deviation below the mean for female students. In short, the performance difference between grade 10 and 12 students is not due to grade 10 students performing better academically than grade 12 students; however, the examination agency created the difference by setting a very low promotion rate for grade 10 students and very high promotion rate for grade 12 students.

The actual academic performance of grade 10 and 12 is not different from the estimated academic performance of students as indicated in Figures 4.1, 4.2 and 4.3. For example, Figure 4.2 shows that in 2008 E.C. the actual percentage of social science students retained are 90.70% of male students and 88.30% of female students. In the same year, as revealed in Figure 4.3, the actual percentage of grade 10 students are 50.70% of male and 39.20% of female students.

The academic achievement of grade 10 students is shown in Figure 4.3. Out of 136, 051 students who took grade 10 national examination in the last seven years, 34,953 (25.69%) of them failed. The performance of these students was highest in 2010 E.C. because 95% of female students and 92% of male students were promoted into grade 11 and lowest in 2008 E.C., since approximately 50% of male students and 40% of female students failed to join the next level of their education.

Table 4.27

Promotion Rate, Mean, Standard Deviation, Z-score and Estimated Percentage of Retained Students of Grade 10 Students of Somali Region from 2005-11 E.C.

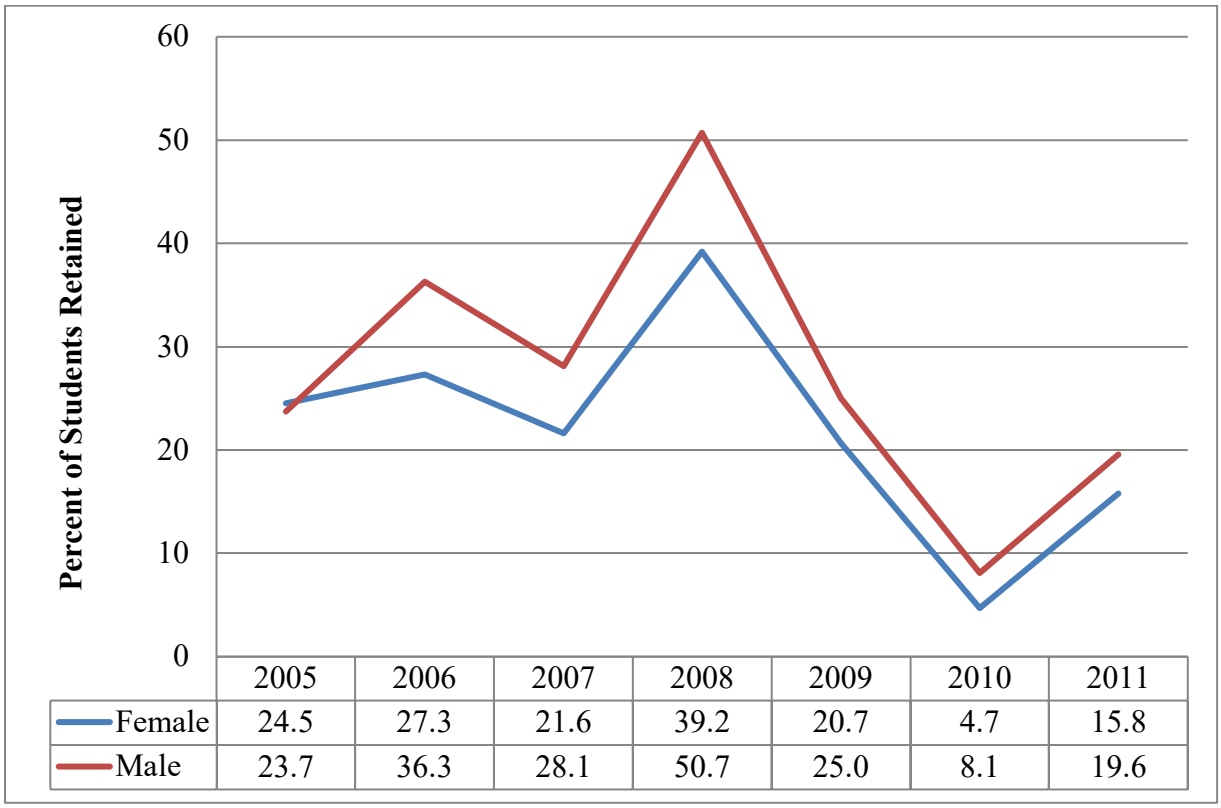
Year	Gender	Promotion Rate	Statistics			Expected %
			Mean	Standard Deviation	Z-Score	
2005	F	2.14	2.59	0.67	-0.67	25.14
	M	2.29	2.71	0.64	-0.65	25.78
2006	F	2.14	2.57	0.75	-0.58	28.10
	M	2.43	2.56	0.91	-0.14	44.43
2007	F	2.14	2.66	0.85	-0.61	27.09
	M	2.43	2.68	0.90	-0.28	38.97
2008	F	2.29	2.39	0.78	-0.13	44.83
	M	2.57	2.42	0.80	**0.18**	**57.14**
2009	F	2.29	2.77	0.77	-0.62	26.74
	M	2.43	2.78	0.77	-0.45	32.64
2010	F	2.29	3.12	0.56	-1.49	6.81
	M	2.43	3.10	0.62	-1.09	13.79
2011	F	1.71	2.42	0.73	-0.97	16.60
	M	1.86	2.44	0.76	-0.77	22.06

Note. A z-score is a promotion rate of a given year expressed as a number of standard deviation units that a promotion rate is from the mean of student academic achievement in that year. The higher the positive z-score the higher the promotion rate and the higher the estimated percentage of retained students as in 2008 E.C. the higher the negative z-score the lower the promotion rate and the lower the estimated percentage of retained students as in 2010 and 2011 E.C.

Expected % = Estimated percentage of retained students from cumulative probabilities tables of standard normal probability distribution. The positive z-score and their estimated percentage of retained students are shown in boldface.

Figure 4.3

Actual percentage of Somali Region grade 10 students retained from 2005-11 E.C.



	2005	2006	2007	2008	2009	2010	2011
Female	24.5	27.3	21.6	39.2	20.7	4.7	15.8
Male	23.7	36.3	28.1	50.7	25.0	8.1	19.6

Regarding gender equity and students' academic achievement, as indicated in Figure 4.3, more male students were failing than female students. More male students werre retained in all years, except in 2005 E.C., in which there was a slight difference between male and female students retained in that year. The academic achievement gap between male and female students varies from year to year. For example, the disparity was highest in 2008 E.C., with a 10% difference between male and female students retained. So, the gender disparity index for grade 10 student academic achievement favors female students moreso than their male student counter parts.

As shown in Table 4.28, in 2011 E.C. 52.30% of male students and 42.70% of female students of Shabele zone were retained, followed by Korahay zone. In 2010 E.C. Doolo zone has highest rate of student retained, because 20.3% of its male students and 20.4% of its female students failed. Still in 2009 E.C. Doolo zone continued to lead zones in terms of the number of students retained by having 48.9% of its male students and 45.6% of its female students retained.

Table 4.28

Percentage of Grade 10 Students Retained from 2005-11 E.C in the Nine Zones of Somali Region

Zones	Gender	Years (%)						
		05	06	07	08	09	10	11
Jarar	F	39.2	36.0	33.1	42.4	21.5	1.6	26.5
	M	33.8	48.3	36.6	48.1	21	4.0	32.3
Shabelle	F	12.0	21.7	4.7	10.9	3.4	2.3	42.7
	M	21.9	37.9	10.5	19.9	6.2	4.3	52.3
Fafan	F	39.4	46.7	37.7	42.2	17.3	4.1	15.0
	M	33.9	53.1	44.6	56.3	24.5	7.2	20.3
Korahay	F	23.5	22.6	20.5	28.3	23.7	1.8	43.5
	M	26.3	34.3	31.4	54.0	34.8	3.8	49.9
Liban	F	10.9	6.7	9.4	32.1	35.9	4.7	0.8
	M	15.7	23.5	27.6	43.7	35.8	8.9	1.4
Siti	F	7.7	3.1	9.4	56.5	26.7	4.5	2.7
	M	12.1	15.0	10.9	74.6	33.5	9.8	4.3
Doollo	F	0.4	7.2	6.6	45.7	45.6	20.4	29.7
	M	1.1	18.5	14.6	52.0	48.9	20.3	29.7
Afdher	F	7.3	0.6	7.7	58.7	1.1	0.4	1.0
	M	10.9	7.1	14.6	60.6	1.7	1.2	0.9
Nogob	F	16.3	29.5	5.6	27.6	4.9	5.1	1.9
	M	21.3	31.0	10.4	42.2	16.2	11.7	4.9

However, in 2008 E.C. Siti zone took the leadership role by having 74.6% of its male students and 56.5% of its female students retained. In 2007, 2006 and 2005 E.C. Fafan zone assumed the leadership role by having 44.6% of its male students and 37.7% of its female students retained in 2007 E.C.; 53.1% of its male students and 46.7% of its female students retained in 2006 E.C. and 33.9% of its male students and 39.4% of its female students retained in 2005 E.C.

On average in the last seven years, Fafan zone, which has better educational facilities compared with other zones, had the highest rate of grade 10 students retained (34.11% for male students

and 27.39% for female students), whereas Afdher zone had the lowest level (13.75% for male students and 10.55% for female students).

For sample secondary schools, as shown in Table 4.29, in 2011 E.C. Wardher secondary school had the highest percentage of students retained (81.70% of male students and 69.60% of female students) followed by Sayid Mohamed secondary school in Godey. On the other hand, Harshin and Fiq secondary schools had the lowest rate of retained students,approximately 0%. In 2010, 2009 and 2008 E.C., Wardher secondary school still led in the percentage of students retained by having 86% of its male students and 56% of its female students retained in 2010 E.C.; 97% of its male students and 91.2% of its female students retained in 2009 E.C.; and 100% of its male and female students retained in 2008 E.C.

On average, during the last seven years, Khebribayah city secondary school has the highest percentage of the students retained in which 71.79% of its male students and 71.95% of female students are retained. Next to khebribayah secondary school in terms of number of students retained is Dhegah bur city secondary school which 55.6% of its male students and 56.3% of female students are retained.

As shown in Figure 4.3, more grade 10 female students were promoted than male students in all years except in 2005 E.C. So, to determine whether the promotion system of the education sector of the region favors for male or female students, I prepared the promotion status and joint probability table for both male and female students of grade 10 students. As indicated in Table 4.30, in the last seven years 136,051 students sat grade 10 national examinations. From these students, 69% were male students, 31% were female students, 74% were promoted, and 26% were not promoted.

As shown in Table 4.30, the probability that a selected grade 10 student is male or female and is promoted is 0.50 and 0.24 respectively. Similarly, the probability a selected student is male or female and is not promoted is 0.19 and 0.07 respectively. From the data in Table 4.30, I computed the probability that grade 10 students are promoted given that the student is male or female student. The probability of being promoted given that the grade 10 student is male or female student is 0.72 and 0.77 respectively.

Table 4.29

Percentage of Grade 10 Students Retained from 2005-11 E.C in the Sample Secondary Schools

Schools	Gender	Years (%)						
		05	06	07	08	09	10	11
Harshin	F	0	0	0	4.2	3.4	5.3	0
	M	0	1.3	1.6	2.3	4.8	0	0
Fiik	F	49.0	84.5	0	23.3	1.9	6.7	0
	M	54.1	67.6	6.8	58.9	1.8	2.2	0.7
Sh. A. Salan	F	53.0	70.3	49.2	46.4	10.7	1.3	19.3
	M	49.8	74.4	52.4	61.3	14.0	2.9	20.2
Jig Jiga City	F	45.6	52.5	35.6	51.7	1.9	0.8	15.3
	M	32.7	60.7	52.2	66.9	5.4	1.5	25.3
Godey City	F	17.5	53.6	0.9	0.9	0.8	0	45.7
	M	36.2	72.2	5.9	2.3	1.2	0	52.7
Kebri Dahar City	F	32.4	43.6	6.4	8.6	24	2.7	53.7
	M	41.7	67.8	34.6	35.3	47.2	2.5	61
Kebribayah City	F	**83.2**	**93.3**	**90.4**	**89.8**	**84.4**	7.5	42.2
	M	77.1	**90.9**	**84.8**	**84.9**	74.3	13.8	66.2
Dhegah Bur City	F	67.5	65.6	64.2	**85.8**	21.7	1.8	65.8
	M	60.1	**80.5**	70.3	**81.5**	10.2	0	69.2
Sayid Mahamed	F	14.3	25.6	1.0	0.8	1.9	0.7	56.3
	M	29.0	51.4	1.5	4.1	2.7	0	74.9
Wardher	F	0	9.9	18.8	**100**	**91.2**	56	69.6
	M	0	36.5	64.6	**100**	**97**	**86**	**81.7**

Note. Percentage of students retained greater than 80% are shown in boldface.

As shown in Table 4.30, female students have more chance of promotion than male students. So, the education system of the Somali region favors to promote more grade 10 female students than male students.

Table 4.30

Promotion status and Joint Probability of Grade 10 Students of Somali Region from 2005-11 E.C

Promotion Status	Male	Female	Total
Promoted	67845	33253	101098
Not promoted	26145	8808	34953
Total	93990	42061	136051
Joint Probability			
Promoted	0.50	0.24	0.74
Not promoted	0.19	0.07	0.26
Total	0.69	0.31	1.00

Similarly, in Table 4.31, I attempted to show whether the education system favors the promotion of students from agro-pastoralist areas or pastoralist areas of the sample schools. As indicated in Table 4.31, in the last seven years 35,211 grade 10 students took grade 10 national examinations in the sample schools. From these students, 91% were from agro-pastoralist areas, 9% were from pastoralist areas, 63% were promoted and 37% were not promoted. I also computed the probability that the student is promoted given that the student is from agro-pastoralist or pastoralist areas. In the sample schools, the probability of being promoted given that the grade 10 student is from agro-pastoralist or pastoralist areas is 0.63 and 0.67 respectively. This indicates that the student from pastoralist areas has more promotion chance than the student from agro-pastoralist areas. So, the education system of the region favors to promote more grade 10 students from pastoralist areas than agro-pastoralist areas.

Table 4.31

Promotion Status and Joint Probability of Grade 10 Students of Agro-Pastoralist and Pastoralist Woredas of the Sample Schools from 2005-11 E.C

Promotion Status	Agro-Pastoralist	Pastoralist	Total
Promoted	20026	1948	21974
Not promoted	12136	1101	13237
Total	32162	3049	35211
Joint Probability			
Promoted	0.57	0.06	0.63
Not promoted	0.34	0.03	0.37
Total	0.91	0.09	1.00

4.4. The relationship between school leadership practices and student academic achievement

In this section I discussed the relationship between school leadership practices and student academic achievement. To measure school leadership practices, I used Principal Instructional Management Rating Scale (PIMRS) developed by Hallinger & Murphy (1985). This instrument consists of three dimensions, 10 functions and 50 leadership practices. For students' academic achievement, I utilized the result of Ethiopian General Secondary Education Certificate Examination (EGSECE) and Ethiopian University Entrance examination (EUEE) of the sample schools for the last three years.

In Table 4.32, the means and standard deviations of the instructional leadership behavior of the ten-sample secondary and preparatory school principals of Somali region are indicated. These are the means and standard deviations of the three general dimensions and 10 specific leadership

functions that school principals are expected to perform. There are also more specific principal policies, practices and behaviors under each instructional leadership function.

As shown in Table 4.32, for the three dimensions, all sample school principals except Dhegah Bur and Fiq secondary and preparatory school principals, focus more on defining school mission, followed by managing the instructional program, and lastly developing positive school climate. Degah Bur secondary and preparatory school principals invest more time on managing the instructional program dimension, followed by developing positive school climate and lastly defining school mission.

Regarding the mean and standard deviation difference between schools, Sayid Mohamed (M = 3.36, SD = 0.49; M = 3.08, SD = 0.63; M = 2.91, SD = 0.60), Kebridahar (M = 3.29, SD = 0.51; M = 3.01, SD = 0.62; M = 2.77, SD = 0.61) and Wardher (M = 3.13, SD = 0.63; M = 2.98, SD = 0.65; M = 2.78, SD = 0.49) secondary and preparatory school principals invest more time on the dimensions of defining school mission, managing the instructional program and developing positive school climate respectively. While Jigjiga (M = 2.58, SD = 0.49), Dhegah Bur (M = 2.60, SD = 0.66) and Harshin secondary and preparatory school principals invest less time on developing school mission dimension.

As revealed in Table 4.32, all sample school principals spend less time on developing positive school climate, particularly the leadership functions of providing incentives for teachers and learning. For example, Jigjiga (M = 2.02, SD = 0.69; M = 2.21, SD = 0.74) and Shekh Abdisalan (M = 2.26, SD = 0.88; M = 2.32, SD = 0.81) secondary and preparatory school principals invested less time on providing incentives for teachers and learning respectively.

Regarding 10 functions of school leadership practices, most schools involve more on framing school goals function. In framing school goals function, school principals determine areas that school teachers should emphasize in a given school calendar. School principals also attempt to get staff input in order to frame school goals in a way the goal can be implemented effectively. School principal for Kebridahar Secondary and Preparatory school performs this function (M = 3.46, SD = 0.58) more frequently than any other school principal. Next to Kebridahar is Wardher Secondary and Preparatory school's principal (M = 3.39, SD = 0.53).

Next to this function, school principals spent more time on supervising and evaluating instruction. In this function, school principals translate school goals into classroom activities by providing support to the teachers and monitoring activities carried out by the teachers in their classrooms. In this function the school principal of Sayid Mohamed Secondary and Preparatory school spent more time (M = 3.20, SD = 0.72) than any other school principal.

On the other hand, most school principals spent less time on the function of providing incentives for teachers. For example, Jigjiga (M = 2.38, SD = 0.68) and Fiiq (M = 2.38, SD = 0.91) secondary and preparatory schools spend less time on this function. Next to providing incentives for teachers, school principals also invest less time on providing professional development for teachers.

Table 4.32

Means and (Standard Deviations) for Instructional Leadership Practices of School Principals as Perceived by the Teachers of the Sample Schools

Dimensions and Subscales	Sample schools									
	JSPS	ShSPS	KBSPS	HSPS	WSPS	KDSPS	GSPS	SMSPS	DBSPS	FSPS
DSM	**2.58**	**2.79**	**2.92**	**2.73**	**3.13**	**3.29**	**2.79**	**3.36**	**2.60**	**2.84**
	(0.49)	**(0.58)**	**(0.67)**	**(0.65)**	**(0.63)**	**(0.51)**	**(0.60)**	**(0.49)**	**(0.66)**	**(0.80)**
FSG	2.75	2.86	2.96	2.79	3.39	3.46	2.77	3.41	2.54	2.86
	(0.56)	(0.62)	(0.75)	(0.64)	(0.53)	(0.58)	(0.69)	(0.78)	(0.62)	(0.81)
CSG	2.41	2.71	2.87	2.68	2.88	3.11	2.81	3.30	2.65	2.81
	(0.60)	(0.65)	(0.76)	(0.81)	(0.85)	(0.61)	(0.62)	(0.60)	(0.73)	(0.92)
MIP	**2.34**	**2.64**	**2.79**	**2.32**	**2.98**	**3.01**	**2.76**	**3.08**	**2.68**	**2.88**
	(0.58)	**(0.67)**	**(0.72)**	**(0.66)**	**(0.65)**	**(0.62)**	**(0.54)**	**(0.63)**	**(0.70)**	**(0.81)**
SEI	2.35	2.55	3.00	2.39	3.01	3.07	2.81	3.20	2.64	3.05
	(0.62)	(0.81)	(0.77)	(0.89)	(0.79)	(0.70)	(0.68)	(0.72)	(0.75)	(0.99)
CC	2.36	2.73	2.78	2.26	3.03	2.98	2.73	3.18	2.69	2.62
	(0.70)	(0.68)	(0.83)	(0.61)	(0.74)	(0.86)	(0.72)	(0.66)	(0.69)	(0.96)
MSP	2.31	2.64	2.60	2.31	2.89	2.98	2.72	2.85	2.70	2.97
	(0.77)	(0.85)	(0.88)	(0.80)	(0.67)	(0.74)	(0.65)	(0.94)	(0.83)	(0.86)
DSC	**2.27**	**2.53**	**2.70**	**2.41**	**2.78**	**2.90**	**2.77**	**2.91**	**2.67**	**2.60**
	(0.55)	**(0.63)**	**(0.92)**	**(0.73)**	**(0.49)**	**(0.51)**	**(0.61)**	**(0.60)**	**(0.71)**	**(0.67)**
PIT	2.32	2.65	2.75	2.38	3.00	3.09	2.65	3.04	2.81	3.06
	(0.73)	(0.69)	(0.72)	(0.83)	(0.57)	(0.66)	(0.66)	(0.74)	(0.75)	(0.73)
MHV	2.41	2.77	2.75	2.26	2.77	3.16	2.88	3.07	2.75	2.87
	(0.70)	(0.71)	(0.98)	(0.76)	(0.63)	(0.70)	(0.72)	(0.85)	(0.82)	(0.86)
PIFT	2.02	2.26	2.49	2.31	2.57	2.47	2.62	2.71	2.57	2.27
	(0.69)	(0.88)	(1.12)	(0.82)	(0.88)	(0.88)	(0.78)	(0.92)	(0.84)	(0.87)
PPD	2.38	2.67	2.77	2.54	2.71	2.79	2.73	2.74	2.72	2.38
	(0.68)	(0.78)	(1.13)	(0.76)	(0.61)	(0.74)	(0.81)	(0.89)	(0.81)	(0.91)
PIFL	2.21	2.32	2.73	2.55	2.85	3.00	3.00	2.97	2.52	2.40
	(0.74)	(0.81)	(1.19)	(089)	(0.79)	(0.78)	(0.76)	(0.86)	(0.80)	(0.95)

Note: JSPS = Jigjiga Secondary and Preparatory School; ShSPS = Sheekh Abdisalan Secondary and Preparatory School; KBSPS = Kebrabayah Secondary and Preparatory School; HSPS = Harshin Secondary and Preparatory School; WSPS = Wardher Secondary and Preparatory School; KDSPS = Secondary and Preparatory School; GSPS = Godey Secondary and

Preparatory School; SMSPS = Sayid Mohamed Secondary and Preparatory School; DBSPS = Dhegah Bur Secondary and Preparatory School; FSPS = Fiiq Secondary and Preparatory School

DSM = Defining School Mission; FSM = Framing School Goals; CSG = Communicating School Goals; MIP = Monitoring Instructional Program; SEI = Supervising and Evaluating Instruction; CC = Coordinating Curriculum; MSP = Monitoring Student Progress; DSC = Developing School Climate; PIT = Protecting Instructional Time; MHV = Maintaining High Visibility; PIFT = Providing Incentives for Teachers; PPD = Providing Professional Development; PIFL = Providing Incentives for Learning

As shown in Table 4.33, in the last three years 26,412 students sat grade 10 and 12 national examinations in the sample schools. From these 14,990, 6966 and 4456 students are grade 10, natural and social science students respectively. More than 56% of grade 10 students, 67% of natural science students and 22% of social students are from Jigjiga and Shek Abdisalan secondary and preparatory schools. In terms of grade 10 student academic achievement, Godey secondary and preparatory school has the highest mean which is 3.17 with a standard deviation of 0.96. This means in Godey Secondary and Preparatory school in the last three years more than 50% of the students who sat grade 10 national examinations scored a cumulative GPA which is above the mean of 3.17. Next to Godey is Harshin secondary and preparatory school.

For natural science students, Godey Secondary and Preparatory school lead student academic achievement (M = 330.17, SD = 147.30). Wardher Secondary and Preparatory school (M = 325.88, SD = 52.26) scored next to Godey Secondary and Preparatory school. For social students Godey secondary school had the highest score (M = 351.34, SD = 122.66) followed by Sayid Mohamed secondary and preparatory school (M = 320.00, SD = 140.37). This means that Godey Secondary and Preparatory School had the highest score in grade 10 for natural and social science students. So, the performance of Godey Secondary and Preparatory school was better than all other schools in the sample. This suggests Godey Secondary and Preparatory School is the most effective school.

On the other hand, Wardher, Kebribayah and Harshin secondary and preparatory schools had the lowest student academic achievement for grade 10 (M = 1.74, SD = 0.44), natural (M = 238.16, SD = 114.18) and social (M = 200.5, SD = 73.68) science students respectively.

Table 4.33

Means and Standard Deviations Scores of Student Academic Achievement of Sample Schools From 2009-11 E.C.

Schools	Secondary			Preparatory					
				Natural Science			Social Science		
	N	M	S	N	M	S	N	M	S
Jigjiga SPS	3943	2.73	0.82	1797	311.07	149.20	487	300.06	140.59
Shekh SPS	4409	2.69	0.78	2881	322.93	153.88	1073	309.93	151.15
Kebribayah SPS	1122	2.25	0.59	212	238.16	114.18	235	235.37	100.34
Harshin SPS	290	3.03	0.37	146	268.57	107.30	56	200.5	73.68
Wardher SPS	446	1.74	0.44	34	325.88	52.26	155	215.87	109.66
Kebridahar SPS	1144	2.36	0.82	454	246.39	106.75	569	250.80	105.59
Godey SPS	1174	3.17	0.96	486	330.17	147.30	746	351.34	122.66
Sayid M. SPS	1037	2.87	1.05	284	303.01	153.41	508	320.00	140.37
Dhegah Bur SPS	862	2.74	0.81	313	241.83	139.30	552	254.91	136.58
Fiik SPS	563	2.94	0.49	359	280.88	129.68	75	252.39	104.89
Total	14990	2.68	0.84	6966	305.06	148.01	4456	293.02	137.79

Tables 4.34 and 4.35 were prepared in order to determine whether there is a relationship between student academic achievement and practices of instructional leadership of the school principals. Table 4.41 indicates the relationship between student academic achievement of grade 10 and grade 12 students with the three dimensions of instructional leadership. Grade 12 students are separated into natural and social science students.

Table 4.34

Pearson Product-Moment Correlation Between Measures of Students' Academic Achievement and Three Domains of Instructional Leadership

	Variables	**1**	**2**	**3**	**4**	**5**	**6**
1	Grade 10						
2	Natural science	0.62					
3	Social Science	0.52	0.63*				
4	Defining school mission	0.81**	0.89**	0.73*			
5	Managing Instructional Program	0.62	0.66*	0.57	0.84*		
6	Developing School Climate	0.69*	0.55	0.54	0.81*	0.92*	

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

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

As revealed in Table 4.34, all the variables, both independent and dependent, are positively correlated with each other. However, the following are significant: student academic achievement for grade 10 students is significantly correlated with defining school mission ($r=0.81$, $p < 0.01$) and developing school climate ($r=0.69$, $p < 0.05$). Student academic achievement of grade 12 natural science students is significantly correlated with defining school mission ($r=0.89$, $p < 0.01$) and managing instructional program ($r=0.66$, $p < 0.05$). The student academic achievement of social science students is significantly correlated with defining school mission ($r=0.73$, $p < 0.05$). These three dimensions of instructional leadership, defining school mission is significantly correlated with grade 10, natural and social science students' academic achievement. For managing instructional program and developing positive school climate are significantly correlated with grade 10 and natural science students' academic achievement respectively.

Table 4.35

Pearson Product-Moment Correlation Between Measures of Students' Academic Achievement and 10 Functions of Instructional Leadership

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Grade 10													
2	Natural	0.62												
3	Social	0.52	0.63*											
4	FSG	0.72*	0.93**	0.80*										
5	CSG	0.85**	0.75*	0.56	0.81**									
6	SEI	0.61	0.64*	0.52	0.71*	0.87*								
7	CC	0.67*	0.61	0.62	0.78**	0.84**	0.84**							
8	MSP	0.43	0.61	0.45	0.59	0.70*	0.86**	0.79**						
9	PIT	0.49	0.68*	0.38	0.65*	0.77**	0.91**	0.82**	0.97**					
10	MHV	0.44	0.55	0.54	0.60	0.79**	0.84**	0.86**	0.89**	0.86**				
11	PIFT	0.71*	0.22	0.27	0.41	0.72*	0.66*	0.75*	0.55	0.59	0.61			
12	PPD	0.55	0.22	0.40	0.43	0.60	0.46	0.70*	0.38	0.41	0.57	0.81**		
13	PIFL	0.74*	0.48	0.63	0.65*	0.80**	0.70*	0.71*	0.54	0.54	0.64*	0.85**	0.75*	

Table 4.35 shows the Pearson product-moment correlation between measures of students' academic achievement and 10 functions of instructional leadership. All the variables in the table are positively correlated. This indicates the more school principal practice instructional leadership functions, the higher the student academic achievement of their schools.

In table 35, the relationship between school leadership practices and student academic achievement was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. For grade 10 students, there was strong positive correlation between student academic achievement and framing school goals ($r=0.72$, $p < 0.05$), communicating school goals ($r=0.85$, $p < 0.01$), coordinating curriculum ($r=0.67$, $p < 0.05$), providing incentives for teachers ($r=0.71$, $p < 0.05$) and providing incentive for learning ($r=0.74$, $p < 0.05$).

For grade 12, natural science students, there was a strong positive correlation between student academic achievement and framing school goals ($r=0.93$, $p < 0.01$), communicating school goals ($r=0.75$, $p < 0.05$), supervising and evaluating instruction ($r=0.64$, $p < 0.05$) and protecting instructional time ($r=0.68$, $p < 0.05$). For social science students, there was a strong positive correlation between student academic achievement and framing school goals ($r=0.80$, $p < 0.05$).

4.5. School Leadership Policy

In the above sections I discussed the practices of school leadership and student academic achievement, in addition to the relationship between them. Argue that practices are guided by policies and attempting to work from practices to policies is inviting the failure of the education system. Mostly policies outline plan of action, identify goals, establish mandates, provide guidelines, and indicate a problem-solving strategies and sanction behavior. However, the basic purpose of education policy is to create, nurture and sustain a context in which students can best learn and teachers can best teach.

In 1994, Ethiopian government set its education and training policy (MOE, 1994). From the education and training policy, the government prepared six education sector development program documents each covering approximately five years. In the education and training policy, the government gave more emphasis to curriculum, educational structures, educational

measurement and examination, using local languages as language of instruction in primary schools and organization and management of educational institutions.

In education sector development program documents I, II and III, the of the ministry of education was increasing access to and participation in education because more school age children were not attending schools and rural areas and girls were not served well (MOE, 2005). For education sector development program documents IV, V and VI the focus of ministry of education shifted from access to education to quality of education in order to make sure that all students acquire the competencies, skills, values and attitudes enabling them to participate fully in the social, economic and political development of the country (MOE, 2010).

To achieve this goal, ministry of education developed general education development program (GEQIP) and set six objectives: strengthening teachers' and school leaders' development; developing the curriculum and textbooks; school improvement planning; expanding the utilization of information communication technology; improving the quality of school infrastructure and facilities; and providing civic and ethical education. To improve the preparation and performance of school leaders the ministry of education prepared national professional standards for school leaders.

Globally, many countries set a standard for their school leaders. For example, in United Estates, national standards for school leaders were adapted in 1988 when national policy board for educational administration was established (English, 2003). In other countries, such as England, Australia, Qatar, and Ethiopia, the adoption of national standards for school principals took place in 2004, 2011, 2007 and 2013 respectively (DFES, 2004; aitsl, 2011; QEI, 2007; MOE, 2013).

The standard for school leaders is a statement about the professional leadership and management practices of effective principals of 21st century School (aitsl, 2011). It describes what school principals need to know, understand and able to do by providing a clear vision of the expected performance, knowledge and skill (QEI, 2007). It can be considered as an integrated model that realizes all effective school leaders share common qualities and capabilities which can be stated as a leadership requirement.

There is dispute regarding how the standard for school leaders should be used. In some countries like the US, the standard is used as a framework appropriate for performance evaluation (performance standard) and for guiding preparation, professional development and self-reflection (content standard) of school principals (Dinham, Collarbone, Margery, & Mackay, 2013). According to Kellaghan and Greanay (2001), standards must stipulate three things in order to achieve the expected results. First, standards must specify challenging definitions of proficiencies in leading and managing learning and teaching within the school. Secondly, standards must be intended for all school principals and lastly all preparations, inductions and in-service professional development of school leaders must be aligned with them.

Ethiopian National Professional Standard for School Principals is a document that consists of three domains, five standards, twenty-eight elements, one hundred eighty-eight performance evidences and seven evidence guide that contain two hundred twenty-two statements that show the skills, knowledge and attitudes expected from the school leaders. In addition, the document suggests four assessment methods, seventeen sources of data and two contexts that the performance of school principals should be assessed. The professional standard for school principals defines the role of the school leaders and attempts to unify the profession by describing behaviors expected from the school principals. Moreover, the standard document suggests the important knowledge, skills and attitudes that school leaders must own in order to become effective.

The standard document concerns preprimary, primary and secondary school principals. It is also intended to use this document as an evaluation instrument as part of performance management system of the schools, because this document describes the practices of effective school principals. Based on the evaluation, school leaders will be distributed in to four levels of the principals' career structure. The levels are beginner principal, proficient I- principal, proficient II-principal and lead principal.

The professional standard document encompasses school vision and community leadership; instructional leadership; and administrative leadership domains. The first domain, school vision and community leadership contain two competences (lead and facilitate vision of the learning;

and develop and manage school community relations). Each competence consists of four statements that describe what principals should know, think and do, in addition to fifty-two performance criteria.

The second domain, instructional leadership focuses on two competencies. These competences are, lead and manage learning and teaching; and lead and develop individuals and teams. These standards address eleven performance outcomes that are expected from the school leaders. In this domain, school principals should demonstrate that they can perform ninety-three skills and attitudes such as assessing systems and procedures; and having analytical skills to evaluate qualitative and quantitative data used to monitor and evaluate the quality of teaching and learning programs.

The last domain, administrative leadership addresses one competence that contain four critical aspects of the competence; seventeen underpinning knowledge, five attitudes and ten skills that school principals are expected to perform.

With respect to the assessment methods, the policy document suggests four types of assessments. These are direct questioning method; reviewing teaching and learning activities; direct observation of contextual application of skills; and written tests. In addition, the policy document indicates two assessment context (school and testing centers) and seventeen sources of data such as school improvement plans, meeting agendas and performance portfolios.

In the policy document, each standard has a unit of competence (duties and tasks) which comprises what principals should know, think and do (elements). The elements contain the performance criteria of effective principals. The standard also incorporates critical aspects of the competence; underpinning knowledge, skills and attitudes; sources of evidence; methods of assessment; and context of assessment. These evidence guides provide information to the assessors to evaluate how each unit of competence may be demonstrated.

The document of national professional standards for school principals contains serious problems. For example, very important portions of the document were taken as it is, without citing,

paraphrasing, quoting or changing a single word; from western countries' school leaders' standard documents. For instance, the purpose of this standard was taken from the Australian professional standard for principals as follows:

> "The **National Professional Standard for Principals** has been developed to define the role of the principal and unify the profession nationally, to describe the professional practice of principals in a common language and to make explicit the role of quality school leadership in improving learning outcomes." (Australian Institute for Teaching and School Leadership, 2011, p. 1)

The purpose of the Ethiopian national professional standard for school principals is as follows:

> "The *National Professional Standard for Principals* has been developed to define the role of the principals and unify the profession in the country, to describe the professional practice of principals in a common language and to make explicit the role of quality school leadership in improving learning outcomes." (Ministry of Education, 2013, p. 2)

Similarly, the core purpose of the principal was also taken directly from England's national standard for head teachers as follows.

> "The core purpose of the headteacher is to provide professional leadership and management for a school. This will promote a secure foundation from which to achieve high standards in all areas of the school's work. ... Headteachers must establish a culture that promotes excellence, equality and high expectations of all pupils.
>
> The headteacher is the leading professional in the school. Accountable to the governing body, the headteacher provides vision, leadership and direction for the school and ensures that it is managed and organized to meet its aims and targets. The headteacher, working with others, is responsible for evaluating the school's performance to identify the priorities for continuous improvement and raising standards; ensuring equality of opportunity for all; developing policies and practices; ensuring that resources are

> efficiently and effectively used to achieve the school's aims and objectives and for the day-to-day management, organization and administration of the school" (Department for Education and Skills, 2004, p. 3)

The central role of the principal in the Ethiopian national professional standard is as follows:

> "The principal is the leading professional in the school. The major role of the principal is providing professional leadership and management for a school. This will promote a secure foundation from which to achieve high standards in all areas of the school's work. Principal must establish a culture that promotes excellence, equality and high expectations of all pupils. Principal provides vision, leadership and direction for the school and ensures that it is managed and organized to meet its aims and targets.
>
> The principal working with others, is responsible for evaluating the school's performance to identify the priorities for continuous improvement and raising standards; ensuring equality of opportunity for all; developing school rules and regulation and practices; ensuring that resources are efficiently and effectively used to achieve the school's aims and objectives and for the day-to-day management, organization and administration of the school." (Ministry of Education, 2013, p. 3)

From the above paragraphs, it can be understood that the main purpose of Ethiopian school principal's standard is the Australian school leaders' objective and the central role of the Ethiopian principal is the England's head teachers' role. So, it indicates that the ministry of education imported the national professional standard for school principals from the western countries that view education, as stated by Romanowski (2014), a private commodity that can be bought and sold in the market for those who have the dollar power.

This clearly contradicts with the basic assumption of our educational policy that view education as a basic need and hence a public commodity that government must provide to its people. English (2006) and Romanowski (2014) mentioned that in neoliberalism exporting knowledge is profit making business and the ministry of education imported that knowledge illegally.

In short, the school leaders' standard is not Ethiopian standard and it entered the ministry documents through illegal means (contraband). It contradicts the performance system, leadership paradigm and the policy of the education sector.

4.6. Discussion

School leadership is a critical variable for school improvement and effectiveness (Leithwood & Levin, 2005). It is a high priority issue for policy makers, reformers and public. School effectiveness study conducted by Edmonds (1979) suggests a strong school leadership as a pre-requisite for a successful or effective school. So, school principals to be effective school leaders they should practice, school leadership behaviors that affect school's most desirable outcome which is student academic achievement. Therefore, the main purpose of this study was to investigate the school leadership practices in the schools of Somali region and how these school leadership practices influence student academic achievement and how school context affects school leadership practices.

The main research questions are related to the time spent on school leadership practices such as defining school mission, managing instructional program of the school and developing positive school learning climate; and how factors related with school context affect school leadership practices. The other issue was determining the status of academic achievement of the students of Somali region and identifying the relationship between school leadership practices and student academic achievement.

As shown in the findings of the study, overall school principals invest less time in the practices of school leadership, because the mean score of all principals regarding the three dimension and 10 leadership functions of school leadership practices is below the average which is 3.00. Perceptions of the teachers indicate that school principals relatively invest more time in defining school mission, followed by managing instructional program and lastly developing positive school climate. Regarding 10 leadership functions, school principals engage more in framing and communicating school goals; and spent less time in providing incentives for teachers and students. This trend also exists approximately irrespective of the level, location and size of the schools.

In Table 4.36, I compared the results of school leadership practices in Somali region with the pattern of school leadership practices reported by Hallinger, Taranseina & Miller (1994). The mean score of this study is quite low when compared with results of other studies conducted in Thailand, U.S. and Malaysia. In this study, the three highest rated subscales are framing school goals (M=2.95), communicating school goals (M=2.77) and maintaining high visibility (M=2.76). The three lowest rated subscales were providing incentives for teachers (M=2.36), providing incentive for learning (M=2.60) and promoting professional development (M=2.62). According to Hallinger, Taranseina & Miller (1994) the three highest rated subscales in Thailand, using teacher rating was providing incentive for learning (M=3.42), framing school goals (M=3.15) and protecting instructional time (M=3.15). The three lowest rated subscales were maintaining high visibility (M=2.45), supervising and evaluating instruction (M=2.77) and monitoring student progress (M=2.89).

Hallinger, Taranseina & Miller (1994) reported that Pratley (1992) conducted study in Michigan U.S. by examining instructional leadership practices of the school principals. Pratley's finding indicated the three highest rated subscales were providing incentives for learning (M=3.81), promoting professional development (M=3.72) and protecting instructional time (M= 3.61). The three lowest rated subscales were monitoring student progress (M=3.29), maintaining high visibility (M=3.30) and coordinating curriculum (M=3.32).

Table 4.36

Comparison of Principal Profiles by Teachers' Mean Rating: Ethiopia, Thailand, U.S., and Malaysia.

Subscales	Ethiopia	Thailand	U.S.	Malaysia
Frames School Goals	2.95	3.15	3.49	3.54
Communicates School Goals	2.77	3.08	3.36	3.55
Supervises Instruction	2.73	2.77	3.38	3.29
Coordinates Curriculum	2.70	2.92	3.32	3.48
Monitors Student Progress	2.66	2.89	3.29	3.22
Protects Instructional Time	2.72	3.15	3.61	3.28
Maintains High Visibility	2.76	2.45	3.30	3.13
Incentives for Teachers	2.36	2.91	3.43	3.18
Professional Development	2.62	3.08	3.72	3.51
Incentive for Learning	2.60	3.42	3.81	3.58
Total	2.68	2.98	3.47	3.38

Source: Hallinger, Taranseina, & Miller (1994), p. 340.

Hallinger, Taranseina & Miller (1994) also mentioned Saavedra (1987) investigated instructional leadership practices in Iligan City, Malaysia. The three highest rated subscales were providing incentives for learning (M=3.58), communicating school goals (M=3.55) and framing school goals (M=3.54). The three lowest rated subscales were maintaining high visibility (M=3.13), providing incentives for teachers (M=3.18) and monitoring student progress (M=3.22).

The three highest rated subscales in this study were approximately similar with the studies conducted in other three countries. For example, both the studies conducted in Thailand and Malaysia rated highest the subscale of framing school goals, whereas the study conducted in Malaysia again rated highest the subscale of communicating school goals. However, the differences exist in the subscales rated lowest in this study. For instance, the study conducted in U.S. rated highest (providing incentive for learning and promoting professional development) two of the subscales rated lowest in the study conducted in Somali region.

Generally, the subscales reported in this study are lower than the other three studies conducted in Thailand, U.S. and Malaysia. This may be due to the school leadership practices assessed by the PIMRS are uncommon in among school principals of Somali region. Secondly, this study was conducted in Somali region which is one of the emerging regions of the country and the result may become different if the study was carried out in another Ethiopian region such Oromia, Amhara or Tigray region. Lastly, these results can be viewed as preliminary or tentative portrait of leadership practices since they were not large-scale research projects.

The second research question was about the effect of school context on the leadership practices of the school. To determine whether school context variables such as school level, location and size, I used an independent-sample t-test for school level and location and there was no significant difference in the means of secondary and preparatory schools; and schools located in agro-pastoralist and pastoralist areas. For school size, I used a one-way between groups' analysis of variance and there was no significant difference at $p < 0.05$ level of confidence for the three school sizes: small, medium and large.

As regards the third research question, I analyzed 201,756 grades 10 and 12 students who took grade 10 and 12 national examinations in Somali region in the last seven years. From these

students 40,587, 25,118 and 136,051 were natural science, social science and grade 10 students respectively. Regarding the student academic achievement irrespective of gender, 48.49%, 44.15% and 25.69% of natural science, social science and grade 10 students failed respectively. From the 40,587 natural science students 71% (28,634) were male students while the remaining 29% (11,953) were female students. From these natural science students, 45.40% of male students and 44.11 female students failed.

For social science students, 76% (19,067) and 24% (6051) were male and female students respectively. In terms of student academic achievement, 44% of male students and 43% of female students were retained. The grade 10 students, 69% (93,990) were male students and 31% (42,061) were female students. Regarding student academic achievement, 28% of male students and 21% of female students were retained.

At zonal level, Fafan and Nogob zones have the highest and lowest number of the students respectively. For example, 42% of natural science students, 25% of social science students and 35% of grade 10 students were enrolled in Fafan zone, whereas 4% of natural science, 4% of social science and 4% of grade 10 students were enrolled in Nogob zone.

In terms of student academic achievement, in the last seven years, the highest number of the students was retained in 2008 E.C. and the lowest number of students was retained in 2010 E.C. For example, as shown in Figures 4.1, 4.2 and 4.3, in 2008 E.C. 86.5% of male natural science students, 83.5% of female natural science students, 90.7% of male social science students, 88.3% of female social science students, 50.7% of male grade 10 students and 39.2% of female grade 10 students were retained. Similarly, in 2010 E.C. 19.2 male natural science students, 11.5% of female natural science students, 20.3% of male social science students, 11.3% of female social science students, 8.1% of male grade 10 students and 4.7% of female grade 10 students were also retained.

Similarly, the student academic achievement of 2011 E.C. is slightly different from the 2008 E.C. For example, in 2011 E.C. the national examination agency set a very high promotion rate for grade 12 students and very low promotion rate for grade 10 students. The result was that the majority of grade 12 failed, whereas most of grade students passed.

Different factors affect the promotion rate of student academic achievement. For example, 2008 E.C. was the first year in the history of Ethiopian education system that the national examinations for both grade 10 and 12 students come out from the hands of educational officials and entered in the hands of students before conducting the examination. Then government cancelled that examination and prepared new examination papers. After that both federal and regional governments tried to control strictly the malpractices or cheating that existed in the schools. This inconvenient created a school environment that prohibits students to perform their best in the examination and get a pass score. In 2011 E.C. the national examination agency also reported violation of grade 12 examinations' code of conduct. Due to this problem the agency decided to base the promotion rate of grade 12 students only on four subjects.

Other factors that affect student academic achievement include the promotion rate and school leadership practices. For the promotion rate, the national examination agency set for grade 12 students in 2008 and 2011 E.C. a promotion rate which is above the mean score of the students, whereas in 2005, 2006, 2007, 2009 and 2010 E.C. the set a promotion rate which is below the mean score of the students. This created an environment in which majority of the students were retained in 2008 and 2011 E.C. and most of the student passed in 2005, 2006, 2007, 2009 and 2010 E.C.

The relationship between school leadership practices and student academic achievement was investigated using Pearson product-moment correlation coefficient. For grade 10 students, there was strong positive correlation between student academic achievement and framing school goals, communicating school goals, coordinating curriculum, providing incentives for teachers and providing incentive for learning. For grade 12, natural science students, there was strong positive correlation between student academic achievement and framing school goals, communicating school goals, supervising and evaluating instruction and protecting instructional time. For social science student, there was strong positive correlation between student academic achievement and framing school goals. This implies that the more school principal practice instructional leadership functions, the higher the student academic achievement of their schools.

CHAPTER FIVE

Summary, Conclusion and Recommendation

This chapter focuses on the summary of the major findings, conclusions, and recommendations that are assumed to improve the school leadership practices of Somali region.

5.1. Summary

The purpose of this study was to examine the practices of school leadership within the context of Somali region and how these practices influence student academic achievement and the effect of school context on the school leadership practices of the school principal. Specifically, this study addresses the following questions:

1. What activities do school principals perform in their leadership practices, functions and behaviors?
2. To what extent do the contextual factors affect school leadership practices in the Somali region?
3. What is the status of student academic achievement of the students of Somali region?
4. To what extent do the school leadership practices influence the student academic achievement of the Somali region?
5. What value do school leaders place on different aspects of their school leadership practices?

To answer these questions, data were collected from six zones, 5 city administrations, 3 woredas, 10 schools, 337 teachers, 10 school principals and 10 school supervisors by using multi-stage sampling. To measure school leadership practices, I used Principal Instructional Management Rating Scale (PIMRS) which consists of three dimensions. Under the three dimensions, there are 10 functions that are expected school leaders to perform. Again, under these 10 functions, there are 50 practices required from school leaders to carry out in their day-to-day activities. So, by using Principal Instructional Management Rating Scale (PIMRS), I asked teachers, school principals, and school supervisors to what extent school leaders perform these fifty practices.

In relation to the school context, I investigated level of the school that is whether the school is general secondary school or preparatory school and the location, as well as the size of the school. For school learning outcome, I analyzed the academic achievement of 201,756 of grade 10 and 12 students, in order to see the trend of regional student academic achievement in the last seven years. I also analyzed 26,412 students' academic achievement for sample schools in order to see the relationship and influence between school leadership practices of the school principal and student academic achievement.

The major findings of the study are:

1. Overall, the engagement of the school principals with school leadership functions and dimensions is very low. For example, the mean score of the three dimensions and 10 leadership functions is below the average which is 3.00.
2. School principals relatively engage more with defining school mission dimension (M=2.86; SD= 0.64) followed by managing instructional program (M=2.70; SD=0.69) and lastly developing school climate (M=2.61; SD= 0.66).
3. Regarding school leadership functions, school principals spend their time more in framing school goals (M=2.95; SD=0.70) and communicating school goals (M=2.77; SD= 0.72) and less time in providing incentives for teachers (M=2.36; SD=0.87), providing incentives for learning (M=2.60; SD=0.88), promoting professional development (M=2.62; SD=0.80), protecting instructional time (M=2.72; SD=0.75), and maintaining high visibility (M=2.76; SD=0.79).
4. There is difference between the perceptions of principals, teachers and supervisors. For example, principals reported high engagement (M=3.96; SD=0.51) on the three dimensions and 10 leadership functions, while teachers mentioned low principal involvement (M=2.68; SD=0.60) in instructional management. The school supervisors stated that the school principals spend moderate time (M=3.04; SD=0.60) on the instructional management dimensions and subscales.
5. An independent-samples t-test were conducted to compare the leadership dimensions of defining school mission, managing instructional program and developing positive school climate for secondary and preparatory schools. There was no significant difference in the

means for secondary and preparatory schools and the magnitude of the difference in the means was very small.

6. An independent-samples t-test was conducted to compare the leadership dimensions of defining school mission, managing instructional program and developing positive school climate for the schools located in agro-pastoralist and pastoralist areas. There was no significant difference in the means for the schools from agro-pastoralist areas and pastoralist areas and the magnitude of the difference in the means was very small.
7. A one-way between groups analysis of variance was conducted to explore the impact of school size on defining school mission, managing instructional program and developing positive school climate. There was no significant difference at the $p < 0.05$ level for the three school sizes: small, medium and large.
8. Data for 201,756 grades 10 and 12 students who took grade 10 and 12 national examinations in Somali region in the last seven years were analyzed. Of these students 40,587, 25,118 and 136,051 were natural science, social science and grade 10 students respectively.
9. At regional level, 65,704 (47,700 male and 18,004 female) students sat for grade 12 national examination. This number is approximately half of grade 10 students who attended the grade 10 national examination in the same period. The percentage increase in the enrollment of preparatory students who sat for grade 12 national examination in the last seven years is 192.34%, with annual growth of 27.48%.
10. In the last seven years, 40,586 (28,633 male and 11,953 female) natural science students were admitted to take grade 12 national examinations. The percentage increase in the enrolment of natural science students is 148.48%, with annual growth rate of 21.21%. On average 48.49% (19, 680) of natural science students were retained
11. In the last seven years 25,118 social students sat for grade 12 national examinations. From these 19,067 (75.90%) were male students while the remaining 6,051 (24.10%) were female students. The percentage increase in the enrollment of social science students who sat for grade 12 national examinations is 307.92% with annual growth of 43.99%. In 2011 E.C. 72% of male students and 69.9% of female students where retained, whereas in 2008 E.C. 90.7% of male students and 88.3% of female students failed to join higher education.

12. In the last seven years, 136,051 (93,990 male and 42,061 female) students sat for grade 10 national examinations in Somali region. The percentage increase in the enrolment of grade 10 students who sat grade 10 national examinations in the last seven years is 45.18% (29.35% for male students and 90.27% for female students) with annual growth rate of 6.45%. For 136, 051 students who took grade 10 national examination, 34,953 (25.69%) of them failed.
13. Regarding the relationship between student academic achievement and school leadership practices, student academic achievement for grade 10 students is significantly correlated with defining school mission ($r=0.81$, $p < 0.01$) and developing school climate ($r=0.69$, $p < 0.05$). Student academic achievement of grade 12 natural science students is significantly correlated with defining school mission ($r=0.89$, $p < 0.01$) and managing instructional program ($r=0.66$, $p < 0.05$). The student academic achievement of social science students is significantly correlated with defining school mission ($r=0.73$, $p < 0.05$).
14. The main purpose of Ethiopian school principal's standard is the Australian school leaders' objective and the central role of the Ethiopian principal is the England's head teachers' role. So, it indicates that the ministry of education imported the national professional standard for school principals from the western countries that view education, as stated by Romanowski (2014), a private commodity that can be bought and sold in the market for those who have the dollar power.

5.2. Conclusion

Overall, the engagement of the school principals with school leadership functions and dimensions was very low. This may be due to the school leadership practices assessed by the PIMRS are uncommon in among school principals of Somali region and it can be viewed as preliminary or tentative portrait of leadership practices since they were not large-scale research project.

In the three dimensions of school leadership practices, school principals invest relatively more time in framing school mission and less time in developing school climate. This indicates that school principals invest less time in promoting a positive school learning climate which

facilitates establishing environmental forces that press for student academic achievement on school wide basis. This implies the sample schools lack school policies, practices, expectations, norms and rewards that forces students to work hard and to do well academically. The absence of the environmental forces that press students for academic achievement makes students feel that they are not capable of academic excellence and that their efforts will be meaningless. This also increases student tardiness, absenteeism and truancy.

Mostly, school principals do not collect information that can be used to identify teachers and students whose performance is either above or below the accepted level of performance and based on the performance of teachers and students, school principals should provide incentives for high performers and take correction measures against low performers. Without establishing strong reward and punishment system, it is difficult for school principals to create a school learning climate in which students give value to academic achievement and teachers achieve exceptional performance.

Regarding the effect of school context on school leadership practices of the principal, there is no sufficient evidence to support the claim that there is a difference between secondary and preparatory school principals; or between school principals from agro-pastoralist and pastoralist areas in their engagement of school leadership practices. Moreover, there was no influence of school size on the three dimensions of the instructional leadership behaviors.

In the last seven years, 40,587 natural science students, 25,118 social science students and 136,051 grade 10 students sat for the national examination. These figures are less than 10% of the school age students expected to sit for the national examination. Moreover, the figures indicate that approximately half of grade 10 students did not get a chance that allows them to reach grade 12 and take Ethiopian University Entrance examination (EUEE).

Regarding the student academic achievement irrespective of gender, 48.49%, 44.15% and 25.69% of natural science, social science and grade 10 students failed respectively. Approximately 50% of the students who took Ethiopian University Entrance examination (EUEE) in the last seven years failed to join higher education institutions.

The promotion rate is one of the factors that affect student academic achievement. Setting promotion rate is one of the most critical activities of National Educational Assessment and

Examination Agency (NEAEA). As we know a student academic achievement is normally distributed and by using empirical rule, we can estimate the percentage of students that must be within a specified number of standard deviations of the mean.

Using mean and standard deviation the agency can compute the z- score of the promotion rate that agency wants to set. Arithmetic mean indicates where the academic achievement of the majority of the student's lies and z-score helps them to determine how far a particular promotion rate is far from the mean.

The national examination agency set in 2008 and 2011 E.C. a promotion rate which is above the mean score of the students, whereas in 2005, 2006, 2007, 2009 and 2010 E.C. they set a promotion rate which is below the mean score of the students. This created an environment in which majority of the students were retained in 2008 and 2011 E.C. and most of the student passed in 2005, 2006, 2007, 2009 and 2010 E.C.

This is mostly due to the haphazard setting of promotion rate, because the examination agency sets a very high promotion rate which no students can attain it and then the next year the agency sets a promotion rate which everyone can achieve it. So the result is 100% of the students pass or 100% of the students fail based on how the promotion rate is set. So knowing or unknowingly, the national examination agency is responsible the painful crisis of student academic achievement of Somali Region

To determine whether the education system of the Somali region favors the promotion of male or female students of grade 10 and 12 students, I used conditional probability. For natural science students, the conditional probability indicates the probability that a student is promoted given that the student is male student is higher than the probability that a student is a female student. So, I can conclude that the education system of the region promotes more male natural science students than female students.

For social science students, the conditional probability reveals that the female social science students have slightly a higher a chance of promotion than the male students. So the education system of the region favors the promotion of female social science students than that of the male students. The conditional probability also indicates that both natural and social science students in the sample schools of agro-pastoralist areas had a higher chance of promotion than the

students in the sample schools of pastoralist areas. Therefore, I can conclude that the education system of the region gives more emphasis the education of the students in agro-pastoralist areas than pastoralist areas.

For grade 10 students, female students have more chance of promotion than the male students and the student from pastoralist areas has more promotion chance than the student from agro-pastoralist areas. So the education system of the Somali region favors to promote more grade 10 female students than male students and the students from pastoralist areas than agro-pastoralist areas.

The relationship between school leadership practices and student academic achievement was investigated using Pearson product-moment correlation coefficient. For grade 10 students, there was strong positive correlation between student academic achievement and framing school goals, communicating school goals, coordinating curriculum, providing incentives for teachers and providing incentive for learning. For grade 12, natural science students, there was strong positive correlation between student academic achievement and framing school goals, communicating school goals, supervising and evaluating instruction and protecting instructional time. For social science student, there was strong positive correlation between student academic achievement and framing school goals. This implies that the more school principal practice instructional leadership functions, the higher the student academic achievement of their schools.

The main purpose of Ethiopian school principal's standard is the Australian school leaders' objective and the central role of the Ethiopian principal is the England's head teachers' role. This clearly indicates, the school leaders' standard is not Ethiopian standard and it entered the ministry documents through illegal means (contraband). It contradicts the performance system, leadership paradigm and the policy of the education sector.

5.3. Recommendations

Based on the findings of the study, the following recommendations were made in order to improve school leadership policies, practices and student academic achievement:

1. The current Ethiopian educational leadership paradigm is input oriented and gives less emphasis to performance or student learning achievement (Davison et al., 2010).

Ethiopian Education Development Roadmap (2018) clearly states that most of our interventions focus on input with less attention to output. Therefore, our educational system gives more emphasis the concept of schooling and less attention to the concept of learning. So, I am suggesting a fundamental paradigm shift from input to output, from the concept of schooling to the concept of learning, to transform our educational leadership as a whole and school leadership in particular.

2. Overall, the engagement of the school principals with school leadership functions and dimensions is very low. To solve this problem, school principals should be aware and trained on generally accepted instructional leadership practices. School leaders should create and develop policies, practices, expectations, norms, and rewards that forces students to master basic skills, earn good grades, complete school successfully, and go on to higher education.
3. School leaders should ensure that the school has a clear mission and that the mission is focused on academic progress of its students in order to create a goal-oriented, academically-focused and learner-centered school. With the help of the staff and parents, school principal should set school goals by incorporating data on past and current student performance and clearly stating staff responsibilities for achieving the goals. Performance goals should be expressed in measurable terms
4. The school principal should communicate the school's academic goals to teachers, parents, and students by discussing and reviewing them with staff on a regular basis during the school year, especially in the context of instructional, curricular, and budgetary decisions. Both formal communication channels and informal ones should be used to communicate the school's primary purpose
5. School principal should ensure that school goals are translated into practice at the classroom level by coordinating the classroom objectives of teachers with those of the school and evaluating classroom instruction. School principal should also provide instructional support to teachers by monitoring classroom instruction through formal and informal classroom visits.
6. School principal should closely align curricular objective with both the content taught in classes and the achievement tests used by the school. School principal should provide teachers with test results in a timely and useful fashion, discuss test results with the staff

as a whole, with grade level staff and individual teachers, and provide interpretive analyses for teachers detailing the relevant test data in a concise form

7. In order to develop positive school learning climate, at school level, school principals must set policies that communicate high expectations; promote student academic achievement and grouping students based on the academic ability of the students and enforce school policies on student attendance, tardiness and interruptions of classroom instructional time. At classroom level, school principal must develop policies that contribute to academic press in the classroom: establishing an academically demanding climate, conducting an orderly well managed classroom, ensuring student academic success and providing opportunities for student responsibility and leadership.
8. Somali region education bureau should spend one third of its time discussing student academic achievement. The education bureau should make school principals and woreda education office heads promise achievement test scores for their schools and woredas one year before the national examinations are given.
9. Somali region education bureau should publish school performance reports through school league tables and make schools, woredas, zones and regional education bureau accountable for their performance.
10. There is a need for more systematic investigation of the relationship between gender, age, educational training, experience as a principal, administrative training and experience, years at current school site, level of experience as a teacher, and years of teaching experience of the school principal and school leadership practices.
11. For conducting school leadership studies, it better for future researchers to generate behavioral descriptions of what actually occurs in the secondary schools of Somali region by using inductive process, instead of using the functional descriptions of effective school processes that are already available in the literature of school leadership of western countries which may differ from the developing countries such as Ethiopia.

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Instruments: English Version

Addis Ababa University

School of Graduate Studies

College of Education and Behavioral Studies

Department of Educational Planning and Management

Questionnaire for the Teachers, Principals and Supervisors

I am asking your help with my dissertation research. I am conducting a study to examine school leadership policies and practices and how they influence student academic achievement in the Somali Region. I will use the information from the study to assess the practices of school leaders and how they influence student performance. The data collected will remain confidential and will only be used for research purposes. All your responses will be treated in strictest confidence and reported in a way that does not identify individual respondents.

Thank you very much with your help.

Abdi A. Garad
E-mail: cabdigarad2010@hotmail
Mobile: +251-915-741414

THE PRINCIPAL INSTRUCTIONAL MANAGEMENT RATING SCALE

Teacher Form

PART I: Please provide the following information about yourself:

A. School Name: _____

B. Which school level you Teach: 9-10 ☐ Natural ☐ Social ☐

C. Years, at the end of this school year, that you have worked with the current Director:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

D. Years' experience as a teacher at the end of this school year:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

E. Your gender: Male ___ Female_____

F. Your Age: _____

G. Your Qualification: _____

H. Gender of your principal: Male ___ Female_____

PART II: This questionnaire is designed to provide a profile of principal leadership. It consists of 50 behavioral statements that describe principal job practices and behaviors. You are kindly requested to consider each question in terms of your observations of the principal's leadership over the past school year.

Read each statement carefully. Then **circle the number** that best fits the specific job behavior or practice of this principal during the past school year. For the response to each statement:

5 represents ***Almost Always***

4 represents ***Frequently***

3 represents ***Sometimes***

2 represents ***Seldom***

1 represents ***Almost Never***

In some cases, these responses may seem awkward; use your judgment in selecting the most appropriate response to such questions. Please circle only one number per question. Try to answer every question.

Thank you.

To what extent does your school director . . . ?

S.N	I. FRAME THE SCHOOL GOALS	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Develop a focused set of annual school-wide goals	1	2	3	4	5
2	Frame the school's goals in terms of staff responsibilities for meeting them	1	2	3	4	5
3	Use needs assessment or other formal and informal methods to secure staff input on goal development	1	2	3	4	5
4	Use data on student performance when developing the school's academic goals	1	2	3	4	5
5	Develop goals that are easily understood and used by teachers in the school	1	2	3	4	5

	II. COMMUNICATE THE SCHOOL GOALS	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Communicate the school's mission effectively to members of the school community	1	2	3	4	5
2	Discuss the school's academic goals with teachers at faculty meetings	1	2	3	4	5
3	Refer to the school's academic goals when making curricular decisions with teachers	1	2	3	4	5
4	Ensure that the school's academic goals are reflected in highly visible displays in the school (e.g., posters or bulletin boards emphasizing academic progress)	1	2	3	4	5
5	Refer to the school's goals or mission in forums with students (e.g., in assemblies or discussions)	1	2	3	4	5

	III. SUPERVISE & EVALUATE INSTRUCTION	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Ensure that the classroom priorities of teachers are consistent with the goals and direction of the school	1	2	3	4	5
2	Review student work products when evaluating classroom instruction	1	2	3	4	5
3	Conduct informal observations in classrooms on a regular basis (informal observations are unscheduled, last at least 5 minutes, and may or may not involve written feedback or a formal conference)	1	2	3	4	5
4	Point out specific strengths in teacher's instructional practices in post-observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5
5	Point out specific weaknesses in teacher instructional practices in post-observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5

	IV. COORDINATE THE CURRICULUM	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders)	1	2	3	4	5
2	Draw upon the results of school-wide testing when making curricular decisions	1	2	3	4	5
3	Monitor the classroom curriculum to see that it covers the school's curricular objectives	1	2	3	4	5
4	Assess the overlap between the school's curricular objectives and the school's achievement tests	1	2	3	4	5
5	Participate actively in the review of curricular materials	1	2	3	4	5

	V. MONITOR STUDENT PROGRESS	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Meet individually with teachers to discuss student progress	1	2	3	4	5
2	Discuss academic performance results with the faculty to identify curricular strengths and weaknesses	1	2	3	4	5
3	Use tests and other performance measure to assess progress toward school goals	1	2	3	4	5
4	Inform teachers of the school's performance results in written form (e.g., in a memo or newsletter)	1	2	3	4	5
5	Inform students of school's academic progress	1	2	3	4	5

	VI. PROTECT INSTRUCTIONAL TIME	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Limit interruptions of instructional time by public address announcements	1	2	3	4	5
2	Ensure that students are not called to the office during instructional time	1	2	3	4	5
3	Ensure that tardy and truant students suffer specific consequences for missing instructional time	1	2	3	4	5
4	Encourage teachers to use instructional time for teaching and practicing new skills and concepts	1	2	3	4	5
5	Limit the intrusion of extra- and co-curricular activities on instructional time	1	2	3	4	5

	VII. MAINTAIN HIGH VISIBILITY	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Take time to talk informally with students and teachers during recess and breaks	1	2	3	4	5
2	Visit classrooms to discuss school issues with teachers and students	1	2	3	4	5
3	Attend/participate in extra- and co-curricular activities	1	2	3	4	5
4	Cover classes for teachers until a late or substitute teacher arrives	1	2	3	4	5
5	Tutor students or provide direct instruction to classes	1	2	3	4	5

	VIII. PROVIDE INCENTIVES FOR TEACHERS	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Reinforce superior performance by teachers in staff meetings, newsletters, and/or memos	1	2	3	4	5
2	Compliment teachers privately for their efforts or performance	1	2	3	4	5
3	Acknowledge teachers' exceptional performance by writing memos for their personnel files	1	2	3	4	5
4	Reward special efforts by teachers with opportunities for professional recognition	1	2	3	4	5
5	Create professional growth opportunities for teachers as a reward for special contributions to the school	1	2	3	4	5

	IX. PROMOTE PROFESSIONAL DEVELOPMENT	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Ensure that in-service activities attended by staff are consistent with the school's goals	1	2	3	4	5
2	Actively support the use in the classroom of skills acquired during in-service training	1	2	3	4	5
3	Obtain the participation of the whole staff in important in-service activities	1	2	3	4	5
4	Lead or attend teacher in-service activities concerned with instruction	1	2	3	4	5
5	Set aside time at faculty meetings for teachers to share ideas or information from in-service activities	1	2	3	4	5

	X. PROVIDE INCENTIVES FOR LEARNING	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Recognize students who do superior work with formal rewards such as an honor roll or mention in the principal's newsletter	1	2	3	4	5
2	Use assemblies to honor students for academic accomplishments or for behavior or citizenship	1	2	3	4	5
3	Recognize superior student achievement or improvement by seeing in the office the students with their work	1	2	3	4	5
4	Contact parents to communicate improved or exemplary student performance or contributions	1	2	3	4	5
5	Support teachers actively in their recognition and/or reward of student contributions to and accomplishments in class	1	2	3	4	5

THE PRINCIPAL INSTRUCTIONAL MANAGEMENT RATING SCALE

Principal Form

PART I: Please provide the following information:

A. District Name: _____

B. School Name: _____

C. School Size: _____

D. Qualification of the school Principal: _____

E. Years of experience that you have worked as a teacher:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

F. Number of school years you have been Deputy principal:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

G. Number of school years you have been principal at this school:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

H. Years, at the end of this school year, that you have been a principal:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

I. Your gender: ___ Male ___ Female

J. Your Age: _____

PART II: This questionnaire is designed to provide a profile of principal leadership. It consists of 50 behavioral statements that describe principal job practices and behaviors. You are kindly requested to consider each question in terms of your observations of the principal's leadership over the past school year.

Read each statement carefully. Then circle the number that best fits the specific job behavior or practice of this principal during the past school year. For the response to each statement:

5 represents ***Almost Always***

4 represents ***Frequently***

3 represents ***Sometimes***

2 represents ***Seldom***

1 represents ***Almost Never***

In some cases, these responses may seem awkward; use your judgment in selecting the most appropriate response to such questions. Please circle only one number per question. Try to answer every question.

Thank you. **To what extent you . . .?**

S.N	I. FRAME THE SCHOOL GOALS	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Develop a focused set of annual school-wide goals	1	2	3	4	5
2	Frame the school's goals in terms of staff responsibilities for meeting them	1	2	3	4	5
3	Use needs assessment or other formal and informal methods to secure staff input on goal development	1	2	3	4	5
4	Use data on student performance when developing the school's academic goals	1	2	3	4	5
5	Develop goals that are easily understood and used by teachers in the school	1	2	3	4	5
	II. COMMUNICATE THE SCHOOL GOALS					
1	Communicate the school's mission effectively to members of the school community	1	2	3	4	5
2	Discuss the school's academic goals with teachers at faculty meetings	1	2	3	4	5
3	Refer to the school's academic goals when making curricular decisions with teachers	1	2	3	4	5
4	Ensure that the school's academic goals are reflected in highly visible displays in the school (e.g., posters or bulletin boards emphasizing academic progress)	1	2	3	4	5
5	Refer to the school's goals or mission in forums with students (e.g., in assemblies or discussions)	1	2	3	4	5

	III. SUPERVISE & EVALUATE INSTRUCTION	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Ensure that the classroom priorities of teachers are consistent with the goals and direction of the school	1	2	3	4	5
2	Review student work products when evaluating classroom instruction	1	2	3	4	5
3	Conduct informal observations in classrooms on a regular basis (informal observations are unscheduled, last at least 5 minutes, and may or may not involve written feedback or a formal conference)	1	2	3	4	5
4	Point out specific strengths in teacher's instructional practices in post-observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5
5	Point out specific weaknesses in teacher instructional practices in post-observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5

	IV. COORDINATE THE CURRICULUM	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders)	1	2	3	4	5
2	Draw upon the results of school-wide testing when making curricular decisions	1	2	3	4	5
3	Monitor the classroom curriculum to see that it covers the school's curricular objectives	1	2	3	4	5
4	Assess the overlap between the school's curricular objectives and the school's achievement tests	1	2	3	4	5
5	Participate actively in the review of curricular materials	1	2	3	4	5

	V. MONITOR STUDENT PROGRESS	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Meet individually with teachers to discuss student progress	1	2	3	4	5
2	Discuss academic performance results with the faculty to identify curricular strengths and weaknesses	1	2	3	4	5
3	Use tests and other performance measure to assess progress toward school goals	1	2	3	4	5
4	Inform teachers of the school's performance results in written form (e.g., in a memo or newsletter)	1	2	3	4	5
5	Inform students of school's academic progress	1	2	3	4	5

	VI. PROTECT INSTRUCTIONAL TIME	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Limit interruptions of instructional time by public address announcements	1	2	3	4	5
2	Ensure that students are not called to the office during instructional time	1	2	3	4	5
3	Ensure that tardy and truant students suffer specific consequences for missing instructional time	1	2	3	4	5
4	Encourage teachers to use instructional time for teaching and practicing new skills and concepts	1	2	3	4	5
5	Limit the intrusion of extra- and co-curricular activities on instructional time	1	2	3	4	5

	VII. MAINTAIN HIGH VISIBILITY	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Take time to talk informally with students and teachers during recess and breaks	1	2	3	4	5
2	Visit classrooms to discuss school issues with teachers and students	1	2	3	4	5
3	Attend/participate in extra- and co-curricular activities	1	2	3	4	5
4	Cover classes for teachers until a late or substitute teacher arrives	1	2	3	4	5
5	Tutor students or provide direct instruction to classes	1	2	3	4	5

	VIII. PROVIDE INCENTIVES FOR TEACHERS	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Reinforce superior performance by teachers in staff meetings, newsletters, and/or memos	1	2	3	4	5
2	Compliment teachers privately for their efforts or performance	1	2	3	4	5
3	Acknowledge teachers' exceptional performance by writing memos for their personnel files	1	2	3	4	5
4	Reward special efforts by teachers with opportunities for professional recognition	1	2	3	4	5
5	Create professional growth opportunities for teachers as a reward for special contributions to the school	1	2	3	4	5

	IX. PROMOTE PROFESSIONAL DEVELOPMENT	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Ensure that inservice activities attended by staff are consistent with the school's goals	1	2	3	4	5
2	Actively support the use in the classroom of skills acquired during inservice training	1	2	3	4	5
3	Obtain the participation of the whole staff in important inservice activities	1	2	3	4	5
4	Lead or attend teacher inservice activities concerned with instruction	1	2	3	4	5
5	Set aside time at faculty meetings for teachers to share ideas or information from inservice activities	1	2	3	4	5

	X. PROVIDE INCENTIVES FOR LEARNING	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Recognize students who do superior work with formal rewards such as an honor roll or mention in the principal's newsletter	1	2	3	4	5
2	Use assemblies to honor students for academic accomplishments or for behavior or citizenship	1	2	3	4	5
3	Recognize superior student achievement or improvement by seeing in the office the students with their work	1	2	3	4	5
4	Contact parents to communicate improved or exemplary student performance or contributions	1	2	3	4	5
5	Support teachers actively in their recognition and/or reward of student contributions to and accomplishments in class	1	2	3	4	5

THE PRINCIPAL INSTRUCTIONAL MANAGEMENT RATING SCALE

Supervisor Form

PART I: Please provide the following information:

A. District Name: _____

B. Your Position in the District: _____

C. School Name: _____

D. Number of school years the principal has been principal at this school:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

E. Years, at the end of this school year, that you have worked with the current principal:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

F. Years' experience as a Supervisor at the end of this school year:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

G. Number of visits greater than 20 minutes in length to the principal's school this year:

_____1 _____5-9 _____ more than 15

_____2-4 _____10-15

H. Your gender: ___ Male ___ Female

I. Your Age: _____

J. Your Qualification: _____

K. Gender of your principal: ___ Male ___ Female

PART II: This questionnaire is designed to provide a profile of principal leadership. It consists of 50 behavioral statements that describe principal job practices and behaviors. You are kindly requested to consider each question in terms of your observations of the principal's leadership over the past school year.

Read each statement carefully. Then circle the number that best fits the specific job behavior or practice of this principal during the past school year. For the response to each statement:

5 represents ***Almost Always***

4 represents ***Frequently***

3 represents ***Sometimes***

2 represents ***Seldom***

1 represents ***Almost Never***

In some cases, these responses may seem awkward; use your judgment in selecting the most appropriate response to such questions. Please circle only one number per question. Try to answer every question.

Thank you. **To what extent does the principal . . .?**

S.N	**I. FRAME THE SCHOOL GOALS**	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Develop a focused set of annual school-wide goals	1	2	3	4	5
2	Frame the school's goals in terms of staff responsibilities for meeting them	1	2	3	4	5
3	Use needs assessment or other formal and informal methods to secure staff input on goal development	1	2	3	4	5
4	Use data on student performance when developing the school's academic goals	1	2	3	4	5
5	Develop goals that are easily understood and used by teachers in the school	1	2	3	4	5
	II. COMMUNICATE THE SCHOOL GOALS	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Communicate the school's mission effectively to members of the school community	1	2	3	4	5
2	Discuss the school's academic goals with teachers at faculty meetings	1	2	3	4	5
3	Refer to the school's academic goals when making curricular decisions with teachers	1	2	3	4	5
4	Ensure that the school's academic goals are reflected in highly visible displays in the school (e.g., posters or bulletin boards emphasizing academic progress)	1	2	3	4	5
5	Refer to the school's goals or mission in forums with students (e.g., in assemblies or discussions)	1	2	3	4	5

	III. SUPERVISE & EVALUATE INSTRUCTION	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Ensure that the classroom priorities of teachers are consistent with the goals and direction of the school	1	2	3	4	5
2	Review student work products when evaluating classroom instruction	1	2	3	4	5
3	Conduct informal observations in classrooms on a regular basis (informal observations are unscheduled, last at least 5 minutes, and may or may not involve written feedback or a formal conference)	1	2	3	4	5
4	Point out specific strengths in teacher's instructional practices in post-observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5
5	Point out specific weaknesses in teacher instructional practices in post-observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5

	IV. COORDINATE THE CURRICULUM	**Almost Never**	**Seldom**	**Sometimes**	**Frequently**	***Almost Always***
1	Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders)	1	2	3	4	5
2	Draw upon the results of school-wide testing when making curricular decisions	1	2	3	4	5
3	Monitor the classroom curriculum to see that it covers the school's curricular objectives	1	2	3	4	5
4	Assess the overlap between the school's curricular objectives and the school's achievement tests	1	2	3	4	5
5	Participate actively in the review of curricular materials	1	2	3	4	5

	V. MONITOR STUDENT PROGRESS	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Meet individually with teachers to discuss student progress	1	2	3	4	5
2	Discuss academic performance results with the faculty to identify curricular strengths and weaknesses	1	2	3	4	5
3	Use tests and other performance measure to assess progress toward school goals	1	2	3	4	5
4	Inform teachers of the school's performance results in written form (e.g., in a memo or newsletter)	1	2	3	4	5
5	Inform students of school's academic progress	1	2	3	4	5

	VI. PROTECT INSTRUCTIONAL TIME	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Limit interruptions of instructional time by public address announcements	1	2	3	4	5
2	Ensure that students are not called to the office during instructional time	1	2	3	4	5
3	Ensure that tardy and truant students suffer specific consequences for missing instructional time	1	2	3	4	5
4	Encourage teachers to use instructional time for teaching and practicing new skills and concepts	1	2	3	4	5
5	Limit the intrusion of extra- and co-curricular activities on instructional time	1	2	3	4	5

	VII. MAINTAIN HIGH VISIBILITY	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Take time to talk informally with students and teachers during recess and breaks	1	2	3	4	5
2	Visit classrooms to discuss school issues with teachers and students	1	2	3	4	5
3	Attend/participate in extra- and co-curricular activities	1	2	3	4	5
4	Cover classes for teachers until a late or substitute teacher arrives	1	2	3	4	5
5	Tutor students or provide direct instruction to classes	1	2	3	4	5

	VIII. PROVIDE INCENTIVES FOR TEACHERS	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Reinforce superior performance by teachers in staff meetings, newsletters, and/or memos	1	2	3	4	5
2	Compliment teachers privately for their efforts or performance	1	2	3	4	5
3	Acknowledge teachers' exceptional performance by writing memos for their personnel files	1	2	3	4	5
4	Reward special efforts by teachers with opportunities for professional recognition	1	2	3	4	5
5	Create professional growth opportunities for teachers as a reward for special contributions to the school	1	2	3	4	5

	IX. PROMOTE PROFESSIONAL DEVELOPMENT	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Ensure that in-service activities attended by staff are consistent with the school's goals	1	2	3	4	5
2	Actively support the use in the classroom of skills acquired during in-service training	1	2	3	4	5
3	Obtain the participation of the whole staff in important in-service activities	1	2	3	4	5
4	Lead or attend teacher in-service activities concerned with instruction	1	2	3	4	5
5	Set aside time at faculty meetings for teachers to share ideas or information from in-service activities	1	2	3	4	5

	X. PROVIDE INCENTIVES FOR LEARNING	Almost Never	Seldom	Sometimes	Frequently	*Almost Always*
1	Recognize students who do superior work with formal rewards such as an honor roll or mention in the principal's newsletter	1	2	3	4	5
2	Use assemblies to honor students for academic accomplishments or for behavior or citizenship	1	2	3	4	5
3	Recognize superior student achievement or improvement by seeing in the office the students with their work	1	2	3	4	5
3	Contact parents to communicate improved or exemplary student performance or contributions	1	2	3	4	5
5	Support teachers actively in their recognition and/or reward of student contributions to and accomplishments in class	1	2	3	4	5

Addis Ababa University

School of Graduate Studies

College of Education and Behavioral Studies

Department of Educational Planning and Management

Interview Guide for school principals and educational Experts

Interview Protocol: School Leadership in the Somali Region: Policies, Practices and Student Achievement.

Time of the Interview: _____

Date: _____

Place: _____

Interviewer: _____

Interviewee: _____

Position of Interviewee: _____

The purpose of this study is to examine the policies and practices of school leadership within the context of Somali region and how they influence student academic achievement.

Questions

Name of the school: _____

PART I: Introduction

- How long have you been a school principal at your current school?
- Have you held any senior positions in the school or other school, before you become the school principals? If so, which positions have you held?
- Thinking about your current position, how you were appointed?
- What is your biggest achievement during your tenure in this school?

Part II: Setting Directions

- What is the vision or the goals of your school?
- What is the content of the goals? (what does this mean?)
- What is the process of developing the goals of the school?
- Do you think that there is a common understanding among teachers, students and parents about the goals of the school?
- What is your expectation regarding the performance of students and teachers toward the goals of the school?
- Are there target dates for the goals to be achieved?

Part III: Developing People

- What kind of support is given to teachers in order to achieve the objective of the school?
  e.g., Recognize and reward teacher accomplishments
  Treat teachers and departments equitably
- Is there a practice of professional development for the teachers in the school? If so, please describe this practice.
- Do you discuss with the teachers to re-examine the extent to which their practices contribute to the learning and well-being of all of their students? (this question is unclear as written)
- Do you encourage teachers to try new practices consistent with their own interests?
- Do you visit the classroom in a formal and informal manner? If so, how often?

Part IV: Redesigning the Organization

- What kind of relationship exists between teachers, students and parents in the school?
- Do the Woreda Education Office and parents participate in the process of establishing goals for the school?
- Is there clarity about the goals and roles of the teachers?
- Do the teachers participate in making decisions that affect their instructional work?
- Do you create connections with the experts of school management and leadership?
- How do you allocate the resources that support the school's vision and goals?

Part V: Managing the Instructional (Teaching and Learning) Programme

- the teachers of the school committed to the ongoing improvement process of the school?
- Does the management of the school analyze the progress of the school?
- Do teachers meet in order to analyze, interpret and act on student test result?
- Is there a culture of using data for almost all decisions?

Part VI: Conclusion

- What are the factors that motivate you most as a school principal?
- What are the factors that demotivate you?
- Do you ever think about leaving your position during the next three years?

Instruments: Somali Language Version

Habka Darajo siinta Hawlaha Maareynta Waxbarashada ee Maamulaha (Foomka Baraha)

Qaybta I. Fadlan Bixi xogta hoos ku qoran ee adiga kugu saabsan:

A. Magaca dugsiga _____

B. Heerka Dugsiga: Primary ☐ 9-10 ☐ Natural ☐ Social ☐

C. Sanooyinka, dhamaadka sanad dugsiyeedkan ee aad la shaqaynaysay maamulaha dugsigan:

_____1 _____5-9 _____ In ka badan 15

_____2-4 _____10-15

D. Inta sanadood ee aad bare ahayd dhamaadka sanad dugsiyeedkan.

_____1 _____5-9 _____ In ka badan 15

_____2-4 _____10-15

E. Jinsigaaga: _____lab; _____dhedig

F. Da'daada: _____

G. Heerka Aqoontaada: _____

H. Jinsiga Maamulahaaga: _____lab; _____dhedig

Qaybta II. Su'aalahan waxaa loogu talo galay inay bixiyaan faahfaahin ku saabsan hawlaha hogaamineed ee maamulaha. Waxay ka kooban yihiin 50 su'aalood oo qoraal ah, oo qeexaya hawlaha iyo dabeecadaha shaqo ee maamulaha. Waxaa lagaa codsanayaa in su'aal kasta aad u eegto qaabkii uu maamuluhu u maamulay hawlaha waxbarshada dugsiga ee sanad dugsiyeedkii tagay (ina dhaafay)

Si taxadar leh u akhri weedhaha. **Dabadeedna goobo geli**, mida ugu saxsan ee ku haboon dabeecadaha shaqo ee gaarka ah ee maamulaha dugiga iyo sidii uu wax u maamulay sannad dugsiyeedkii hore.

5. Waxay u taagan tahay: ***Markasta***
4. Waxay u taagan tahay: ***Marar badan***
3. Waxay u taagan tahay: ***Marmar***
2. Waxay u taagan tahay: ***dhif***
1. Waxay u taagan tahay: ***Marnaba***

Mararka qaar waxaa laga yaabaa in ay jawaabtu u muuqato mid aan habboonayn, isticmaal aragtidaada marka aad xulanaysid jawaabta ugu haboon ee su'aalahan. Fadlan mid kaliya sax su'aashiiba. Iskuna day in aad ka jawaabtid su'aal kasta.

In intee in le'eg ayuu maamulahaaga sameeyaa . . .?

S.N	I. Jaangoynta Yoolka Dugsiga	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Diyaarinta koox yoolal ah oo ku wajahan dugsiga dhamaantii	1	2	3	4	5
2	Jaangoynta yoolasha dugsiga ayadoo lagu salaynayo masuuliyada barayaasha si ay ugu guuleystaan	1	2	3	4	5
3	Isticmaalida habka qiimeynta baahida, ama hababka tooska ah iyo ku dadban, si loo helo gashiga barayaasha marka la diyaarinayo yoolka dugsiga.	1	2	3	4	5
4	Isticmaalida xogta natiijada ardeyda marka la diyaarinayo yoolasha waxbarista dugsiga.	1	2	3	4	5
5	Diyaarinta yoolasha dugsiga kuwaas oo si fudud loo fahmi karo, isla markaana ay isticmaali karaan barayaasha dugsiga.	1	2	3	4	5

	II. Wargalinta barayaasha yoolka dugsiga	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Wargalinta si sax ah hubnaha bulshada, himilooyinka dugsiga.	1	2	3	4	5
2	Kala doodista barayaasha yoolasha waxbarista dugsiga marka lagu gudu jiro shirarka loo qabanayo barayaasha.	1	2	3	4	5
3	Tixraaca yoolasha waxbarista dugsiga marka lala qaadanayo barayaasha go'aanada ku saabsan waxyaabaha la xirira manhajka.	1	2	3	4	5
4	Xaqiijinta in yoolka waxbarista dugsiga uu si aad ah uga dhex muuqdo boodhasha dugsiga (tusaale, warsidaha dugsiga oo xooga saara koboca natiijada ardeyda)	1	2	3	4	5
5	Ku halqabsiga yoolasha ama himilooyonka dugsiga marka lala shirayo ardeyda (sida., golayaasha la iskugu yimaado ama lagu doodo)	1	2	3	4	5

	III. Kormeerida iyo Qiimeynta Waxbarista	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xaqiijinta in waxyaabaha ay barayaashu ahmiyada siinayaan fasaladooda dhexdooda in ay tahay mid la jaanqaadayso yoolka iyo jahada dugsiga	1	2	3	4	5
2	Dib u eegista maxsuulka shaqada ardeyga marka la qiimeynayo casharada fasalka dhexdiisa.	1	2	3	4	5
3	Samaynta indha indhaynta dadban ee fasalka dhexdiisa ah oo si joogta ah loo sameeyo (indha indhaynta dadban waa mid aan qorshaysanayn, waxay qaadataa ugu yaraan 5 daqiiqadood, oo leh ama aan lahayn talo bixin qoraal ah ama shir rasmi ah)	1	2	3	4	5
4	Tilmaan meealaha sida gaarka ha ugu fiican yihiin, hawlaha waxbarista barayaasha marka lagu gudo jiro talo bixinta ka danbayso indha indhaynta (tusaale., shirarka ama qiimeynta qoraalka ah)	1	2	3	4	5
5	Tilmaamista meelaha sida gaarka ha ugu liitaan, hawlaha waxbarista barayaasha marka lagu gudo jiro talo bixinta ka danbayso indha indhaynta (tusaale., shirarka ama qiimeynta qoraalka ah)	1	2	3	4	5

	IV. Isku Dubbaridka Manhajka	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Cadeynta cida leh masuuliyada isku dubbaridka manhajka dhamaan fasalada (tusaale., maamulaha, maamule ku xigeenka ama madaxa barayaasha)	1	2	3	4	5
2	Soo xigashada natiijada imtixaanka guud ee dugsiga marka la samaynayo go, aanada ku wajahan manhajka.	1	2	3	4	5
3	Duljoogista waxa lagu dhigayo fasalka guduhiisa, si loo ogaado in la dhamaystirayo ujeedooyinka manhajka dugsiga	1	2	3	4	5
4	Qiimeynta isku haboonaanta ka dhaxeysa ujeedooyinka manhajka iyo imtixaanaadka dugsiga	1	2	3	4	5
5	Si firfircoon uga qayb qaadashada dib u eegista qalabka manhajka	1	2	3	4	5

	V. Dabagalka koboca Natiijada Ardeyda	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	La kulanka barayaasha si shaqsi ah oo lagala doodayo barayaasha koboca natiijada ardeyda	1	2	3	4	5
2	Kala doodista barayaasha arrimaha natiijada ardeyda si loo garto meelaha uu ku fiican yahay iyo kuwa uu ku liito manhajku	1	2	3	4	5
3	Isticmaalista imtixaanada iyo waxyaabaha kale ee lagu cabiro waxqabadka, si loo qiimeeyo inta lagu guuleystay yoolasha dugsiga	1	2	3	4	5
4	La socodsiinta barayaasha natiijada waxqabadka dugsiga si qoraal ah	1	2	3	4	5
5	La socodsiinta ardeyda koboca natiijada ardeyda dugsiga	1	2	3	4	5

	VI. Ilaalinta Wakhtiga Waxbarista	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xadidaa kalagoynta wakhtiga waxbarista ee ay kala goynayaan ogeysiisyada	1	2	3	4	5
2	Xaqiijiyaa in aan ardeyga looga yeerin xafiiska, inta lagu gudo jiro wakhtiga waxbarista	1	2	3	4	5
3	Xaqiijiyaa in ardeyda soo daahda iyo kuwa googayska ah ay la kulmaan ciqaab gaar ah, madaama ay lumiyeen wakhtiga waxbarista	1	2	3	4	5
4	Ku dhiiri gelinta barayaasha in ay u isticmaalaan wakhtiga waxbarista in ay baraan fikrado iyo xirfado cusub ardeyda	1	2	3	4	5
5	Xadidaa dhexgalinta hawlaha manhajka ka baxsan oo la soo dhexgaliyo wakhtiga waxbarista	1	2	3	4	5

	VII. Joogtaynta in uu Maamuluhu aad oga Dhex Muuqdo Dugsiga	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Uqoondeynta wakhti, si aan rasmi ahayn loogula hadlo ardeyda iyo barayaasha xilliyada fasaxa ama nasahada lagu jiro.	1	2	3	4	5
2	Booqashada fasalada si loogala hadlo ardeyda iyo barayaasha arimaha dugsiga	1	2	3	4	5
3	Ka qaybgalka hawlaha kale ee dheeriga ah ee la xiriira waxbarista	1	2	3	4	5
4	Daboolista ama sii dhigista casharada barayaasha maqan ilaa inta ay ka imaanayaan ama kuwo cusub lagu soo badalayo.	1	2	3	4	5
5	Siinta ardeyda casharo dheeraad ah ama si toos ah ugu dhigista casharada ee fasalada	1	2	3	4	5

	VIII. Siinta Barayaasha Waxyaabo dhiiri Galiya	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xoojinta ama Dhiiri gelinta shirarka dhexdooda, barayaasha muujiyay waxqabadka aadka u sareeya,	1	2	3	4	5
2	U hanbalyaynta barayaasha dhanka waxqabadkooda iyo dadaalkooda si gooni ah	1	2	3	4	5
3	Ku bogaadinta barayaasha waxqabadkooda aadka u sareeya ayadoo loo qorayo warqado faylashooda loo galiyo	1	2	3	4	5
4	Abaalmarinta dadaalada gaarka ah ee barayaasha oo ay ku helayaan fursado tixgelin xirfadeed	1	2	3	4	5
5	U abuurista barayaasha fursado koboc xirfadeedka oo lagaga abaalmarinayo waxyaabaha gaarka ah ee ay ku soo kordhiyeen dugsiga	1	2	3	4	5

	IX. Kobcinta Horumarinta Xirfada Barayaasha	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xaqiijinta in hawlaha tababarda shaqada dhexdeeda ee ay barayaashu ka qaybgalaan ay la jaanqaadeyso yoolasha dugsiga	1	2	3	4	5
2	Si fir fircoon u taageerista in xirfadihii lagu soo bartay tababarda shaqada dhexdeeda, lagu isticmaalo fasalada dhexdooda	1	2	3	4	5
3	Helista ka qaybgalka dhamaan shaqaalaha ay ka qaybgalaan tababarada muhiimka ah ee shaqada dhexdeeda	1	2	3	4	5
4	Hogaaminta ama ka qaybgalka hawlaha tababarada barayaasha ee shaqada dhexdeeda kaas oo khuseeya waxbarista	1	2	3	4	5
5	U qoondaynta wakhti ay barayaasha isku waydaarsan karaan fikradaha iyo xogta ku saabsan tababarada shaqada dhexdooda, marka lagu gudo jiri shirarka barayaasha	1	2	3	4	5

	X. Diyaarinta Waxyaabo Dhiiri Gelinta Waxbarashada looga Talagalay	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Tixgalinta ardeyda qabatay shaqo aad u saraysa ayadoo la siinayo abaalmarino rasmi ah sida ku darista liiska la sharfo ama lagu dhajiyo boorka xafiiska maamulaha	1	2	3	4	5
2	U isticmaalida fagaarayaasha in lagu sharfo ardeyda guulaha ka soo hoysay waxbarshadooda	1	2	3	4	5
3	Qadarinta natiijada aadka u sareysa ee ardeyda, ayadoo ardeyda oo wada waxyaabo muujinaya waxqabadkoodii loogu yeerayo xafiiska maamulaha	1	2	3	4	5
4	La xiriirida waalidka ardeyga si loogu sheego waxqabadka iyo waxyaabaha uu soo kordhiyay ardeyga tusaalaha noqon kara	1	2	3	4	5
5	Utaageerista barayaasha si firfircoon marka ay abaalmarinayaan guulaha iyo waxyaabaha ay ardeydu ku soo kordhiyeed fasaladooda	1	2	3	4	5

Habka Darajo siinta Hawlaha Maareynta Waxbarashada ee Maamulaha (Foomka Maamulaha)

Qaybta I. Fadlan Buuxi xogta hoos ku qoran:

A. Magaca Degmada: _____

B. Magaca dugsiga _____

C. Tirada ardeyda Dugsiga: _____

D. Heerka Aqoonta Maamulaha: _____

E. Inta sanadood ee aad bare ahayd:

_____1 _____5-9 _____ In ka badan 15

_____2-4 _____10-15

F. Inta sanadood ee aad maamule ku xigeen ahayd:

_____1 _____5-9 _____ In ka badan 15

_____2-4 _____10-15

G. Inta sanadood ee aad maamule ahayd:

_____1 _____5-9 _____ In ka badan 15

_____2-4 _____10-15

H. Inta sanadood ee aad maamule ka ahayd Dugsigan:

_____1 _____5-9 _____ In ka badan 15

_____2-4 _____10-15

I. Jinsigaaga: _____lab; _____dhedig

J. Da'daada: _____

Qaybta II. Su'aalahan waxaa loogu tallo galay inay bixiyaan faahfaahin ku saabsabsan hawlaha hogaamineed ee maamulaha. Wuxuu ka kooban yahay 50 su'aalood oo qoraal ah, oo qeexaya hawlaha iyo dabeecadaha shaqo ee maamulaha. Waxaa lagaa codsanayaa in su'aal kasta aad u eegto qaabkii aad u maamushay hawlaha waxbarshada dugsiga ee sanad dugsiyeedkii tagay (ina dhaafay)

Si taxadar leh u akhri weedhaha. **Dabadeedna goobo geli**, mida ugu saxsan ee ku haboon dabeecadaha shaqo ee gaarka ah ee maamulaha dugsiga iyo sidii aad wax u maamushay sanad dugsiyeedkii hore. Marka aad ka jawaabaysid su'aal kasta:

5. Waxay u taagan tahay: ***Markasta***
4. Waxay u taagan tahay: ***Marar badan***
3. Waxay u taagan tahay: ***Marmar***
2. Waxay u taagan tahay: ***dhif***
1. Waxay u taagan tahay: ***Marnaba***

Mararka qaar waxaa laga yaabaa in ay jawaabtu u muuqato mid aan haboonayn, isticmaal aragtidaada marka aad xulanaysid jawaabta ugu haboon ee su'aalahan. Fadlan mid kaliya goobo geli su'aashiiba. Iskuna day in aad ka jawaabtid su'aal kasta.

Mahadsanid

In intee le'eg ayaad . . .?

S.N	I. Jaangoynta Yoolka Dugsiga	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Diyaarisaa koox yoolal ah oo ku wajahan dugsiga dhamaantii	1	2	3	4	5
2	Jaangoysaa yoolasha dugsiga ayadoo lagu salaynayo masuuliyada barayaasha si ay ugu guuleystaan	1	2	3	4	5
3	Isticmaashaa habka qiimeynta baahida, ama hababka tooska ah iyo ku dadban, si loo helo gashiga barayaasha marka la diyaarinayo yoolka dugsiga.	1	2	3	4	5
4	Isticmaashaa xogta natiijada ardeyda marka la diyaarinayo yoolasha waxbarista dugsiga.	1	2	3	4	5
5	Diyaarisaa yoolasha dugsiga kuwaas oo si fudud loo fahmi karo, isla markaana ay isticmaali karaan barayaasha dugsiga.	1	2	3	4	5

	II. Wargalinta barayaasha yoolka dugsiga	**Marnaba**	**Dhif**	**Marmar**	**Marar badan**	**Markasta**
1	Ku wargalisaa si sax ah hubnaha bulshada, himilooyinka dugsiga.	1	2	3	4	5
2	Kala doodaa barayaasha yoolasha waxbarista dugsiga marka lagu gudu jiro shirarka loo qabanayo barayaasha.	1	2	3	4	5
3	Tixraacdaa yoolasha waxbarista dugsiga marka lala qaadanayo barayaasha go'aanada ku saabsan waxyaabaha la xirira manhajka.	1	2	3	4	5
4	Xaqiijisaa in yoolka waxbarista dugsiga uu si aad ah oga dhex muuqdo boorasha dugsiga (tusaale, warsidaha dugsiga oo xooga saara koboca natiijada ardeyda)	1	2	3	4	5
5	Ku halqabsata yoolasha ama himilooyonka dugsiga marka lala shirayo ardeyda (sida., golayaasha la iskugu yimaado amd lagu doodo)	1	2	3	4	5
	III. Kormeerka iyo Qiimeynta Waxbarista	**Marnaba**	**Dhif**	**Marmar**	**Marar badan**	**Markasta**
1	Xaqiijisaa in waxyaabaha ay barayaashu ahmiyada siinayaan fasaladooda dhexdooda in ay tahay mid la jaanqaadayso yoolka iyo jahada dugsiga	1	2	3	4	5
2	Dib u eegtaan maxsuulka shaqada ardeyga marka la qiimeynayo casharada fasalka dhexdiisa.	1	2	3	4	5
3	Samaysaa indha indhaynta dadban ee fasalka dhexdiisa ah oo si joogta ah loo sameeyo (indha indhaynta dadban waa mid aan qorshaysanayn, waxay qaadataa ugu yaraan 5 daqiiqadood, oo leh ama aan lahayn talo bixin qoraal ah ama shir rasmi ah)	1	2	3	4	5
4	Tilmaantaa meealaha sida gaarka ah ugu fiican yihiin, hawlaha waxbarista barayaasha marka lagu gudo jiro talo bixinta ka danbayso indha indhaynta (tusaale., shirarka ama qiimeynta qoraalka ah)	1	2	3	4	5
5	Tilmaantaa meelaha sida gaarka ah ugu liitaan, hawlaha waxbarista barayaasha marka lagu gudo jiro talo bixinta ka danbayso indha indhaynta (tusaale., shirarka ama qiimeynta qoraalka ah)	1	2	3	4	5

	IV. Isku Dubbaridka Manhajka	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Cadeysaa cida leh masuuliyada isku dubbaridka manhajka dhamaan fasalada (tusaale., maamulaha, maamule ku xigeenka ama madaxa barayaasha)	1	2	3	4	5
2	Soo xigataa natiijada imtixaanka guud ee dugsiga marka la samaynayo go, aanada ku wajahan manhajka.	1	2	3	4	5
3	Duljoogtaa waxa lagu dhigayo fasalka guduhiisa, si loo ogaado in la dhamaystirayo ujeedooyinka manhajka dugsiga	1	2	3	4	5
4	Qiimeynsaa isku haboonaanta ka dhaxeysa ujeedooyinka manhajka iyo imtixaanaadka dugsiga	1	2	3	4	5
5	Si firfircoon uga qayb qaadataa dib u eegista qalabka la xiriira manhajka	1	2	3	4	5

	V. Ilaalinta koboca Natiijada Ardeyda	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	la kulantaa barayaasha si shaqsi ah oo kala dood koboca natiijada ardeyda	1	2	3	4	5
2	Kala doodaa barayaasha natiijada ardeyda si loo garto meelaha uu ku fiican yahay iyo kuwa uu ku liito manhajku	1	2	3	4	5
3	Isticmaashaa imtixaanada iyo waxyaabaha kale ee lagu cabiro waxqabadka, si loo qiimeeyo inta lagu guuleystay yoolasha dugsiga	1	2	3	4	5
4	La socodsiisaa barayaasha natiijada waxqabadka dugsiga si qoraal ah	1	2	3	4	5
5	La socodsiisaa ardeyda koboca natiijada ardeyda dugsiga	1	2	3	4	5

	VI. Ilaalinta Wakhtiga Waxbarista	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xadidaa kalagoynta wakhtiga waxbarista ee ay kala goynayaan ogeysiisyada	1	2	3	4	5
2	Haqiijisaa in aan ardeyga looga yeerin xafiiska, inta lagu gudo jiro wakhtiga waxbarista	1	2	3	4	5
3	Xaqiijisaa in ardeyda soo daahda iyo kuwa googayska ah ay la kulmaan ciqaab gaar ah, madaama ay lumiyeen wakhtiga waxbarista	1	2	3	4	5
4	Ku dhiiri gelisaa barayaasha in ay u isticmaalaan wakhtiga waxbarista in ay baraan ardeyda fikrado iyo xirfado cusub	1	2	3	4	5
5	Xadiddaa dhexgalinta hawlaha manhajka ka baxsan oo la soo dhexgaliyo wakhtiga waxbarista	1	2	3	4	5

	VII. Joogtaynta in uu Maamuluhu aad oga Dhex Muuqdo Dugsiga	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Uqoondeynsaa wakhti, si aan rasmi ahayn loogula hadlo ardeyda iyo barayaasha xilliyada fasaxa ama nasashada lagu jiro.	1	2	3	4	5
2	Booqataa fasalada si loogala hadlo ardeyda iyo barayaasha arimaha dugsiga	1	2	3	4	5
3	Ka qaybgashaa hawlaha kale ee dheeriga ah ee la xiriira waxbarista	1	2	3	4	5
4	Dabooshaa ama sii dhigtaa casharada barayaasha maqan ilaa inta ay ka imaanayaan ama kuwo cusub lagu soo badalayo.	1	2	3	4	5
5	Siisaa ardeyda casharo dheeraad ah ama si toos ah ugu dhigtaa casharada ee fasalada	1	2	3	4	5

	VIII. Siinta Barayaasha Waxyaabo dhiiri Galiya	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xoojisaa ama Dhiiri gelisaa shirarka dhexdooda, barayaasha muujiyay waxqabadka aadka u sareeya,	1	2	3	4	5
2	U hanbalyaysaa barayaasha dhanka waxqabadkooda iyo dadaalkooda si gooni ah	1	2	3	4	5
3	Ku bogaadisaa barayaasha waxqabadkooda aadka u sareeya adoo u qorayo warqado faylashooda loo galiyo	1	2	3	4	5
4	Abaalmarisaa dadaalada gaarka ah ee barayaasha oo ay ku helayaan fursado tixgelin xirfadeed	1	2	3	4	5
5	U abuurtaa barayaasha fursado koboc xirfadeedka oo lagaga abaalmarinayo waxyaabaha gaarka ah ee ay ku soo kordhiyeen dugsiga	1	2	3	4	5

	IX. Kobcinta Horumarinta Xirfada Barayaasha	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xaqiijisaa in hawlaha tababarda shaqada dhexdeeda ee ay barayaashu ka qaybgalaan ay la jaanqaadeyso yoolasha dugsiga	1	2	3	4	5
2	Si fir fircoon u taageertaa in xirfadihii lagu soo bartay tababarda shaqada dhexdeeda, lagu isticmaalo fasalada dhexdooda	1	2	3	4	5
3	Ku dadaashaa helista ka qaybgalka dhamaan shaqaalaha ay ka qaybgalaan tababarada muhiimka ah ee shaqada dhexdeeda	1	2	3	4	5
4	Hogaamisaa ama ka qaybgashaa hawlaha tababarada barayaasha ee shaqada dhexdeeda kaas oo khuseeya waxbarista	1	2	3	4	5
5	U qoondaynsaa wakhti ay barayaasha isku waydaarsan karaan fikradaha iyo xogta ku saabsan tababarada shaqada dhexdooda, marka lagu gudo jiro shirarka barayaasha	1	2	3	4	5

	X. Diyaarinta Waxyaabo Dhiiri Gelinta Waxbarashada looga Talagalay	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Tixgalisaa ardeyda qabatay shaqo aad u saraysa ayadoo la siinayo abaalmarino rasmi ah sida ku darista liiska la sharfo ama lagu dhajiyo boorka xafiiska maamulaha	1	2	3	4	5
2	U isticmaashaa fagaarayaasha in lagu sharfo ardeyda guulaha ka soo hoysay waxbarshadooda	1	2	3	4	5
3	Qadarisaa natiijada aadka u sareysa ee ardeyda, ayadoo ardeyda oo wadata waxyaabo muujinaya waxqabadkoodii loogu yeerayo xafiiska maamulaha	1	2	3	4	5
4	La xiriirtaa waalidka ardeyga si loogu sheego waxqabadka iyo waxyaabaha uu soo kordhiyay ardeyga tusaalaha noqon kara	1	2	3	4	5
5	Utaageertaa barayaasha si firfircoon marka ay abaalmarinayaan guulaha iyo waxyaabaha ay ardeydu ku soo kordhiyeed fasaladooda	1	2	3	4	5

Habka Darajo siinta Hawlaha Maareynta Waxbarashada ee Maamulaha (Foomka Kormeeraha)

Qaybta I. Fadlan Bixi xogta hoos ku qoran:

A. Magaca Degmada: _____

B. Xilka aad ka Hayso Degmada: _____

C. Magaca dugsiga _____

D. Inta sanadood ee maamulaha uu maamule ka ahaa Dugsigan:

_____1 _____5-9 _____ In ka badan 15

_____2-4 _____10-15

E. Sanooyinka, dhamaadka sanad dugsiyeedkan ee aad la shaqaynaysay maamulaha dugsigan:

_____1 _____5-9 _____ In ka badan 15

_____2-4 _____10-15

F. Inta jeer ee aad booqatay ee booqashadaasna ay ka badnayd 20 daqiiqadood Dugsiga Maamulahan:

_____1 _____5-9 _____ In ka badan 15

_____2-4 _____10-15

G. Jinsigaaga: _____lab; _____dhedig

H. Da'daada: _____

I. Heerka Aqoontaada: _____

J. Jinsiga Maamulaha: _____lab; _____dhedig

Qaybta II. Su'aalahan waxaa loogu tallo galay inay bixiyaan faahfaahin ku saabsabsan hawlaha Hogaamineed ee maamulaha. Wuxuu ka kooban yahay 50 su'aalood oo qoraal ah, oo qeexaya hawlaha iyo dabeecadaha shaqo ee maamulaha. Waxaa lagaa codsanayaa in su'aal kasta aad u eegto qaabkii uu maamulaha u maamulay hawlaha waxbarshada dugsiga ee sanad dugsiyeedkii tagay (ina dhaafay)

Si taxadar leh u akhri weedhaha. **Dabadeedna goobo geli**, mida ugu saxsan ee ku haboon dabeecadaha shaqo ee gaarka ah ee maamulaha dugsiga iyo sidii uu wax u maamulay sanad dugsiyeedkii hore. Marka aad ka jawaabaysid su'aal kasta:

5. Waxay u taagan tahay: ***Markasta***
4. Waxay u taagan tahay: ***Marar badan***
3. Waxay u taagan tahay: ***Marmar***
2. Waxay u taagan tahay: ***dhif***
1. Waxay u taagan tahay: ***Marnaba***

Mararka qaar waxaa laga yaabaa in ay jawaabtu u muuqato mid aan haboonayn, isticmaal aragtidaada marka aad xulanaysid jawaabta ugu haboon ee su'aalahan. Fadlan mid kaliya goobo geli su'aashiiba. Iskuna day in aad ka jawaabtid su'aal kasta.

Mahadsanid

In intee le'eg ayuu maamulahan sameeyaa . . .?

S.N	I. Jaangooynta Yoolka Dugsiga	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Diyaarinta koox yoolal ah oo ku wajahan dugsiga dhamaantii	1	2	3	4	5
2	Jaangoynta yoolasha dugsiga ayadoo lagu salaynayo masuuliyada shaqaalaha si ay ugu guuleystaan	1	2	3	4	5
3	Isticmaalida habka qiimeynta baahida, ama hababka tooska ah iyo ku dadban, si loo helo gashiga shaqaalaha marka la diyaarinayo yoolka dugsiga.	1	2	3	4	5
4	Isticmaalida xogta natiijada ardeyda marka la diyaarinayo yoolasha waxbarista dugsiga.	1	2	3	4	5
5	Diyaarinta yoolasha dugsiga kuwaas oo si fudud loo fahmi karo, isla markaana ay isticmaali karaan barayaasha dugsiga.	1	2	3	4	5

	II. Wargalinta barayaasha yoolka dugsiga	**Marnaba**	**Dhif**	**Marmar**	**Marar badan**	**Markasta**
1	Wargalinta si sax ah hubnaha bulshada, himilooyinka dugsiga.	1	2	3	4	5
2	Kala doodaa barayaasha yoolasha waxbarista dugsiga marka lagu gudu jiro shirarka loo qabanayo barayaasha.	1	2	3	4	5
3	Tixraacaa yoolasha waxbarista dugsiga marka lala qaadanayo barayaasha go'aanada ku saabsan waxyaabaha la xirira manhajka.	1	2	3	4	5
4	Xaqiijiyaa in yoolka waxbarista dugsiga uu si aad ah oga dhex muuqdo boorasha dugsiga (tusaale, warsidaha dugsiga oo xooga saara koboca natiijada ardeyda)	1	2	3	4	5
5	Ku halqabsadaa yoolasha ama himilooyonka dugsiga marka lala shirayo ardeyda (sida., golayaasha la iskugu yimaado amd lagu doodo)	1	2	3	4	5
	III. Kormeerida iyo Qiimeynta Waxbarista	**Marnaba**	**Dhif**	**Marmar**	**Marar badan**	**Markasta**
1	Xaqiijiyaa in waxyaabaha ay barayaashu ahmiyada siinayaan fasaladooda dhexdooda in ay tahay mid la jaanqaadayso yoolka iyo jahada dugsiga	1	2	3	4	5
2	Dib u eegaa maxsuulka shaqada ardeyga marka la qiimeynayo casharada fasalka dhexdiisa.	1	2	3	4	5
3	Sameeyaa indha indhaynta dadban ee fasalka dhexdiisa ah oo si joogta ah loo sameeyo (indha indhaynta dadban waa mid aan qorshaysanayn, waxay qaadataa ugu yaraan 5 daqiiqadood, oo leh ama aan lahayn talo bixin qoraal ah ama shir rasmi ah)	1	2	3	4	5
4	Tilmaamaa meealaha sida gaarka ah ugu fiican yihiin, hawlaha waxbarista barayaasha marka lagu gudo jiro talo bixinta ka danbayso indha indhaynta (tusaale., shirarka ama qiimeynta qoraalka ah)	1	2	3	4	5
5	Tilmaamaa meelaha sida gaarka ah ugu liitaan, hawlaha waxbarista barayaasha marka lagu gudo jiro talo bixinta ka danbayso indha indhaynta (tusaale., shirarka ama qiimeynta qoraalka ah)	1	2	3	4	5

	IV. Isku Dubbaridka Manhajka	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Cadeeyaa cida leh masuuliyada isku dubbaridka manhajka dhamaan fasalada (tusaale., maamulaha, maamule ku xigeenka ama madaxa barayaasha)	1	2	3	4	5
2	Soo xigtaa natiijada imtixaanka guud ee dugsiga marka la samaynayo go, aanada ku wajahan manhajka.	1	2	3	4	5
3	Duljoogaa waxa lagu dhigayo fasalka guduhiisa, si loo ogaado in la dhamaystirayo ujeedooyinka manhajka dugsiga	1	2	3	4	5
4	Qiimeyaa isku haboonaanta ka dhaxeysa ujeedooyinka manhajka iyo imtixaanaadka dugsiga	1	2	3	4	5
5	Si firfircoon uga qayb qaataa dib u eegista qalabka la xiriira manhajka	1	2	3	4	5

	V. Ilaalinta koboca Natiijada Ardeyda	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Ula kulmaa barayaasha si shaqsi ah oo kala dood koboca natiijada ardeyda	1	2	3	4	5
2	Kala doodaa barayaasha natiijada ardeyda si loo garto meelaha uu ku fiican yahay iyo kuwa uu ku liito manhajku	1	2	3	4	5
3	Isticmaalaa imtixaanada iyo waxyaabaha kale ee lagu cabiro waxqabadka, si loo qiimeeyo inta lagu guuleystay yoolasha dugsiga	1	2	3	4	5
4	La socodsiiyaa barayaasha natiijada waxqabadka dugsiga si qoraal ah	1	2	3	4	5
5	La socodsiiyaa ardeyda koboca natiijada ardeyda dugsiga	1	2	3	4	5

	VI. Ilaalinta Wakhtiga Waxbarista	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xadidaa kalagoynta wakhtiga waxbarista ee ay kala goynayaan ogeysiisyada	1	2	3	4	5
2	Haqiijiyaa in aan ardeyga looga yeerin xafiiska, inta lagu gudo jiro wakhtiga waxbarista	1	2	3	4	5
3	Xaqiijiyaa in ardeyda soo daahda iyo kuwa googayska ah ay la kulmaan ciqaab gaar ah, madaama ay lumiyeen wakhtiga waxbarista	1	2	3	4	5
4	Ku dhiiri geliyaa barayaasha in ay u isticmaalaan wakhtiga waxbarista in ay baraan ardeyda fikrado iyo xirfado cusub	1	2	3	4	5
5	Xadiddaa dhexgalinta hawlaha manhajka ka baxsan oo la soo dhexgaliyo wakhtiga waxbarista	1	2	3	4	5

	VII. Joontaynta in uu Maamuluhu aad oga Dhex Muuqdo Dugsiga	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Uqoondeyaa wakhti, si aan rasmi ahayn loogula hadlo ardeyda iyo barayaasha xilliyada fasaxa ama nasahada lagu jiro.	1	2	3	4	5
2	Booqdaa fasalada si loogala hadlo ardeyda iyo barayaasha arimaha dugsiga	1	2	3	4	5
3	Ka qaybgalaa hawlaha kale ee dheeriga ah ee la xiriira waxbarista	1	2	3	4	5
4	Daboolaa ama sii dhigaa casharada barayaasha maqan ilaa inta ay ka imaanayaan ama kuwo cusub lagu soo badalayo.	1	2	3	4	5
5	Siiyaa ardeyda casharo dheeraad ah ama si toos ah ugu dhigaa ardeyda casharada fasalada dhexdooda	1	2	3	4	5

	VIII. Siinta Barayaasha Waxyaabo dhiiri Galiya	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xoojiyaa ama Dhiiri geliyaa shirarka dhexdooda, barayaasha muujiyay waxqabadka aadka u sareeya,	1	2	3	4	5
2	U hanbalyeeyaa barayaasha dhanka waxqabadkooda iyo dadaalkooda si gooni ah	1	2	3	4	5
3	Ku bogaadiyaa barayaasha waxqabadkooda aadka u sareeya ayadoo loo qorayo warqado faylashooda loo galiyo	1	2	3	4	5
4	Abaalmariyaa dadaalada gaarka ah ee barayaasha oo ay ku helayaan fursado tixgelin xirfadeed	1	2	3	4	5
5	U sameeyaa barayaasha fursado koboc xirfadeedka oo lagaga abaalmarinayo waxyaabaha gaarka ah ee ay ku soo kordhiyeen dugsiga	1	2	3	4	5

	IX. Kobcinta Horumarinta Xirfada Barayaasha	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Xaqiijiyaa in hawlaha tababarda shaqada dhexdeeda ee ay barayaashu ka qaybgalaan ay la jaanqaadeyso yoolasha dugsiga	1	2	3	4	5
2	Si fir fircoon u taageeraa in xirfadihii lagu soo bartay tababarda shaqada dhexdeeda, lagu isticmaalo fasalada dhexdooda	1	2	3	4	5
3	Sameeyaa ka qaybgalka dhamaan barayaasha ay ka qaybgalaan tababarada muhiimka ah ee shaqada dhexdeeda	1	2	3	4	5
4	Hogaamiyaa ama ka qaybgalaa hawlaha tababarada barayaasha ee shaqada dhexdeeda kaas oo khuseeya waxbarista	1	2	3	4	5
5	U qoondayaa wakhti ay barayaasha isku waydaarsan karaan fikradaha iyo xogta ku saabsan tababarada shaqada dhexdooda, marka lagu gudo jiro shirarka barayaasha	1	2	3	4	5

	X. Diyaarinta Waxyaabo Dhiiri Gelinta Waxbarashada looga Talagalay	Marnaba	Dhif	Marmar	Marar badan	Markasta
1	Tixgaliyaa ardeyda qabatay shaqo aad u saraysa ayadoo la siinayo abaalmarino rasmi ah sida ku darista liiska la sharfo ama lagu dhajiyo boodhka xafiiska maamulaha	1	2	3	4	5
2	U isticmaalaa fagaarayaasha in lagu sharfo ardeyda guulaha ka soo hoysay waxbarshadooda	1	2	3	4	5
3	Qadariyaa natiijada aadka u sareysa ee ardeyda, ayadoo ardeyda oo wadata waxyaabo muujinaya waxqabadkoodii loogu yeerayo xafiiska maamulaha	1	2	3	4	5
4	La xiriiraa waalidka ardeyga si loogu sheego waxqabadka iyo waxyaabaha uu soo kordhiyay ardeyga tusaalaha noqon kara	1	2	3	4	5
5	Taageeraa barayaasha si firfircoon marka ay abaalmarinayaan guulaha iyo waxyaabaha ay ardeydu ku soo kordhiyeed fasaladooda	1	2	3	4	5