Relations Among Teacher Context, Students' Self- System Processes, Academic Engagement and Academic Performance of Debre Berhan General Secondary Schools

By

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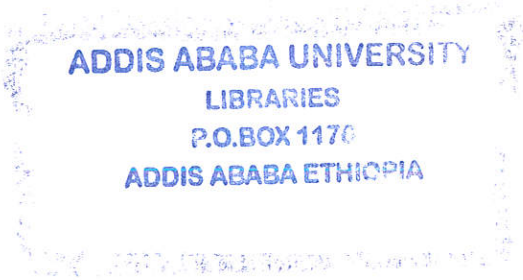
A Thesis Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Psychology (Measurement and Evaluation)



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RELATIONS AMONG TEACHER CONTEXT, STUDENTS' SELF-SYSTEM PROCESSES, ACADEMIC ENGAGEMENT AND ACADEMIC PERFORMANCE OF DEBRE BERHAN GENERAL SECONDARY SCHOOLS

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Table of Contents

List of Tables

List of Figures

Abstract

The purpose of this study was to examine the relationships among teacher context, students' self-system processes, academic engagement and academic performance. Data were obtained from 327 (M=152, F=175) general secondary school students in Debre Berhan town. The data were collected through questionnaire and from students' records. Multiple regression analyses revealed that teacher autonomy support, teacher structure and teacher involvement significantly predicted students perceived autonomy, perceived competence and perceived relatedness respectively, as proposed in the self-system process model. Moreover, teacher autonomy support and teacher structure predicted students' perceived relatedness, and teacher involvement predicted perceived competence. Path analysis revealed that teachers' provision of structure and involvement had a significant positive indirect effect on academic engagement through both perceived competence and perceived relatedness. Among the three components of self-system processes, perceived competence and perceived relatedness significantly predicted academic engagement. Path analysis also revealed that perceived competence and perceived relatedness had an indirect effect on academic performance through academic engagement. Perceived autonomy as a self-system component was not significantly related to academic engagement. However, when perceived autonomy (RAI) was broken down in to its two primary subcomponents (i.e., autonomous and controlled regulations) both had a unique and differential effect on academic engagement and academic performance. Specifically, autonomous regulation was positively related to both academic engagement and academic performance; and controlled regulation was not significantly related to academic engagement but negatively related to academic performance. This study also showed that academic engagement was strongly related to academic performance. Discussions and conclusions are made on the basis of these findings. Finally, the educational implications of the findings and future areas of research are suggested.

CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

Education is seen as a key means for national development. Much of the achievement of a country in terms of economic, social and political dimensions rests on its human resource capacity to attain, utilize, and create knowledge (Teklehaimanot, 2000). It is believed to be a major source of social transformation which increases people's consciousness and understanding that will enable them to improve the current mode of life. Consequently, countries formulate their own education policies to facilitate the development of their society.

However, there are some students who respond poorly to the demands and expectations of the policy or school curricula. Therefore, the mere existence of education policy cannot guarantee the development of a nation (Gizaw, 2004). According to Gizaw, in order to national educational systems contribute to the development efforts of a nation there should be suitable institutional arrangements. Of these institutions secondary schools play a significant role.

Secondary school education should not be viewed as a mere extension of primary education. It has specific purposes as a large number of students enter the world of work on the completion of secondary schooling. Related with this, Zenebe and Wossenu (1999) indicated that secondary school education helps to satisfy the demand of middle level work force of a country. Therefore, this level of education is expected to develop human resource which is capable of contributing to the nation's development.

General secondary school education, which is the first cycle of secondary education in the Ethiopian education system, serves as a bridge for vocational training and higher

education (MOE, 1994). Since attending higher education is believed to have greater contribution to the national economy and individuals' success in life (Bishop, 1996; Card & Crueger, 1996; Flyer & Rosen, 1996), government agencies, educators and psychologists promote higher academic performance.

However, not all general secondary school students attend higher education. Among those who took the Ethiopian General Secondary Education Certificate Examination (EGSECE), although the cut-off point varies from year to year, those who achieved higher scores joined preparatory education. Preparatory education is a stage one must pass to continue higher education. Low performing students, although they may have preference to attend preparatory and higher education, are unlikely to attend. Thus, low performance in the EGSECE will adversely affect the future life of a student.

Low academic performance might be attributed to differences in the level of student engagement in academic activities. The problem of disengagement is severing for older students than the younger ones. With this regard, Wendmagegnehu (2006) reported that the level of students' engagement tends to decrease as students grade level increases. In a similar vein, Klem and Connell (2004) stated that students become increasingly disengaged as they progress from elementary to secondary schools.

Students' academic engagement might be promoted through teacher support. Because teachers have responsibility to the education of their students and there by to the development of their country. Related with this, Stigler (1992, cited in Elliott, Hufton, Willis & Illushin, 2005) stated that in the American culture once the child starts to school, it is often assumed that responsibility for learning has largely been passed on to teachers (i.e., from parents). The case could be worse to Ethiopia as many parents are not educated; they are not in a position to provide sufficient academic support (e.g., when their children fail to understand a learning

material). Thus, the responsibility of Ethiopian teachers is by far higher than their western counterparts.

Teachers can support students' engagement through the provision of autonomy, structure, and through involvement/ relational support. These teacher contexts are believed to influence the learners' engagement. In connection with this, Klem & Connell (2004) stated that teacher support has a positive impact on students' engagement and performance. It should be, however, noted that teachers' efforts can have meaningful effect if they can influence students' self-system processes, that is, students' perceived autonomy, perceived competence, and perceived relatedness (Connell, 1990).

The self system is the system that decides whether or not to engage in the learning activities (Tileston, 2004). If the academic task is perceived to be important, if the probability of success is believed to be high, and if a positive affect is associated with the learning task students will be motivated to engage in the task (Connell, 1990; Tileston, 2004; Tucker et al., 2002). In contrast, if students perceive a circumstance to be unimportant or impossible to control they are discouraged to engage in the task (Mithaug, Mithaug, Agran, Martine & Wehmeyer, 2003). They stated how the students' self- systems influence academic engagement and learning as follows: "Because every circumstance is filtered through these personalized views of what constitutes an opportunity or an obstacle for gain, students' beliefs will affect their engagement and learning."(p. 6).

The discussions presented above showed that students' self-system processes are detrimental to academic engagement and in turn to academic performance. The self-system processes themselves are influenced by teacher contexts. Although, much research has been conducted in Western countries examining factors that influence students self-system processes in learning, not many parallel studies have been carried out in other countries

(d'Ailly, 2003). This study, which is intended to be conducted in the Ethiopian context, will examine factors that have been shown to be important in western students learning.

1.2. Statement of the Problem

Students' academic engagement and performance can be attributed to a number of factors. These factors usually include parental socio-economic status, student's sex, ethnicity, intelligence and the like. Although these factors may affect students' academic engagement and performance, students' self-system processes (i.e., perceived autonomy, perceived competence and perceived relatedness) are among the most important factors that have bearings on school engagement and performance. With this regard, Wong, Wiest and Cusick (2002) stated that students' self-system processes have an effect on young adolescents' motivation and achievement. In a similar vein, Tilestone (2004) argued that all learning begins in the self-system.

There is little attention given to the impact of the self-system variables to students' academic engagement and performance, and on how teacher contexts influence the self-system processes in the Ethiopian context. As a result, the present investigator is initiated to conduct a research on the relationship among students' perceptions of teacher context, students' self-system processes, and students' engagement and performance. Accordingly, the following research questions are formulated:

1. Is there a significant relationship between students' self-system variables, that is, perceived autonomy, perceived competence and perceived relatedness, and academic engagement?

2. Is there a significant relationship between teacher context variables (i.e., teacher autonomy support, teacher structure & teacher involvement) and students' self-system processes?
3. Is there a significant relationship between students' academic engagement and their academic performance?
4. Do students' self-system processes mediate relationships between teacher context and academic engagement?
5. Does academic engagement mediate the relationship between students' self-system processes and academic performance?

In order to examine the relationship among the study variables, a self-system process model was used. The model is a causal model depicting relationships among teacher context, students' self-systems, academic engagement and academic performance. Figure 1 below (see also Connell, 1990; Klem & Connell, 2004; Skinner, Wellborn & Connell, 1990) depicts the proposed general self-system model and Figure 2 next page (adapted from Connell, 1990) demonstrates the theoretical causal model proposed in this study.

Figure 1
A General Self-System Model of the Relations between Context, Self-System, Action, and Outcomes

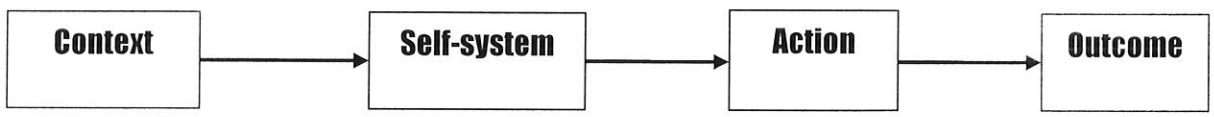
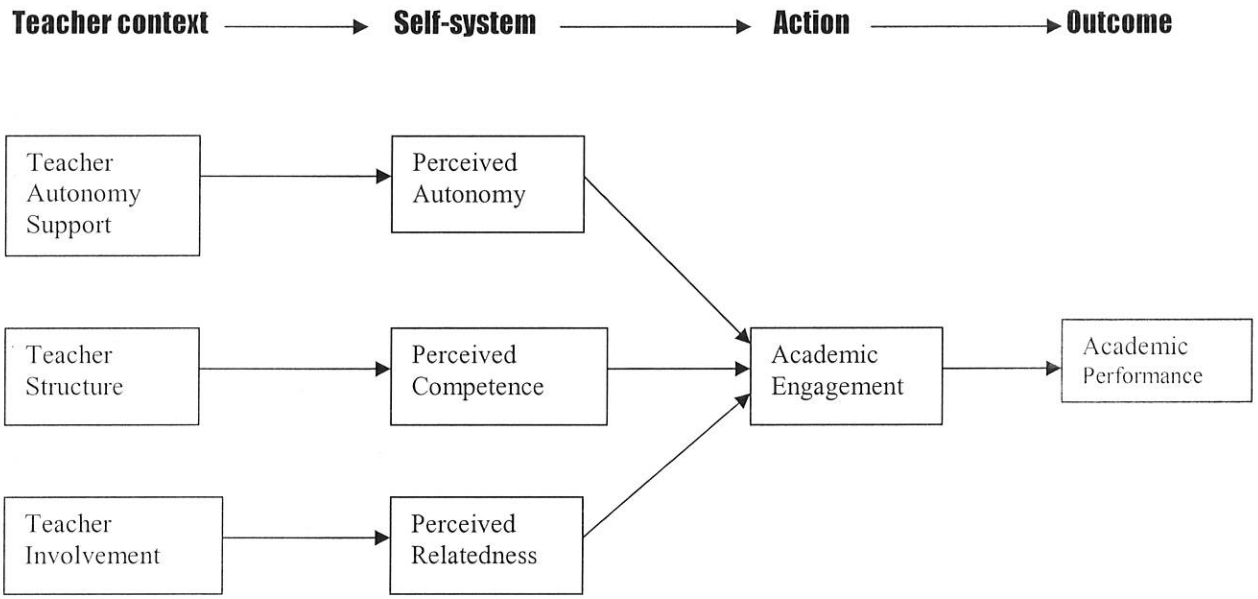


Figure 2
The hypothesized Causal Model of the Linkages between Teacher-Context, Students' Self-System, Action and Outcome



1.3. Significance of the Study

As pointed out in section 1.2, researchers investigating factors that affect student engagement and/or school performance have focused on numerous variables that are related to students' background variables. As a result, studies conducted on the impact of students' self-system processes on students' academic engagement and consequently on academic performance and how teacher context influences students' self-systems are limited. Thus, examining the relationship among teacher context, students' self-systems, and students' engagement and school performance becomes essential. In view of the effort to promote students' academic engagement and performance, the findings of this research have the following contributions:

- Research findings on the correlates of academic engagement and performance those focused on factors as socio economic status, ethnicity and gender are not easy, if

possible, to change. This study, however, focused on students' perceptions of autonomy, competence and relatedness which would provide an indication of areas that can be changed. With this regard, teachers can encourage students to feel more autonomous, more connected to teachers, and develop competence that they can achieve success in school tasks with reasonable effort.

- The study would help teachers, counselors, principals, parents and concerned authorities to help satisfy students' self-system needs and to encourage students' academic engagement and academic performance by helping students to see that the knowledge and skills acquired in academic learning will open up opportunities for future success in life.
- The results of the study would also be of paramount importance for the students themselves. Being aware of the impact of their own self-systems to academic engagement and academic performance, and consequently to their future life, they can take the responsibility and devotion to their own learning.
- The study would be beneficial to curriculum developers, textbook writers, teachers and school administrators to relate the teaching learning process to students' self-system processes.
- The study would be useful to Ethiopian Colleges and Universities which are giving education and training for general secondary school teachers.
- Finally, the study indicated future directions for those professionals and practitioners who are interested in the area.

1.4. Definition of Important Terms

- **Teacher Context-** refers to teacher autonomy support, teacher involvement, and teacher structure. The term can be interchangeably used as teacher support.
- **Autonomy Support-** is defined as the degree to which a teacher encourages student's independent thinking, acknowledges the students feelings and provides the student pertinent information and opportunities for choice.
- **Teacher Structure-** refers to establishing and enforcing clear rules and consistent consequences to student's actions and the provision of competence.
- **Teacher Involvement-** refers to teachers' provision of sufficient amount of feedback and showing interest in and concern for students' well-being.
- **Students Self-System Processes-** refers to students' perceived autonomy, perceived competence and perceived relatedness.
- **Perceived Autonomy-** refers to the belief of students that they are performing school activities out of choice and psychological freedom, and taking responsibility for their learning.
- **Perceived Competence-** refers to the belief that students have in their ability to learn subjects that are offered in the school.
- **Perceived Relatedness-** refers to students feelings of acceptance, importance, and connectedness to their teachers.
- **Academic Engagement-** refers to on-task behaviors that signal a serious of psychological and physical investment in classwork, homework, and other assigned works. The term can also be interchangeably used as school engagement, student engagement or simply as engagement.

- **Academic Performance-** refers to students' success in school as measured by percentage of marks. The 2008/9 first semester average mark of students was taken as an index of academic performance. The term can be interchangeably used as academic achievement, or school performance.

1.5. Delimitation of the Study

The study was delimited in scope in terms of area, population and samples, and study variables. This was to make the study manageable. The study area was restricted to Debre Berhan town general secondary schools. The town was chosen because it has been the researcher's place of work and thus, enables him to involve in future intervention programs. With regard to the study variables, it was restricted to teacher context, students' self-system processes, academic engagement and performance.

1.6. Limitation of the Study

The findings from the present study should be interpreted within the context of its limitations. This study was based on a self-system process model. Although it can be considered a strength that the study constructs, measures, and hypotheses were derived from a clear theoretical self-system model, this also creates limitations in that the model is only one of many plausible alternative models that could be postulated to examine the relationships among teacher context, student self-systems, academic engagement and academic performance. For example, the self-system process may have a direct influence on academic performance. Other constructs not measured here may also be critical for the development of the self-system processes, and academic engagement and academic performance.

A second limitation is that although the study employed a structural equation modeling, it is nevertheless inappropriate to make strong causal inferences; because a non recursive relationship may exist between the variables.

Third, the data used in this study were primarily (with the exception of academic performance data) based on self-reports that may have been subject to a reporting bias. It should be noted, however, that self-report measures are the most important means to get at students views of their internal states.

Finally, one of the limitations of this study was the sample. It was restricted to general secondary schools of Debre Berhan town. Although representative at the two schools in the town, the generalizability of the results to other contexts needs caution.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

In the forthcoming sections of this chapter, reviews are made based on the claim that learning is in the learners' self-system. This is explained by showing a causal connection between teacher context, students' self-system processes, engagement in learning activities and academic performance. These factors are claimed to function as follows. Teacher contexts influence students' self-system processes, the self-systems affect student engagement, and engagement determines performance. The review explains why building students' self-system processes maximize student engagement, and why engagement improves academic performance.

2.1. The Concept of the Self-System

The self encompasses our conscious thoughts of our uniqueness from others and our similarities to them (Albery et al., 2007). It is our cognitive representation of who we are. The self is actively constructed by the individual. With this regard, Mead (cited in Cicchtti & Beeghly, 1990) argued that the self-system structures of personality are formed due to our interaction with the world. The type of interaction an individual makes with the society, beginning from the educative experience of the mother, makes the evolution and development of the self-system inevitable. Congruent with this, Cicchetti and Beeghly (1990) stated that the self-system develops through our interaction with the society (e.g., parents, teachers, peers). And the development of the self-system is a life long process (Hirschhorn & Barnett, 1993).

The self-system processes have motivational significance (Connell, 1990). Connell indicated that, individuals' appraisals of the self, their social surround, and what they actually do with particular enterprises (e.g., school) allow for supposed linkages to be specified. Related with Connell's argument, Hirschhorn and Barnett (1993) stated that the self-system activities direct a person's effort towards satisfying primary needs for security. They further stated that in the case of active security operations, the self-system derives personal motives for belonging in the direction of structure and order, in which the outcome of behavior is consistent and predictable.

So far, the origin and development of the self-system is presented. This is because examining the origin and the ways in which it develops has tremendous importance in understanding how it influences individual's interpersonal relations. If we understand how the self-system begins and develops, then we will be able to follow the idea connected with its function.

2.1.1. Perceived Autonomy

2.1.1.1. The Concept of Autonomy

The self-system processes associated with autonomy involve the individual's intrapersonal experience of volition and choice (Vansteenkiste, Zhou, Lens & Soenens, 2005). Volition reflects the individuals perception of high psychological freedom during an activity and perceived choice over one's actions, and represent an individuals flexibility in making decisions on what to do, how to do it, and whether to do it (Reeve & Jang, 2006). According to Reeve and Jang the opposite of volition and choice are feeling pressured and rigid assignment respectively. Students' level of autonomy in learning can be measured from their motivational orientations, those behaviors emanated from a more intrinsic type of

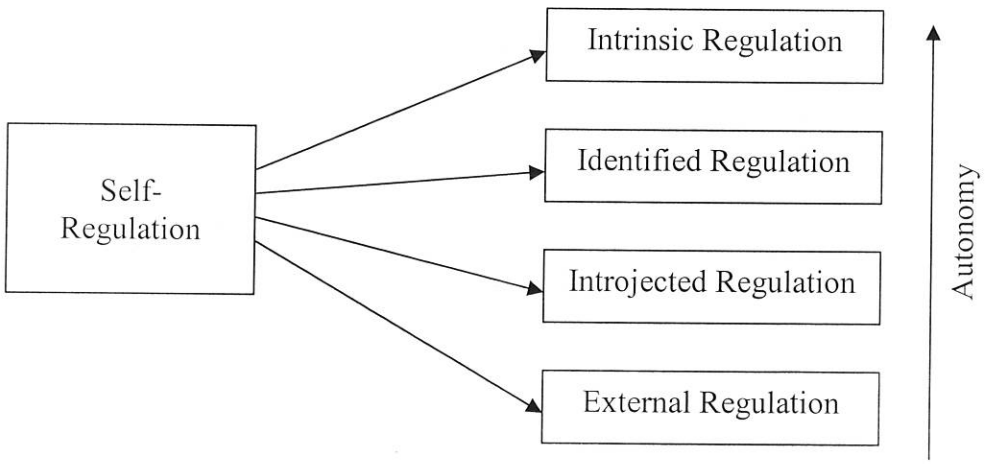
motivation representing a higher level of autonomy (Connell, 1990; d'Ailly, 2003; Deci & Ryan, 2000). On the other hand, behaviors which involve controls and directives concerning how students should behave represent a lower level of autonomy (Deci & Ryan, 2000).

When people are intrinsically motivated, they engage in an activity for its own sake rather than for obtaining an outcome that is separable from the activity itself (Vansteekiste et al., 2005). These are activities that individuals perform when they feel free to follow their inner interests (Deci & Ryan, 2000). In contrast, when people are extrinsically motivated they respond to socially prescribed norms and values often promoted by external contingencies (d'Ailly, 2003; Niemiec et al., 2006). Extrinsically motivated individuals behave to attain some external reward to avoid some threat, to gain some recognition by or to conform to some extant value (Deci & Ryan, 2000; Vansteekiste et al., 2005). These extrinsically motivated behaviors differ in their degrees of relative autonomy depending on the extent to which initially externally regulated reasons for acting have been gradually internalized (Deci & Ryan, 2000). It is through this process of internalization that initially externally motivated behaviors become increasingly internalized (Deci & Ryan, 2000; Deci, Ryan & Williams, 1996; Ryan & Deci, 2000). When the internalization process functions more fully and effectively, people will identify with the importance of social regulations, assimilate them in to their integrated sense of self and become increasingly autonomous or self-determined (d'Ailly, 2003; Deci & Ryan, 2000).

However, when the internalization process is forestalled, the resulting partial internalization will lead to an intermediary level of self-regulation, that is, regulations and values may remain either external or be only partially internalized (Deci & Ryan, 2000; Deci, et al., 1996).

Along side intrinsic motivation lie three forms of extrinsic motivation, fall along a continuum anchored by controlled and autonomous regulation (Connell, 1990). These four types of regulatory process are presented in Figure 2 below. At the bottom of the figure is external regulation characterized by engagement in an activity overtly controlled by external contingencies. It represents the most controlled form of regulatory styles. Adjacent to external regulation on the continuum of relative autonomy lie the construct of introjected regulation. This regulatory style refers to engagement in an activity out of a sense of self-imposed pressure. At the top of the figure is intrinsic regulation, which is characterized by engaging in an activity for its own sake in the absence of external contingencies. Intrinsic regulation represents the most autonomous regulatory style. Adjacent to intrinsic motivation on the continuum is identified regulation, which reflects motivation to engage in behaviors for the attainment of valued goals and outcomes.

Figure 2
Motivational Orientations Ranging from External (Most Controlled) to Internal (Most Autonomous) Regulation



Adapted from Connell, 1990

- **External Regulation**

Externally regulated behaviors represent the least autonomous type of extrinsically motivated behaviors (Ryan & Deci, 2000). These behaviors are controlled by specific external contingencies (Deci et al., 1996; Elliot & Dweck, 2005). Students who are externally regulated would engage in a behavior with the intent to attain a desired reward or to avoid threatened punishment. For example, a student who did his homework because he would get in trouble if he does not do his homework is externally regulated. According to Ryan, Connell and Deci (1985), those students whose performance and school behavior is extrinsically regulated often report less intrinsic motivation, interest, or liking of school activities. They reported a negative association between extrinsic regulation and achievement as measured by both standardized tests and teachers rating of achievement.

- **Introjected Regulation**

Introjected regulation represents the second lowest level of autonomy (Connell, 1990; Ryan & Deci, 2000). When people take in an external regulation but not fully accepting it as their own, the regulation is said to be introjected. Such behaviors are controlled by internal contingencies (sanctions) that people administer to themselves (Ryan & Deci, 2000; Vansteenkiste et al., 2005). This type of behavioral regulation resides within the person in the sense that it no longer requires overtly external contingencies. However, it is characterized by self-administered pressures such as to avoid guilt or shame or to attain ego enhancement such as pride or self-worth (Ryan & Deci, 2000; Vansteenkiste et al., 2005). People whose behaviors are regulated by internal contingencies simply behave because they feel they should (Deci et al., 1996). A student who tries to prove his/her self worth or to avoid negative self feelings, such as guilt or shame through achievement is an example of introjected

regulation (d'Ailly, 2003). Those students who are at this regulatory level perceive school success as validation for a self- concept that being a capable or intelligent individual. These students feel good about themselves when they live up to internal standards, but experience anxiety and guilt with failure.

- **Identified Regulation**

Identified regulation which is considered as an internalized type of extrinsic motivation occurs when a behavior is recognized as personally valuable. With this regard, Deci and Ryan (2000) stated as "by identifying with a behavior's value, people have more fully internalized its regulation; they have more fully accepted it as their own." (p. 236). Identified regulation involves a conscious valuing of a behavioral goal or regulation and the behavior is accepted or owned as personally important.

At this level of self-regulation, students will be motivated if they believe that academic performance is linked to the future, such as college success or a good job. For example, a secondary school student who willingly studied the school subjects because doing well on the examination was important for his/her becoming a college student had identified regulatory style. In such circumstances the activity would be exercised more volitionally and the behavior would become more a part of the individual's identity (Deci & Ryan, 2000). Those behaviors regulated based on identification, because the self has endorsed them, are expected to be better maintained and to be associated with higher commitment and performance.

2.1.1.2. Rational for Learner Autonomy

When students are given choices, when their needs and interests are considered, when they are involved in making decision in the classroom they will take an increased level of responsibility for their own learning. With this regard, Marino (2006) indicated that when students are perceived as stakeholders, they actively engage in creative activities, and in connecting previous knowledge to present learning. In a similar vein, Little and Dam (1998) stated that the development of autonomy empowers the individual learner's creativity and understanding.

Students' perceived autonomy has a tremendous impact on the students' academic performance and well-being. Congruent with this, Ryan et al. (1985) captured that the development of learners' autonomy has implications for academic achievement as well as the growth and development of personality. Furthermore, learner autonomy is an educational goal (Cuypers, 2004; Jing, 2006), in the sense that the learner's thoughts and actions in important areas of his/her own life are to be explained by reference to his/her own choices and intentions. According to Siegel (1988) as cited in Cuypers (2004), critical thinking and autonomy constitute the same educational ideal. Hence, if we accept critical thinking as a fundamental educational aim, we explicitly acknowledge the desirability of learner autonomy. Siegel also stated that the critical thinker must be autonomous that is the individual is free to act and judge independently on the basis of his/her own reasoned appraisal of the issue at hand.

When we come to general secondary school students, the importance of learner autonomy becomes more apparent. Students at this level are in a time of adolescence. And adolescence is a time of evaluation, decision making, commitment and finding out a place in the society (Santrock, 2006). Adolescents, according to Santrock, increasingly seek more

autonomy and responsibility. Moreover, secondary school students come with the knowledge, attitude, and skills developed through their experience in the primary school and their interaction with the society at large. Having these knowledge and experiences, they can contribute a lot in making decisions during planning a lesson, monitoring and evaluating their learning.

In sum, the development of learner autonomy empowers the learner's creativity, and critical thinking; increases responsibility for their learning, improves academic performance and well-being.

2.1.1.3. Relationships between Perceived Autonomy and Academic Engagement and Performance

Several studies have related autonomous motivation to educationally relevant outcomes, including students' academic engagement and performance. The studies have been guided by the hypothesis that autonomous self-regulation (i.e., intrinsic motivation and identified regulation) would be associated with more positive outcomes than would controlled (i.e., external and introjected) regulation. The more intrinsic the self-regulation is, the more autonomous the individual would be (Connell, 1990; Deci & Ryan, 2000; Ryan & Deci, 2000) and the better the educational outcome (Miserandino 1996; Reeve & Jang, 2006).

Intrinsically motivated individuals feel that they are doing a task because they have chosen to do so voluntarily and because they actively represent a challenge to their existing competencies and require them to use their creative capabilities. This type of motivation is regarded to be highly self-determined because of the fact that the reason for performing the activity is linked to the individuals' positive feelings (Connell, 1990; Deci & Ryan, 2000; Ryan & Deci, 2000). Self-determination requires that people use their strengths and

limitations, be cognizant of forces acting on them, make choices, and determine ways to satisfy needs.

On the other hand, extrinsically motivated behaviors are associated with pressure, tension, and decrease in enjoyments and facilitate controlling intentional behavior. Extrinsically motivated or controlling intentional behaviors are those that are performed in order to arrive at some instrumental end, such that the source of regulation is external to the activity. These activities are usually done to get a reward or praise from others.

Students who perceive that they are experiencing greater autonomy in their learning experience more involvement, persistence, participation and curiosity in school activities than did students who perceive themselves as less autonomous (more controlled). With this regard, Miserandino (1996) conducted a study on above average students and found that those students who perceived that they engaged in school activities for internal reasons reported more involvement and persistence; but those students who perceived themselves as more controlled (externally motivated) indicated feelings of more anxious, angry, and bored while engaged in school activities. Her study also showed that perceived autonomous children received higher grades than did externally motivated children. In a similar vein, Lepper, Corpus and Iyengar (2005) found a positive relationship between intrinsic motivation and academic performance both in class and on standardized tests and a negative relationship between both indices of performance and extrinsic motivation.

Gronlnick and Ryan (1987) conducted an experimental study and confirmed that conceptual learning was facilitated during autonomous learning condition. Those students in the controlling condition felt more pressured and less interested in learning. They suggested that the integration of learning requires active processing and organization that is more likely to occur under conditions conductive to a perceived internal locus of causality.

Research by Reeve and Jang (2006) found that students perceived autonomy was positively and significantly correlated with academic engagement and performance. A study by Marchand and Skinner (2007) provided further evidence on the positive relation between perceived autonomy and academic outcomes. They reported that perceived autonomy had strong positive correlations with help seeking, and help-seeking was closely related to students' academic engagement. Students who initially showed higher levels of help-seeking become more engaged as the year progressed.

Although numerous research findings have reported that autonomous motivation was associated with increased level of academic engagement and performance than controlled learning condition, a study by d'Ailly (2003) on school children in Taiwan reported that although autonomy has a positive impact on how the Chinese children see themselves (capacity belief) and how they attribute the success and failure (strategy belief) in their academic life, it does not have a direct influence on how hard a child works in school. He also found that holding perceived control and effort constant, those students who have high scores on the relative autonomy scale tend to do less well in school. This is because, as suggested by d'Ailly, students with a higher sense of autonomy study mainly for fun and interest and do not yield much to external pressures and consequently are more likely to decide not to study when they can not find fun and interest in their learning.

However, recent research by Vansteenkiste, Zhou, Lens and Soenens (2005) explored the relationship between perceived autonomy and school outcomes of Shenyang, Northern China students found results that are opposite to d'Ailly (2003). They reported that students' perceived autonomy appeared to be fruitful for predicting Chinese students' optimal learning and well being as it has been in western populations. According to Vansteenkiste et al. (2005), autonomous motivation was associated with a more efficient organization of one's

study time, better able to remain concentrated when studying, to feel less anxious when faced with a testing situation, and to obtain better test scores. In contrast, feeling pressured and controlled to study disrupts students' ability to concentrate while studying, provokes a negative attitude towards school, and enhance feelings of stress. They also suggested that controlled motivation is associated with more passive and avoidant study behaviors.

2.1.2. Perceived Competence and Academic Engagement and Performance

The adaptive consequences of the need for competence enables the human organism better adapt to new challenges in changing contexts (Deci & Ryan, 2000). Deci and Ryan argued that beginning with early motor manipulation of objects and exploration of the environment, the competence tendency develops toward activities and practices that are relevant to effective social interaction and physical survival.

In a school context, competence involves the acquisition of knowledge and skills relevant to adaptation within the school domain, which is strongly linked with achievement outcomes (Grolnick & Ryan, 1989). Achievement outcomes are indicated through students scores on both standardized and classroom tests.

In order for the student to experience a sense of competence within the academic domain three sets of beliefs are proposed to be central (Connell, 1990; Skinner, Wellborn & Connell, 1990). These three components of perceived competence are:

A. **Perceived Strategy**- refers to students' beliefs about the extent to which certain potential causes are effective in producing outcomes. Students knowledge or beliefs about the factors necessary to succeed in school include effort, ability,

powerful others, luck, and unknown factors (Pierson & Connell, 1992; Skinner et al., 1990).

B. **Perceived Capacity-** these are students beliefs about whether they have the capacity to execute the potential known causes (perceived strategies) (Pierson and Connell, 1992; Skinner et al., 1990). It involves ones own beliefs such as "can I exert effort? Am I smart? Liked by powerful others? Lucky?; and

C. **Perceived Control**- this refers to students' beliefs that they can control academic outcomes (Pierson & Connell, 1992). It reflects the extent to which the perceived causes for success or failure are amenable to the students' control. For example ability can be seen as uncontrollable where as effort expenditure on particular tasks can be controlled - can be increased or decreased (Weiner, 2005).

The combination of these three sets of beliefs about particular situations can have an important impact upon students' perceived competence in those situations (Pierson & Connell, 1992). Students' academic engagement and performance in school are enhanced by an optimal combination of appraisals of perceived strategy, perceived capacity and perceived control over academic tasks (Pierson & Connell, 1992).

Perceived competence, which consists of the students' beliefs about ability, effort, powerful others, luck or unknown factors that causes success or failure in school influences ones level of engagement and performance. Students who believe they have the capacity to learn a material are more likely to exert effort, persist on task and will succeed. In connection with this, Burden (2003) stated that students who feel they can succeed on the required learning tasks often stay on task and actually succeed. Burden also indicated that students who feel capable are less likely to get off-task and misbehave.

Empirical findings by Roeser, Midegley and Urdan (1996) showed that students who felt more academically competent achieved higher grades. They further revealed that those students who perceive themselves as more academically efficacious performed better even after the influence of prior achievement is controlled. Invariably, a study by Amare (2001) on secondary school students found that those who perceive themselves as more academically competent received higher test scores.

Students who perceive that they lack the ability required to carry out learning tasks are less motivated and consequently achieve less. With this regard, Elliott et al. (2005) stated "students are likely to demonstrate limited motivation in circumstances where they lack confidence in their ability to succeed." (p. 80). Invariably, Yalew (2003) stated that those students who have low perceptions of their ability may block their effort expenditure on educational tasks which makes higher academic performance less likely.

One of the most pervasive aspects that prevent individuals from realizing their full potential is lack of confidence in their ability to learn. With this regard, Yalew (2003) suggested that for effective utilization of one's endowed potentials, one should feel competent and strive harder. One's perception of low ability leads to disengagement in academic tasks which consequently undermine academic success (Wentzel, 1989). In a similar vein, Skinner et al. (1990) revealed that students who believe that they are not smart (have low ability) often show disengagement in academic activities.

Low perception of one's ability has also other undesirable outcomes. For example, Yalew (2003) indicated that those students who feel incompetent to carry out their academic activities become more anxious compared with those who believe they are competent. In a similar vein, Miserandino (1996) stated as: " Those students who perceive their ability with uncertainty reported feeling of anxious, angry, and bored in school and reported avoiding, and

faking school work." (p.208).These feelings and behaviors influence negatively students' engagement in school activities and consequently impair their academic performance.

Harris, Bolander, Lebrum, Docq and Bouvy (2004) proposed that the students' belief whether they can control the perceived causes for success or failure is one of the important factors influencing motivation and thus engagement with learning. In connection with this, Perry and Magnusson (1989) stated that if students attribute failure to be a result of lack of ability (which is believed to be internal and stable), it will enhance personal responsibility for failure, but it could limit the responsibility of working hard to improve future performance. Invariably, Elliott et al. (2005) indicated that if a student believes failure to be the result of lack of ability, the learner may feel that there is little he/she can do about his/her ability (which is relatively stable).

On the other hand, a study conducted by Tamirie (1997) suggested that if a student attributed his failure to lack of effort (which is controllable); he is more likely to improve his future performance. Similarly, Pintrich (2003) stated that students who believe they have more personal control over their own learning and behavior are more likely to do well in school than those who do not feel in control of their learning and behavior. Furthermore, Perry and Magnusson (1989) and Elliott et al. (2005) indicated that those students who believe their failure is due to lack of effort (over which they have high degree of control) may enhance personal responsibility for their failure and increase striving for success. Furthermore, students feel secure if they believe that, when necessary, performance can be improved by simply increasing effort (Perry & Magnusson, 1989).

In contrast, students who believe their failure is resulted from factors which are external and stable are less motivated to engage in school tasks and to improve their performance. With this regard, Perry and Magnusson (1989) indicated that those students

who attributed their failure to test difficulty resulted in reduced personal responsibility and offer less opportunity of changing failure to success. Students who believe their failure is due to the teachers' task selection (e.g., difficulty of the test) or the whimsical nature of supernatural forces (both of which are out of their control) lead to the belief that there is nothing they can do and thus experience failure (McCormick & Pressley, 1997).

Existing literature suggested that students' appraisals of their competence should represent fairly accurate perceptions of their capabilities. Overly optimistic or pessimistic perception of ones competence has dangers (Perry & Magnusson, 1989; Pintrich, 2003; Yalew, 2003). Those students who are consistently overestimating their capabilities may not be motivated to change their behavior in the face of feedback that provides them with information about their weaknesses (Pintrich, 2003). In a similar vein, Yalew (2003) stated that students overestimating their competence to undertake learning activities and perceiving others as less competent may not encourage to exert their effort which may consequently lead to failure.

On the contrary, one's perception of having inferior ability may also lead to disengagement in academic activities and result in low performance (e.g., Wentzel, 1989; Yalew, 2003). Such distorted perception of one's ability poses a series problem for future success.

In sum, research on the role of perceived competence to academic engagement and performance has indicated that students who believe that they are able and that they can control their future performance are much more likely to be motivated in terms of effort, persistence, and behavior than students who believe they are less able or their success is determined by factors beyond their control (e.g., task difficulty, luck). Research has also

indicated that these students who are confident in their ability and who believe their success is determined by their effort will engage in learning activities and consequently will succeed.

2.1.3. Perceived Relatedness and Academic Engagement and Performance

Connell (1990) has defined perceived relatedness as "the appraisal security of one's relationship with significant others in the social surrounding and the experience of oneself as worthy and capable of affection and positive regard". (p. 65). Teachers are among those significant people who are responsible in providing care, affection, and positive regard to the student is the teacher. Thus, the review made under this section is focused on the student's relationship with his/her teacher who is presumed to influence student's motivation to learn by providing a sense of relatedness.

Students' perception of their relatedness to school has an important influence on their learning. These social relationships focus on the value of establishing quality personal relationship for student learning (Daniels & Perry, 2003; Hughes & Kwok, 2007), mainly student-teacher relationship (Daniels & Perry, 2003; Marchand & Skinner, 2007).

The educational psychology literature indicates that students need to feel that their teachers care about them and support them as individuals having unique strengths and preferences as well as who need to be loved and respected by their teachers. For example, Klem and Connell (2004) stated that students need to feel that their teachers know and care about them. In a similar vein, Daniels and Perry (2003) indicated that school children have strong desires for teacher cared and support them as individuals and in their learning. Positive relationships facilitate feelings of importance, and consequently increase a sense of competence and effectiveness (Langhoult, 2004). This is because students who felt

appreciated by teachers are more likely to feel happy and comfortable in classroom and involve in academic activities (Furrer & Skinner, 2003).

Students' sense of relatedness to teachers provides a supportive framework from which they can explore the environment and master the challenges within that environment. With this regard, Jacobson, Edelstein and Hofmann (1994) reported that children with secure representation of attachment positively affected their readiness to explore the world. Invariably, Furrer and Skinner (2003) stated that children with secure relationships, who maintain sensitive and responsive interactions with adults, function well in a variety of life domains including school performance. There is also evidence that attachment relationships during adolescence continue to serve a similar purpose, providing a secure base from which the adolescent can explore his/her surrounding. For example, Jacobson et al. (1994) indicated that a secure base of relatedness in middle childhood and adolescence favored their cognitive functioning, and to explore the environment. These secure attachments and their corresponding internal representations allow children the freedom to explore and engage constructively in activities and interactions with their environment (Furrer & Skinner, 2003).

Self-determination theory emphasizes perceived relatedness as an important factor in maintaining behavior that is not intrinsically motivated (Deci & Ryan, 2000; Elliott et al., 2005). According to Deci and Ryan, relatedness, when compared with autonomy and competence, is less central to intrinsic motivation. They stated that people often engage in intrinsically motivated behaviors in isolation, suggesting that relational support may not be necessary as proximal factors in maintaining intrinsic motivation. Instead, a secure relational base appears to provide a needed backdrop for intrinsic motivation, a sense of security that makes the growth of their innate potential more likely.

Students' need for relatedness has an important influence on their motivation in school activities, which consequently affect their academic performance (Steinfeld, 2002). Students who feel cared and liked by their teachers in turn like their teachers, and often strive to meet the teachers' standards. In connection with this, Babcock (2003) stated that we all tend to make greater efforts for people we like. Adolescents' perceived secure relatedness allow them to achieve a sense of academic competence as well as actual school achievement by providing them with a secure emotional foundation (Wong et al., 2002).

Furrer and Skinner (2003) stated that the quality of teacher-student relationships, which include students' feelings of belonging, acceptance, and interpersonal support have been linked to their self-efficacy, success expectations, positive affect, engagement and school marks. They found that students' sense of relatedness positively predicted their classroom engagement.

Several studies have also shown that students who perceive that their teachers care for their learning and well-being are more engaged and perform better in tasks. For example, Hughes and Kwok (2007) found that the quality of student-teacher relationship positively influenced student engagement and consequently student's academic achievement. Research by Roeser et al. (1996) also revealed that students who have more positive teacher-student relationships experienced more positive affect when in school. Roeser and colleagues further indicated that those students who experienced a feeling of belonging in school also felt more academically competent.

In contrast, students who perceive the relationship they share with their teachers to be negative, that is, if they felt their teachers dislike them, did not want to know what they prefer to learn and the like, they exert less effort to their learning. With this regard, Daniels and Perry (2003) stated that, if students do not trust that their teachers know them enough to

provide appropriate care and support, they begin to disengage from learning activities. In a similar vein, Larose, Jarabulsy and Cyrenne (2005) found that students who perceived lower levels of relatedness with their teachers presented lower academic and emotional adjustment and lower academic performance. Furthermore, students who felt unimportant or ignored by teachers experienced more boredom, unhappiness and anger while learning (Furrer & Skinner, 2003).

2.2. Student Engagement and Academic Performance

Students' academic engagement involves such behaviors as doing classwork, homework, and other assigned works. It is conceptualized as the attention, interest, investment and effort students expend for academic activities (Marks, 2000 cited in Wondmagegnehu, 2006). According to Marks, engaged students perform academic activities inside and outside the classroom which consequently lead to success. In contrast, disengagement is evident when students are bored or make little effort. These disengaged students may daydream or even sleep in class, make a noise or show other undesirable behaviors.

Extensive evidence suggested that academic engagement is a critical element in students' academic performance. Research findings indicate that higher level of student engagement is linked with improved academic performance. For example, Elliot, McGregor and Gable (1999) reported that persistence and effort were significant predictors of exam performance. In a similar vein, Akey (2006) conducted a survey study on three secondary schools and found that academic engagement had a significant positive influence on math achievement. Research by Adane and Dawit (2000) also revealed that doing homework (an aspect of academic engagement) had positive effect on secondary school students' academic

achievement. Furthermore, Buhs, Ladd and Herald (2006) found that classroom participation was a significant predictor of achievement. According to Buhs et al. reductions in classroom participation precipitate underachievement.

Students' engagement positively influences academic performance because engaged students believe that they can control their actions and the consequence. With this regard, Mithaug, Mithaug, Agran, Martine and Wehmeyer (2003) stated as: "Engaged students believe that they are causal agents in dealing with their circumstances. They enjoy the challenge of learning, and they persist even when their pursuits present difficulties." (p. 6). Mithaug et al. further indicated that these students can regulate their actions to take advantage of their strengths and to compensate for their weaknesses.

According to Connell (1990), Student engagement is not only a robust predictor of student achievement, but it is also the only variable that directly effects academic achievement. All the other variables (e.g., teacher behaviors, student self-system processes) act through engagement. These variables indirectly influence academic performance by either enhancing or undermining student engagement in school activities. Even with the teachers' best efforts and students' high scores on their self-systems, in the end it is the students' level of academic engagement that determines how much and how well they learn.

2.3. Teacher Context

The pattern of social contingencies and relationships make up the basis of the self-system processes. Three specific social contexts are thought to be central to the development of self-system processes across the life span (Connell, 1990). These include autonomy support, structure and involvement. Connell argued that the individual's experiences of autonomy support, structure, and involvement (or lack of them) are the inter-subjective

aliments for the emergence and differentiation of the three self-system processes. These three characteristics of social relations are descriptions of the individuals experiences of information embodied in verbal and non verbal interpersonal communication. These communications may occur either in a one-on-one basis (e.g., teacher-student, student-student) or in institutional setting such as the school (e.g., teacher-students, student-peers).

This study focused on the relations of teachers to students. Accordingly, the forthcoming sections focused on the role of teacher context/support on students' self-systems.

2.3.1. Teacher Autonomy Support

We human beings are social creatures and as such we all depend on one another in different ways. Without the stimulus and comfort of social interaction; for example, without the nurturance of teachers to students learning, the development of the learner is disastrously impaired (Chanock, 2004). There are countless things that students can not readily discover for themselves. In such circumstances, it is responsible to depend up on others (e.g., teachers) who know more than the students do, so that students can learn how to operate in the new context (Chanock, 2004).

Classrooms are physical environments where teachers can provide support for students to bring about the intended learning outcomes. One of the provisions for students to bring about the required change is teachers' autonomy support.

Teacher autonomy support deals with the teachers' encouragement of students' intentional behavior and involves the respecting, valuing, and nurturing of their intrinsic motivation and self- determination (Legault, Green-Demers & Pelletier 2006). Invariably, Reeve and Jang (2006) defined teachers autonomy support as an interpersonal behavior in which a teacher provides to involve and nurture a student's intentionally locused and

volitional intentions to satisfy a student's psychological needs (e.g., autonomy, competence, relatedness), interests, preferences, and values.

The central idea of teacher autonomy support, as indicated by Legault et al. (2006) and Reeve and Jang (2006) revolves around the concept of intentionality and volition. The teacher in a position of authority is expected to exhibit a supportive behavior to help students act intentionally and volitionally (Legault et al., 2006; Reeve & Jang, 2006). When teachers are autonomy supportive, students feel heard and understood, they experience freedom to behave in accordance with their interests and choices, and they have the information they need to make appropriate choices and decisions (Williams, Saizow, Ross & Deci, 1997).

Teachers can support their students' autonomy in a variety of ways. Some of these may include participating students in the preparation of the lesson plan, allowing students time to work on a problem in their own way, giving a rational why adherence to a rule is important in the classroom or why a relatively uninteresting activity is important (Reeve & Jang, 2006). A fact of life is that we all must engage in tasks we do not particularly care for or want to do. Sometimes we engage in tasks we do not enjoy doing. Such activities are more apparent in academic tasks. Hence, teachers can encourage students to engage in such tasks by explaining why they are necessary or important.

It is also important for the teacher to encourage and assign activities such as homework and other assignments that will help students to explore realms and means that could ultimately pique their interest in autonomous learning (Nowlan, 2008). Teachers can enhance student's sense of autonomy by optimizing his/her opportunity to take initiative, while both asking for and respecting a student's opinions and values (Legault et al., 2006).

At the secondary school level more support for autonomy is needed to enable students to complete their schooling with the necessary knowledge and skills needed to succeed in post secondary education and careers (Santrock, 2006).

Teacher autonomy support, although emphasizes the benefits of giving students freedom, volition and responsibility for their own learning, recognizes the importance of moderate structure and guidance (Legault et al., 2006). Autonomy supportive teachers provide students with necessary information in solving a problem in their own way (Black & Deci, 2000).

Autonomy supportive teachers can help students develop a sense of congruence between their classroom behavior and their motivational resources (Reeve & Jang, 2006). As a result, student's autonomy is enhanced because the student feels free to act in accordance with his/her choices. In contrast, teachers who exhibit a controlling behavior pressure their students to behave in particular ways (Black & Deci, 2000; Williams et al., 1997) and put aside their motivational resources (Reeve & Jang, 2006). In such situations students feel pressured and do what they are told than what they believe to be right.

Autonomy supportive teachers when compared with controlling teachers promote positive student outcomes, such as students' autonomous motivation, psychological well-being and academic performance. With this regard, Chircove and Ryan (2001) examined the effect of autonomy support on self motivation and well being on Russian and the United States high school students. They found that Russian adolescents perceived parents and teachers as more controlling than the U.S. students; however, perceived autonomy support predicted greater academic self-motivation and well-being in both countries. In another cross-cultural study conducted by Levesque, Zuehlke, Stanek and Ryan (2004) in four universities of Germany and the United States (two universities each), it is found that greater positive

informational feedback and lower perceived control were positively associated with greater perceived autonomy and competence in both educational contexts.

Hagger, Chatzisarantis, Culverhouse and Biddle (2003) conducted a study in three high schools of the UK and found that perceived autonomy support predicted the internal perceived locus of causality; that is intrinsic motivation and identified regulation.

However, a research by Wong, Wiest and Cusick (2002) on sixth and ninth grade students has come up with mixed results. Their findings revealed a positive effect of teacher autonomy support on ninth graders' academically based outcomes which include students' preference for a challenging task, and a negative association between perceived autonomy support and sixth graders reading scores. They explained the negative relationship as resulting from the incongruence between the predictor and the criterion variables.

In sum, research has indicated that autonomy supportive contexts play an important role in increasing students intrinsic motivation and internalization, and in turn their learning. In contrast, controlling contexts tend to undermine intrinsic motivation and forestall internalization, and consequently impaired student learning. Teacher support for autonomy has also other desirable outcomes like promoting students' well-being, although this research has focused on the impacts of teachers autonomy support on students perceived autonomy (i.e., intrinsic and identified regulation) than on their impacts on well – being and other outcomes.

2.3.2. Teacher Structure

Classroom structure is essentially about people and how they carry out their roles. Both teachers and students have a set of expectations about what a classroom looks like, and what kind of activities should happen there. Specifically, structure refers to clearly

communicated and optimally challenging expectations for and consequences of individual action, consistent administration of the consequences and the provision of competence (Connell, 1990). In a similar vein, Tucker et al. (2002) stated that structure is the provision of positively stated classroom rules with fair and consistent enforcement of those rules. Students need a clear understanding of what teachers expect of them regarding their conduct, the consequences associated with not meeting those expectations should be consistent and predictable, and those expectations should also be fair (Klem & Connell, 2004; Tucker et al., 2002).

Teachers are concerned with the type of interaction in the classroom. This is because they know that there are many factors that go into building effective teacher-student and student-student relationships (Schultz, 2002). According to Brainard (2002), skilful teachers typically have two overall goals. These are to provide a productive climate for student learning and for academic achievement, and to foster student satisfaction in the classroom. He further indicated that these two goals are critical aspects of a suitable classroom atmosphere that no teacher can truly succeed without achieving them.

Both teachers and students want to feel safe and accepted when they are in the classroom (Schultz, 2002). These feelings which are developed over a period of time as a result of classroom interaction have to do with how comfortable each individual feels in the environment as appropriately organized and supportive of learning (Peterson & Skiba, 2002).

Teachers have tremendous responsibility in the classroom. They are expected to manage the procedural aspects such as indicating what will happen next, or when an activity will end (Plass, 1998). The teacher is also responsible for maintaining discipline, marking assignments and examinations, monitoring learning and the like. The teacher is expected to create a learning environment that encourages positive social interaction, active engagement

in learning, and self-motivation (Burden, 2003). Whether students feel secure and safe and whether they want to learn depends on the classroom structure (Schultz, 2002).

Students are expected to behave in accordance with the classroom rules, to show respect for the teacher as well as their peers (Cullingford, 2004, Plass, 1998), to do homework and assignment and the like (Plass, 1998). The way students behave is a response to the classroom structure and the demands of the classroom environment.

The classroom activities planned by the teacher (with or without the participation of students) determine the kind of work students carry out in class. Knowing the expected learning outcomes and competencies helps clarify planning (Cullingford, 2004). It is crucial that lack of clear expected learning outcomes (objectives) leads to the dangers of having goals so imprecise that nothing happens (Cullingofrd, 2004).

A learning environment needs to have order for students to be successful. To this effect teachers should establish appropriate rules, select the consequences, communicate the rules to the students, and obtain a commitment from the students about the rules (Burden, 2003). These rules provide guidelines for appropriate behavior so that learning can occur. They should be directed to ensure the quality of teaching and learning, and not rely entirely on patterning behavior through a set of distinct steps of learning (Burden, 2003; Culingofrd, 2004).

When there is order in the classroom, then individual student can become engaged in the learning activities. In case of lack of clear rules, students of high social status or subgroups of students will rule life in the classroom (Storens et al., 2008). This situation may cause rivalry and competition among students. Such learning contexts would lead to the development of negative feelings such as concern, fear and frustration. These feelings may

negatively affect learning and behavior (Peterson and Skiba, 2002). When such situations occur, teachers need to respond in an effort to get the student back on track.

A classroom is not organized for its own sake and just for the convenience of the teacher. It is because there is a common perception that well structured learning environments are prerequisites for learning in schools (Stornes et al., 2008). Classroom task structures influence the thoughts and actions of students and help determine the degree of their cooperation and involvement. With this regard, Cullingford (2004) stated that in successfully organized classrooms students are self-disciplined, feel confident, unafraid to ask questions and able to work cooperatively. Cullingford further indicated that a structured classroom creates and celebrates the achievements of students.

A research finding reported by Greene, Miller, Crowson and Duke (2004) indicated that students' perception of class structures are important for their motivation to learn. This happens only when the rules of the classroom are clear and understood by the students (Connell, 1990; Cullingford, 2004; Klem and Connell, 2004; Tilestone, 2004). Consistent application of the rules is essential to motivate students to engage in their learning. Students appreciate teachers who are well organized, strict (consistent in enforcing rules), and responsible to their needs (Cullinfgord, 2004).

In order to motivate students, it is necessary to provide optimally challenging learning tasks. Congruent with this, Deci, Ryan and Williams (1996) stated as "If it is too easy it tends to be boring, and if it is too difficult it tends to be overly anxiety provoking." (p. 176-177). In a similar vein, McNamara (2001) stated that teachers should provide learning activities which are closely related to students' abilities and what they already know and which may advance their learning in terms of knowledge, understanding and skill.

Teachers can promote students' sense of competence in a number of ways. For example, the two concepts of Lev Vygotsky's are important for a teacher to help his students learn (Eggen & Kauchak, 2001). These are scaffolding and zone of proximal development. Teachers can provide instructional scaffolding by using a variety of strategies. These may include: breaking complex skills into sub skills, asking questions and adjusting their difficulty, presenting examples, and providing prompts and cues (Eggen & Kauchak, 2001). The zone of proximal development deals with a state of learning in which a student can not solve a problem or perform a skill alone, but can be successful with the help of a teacher (Eggen & Kauchak, 2001). A skilled helper presents the student with tasks of varying difficulty to determine the level at which to begin instruction (Santrock, 2006). Related with these concepts of Vygotsky, McNamara (2001) stated the following:

> *When work was presented at the right level children were confident and not afraid and they display a sense of purpose and appeared to enjoy the challenge of the increasing but realistic demands placed upon them. When work was not reasonably matched in nearly all cases it was not sufficiently demanding. It was rare for children of any age or ability to be required to undertake work which was difficult for them. (p. 48).*

The strategies used by teachers such as moving students from what they know to a new and optimally challenging builds students feeling of academic competence. Students who feel competent persist on task.

It is also necessary to make mistakes acceptable to encourage students feel capable of learning. According to Burden (2003) the fear of making mistakes hampers the learners' feelings in his ability. He stated that teachers can help on this issue by equating mistakes to effort, and minimizing the effects of making mistakes.

On the other hand, criticizing students because of making mistakes or poor academic performance may have a negative effect on their perceived competence. With this regard,

Brendgen, Wanner, Vitaro, Bukowski and Tremblay (2007) revealed that teachers' verbal abuse negatively affected students perceived scholastic competence after controlling for sex, socio economic status, anxiety, school performance and peer social preference. Since teachers are the primary adult figures for school children feedback regarding their academic competence comes primarily from them (Brendgen et al., 2007; Sprinthall, Sprinthall, & Oja, 1994). As a result, students who are verbally abused by the teacher because of poor academic achievement are less likely to develop positive academic self-concept (Brendgen et al., 2007). Brendgen and colleagues emphasized the problem by stating as: "if a child is repeatedly told that his/her poor performances due to his or her stupidity, he or she may eventually come to believe it." (p. 27).

Students' sense of competence is enhanced when teachers assure them success is possible. Teachers can do this by focusing on improvement, noticing contributions, building on strengths, showing faith in students and acknowledging the difficulty of a task (Burden, 2003).

Finally, making learning tasks tangible helps students to build their confidence that they can achieve the communicated instructional objectives. Related with this, Santrock (2006) captured the following: "In education today, there is an increased emphasis on moving away from abstract presentations of material to providing students with opportunities to experience learning in meaningful, real world setting." (p.239). The provision of tangible real world experiences to students allows them to see their progress and would contribute to build their sense of academic competence.

In sum, helping young adolescents feel competent, learn the skills of self-control and motivating to become productive, contributing, and knowledgeable adult participants in society is one of the most important responsibilities that good teachers undertake.

2.3.3. Teacher Involvement

Involvement refers to "the extent to which teachers are genuinely interested in students' well-being, their individual needs and developmental possibilities." (Stornes et al., 2008: 317). Stornes and his research team stated that involved teachers are more likely to build close relationships with their students and provide them a sufficient amount of feedback. It is through their involvement that teachers can communicate a sense of relatedness to their students (Marchand & Skinner, 2007).

Students who felt secure with their teachers and who felt able to get help when they faced problems tended to cope more positively with academic failure, to more autonomous in regulating their classroom as well as school behaviors, and to engage more with learning, and to feel better about themselves (Deci &Ryan, 2000; Deci et al., 1996). It is essential for teachers to have an insight in to student's fears for the obvious reason that one can not expect high productivity from emotionally disturbed students (Deci & Ryan, 2000; Furrer & Skinner, 2003; Jacobson, Edelstein & Hofmann, 1994).

In situations where teachers share with their time, energy, and nurturance, students tend to be attentive, interested and effortful in their learning. Related with this, Tucker and Colleagues (2002) conducted a study on African American students in first through 12th grades and revealed that teacher involvement strongly predicted students' engagement in academic tasks for both the lower and the higher grade levels.

Teachers can demonstrate that they are caring for their students by allocating sufficient time to them. With this regard, Eggen and Kauchak (2001) stated that a common thread that communicates teacher's involvement is time. According to Eggen and Kauchak teachers' willingness to spend time with a student, that is, talking about a personal problem or

helping a student to solve a problem (e.g., assignment) communicates that the student is important enough to a teacher that the teacher allocates time to help the individual.

Students from economically disadvantaged families face a problem of developing close relationships with others including with their teachers. In connection with this, Vandewiel (1981) found that children of poorer parents were more subject to fears than children of wealthier families, and the severity increases with increased age (e.g., as the child promoted from primary to secondary school level). Extended hours are needed to communicate a sense of secured relationship to students from poorer family backgrounds. With this regard, O'Connor and McCartney (2006) stated that teachers may need more hours with insecure than with secure children to know their needs and to provide the necessary support. This is because, according to O'Connor and McCartney (2006), children who feel insecure do not communicate their care giving needs as clearly as do secure children.

2.4. Summary of the Review of Literature

The self-system is our conscious representation of who we are. It originated and developed through our interaction with the society. The individuals' appraisals of the self and their social surround have an influence on what they actually do. The self-system processes direct a person's effort toward satisfying the need for autonomy, competence and relatedness.

Students' autonomous regulation is evident when individuals are either intrinsically motivated or integrated behaviors which are initially external. When the internalization process is forestalled, the resulting partial internalization leads to the development of controlled regulation in the learner, that is, either the behavior remain external or the learner experience introjected regulation.

Previous research indicated that autonomous learning had a strong association with an increased level of involvement, persistence and curiosity in school activities, and improvements in academic performance. Conversely, controlled learning condition was associated with feelings of stress, passive and avoidant study behaviors, and less interest in learning. These behaviors in turn were associated with poor academic performance.

The literature did also document findings which show positive relationship between perceived competence and academic engagement. Students who feel they are academically competent often engage in school activities and persist on task and are likely to succeed. In contrast, individuals who perceive themselves incompetent feel anxious, angry and bored in school and show disengagement and consequently perform poorly in school subjects.

Previous works showed that students who feel cared and supported by their teachers involve more in academic activities and improve their performance. On the other hand, students who felt unimportant, or ignored by their teachers experience boredom, unhappiness and disengagement in learning which makes better performance unlikely.

Supportive teacher contexts, that is, teacher autonomy support, provision of structure and involvement in students' learning are documented necessary in the literature. These supportive teacher behaviors facilitate and allow students to develop and maintain autonomous regulation, promote sense of competence, and enhance feelings of connectedness, which in turn promote students engagement in academic activities and consequently lead to better academic performance.

In general, the reviews made in this chapter showed that there exists a meaningful relationship between teacher context, students' self-system processes, academic engagement and academic performance that demand attention.

CHAPTER THREE
RESEARCH METHODOLOGY

This chapter is devoted to explain the procedures employed to investigate relationships among teacher context, students' self-system processes, students' academic engagement, and academic performance. Thus, the research design, participants and sampling procedure, data gathering tools, scoring procedure, the pilot study, data collection procedures and method of data analyses are explained in detail.

3.1. Research Design

Relational design was employed to examine the relationships among teacher context, students' self-system processes, students' academic engagement, and academic performance. The reason for employing this design is that the purpose of this study was to discover relationships among the variables stated previously with a view ultimately predicting academic performance.

3.2. Participants

The participants of this study were General Secondary School Students of Debre Berhan town. There were two general secondary schools in the town. These were Debre Berhan General Secondary School (DBGSS) and Basso General Secondary School (BGSS). DBGSS had 1,657 students in Grade 9 (783 males and 874 females) in 30 sections, and 1358 students in Grade 10 (609 males and 749 females) in 20 sections. And BGSS had 1,085 students in Grade 9 (474 males and 611 females) in 18 sections, and 537 students in Grade 10 (276 males and 261 females) in nine sections. The two schools comprised an aggregate population of 4,637 (2,142 males and 2,495) students in 77 sections.

The participants were selected using stratified random sampling method. Stratified random sampling was used in order to adequately represent the subgroups in terms of sex and grade level. Using stratified random sampling, a total of 21 sections were selected-14 sections from DBGSS (eight sections from Grade 9, six sections from Grade 10), and seven sections from BGSS (five sections from Grade 9, two sections from Grade 10). Then, 350 participants (162 males, 188 females) were selected from the 21 sections proportionally in terms of sex and Grade level. Out of the selected participants 23 were not included in the study because seven (3 males, 4 females) were not present during the administration of the questionnaire, and 16 (7 males, 9 females) did not provide complete information. Thus, the study sample consisted of 327 (152 males, 175 females) participants as demonstrated in Table 1 below. The participants' age ranged from 14 to 25 with a mean of 16.50 and a standard deviation of 1.47.

Table 1
Participants by school, grade and sex

School	Grade	Sex		Total
		Female	Male	
DBGSS	9	64	56	120
	10	53	41	94
BGSS	9	44	35	79
	10	14	20	34
Total		175	152	327

3.3. Data Collection Instruments

Relevant data were collected from students through questionnaire and from documents. Documents were used to collect students' academic performance. The questionnaire was used to collect data regarding students' background information, experience of teacher support, self-system processes and academic engagement. The

background part deals with students' age, sex, grade level, section, roll number and school. The other parts were focused on the following variables.

3.3.1. Teacher Context

Students' experience of teacher support was assessed using RAPS-S (Research Assessments Package for Schools-Student Version). The RAPS-S teacher support scale used to measure secondary school students' experience of teacher support, as employed and reported by Klem and Connell (2004). It comprised a total of 14 items that tap the extent to which the student feels that teachers 1) are involved with them (5 items), 2) provided autonomy support (4 items), and 3) provided structure (5 items). Thus, three scores were derived to serve as an index of the three dimensions of teachers support, that is, teachers' autonomy support and teachers' provision of structure, and teachers' involvement.

3.3.2. Students Self-System Processes

3.3.2.1. Perceived Autonomy

The items that will be used to measure students reasons for engaging in academic work consists of four subscales reflecting different forms of regulation differing in their relative autonomy. The subscales include external, interojected, identified and intrinsic regulatory process arranged in a continuum from the least autonomous (most controlled) to the most autonomous respectively. These four subscales from the academic motivation scale (AMS; Vallerand, Blair, Briere & Pelletier, 1989, cited in Ratelle, Guay, Vallerand, Larose, & Senecal, 2007) were adapted in the present study to assess student's reasons for pursuing their academic activities. The scale consisted of 16 items in the four subscales (four items each). From the 16 items, two items were slightly modified to make them appropriate (contextualize) to the present population. The scales have been found to be reliable and valid

(Vallerand et al. 1989; cited in Ratelle, et al., 2007). Ratelle et al. (2007) have also found these scales reliable.

3.3.2.2. Perceived Competence

Students perceived academic competence scale is an index of students' perceptions about how successful they can be in school and the degree of control they have over their academic performance. In the present study, nine items developed by Akey (2006) to assess secondary school students perceived academic competence was adapted. This scale was found to be reliable (Akey, 2006).

3.3.2.3. Perceived Relatedness

Students' appraisals of their relationship with their current teachers regarding teacher provision of care, affection and positive regard; and students' senses of closeness and mutual respect between them and their teachers were assessed using 12 items. Nine of these items are similar to those developed to measure an individual's relationship with another person (SDT Measures, n.d.). In the present study, these items are restated in the manner they could indicate students feelings of relatedness to their teachers. The rest three items were developed by the present researcher based on the literature of the concept relatedness to increase the reliability of the scale.

3.3.3. Academic Engagement

The RAPS-S academic engagement scale was adapted to measure the extent to which a student exerts effort on school work, pays attention in class and believes that doing well in school is personally important. This scale, which consisted of five items, required students to

indicate their responses how true is it for them on four of the five items ranging from 1 (not at all true) to 5 (very true), and how important is it for them on one of the five items ranging from 1 (not at all important) to 5(very important). This scale has been found to be reliable (Akey, 2006; Klem & Connell, 2004).

3.3.4. Academic Performance

The 2008/9 first semester average scores were collected from students record to serve as an index of academic performance. Several researchers (e.g., Amare, 2001; Assaye, 2004; Black & Deci, 2000; Miserandino, 1996; Patrick, Ryan & Kaplan, 2007) have also used students' classroom achievement records to serve as an index of academic performance.

3.4. Procedures

3.4.1. Translation

The questionnaire was translated into Amharic by the present researcher and later three language experts who were believed to be competent were consulted to improve the quality of the translation. All of them have been instructors (Assistant lecturer level) in different Universities of Ethiopia and at the time of the translation they were graduate students in language department (two of them in English department and the other in Amharic department). Having these experiences and education level, they contributed a lot in the improvement of the translation. The Amharic version of the questionnaire was administered to collect the data. The translation was made primarily to avoid language barrier in understanding and giving responses to the items.

3.4.2. Scoring

All the instruments in the questionnaire, except that ask for students' background information had a 5-point Likert type scale. Students responded to each item on this 5-point scale ranging from 1 (not at all true/important) to 5 (very true/important). Students' scores on each scale were obtained by averaging the items that make up that scale. However, before averaging, the scores on negatively stated items were reversed. The (R) after an item (see appendix A) indicates that the items score is the reverse of the participants' response on that item. Thus, a higher average score indicate more of the scale described. For example, a higher score on perceived competence means the student felt academically more competent.

Obtaining a score on students' perceived autonomy is different from the other scales. First, each student would get a score on each subscale by averaging responses to each of the items that make up that subscale. Then, Relative Autonomy Index (RAI) score was derived by applying different weighting to the four subscales: -2 for External regulation, -1 for Interojected regulation, + 1 for Identified regulation, and +2 for Intrinsic regulation (see d'Ailly, 2003 for a similar methodology). Thus, RAI will be computed as follows:

RAI= (2 x Intrinsic) + (Identified) - (Introjected) - (2x External)

Larger positive scores indicate more autonomous regulatory style; and larger negative scores indicate more controlled (less autonomous) regulatory style. Phrased differently a higher score on RAI means a student felt more autonomous to accomplish his/her academic tasks and vice versa.

3.4.3. Pilot Study

Before the actual administration, the questionnaire was pilot tested in 50 (23 males and 27 females) representative sample of participants of DBGSS. Out of these 50 samples

two of them (both were males) failed to provide complete data. As a result, the pilot study samples were 48 students. Of these students 26 were Grade 9 (11 males, 15 females), and the remaining 22 students were Grade 10 (10 males, 12 females).

The reliability of each instrument was computed Using SPSS version 12.0. The analysis indicated that two items from perceived relatedness scale were had low item total correlation and thus were deleted. The reliability coefficients (after excluding the two items) of the instruments are presented in Table 2.

Table 2
Reliability coefficients of the instruments of the questionnaire (N=48)

Scale	Cronbach's Alpha	Number of Items
Teacher Autonomy Support	.73	4
Teacher Structure	.72	5
Teacher Involvement	.76	5
Perceived Autonomy	-	16
• Intrinsic Regulation	.80	4
• Identified Regulation	.74	4
• Introjected Regulation	.73	4
• External Regulation	.71	4
Perceived Competence	.79	9
Perceived Relatedness	.82	10
Academic Engagement	.76	5

The validity of the instruments is claimed on several grounds. First, the instruments were consistent with the conceptual definition of the construct in the literature. Second, most of the instruments were used in different cultures and reported to be valid and reliable. Third, one psychology instructor (Assistant Professor) of Addis Ababa University has judged the instruments in terms of relevance and clarity, and approved them. Finally, the instruments were reliable as demonstrated in Table 2. Thus, the instruments were considered to be valid.

3.4.4. Data Collection

All measures in the questionnaire were combined in to a single instrument for the purpose of administration. For administration purpose we used the Auditorium of DBGSS and free classrooms in BGSS. In both schools the principals' cooperation was high. The unit leaders and teachers in general were cooperative. The participants were asked to participate voluntarily, and indeed all showed great interest to participate in the study. Following their willingness to participate, the questionnaires were group administered to the students in a face-to-face manner with the assistance of three instructors. All were instructors in Debre Berhan University, one of them was a lecturer and the other two were assistant lecturers. We provided standard oral instructions to all participants (i.e., in addition to the written instructions in the questionnaire). We instructed them to work independently and supervised them to avoid discussion. In addition, we encouraged the participants to answer all of the questions and instructed that there was no "right" or "wrong" answer. We also reminded them that their responses were confidential. The administration lasted 35 minutes on average.

3.5. Method of Data Analysis

The present study employed descriptive statistics, bivariate correlation, regression analysis and path analyses techniques using SPSS version 12.0. Descriptive statistics was used to provide an overall picture of the scales. The bivariate correlation was used to see the general pattern of relationships of the study variables. Regression analysis was used to determine the impact of the independent variable on the dependent variable.

This study also employed path analysis modeling technique. Path analysis is an extension of regression analysis, a statistical technique used to produce a quantitative estimate of how much the independent variable influences the dependent variable. Each

variable in a path analysis model is considered as dependent variable in a regression analysis when antecedent variables are treated as independent variables. A variable that serves as a dependent variable in one part of the model may serve as an independent variable in another part of the model.

Path analysis models specify hypothesized associations or directional relationships among a set of sequentially ordered variables. The model is usually depicted by one-way arrows, which indicate the hypothesized direction of causation. In the present study, path analysis was used to test the causal model depicted in figure 2.

The testing of the indirect effect for statistical significance was computed manually (see Appendix C for detail).

CHAPTER FOUR
RESULTS AND DISCUSSION

This part of the study deals with presentation and analyses of data. The data were collected from two general secondary school students of Debre Berhan town. These schools were Debre Berhan general secondary school and Basso general secondary school; of these schools 327 (152 males and 175 females) students provided complete data. The analyses were made based on these questionnaires as well as the documents referred.

This chapter has two major parts. The first part presents the results of the study. These results are presented in the following sequence. First, Means, Standard deviations and bivariate correlations among the study variables are displayed. Second, the bivariate correlations among autonomous and controlled motivational orientations, academic engagement and academic performance are presented. This is because the Relative Autonomy Index (RAI) obscures any possible independent effects of students' motivation orientations (i.e., Autonomous and controlled regulations) on academic engagement and performance. Thus, their effects are examined by employing multiple regression analysis. Finally, the testing of the proposed path model is presented.

The second part of the chapter discusses the findings of the study in light with previous findings and/or theoretical concepts of the constructs.

4.1. Results

4.1.1. Descriptive Statistics and Bivariate Correlations Among the Study Variables

A. Means and Standard Deviations of the Study Variables

Table 3 presented the means and standard deviations. Descriptive values presented here are intended to provide an overall picture of the scales employed in the study. As can be seen, in general students tended to positively endorse the scales. For example, the average scores for teacher support scales, that is, teacher autonomy support, teacher provision of structure, and teacher involvement were 3.93, 4.06, and 3.96, respectively, which are above the scale midpoint of 3.0. Students also felt connected with their teachers (M=3.84), academically competent (M=3.99), as well as engaged in their academic activities (M=4.16). All these scores are above the scale midpoint (3.0). The mean score of perceived autonomy (.32) was also above the midpoint of the scale (0.0).

Table 3
Descriptive Statistics of the Study Variables (N=327)

Variables	M	SD
Teacher Autonomy Support	3.93	0.68
Teacher Structure	4.06	0.66
Teacher Involvement	3.96	0.61
Perceived Autonomy (RAI)	0.32	1.86
Perceived Competence	3.99	0.60
Perceived Relatedness	3.84	0.58
Academic Engagement	4.16	0.66
Academic Performance	60.96	10.01

B. Examining the Relationships Among the Study Variables

In order to understand relationships among the variables, it is important to examine the nature and degree of relationship among the variables and to test the statistical significance of the relationship. As shown in Table 4, there were positive and significant correlations among the majority of the study variables. However, the results from the present study indicated that teacher involvement did not show significant relationship with students' perceived autonomy (r = .08, ns).

Table 4
Bivariate Correlations Among the Study Variables (N =327)

Variables	1	2	3	4	5	6	7	8
1 Teacher Autonomy Support	_							
2 Teacher Structure	.443**	_						
3 Teacher Involvement	.288**	.430**	_					
4 Perceived Autonomy (RAI)	.170**	.150**	.080	_				
5 Perceived Competence	.243**	.393**	.296**	.220**	_			
6 Perceived Relatedness	.326**	.412**	.458**	.190**	.463**	_		
7 Academic Engagement	.158**	.276**	.284**	.215**	.545**	.418**	_	
8 Academic Performance	.150**	.200**	.157**	.356**	.388**	.351**	.498**	_

** P < .01, 2-tailed

4.1.2. Direct and Mediational Relationships of the Study Variables

4.1.2.1. Direct Relationships

This part examines the direct relationships of (1) teacher support variables to students' self-system processes, (2) students self-system processes to students' academic engagement, and (3) students academic engagement to academic performance.

A. Associations between Teacher Context Variables and Students' Self-System Processes

To test the direct effects of teacher context variables on students' self-system processes multiple regression analysis was employed. Results shown in Table 5 revealed that teacher autonomy support was a significant predictor of perceived autonomy, $\beta = .129$, $t = 2.114$, $P<.05$. However, teacher structure ($\beta = .093$, $t = 1.529$, ns) was not a significant predictor of perceived autonomy. Using stepwise regression analysis (see Table 6), the effect for teacher autonomy support was significant in the first step ($\beta = .170$, $t = 3.109$, $P<.01$) and explained 2.9% of the variance in students perceived autonomy ($\Delta R^2 = .029$, $F (1, 325) = 9.664$, $P< .01$). However, the addition of the effect of teacher structure in the regression model ($\Delta R^2 = .007$, $F (1, 324) = 2.339$, ns) did not significantly add to the amount of explained variance.

Table 5
Direct Relations between Teacher Support Variables and Students' Self-System Processes

Predictor Variables	Dependent Variables				
	β	t	R^2	df1,df2	F
	Perceived Autonomy				
Teacher Autonomy Support	.129	2.114*	.036	2,324	6.021**
Teacher Structure	.093	1.529			
	Perceived Competence				
Teacher Autonomy Support	.068	1.197			
Teacher Structure	.299	4.976**	.178	3,323	23.267**
Teacher Involvement	.147	2.619**			
	Perceived Relatedness				
Teacher Autonomy Support	.139	2.614**			
Teacher Structure	.209	3.725**	.282	3,323	42.196**
Teacher Involvement	.328	6.231**			

* P < .05, ** P < .01

For perceived competence, teacher structure (β= .299, t = 4.976, P<.01) and teacher involvement (β = .147, t = 2.619, P<.01) were significant predictors (see Table 5). However, teacher autonomy support (β= .068, t= 1.197, ns) was not a significant predictor. Using stepwise regression analysis, as can be seen from Table 6, the effect of teacher structure was significant in the first step, β =.393, t =7.702, P<.01, R^2 = .154, F (1, 325) = 59.316, P<.01.

Table 6
Results of Stepwise Regression Showing the Incremental Contribution of Teacher Support Variables in Explaining the Variance in Students' Perceived Autonomy, Perceived Competence, and Perceived Relatedness

Model	Independent Variables	Dependent Variables								
		β	t	R^2	df1, df2	F	ΔR^2	ΔF	df1	df2
		Perceived Autonomy								
1	Teacher Autonomy support	.170	3.109**	.029	1, 325	9.664**	-	-	-	-
2	Teacher Autonomy support	.129	2.114*							
	Teacher Structure	.093	1.529	.036	2, 324	6.021**	.007	2.339	1	324
		Perceived Competence								
1	Teacher structure	.393	7.702**	.154	1,325	59.316**	-	-	-	-
2	Teacher structure	.326	5.828**							
	Teacher involvement	.156	2.781**	.174	2, 324	34.138**	.020	7.731**	1	324
3	Teacher structure	.299	4.976**							
	Teacher involvement	.147	2.619**	.178	3, 323	23.267**	.004	1.433	1	323
	Teacher autonomy support	.068	1.197							
		Perceived Relatedness								
1	Teacher involvement	.458	9.285**	.210	1,325	86.216**	-	-	-	-
2	Teacher involvement	.344	6.534**							
	Teacher structure	.264	5.004**	.266	2, 324	58.819**	.057	25.044**	1	324
3	Teacher involvement	.328	6.231**							
	Teacher structure	.209	3.725**	.282	3, 323	42.196**	.015	6.832**	1	323
	Teacher autonomy support	.139	2.614**							

*P<.05, **P<.01

It explained 15.4 % of the variance in students' perceived competence. The addition of teacher involvement in the regression equation in the second step significantly increased the amount of variance explained, $\Delta R^2 = .020$, F (1, 324) = 7.731, P<.01. However, the addition of teacher autonomy support in the third step did not significantly add to the amount of variance explained, $\Delta R^2 = .004$, F (1, 323) = 1.433, ns.

As displayed in Table 5, for perceived relatedness all the three teacher context variables- teacher autonomy support (β = .139, t = 2.614, P<.01), teacher structure (β = .209, t= 3.25, P<.01), and teacher involvement (β = .328, 6.231, P<.01) were significant predictors. Using stepwise regression analyses (see Table 6), the effect of teacher involvement in the first step was significant, β = .458, t = 9.285, P<.01, R^2 = .210, F (1, 325) = 86.216, P<.01. In step 2, the addition of teacher structure in the model significantly increased the amount of variance explained, $\Delta R^2 = .057$, F (1, 324) = 25.044, P<.01. The addition of teacher autonomy support in the third step did also significantly increased the amount of variance explained, ΔR^2 = .015, F (1, 323) = 6.832, P<.01. Thus, the three teacher support variables in combination explained 28.2% of the variance in students' perceived relatedness.

In sum, among the three components of teacher context variables only teacher autonomy support was a significant predictor of perceived autonomy. For perceived competence, teacher structure and teacher involvement were significant predictors. However, teacher autonomy support was not significantly related to perceived competence. For perceived relatedness, all the three components of teacher support variables were significant predictors. Furthermore, the three components of teacher support variables – teacher autonomy support, teacher structure, and teacher involvement were significantly related to the corresponding dimensions of students' perceived autonomy, perceived competence, and perceived relatedness, respectively.

B. Relationship of Students' Self-System Processes to Academic Engagement

As shown in Table 7, Perceived Competence (β = .433, t = 8.383, P<.01) and perceived relatedness (β = .202, t = 3.939, P<.01) were significant predictors of academic engagement. However, perceived autonomy (β = .081, t = 1.729, ns) was not significantly related to academic engagement.

Table 7
The influence of Students' perceived Autonomy on Academic Engagement

Predictor Variables	Dependent Variable: Academic Engagement				
	β	t	R^2	df1,df2	F
Perceived Autonomy	.081	1.729			
Perceived Competence	.433	8.383**	.338	3,323	54.935**
Perceived Relatedness	.202	3.939**			

**P<.01

To examine the incremental contribution of the variables in explaining the variance in academic engagement stepwise regression analyses were employed. As can be seen in Table 8, the effect of perceived competence was significant in the first step, β= .545, t = 11.708, P< .01, R^2 =. 297, F (1, 325) = 137.066. The addition of perceived relatedness in the regression model significantly increased the amount of variance explained, ΔR^2 = .035, F (1, 324) = 17.010, P< .001. However, the addition of perceived autonomy in the regression model in the third step did not significantly add to the amount of variance explained, ΔR^2 = .006, F (1, 323) = 2.989, ns. Thus, perceived competence and perceived relatedness in combination explained 33.2% of the variance in students' academic engagement.

Table 8
Stepwise Regression Showing the Incremental Contribution of Students' Self-System Processes in Explaining the Variance in Academic Engagement

Model		Dependent Variable: Academic Engagement								
		β	t	R^2	df1, df2	F	ΔR^2	ΔF	df1	df2
1	Perceived competence	.545	11.708**	.297	1, 325	137.066**	-	-	-	-
2	Perceived competence	.447	8.720**							
	Perceived relatedness	.211	4.124**	.332	2, 324	80.414**	.035	17.010**	1	324
3	Perceived competence	.433	8.383**							
	Perceived relatedness	.202	3.939**	.338	3, 323	54.935**	.006	2.989	1	323
	Perceived autonomy	.081	1.729							

**P <. 01

C. Relationship between Students' Academic Engagement and Academic Performance

To test the effect of academic engagement on academic performance, the outcome variable was regressed on academic engagement. As shown in Table 9 academic engagement was a significant predictor of academic performance, β = .498, t = 10.340, P < .01. It explained 24.5% (R^2= .245, F (1, 325) = 106.907, P < .01) of the variance in students academic performance.

Table 9
The Influence of Academic Engagement on Academic Performance

Predictor Variable	Dependent Variable: Academic Performance				
	β	t	R^2	df1,df2	F
Academic Engagement	.498	10.340**	.245	1, 325	106.907**

**P<.01

D. Relationships Among Motivational Orientations, Academic Engagement and Academic Performance

The mean scores of Autonomous regulation (4.08) and Controlled regulation (3.94) as can be seen in Table 10 are above the scale midpoint of 3.0. The mean scores of academic engagement and academic performance are also above the midpoints of the corresponding scales, as shown previously under section 4.1.1. (A).

The correlations among the motivational orientations, academic engagement, and academic performance as displayed in Table 10 are positive and significant, except for the relationship between controlled regulation and academic achievement, which is negative and nonsignificant.

Table 10
Descriptive Statistics and Bivariate Correlations Among Motivational Orientations, Academic Engagement and Academic Performance (N = 327)

	Variables	M	SD	1	2	3	4
1	Autonomous Regulation	4.08	.61	-			
2	Controlled Regulation	3.94	.63	.599**	-		
3	Academic Engagement	4.16	.66	.414**	.210**	-	
4	Academic Performance	60.96	10.01	.309**	-.038	.498**	-

** P < .01, 2-tailed

Multiple regression analysis was performed to explore the independent effect of autonomous and controlled motivation orientations on academic engagement and academic performance. Each outcome was regressed on the two motivational predictors. The results are presented in Table 11. As can be seen from the Table autonomous motivation positively predicted both academic engagement (β= .450, t = 7.131, P < .01), and academic performance (β= .517, t = 8.192, P < .01). An almost opposite pattern of findings emerged for controlled

regulation: It negatively predicted academic performance (β = -.348, t = - 5.514, P < .01), yet was not significantly related to academic engagement (β= -.060, t = - .944, ns).

Table 11
Students' Motivational Orientations as Predictors of Academic Engagement and Academic Performance

Predictor Variables	**Dependent Variables**							
	Academic Engagement				Academic Performance			
	β	t	R^2	F(2, 324)	β	t	R^2	F(2, 324)
Autonomous Regulation	.450	7.131**	.174	34.082**	.517	8.192**	.173	33.842**
Controlled Regulation	-.060	-.944			-.348	-5.514**		

**P <. 01

4.1.2.2. Mediational Relationships

A variable in a path analysis model is considered as dependent variable in a regression analysis when antecedent variables are treated as independent variables. The variable that serves as a dependent variable in one part of the model may serve as an independent variable in another part of the model. This intervening variable is the mediator.

To test mediational relationships between the study variables, regression analysis was conducted on the bases of the method outlined by Baron and Kenny (1986). According to Baron and Kenny evidence of mediation is based on three conditions: (1) the independent variables must be significantly related to the dependent variable, (2) the independent variables must be significantly related to the mediators, and (3) the mediators must be significantly related to the dependent variables. If these conditions are met, one can conclude

that the independent variable has an indirect effect on the dependent variable through the mediator variable.

A. Is the Influence of Teacher Context on Students' Academic Engagement Explained by its Effects on Students' Self –System Processes?

Perceived competence mediated the relations between teacher structure and academic engagement. First, teacher structure was positively related to academic engagement, $\beta = .181$, $t = 2.884$, $P < .01$. Second, teacher structure was positively related to perceived competence, $\beta = .299$, $t = 4.976$, $P < .01$. Third, perceived competence was positively related to academic engagement, $\beta = .433$, $t = 8.383$, $P < .01$. Thus, the three conditions of mediation are satisfied.

Perceived competence did also mediate the relations between teacher involvement and academic engagement. Because (1) the relation between teacher involvement and academic engagement was significant, $\beta = .200$, $t = 3.419$, $P < .01$, (2) the relation between teacher involvement and perceived competence was significant, $\beta = .147$, $t = 2.619$, $P < .01$ and (3) the relation between perceived competence and academic engagement was significant as shown previously. Thus, all the three condition of mediation were met.

When perceived competence was tested as a mediator between teacher autonomy support and academic engagement, there was no significant relationship between teacher autonomy support and academic engagement ($\beta = .020$, $t = .339$, ns), and there was also no significant relationship between teacher autonomy support and perceived competence ($\beta = .068$, $t = 1.197$, ns). However, the relationship between perceived competence and academic engagement was significant, as shown previously. Thus, the first and the second

conditions of mediation were not mete, and one can conclude that perceived competence did not mediate the relation between teacher autonomy support and academic engagement.

When perceived relatedness was tested as a mediator between teacher involvement and academic engagement, a significant positive relationship was obtained between teacher involvement and academic engagement ($\beta = .200$, $t = 3.419$, $P < .01$), between teacher involvement and perceived relatedness ($\beta = .328$, $t = 6.231$, $P < .01$), and between perceived relatedness and academic engagement ($\beta = .202$, $t = 3.939$, $P < .01$). Thus, all the three conditions of mediation are satisfied, and we can conclude that perceived relatedness mediated the relation between teacher involvement and academic engagement.

Perceived relatedness did also mediate the relations between teacher structure and academic engagement. Since there were significant positive relationship between teacher structure and academic engagement ($\beta = .181$, $t = 2.884$, $P <. 01$), between teacher structure and perceived relatedness ($\beta = .209$, $t = 3.725$, $P < .01$), and between perceived relatedness and academic engagement, as shown above, it satisfies the three conditions of mediation.

When perceived relatedness was tested as a mediator between teacher autonomy support and academic engagement, there was a nonsignificant relationship between teacher autonomy support and academic engagement, as shown previously. Thus, at least one of the conditions of mediation was not met, and we can conclude that perceived relatedness did not mediate the relations between teacher autonomy support and academic engagement.

When perceived autonomy was tested as a mediator between teacher support variables and academic engagement, there was a nonsignificant relationship between perceived autonomy and academic engagement ($\beta = .081$, $t = 1.729$, ns). Thus, at least one of the conditions of mediation was not met. Therefore, we can conclude that perceived autonomy

did not mediate any of the relations between teacher support variables and academic engagement.

In summary, perceived competence mediated the relation between teacher structure and academic engagement. In addition, perceived competence mediated the relation between teacher involvement and academic engagement. Thus, the relation between teachers' provision of structure and students' academic engagement can be explained by increments in students' perception of their own competence. Increasing teachers' involvement was also associated with improvements in perceived competence which in turn associated with better academic engagement. However, perceived competence did not mediate relations between teacher autonomy support and academic engagement.

Perceived relatedness mediated the relation between teacher involvement and academic engagement. In addition, perceived relatedness mediated the relation between teacher structure and academic engagement. Thus, the relation between teachers' involvement in students' learning and academic engagement can be explained by improvements in students' perceived relatedness. Moreover, teachers' provision of structure was associated with improved sense of relatedness, which was associated with better academic engagement. Nevertheless, perceived relatedness did not mediate the relation between teacher autonomy support and academic engagement.

Perceived autonomy did not mediate any relation between teacher support variables and academic engagement. Thus, one can conclude that teacher support variables do not have any indirect effect on academic engagement through perceived autonomy.

B. Is the Influence of Students' Self-system Processes on Academic Performance Explained by its Effect on Academic Engagement?

Academic engagement mediated the relation between perceived competence and academic performance. First, perceived competence is significantly related to academic performance, β=.242, t = 4.422, P < .01. Second, perceived competence was significantly related to academic engagement, β= .433, t = 8.383, P < .01. Third, academic engagement was significantly related to academic performance, β=.498, t = 10.340, P <. 01. Thus, all the three conditions of mediation were satisfied.

Academic engagement did also mediate the relation between perceived relatedness and academic performance. Because there is a significant positive relation between perceived relatedness and academic performance (β= .188, t = 3.457, P < .01), between perceived relatedness and academic engagement (β= .202, t = 3.939, P< .01) and between academic engagement and academic performance, as shown previously in this section.

However academic engagement did not mediate the relation between perceived autonomy and academic performance. This is because perceived autonomy and academic engagement had nonsignificant relationships, β = .081, t = 1.729, ns. Thus, the second condition of mediation was not met.

In sum, academic engagement mediated the relation between perceived competence and academic performance. In addition, academic engagement mediated the relation between perceived relatedness and academic performance. Thus, the relation between students' perception of their own competence and academic performance can be explained by improvements in students' academic engagement. Moreover, the relation between perceived relatedness and academic performance can be explained by improvements in students'

academic engagement. Nevertheless, academic engagement did not mediate the relation between perceived autonomy and academic performance. Hence, we can conclude that perceived autonomy does not have an indirect effect on academic performance through academic engagement.

Table 12
The Indirect Effects of Teacher Context Variables on Students Academic Engagement (N = 327)

Variable	β
Teacher Structure	.172*
Teacher Involvement	.130*

*P < .05

Results presented in Table 12 revealed that the indirect effects on academic engagement of both teachers' provision of structure and teachers' involvement in students' learning are significant. Moreover, the results indicated that the indirect effect of teachers' provision of structure was stronger than teachers' involvement

Table 13
The Indirect Effects of Students Self - System Processes on Students Academic Performance (N = 327)

Variable	β
Perceived Competence	.216*
Perceived Relatedness	.101*

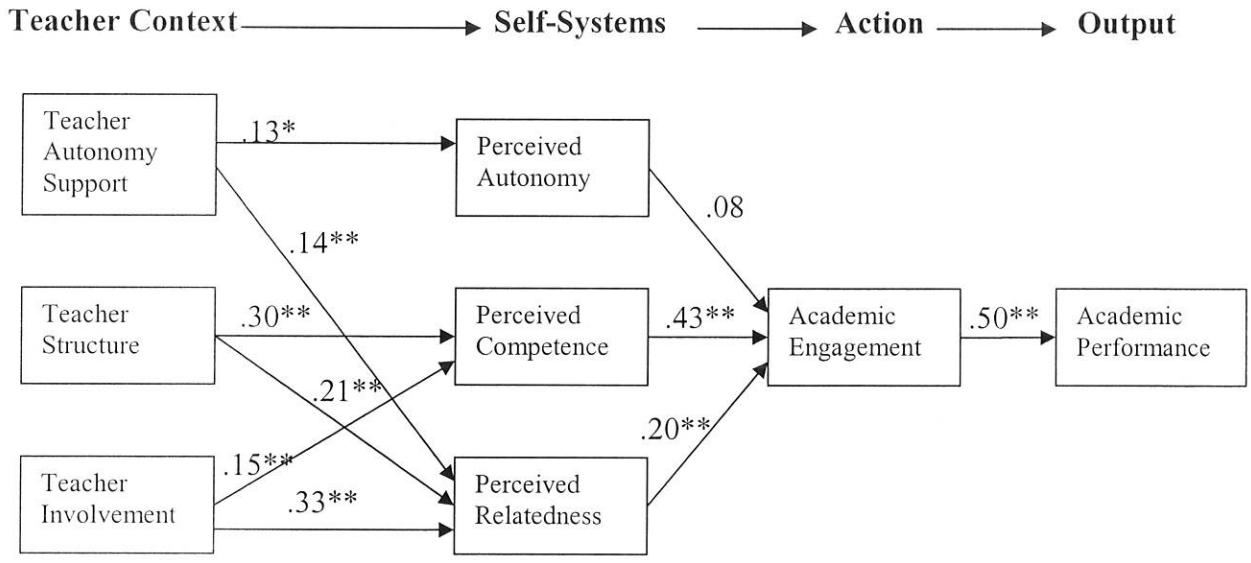
* P < .05

As shown in Table 13, the indirect effects on academic performance of perceived competence and perceived relatedness are significant. In addition, the results indicate that the indirect effect of perceived competence was stronger.

Figure 3 below indicated that, except for the effect of perceived autonomy on academic engagement (β=.081, t = 1.729, ns), all the other effects were positive and significant. Furthermore, the path revealed that perceived competence was the strongest predictor of academic engagement followed by perceived relatedness. When the relative strengths of the effects of teacher support variables on the self – system processes were compared, the effect of teacher involvement on perceived relatedness was the strongest, followed by the effect of teacher structure on perceived competence.

Figure 3

The Output Path Diagram Representing the Relationships between Teacher Support Variables, Students Self- System Processes, Academic Engagement, and Academic Performance



Note. Standardized beta weights are shown on each path; *P<.05, **P<.01.

4.2. Discussions of Findings

4.2.1. Relations between Teacher Context, Students Self-System Processes and Academic Engagement

In the present study, the three facets of teacher contexts, that is, teacher autonomy support, teacher structure, and teacher involvement, that were expected to have significance for the development of students self-system processes were examined. These variables were analyzed through a serious of multiple regression analyses. The analyses indicated that the three dimensions of teacher context were differentially associated with the different components of students' self-system processes. They are discussed below.

4.2.1.1. Teacher Autonomy Support and Students Self-system Processes

Teacher autonomy support, as demonstrated in Table 5, positively predicted students' perceived autonomy. This result is compatible with the consistent importance of teachers autonomy support for the development of students' perceived autonomy noted in the literature. For example, Levesque and colleagues (2004) found that teachers' autonomy support was positively associated with greater perceived autonomy. In a similar vein, Chirkove and Ryan (2001) in their cross-cultural study found that teacher autonomy support predicted students' autonomous motivation. The important reason could be when teachers encourage students' intentional behavior which involves respecting students values, interests, and choices, students may feel heard and understood, and experience freedom to behave in accordance with their interests. Congruent with this, Reeve and Jang (2006) suggested that when teachers provide students intentionally locused and volitional intentions to satisfy students' interests, preferences, values and the like autonomy is enhanced because the student feels to act in accordance with his/her choice.

As demonstrated in Table 5, teacher autonomy support also predicted students' perceived relatedness. This finding is in line with some researchers' conceptualization of the positive relation between teacher autonomy support and students perception of relatedness. For example, Reeve and Jang (2006) conceptualized teacher autonomy support as an interpersonal behavior in which a teacher provides to satisfy a student's psychological needs for autonomy, relatedness and the like. Thus, it might be suggested that teachers respect for students' interests, preferences and values (i.e., teachers autonomy support) could also communicate to the student a sense of relatedness.

4.2.1.2. Teacher Structure, students Self-System Processes and academic Engagement

The second dimension of teacher context, teacher's provision of structure, predicted students' perceived competence as demonstrated in Table 5. Teachers' provision of structure had also a significant indirect effect on students' academic engagement through both perceived competence and perceived relatedness. This finding is consistent with previous research findings. For example, Akey (2006) found that teacher support and high, clear, and consistent expectations of conduct contributed to students' belief that they could be successful. In a related study, Stornes et al. (2008) found that teacher structure, which they termed as regulation, was significantly and positively related to a mastery learning climate. Further more, Klem and Connell (2004) found that students who perceive their teachers as creating a caring, well structured learning environment in which the expectations are high, clear, and fair are more likely to engage in school.

A possible reason could be, in classrooms where there are clear rules and consistent consequences, and when there are clearly stated learning outcomes students are motivated to demonstrate competence to achieve the objectives. Related with this, Green, Miller, Crowson,

Duke & Akey (2004) found that students' perceptions of class structures are detrimental to their learning. Clearly stated learning objectives also help students know what is expected of them (Sprinthal et al., 1994) and consequently strive to achieve the objectives. In contrast, when there are no clear rules, when students did not know what teachers expect of them to behave and did not know the expected learning outcomes, they may experience a feeling of stress and frustration. With this regard, Stornes et al. (2008) indicated that in the absence of clear rules and behavioral norms students would develop negative feelings such as concern, fear and frustration which undermine the development of academic competence. In a similar vein, Cullingford (2004) stated that lack of clear learning outcomes lead to the danger of having goals so imprecise that nothing happens.

In the present study, teacher structure also positively and significantly predicted students' perceived relatedness (see Table 5). This finding is consistent with Burden's (2003) review, which stated that student's feelings of acceptance and safety depends on teachers' provision of structure. Similarly, Schulz (2001) indicated that students feel secure and safe when there are rules with fair and consistent enforcements. The possible justification could be, when there are clearly communicated expectations, when there is positive social interaction, students are likely to experience a sense of connectedness. One can not normally expect students to experience a sense of relatedness out of a chaotic learning environment.

This study, together with previous findings, lead to the conclusion that in learning environments where there are no clear rules and no consistent consequences and where there are no clear learning outcomes the development of students' sense of academic competence and feeling of connectedness to teachers could be undermined.

4.2.1.3. Teacher Involvement, Self – System processes, and academic Engagement

The results of the present study, as demonstrated in Table 5, showed that teacher involvement positively predicted students' perceived relatedness. In this study, the mediating role of perceived relatedness between teacher involvement and academic engagement was also tested. The study also revealed that perceived relatedness mediated the relationships between teachers' involvement in student learning and students' devotion and responsibility for their learning. These evidences seem to suggest that those students who perceive that their teachers like them and care for their learning experience a sense of connectedness to their teachers, and in turn engage in learning activities. This finding is consistent with several studies (e.g., Furrer & Skinner, 2003; Marchand & Skinner, 2007; Roeser et al., 1996; Stornes et al., 2008; Tucker et al., 2002).

Roeser et al. (1996) found that those students who had more positive teacher relationships experienced more positive affect when in school. In a similar vein, Furrer and Skinner (2003) reported that students who felt appreciated by teachers reported that involvement in academic activities was interesting. Students are likely to develop a sense of relatedness when their teachers are involved (Marchand & Skinner, 2007; Stornes et al., 2008).

Student who felt secure with their teachers and who felt they are liked by their teachers tended to engage in academic activities (Tucker et al., 2002). Furrer and Skinner (2003) also reported that emotional engagement, although predicted by relatedness to the three social partners (i.e., parents, teachers, and peers), depended heavily on relatedness to teachers. This emotional support is important because emotionally disturbed students can not do well in school (Deci & Ryan, 2000; Jacobson et al., 1994).

Moreover, the findings of this research revealed that teachers' involvement positively and significantly predicted students' perceived competence (see Table 5). This result is consistent with previous research findings which reported the positive relation between teacher involvement and perceived competence. For example, Langhoult (2004) reported that students' positive relationships to their teachers increased a sense of competence and effectiveness. Invariably, Roeser et al. (1996) revealed that students who experienced a feeling of school belonging felt more academically competent.

In general, the findings of this study, taken together with previous findings, lead to the conclusion that teachers' involvement plays an important role in students' perceived relatedness, sense of competence, and academic engagement. Perhaps teachers' relational support is more critical to Ethiopian Students. This is because children from economically disadvantaged families (i.e., many Ethiopian students facing this challenge) are more subject to fears and are unable to communicate their care giving needs, and the problem increases as the student moves from elementary to secondary school (see discussions in O'Connor & McCartney, 2006; and Vandewiel, 1981). Therefore, teachers of the country, especially those teaching in secondary schools may lessen the problem by demonstrating their relatedness to the students. Allocating sufficient time to know students needs and providing feedback may help to achieve this end.

4.2.2. Relationships of Students Self-System Processes, Academic Engagement and Academic Performance

4.2.2.1. Perceived Autonomy, Academic Engagement and Academic Performance

This study provided evidence that students' feeling of relative autonomy is positively correlated with both academic engagement and academic performance (see Table 4). Nevertheless, when perceived autonomy was entered into the regression model along with perceived competence and perceived relatedness as a predictor of academic engagement it is reduced and became nonsignificant; while it remains a significant predictor of academic performance. Hence, one can conclude that perceived autonomy as a component of a self-system process did not have a significant direct impact on how hard a student works in school.

However, the absence of a linear relation, does not necessarily suggest that perceived autonomy is without importance. When the measure of perceived autonomy (RAI) was broken down in to its two primary subcomponents, that is, autonomous (i.e., intrinsic and identified regulation) and controlled (i.e., external and introjected regulation) regulation orientations; multiple regression analysis indicated that both composite scales of motivation have a unique and differential effect on both academic engagement and academic performance. Specifically, autonomous regulation positively predicted both academic engagement and academic performance. Conversely, students who perform their school tasks because of external or internal obligation (controlled regulation) showed lower academic performance.

Students who study school subjects for intrinsic and identified reasons are more likely to fully engage in learning, and more fully understand the learning material and achieve

better results. When school activities are interesting to students or when students accept the activities as their own, they exert more energy and perform better. This finding is consistent with the works of Miserandino (1996), which revealed that students who perceived they engage in school activities for autonomous reasons reported more involvement and persistence, and received higher grades than students who perceive themselves as more controlled. Reeve and Jang (2006) also found that students' perceived autonomy was positively related with academic engagement and performance. Autonomously regulated individuals feel they are doing a task because they have chosen to do so voluntarily, thus, these learners are likely to feel interested in their learning, show devotion to the learning activities and perform better. In line with this, Vansteenkiste et al. (2005) found that autonomous motivation was associated with a more efficient organization of one's study time, better able to remain concentrated when studying, to feel less anxious in the face of challenge, and better test scores.

However, the present study is not in agreement with the findings of d'Ailly (2003) who reported that Chinese children who have high scores on the relative autonomy scale tend to do slightly less in school. He attributed the results to the collectivist culture of china as opposed to the Western children. Nevertheless, recent research by Vansteenkiste et al. (2005), on the Chinese students found results that are opposite to d'Ailly. They concluded that perceived autonomy has a facilitating role to academic engagement and academic performance for the Chinese children as those in Western.

The present study also indicated that those students who perform their school tasks for controlled reasons showed lower academic performance, but was unrelated to academic engagement. This finding is conceivable that students may engage in activities which they did not like or accept as their own, hence, they may complete the work without exerting much

mental energy. As a result, they will perform poorly in school. A student who did his/her assignment because he/she would get in trouble if he/she does not do, often feel anxious, angry, and bored in school, and less concentrated in academic activities which undermines school performance. There are several studies that reached at similar conclusions. For example, Vansteenkiste et al. (2005) captured the following:

> *...feeling pressured and controlled to study disrupts students' ability to concentrate while studying, stems an efficient organization of one's study time, provokes a negative attitude toward school, and enhances feelings of stress and performance anxiety. Of note, controlled motivation is also associated with more passive-avoidant study behavior and with an increased risk of dropping out from the study course. (p. 479).*

Students who experience feelings of pressure and control are associated with an increased risk of performing poorly on school subjects (see Reeve & Jang, 2006; Miserandino, 1996; Vansteenkiste et al., 2005).

The present study, together with previous works, suggests that students who perform school activities for autonomous reasons (i.e., intrinsic and identified regulation orientations) are more likely to engage in academic activities and consequently perform better in school subjects than those students who perform for controlled reasons (external and introjected motivation orientations). Furthermore, learner autonomy is an educational goal in the sense that it empowers the learner's critical thinking, creativity, responsibility for their actions and ultimately makes them productive citizens in terms of economic, social and political aspects. To this end, helping learners to identify the why of learning (i.e., encouraging identified regulation), and making the process of learning interesting (i.e., encouraging intrinsic regulation) are critical. Thus, if our educational institutions want to produce citizens who are

creative, critical, responsible and capable of evaluating a situation, and find solutions to their problems and society at large autonomous learning should be encouraged.

4.2.2.2. Perceived Competence, Academic Engagement and Academic Performance

This research found strong evidence that students' perceived competence is important to their academic engagement (see Table 7). This study also revealed that students' academic engagement mediated the relationship between perceived competence and academic performance. These findings, thus, support the premise that students' perceived competence enhances their academic engagement and in this way facilitate academic performance. This finding is consistent with considerable research on the positive effect of students perceived competence on academic engagement and academic performance (e.g., Elliott et al., 2005; Roeser et al., 1996; Skinner et al., 1990; Wentzel, 1989; Yalew, 2003). Moreover, the direct effect of perceived academic competence on academic engagement, as demonstrated in Table 7, was the strongest of the self-system variables.

When students feel they are competent, they are more likely to engage in academic activities and perform better in academic subjects. Congruent with this finding, Yalew (2003) revealed that students who perceive themselves as adequate to challenge the academic tasks are more likely to exert effort, persist on task and perform better in school.

In contrast, students who believe that they are less competent often show disengagement in school activities. There are several findings which emphasized the problem of perceived competence on academic engagement and academic performance. For example, Skinner et al. (1990) and Miserandino (1996) reported that students who perceive their ability with uncertainty show disengagement in academic tasks which undermines academic success.

4.2.2.3. Perceived Relatedness, Academic Engagement and Academic Performance

Multiple regression analysis revealed that students' sense of relatedness positively predict academic engagement (see Table 7). Consistent with the contentions that students' feelings of connectedness or attachment to teachers represent a key self-system process, students' who reported a higher sense of relatedness also showed greater engagement in academic activities. Consistent with the proposed causal effects, students' relatedness positively and significantly predicted students' academic engagement. This result is in agreement with previous research showing the positive link between students feeling of relatedness, and their school engagement and success (e.g., Babcock, 2003; Daniels & Perry, 2003; Furrer & Skinner, 2003).

Another key goal of this study was to explore a possible mechanism through which feelings of relatedness make a difference in students' actual academic performance. The pattern of mediational findings suggests that students' academic engagement is one likely pathway. Perceived relatedness may have an energetic function, awakening enthusiasm, interest, and willingness to participate in school activities. It seems that students with secure relationships, who maintain responsive interactions with their teachers function well in school. Students perceived relatedness allow them to achieve a sense of academic competence, as well as actual school performance, by providing them with a secure emotional foundation (Roeser et al., 1996; Wong et al., 2002).

Several studies (e.g., Hughes & Kwok, 2007; Larose et al., 2005) concluded that perceived relatedness is essential for school success. Hughes and Kwock found that students' sense of connectedness to their teachers positively influenced school engagement and in turn their academic achievement. In a similar vein, Assaye (2004) revealed that perception of

positive teacher-student relationship is positively related to academic achievement. Students' feeling of belonging, acceptance, and interpersonal support is associated with their self-efficacy, success expectations, positive affect, engagement and academic performance (Furrer & Skinner, 2003). Students' who feel cared and liked by their teacher in turn like their teacher, and often strive to meet the teacher's standards.

In contrast, students who perceive that their teachers do not know them, or dislike them exert less effort to their learning. If students do not trust that their teachers know them enough to provide appropriate support, they begin to disengage from learning activities (Daniels & Perry, 2003), and perform poorly in school (Furrer & Skinner, 2003). These students often experience boredom, unhappiness and anger while learning (Furrer & Skinner, 2003), which impairs their physical and psychological investment in learning and consequently reduce performance.

Together with previous research, this finding suggests that building student-teacher connectedness is an important factor in promoting students academic engagement and academic performance.

4.2.3. Academic Engagement to Academic Performance

The present study, as can be seen from Table 9, showed that academic engagement is a significant predictor of students' academic performance. This finding is consistent with previous research (e.g., Adane & Dawit, 2000; Buhs et al., 2006; Elliot et al., 1999) reporting the importance of academic engagement to academic performance. For example, Elliot et al. (1999) reported that persistence and effort were significant predictors of exam performance.

Students' academic engagement which involves behaviors such as doing classwork, homework, and other assigned works is a critical element in students' academic performance.

With this regard, Connell (1990) claimed that student engagement is not only a robust predictor of academic achievement, but it is also the only variable that directly effects academic achievement. All the other variables (e.g., teacher behaviors, student self-system processes) act through engagement. These variables indirectly influence academic performance by either enhancing or undermining student engagement in school activities.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary

The purpose of this study was to examine relationships among teacher context, students-self system processes, academic engagement and academic performance. As a result, the following research questions were formulated:

1. Is there a significant relationship between students' self-system variables, that is, perceived autonomy, perceived competence and perceived relatedness, and academic engagement?
2. Is there a significant relationship between teacher context variables (i.e., teacher autonomy support, teacher structure & teacher involvement) and students' self-system processes?
3. Is there a significant relationship between students' academic engagement and their academic performance?
4. Do students' self-system processes mediate relationships between teacher context and academic engagement?
5. Does academic engagement mediate the relationship between students' self-system processes and academic performance?

In order to examine the relationships among the study variables, a causal model adapted from Connell (1990) depicting relationships among teacher context, students' self-systems, academic engagement and academic performance was used.

The study was conducted in general secondary schools at Debre Berhan town. Three hundred fifty students (162 males & 188 females) were selected using stratified random

sampling technique. Unfortunately, missing data make the final study sample to be 327 (152 males and 175 females).

The data were collected through both questionnaire and analyses of students' academic records. To asses teacher autonomy support, teacher structure and teacher involvement RAPS-S (Research Assessment Package for Schools-Student version) was adapted. Students' perceived autonomy was measured by adapting four subscales of the academic motivation scale (AMS) developed by Vallerand et al. (1998, cited in Rattel et al., 2007). Perceived competence was assessed by adapting an instrument developed by Akey (2006). To measure perceived relatedness nine items were adapted from SDT measures (n.d.) and three additional items were developed by the present author. Students' academic engagement was measured by adapting RAPS-S (mentioned above). Students' first semester average marks were used as a measure of academic performance.

The instruments in the questionnaire, except those that demanded participants background variables, had 5-scales ranging from 1 (not at all true) to 5 (very true).The questionnaire was translated in to Amharic to make understanding and giving responses easier.

The questionnaire was pilot tested in a sample of 50 respondents, of these 48 provided complete data. The instruments were improved based on the reliability analysis and feedback received from the participants.

The data were analyzed employing descriptive analyses, one sample *t-test*, bivariate correlations, regression analyses and path analyses.

The one sample *t-test* revealed that students tended to positively endorse the scales. The mean scores for teacher autonomy support (M=3.93), teacher structure (M=4.06), teacher involvement (3.96), perceived competence (3.99), perceived relatedness (M=3.84), academic

engagement (M=4.16) are significantly above the midpoints of the scales (3.0). The mean score of perceived autonomy (.32) is also significantly above the mid point of the scale (0.0).

To see the general pattern of relationships among the study variables, bivariate correlations were used. The bivariate correlation revealed that the relationships among all the study variables, except for the relationship between teacher involvement and perceived autonomy (r=.08, ns), are positive and significant.

To examine the relationship of 1) the components of teacher context to students' self-system processes, 2) students self-systems to academic engagement, and 3) academic engagement to academic performance, multiple regression analyses were employed. The results revealed that the components of teacher context, that is, teacher autonomy support (β = .129), teacher structure (β = .299), and teacher involvement (β =.328) are significant predictors of perceived autonomy, perceived competence and perceived relatedness, respectively. Moreover, teacher autonomy support (β = .139) and teacher structure (β = .209) are significantly related to perceived relatedness; and teacher involvement (β = .147) is significantly related to perceived competence.

When academic engagement was regressed on the three self-system variables, the results revealed that perceived competence (.433) and perceived relatedness (.202) significantly predicted academic engagement; and the association was stronger to perceived competence. The two variables together explained 33.2% of the variance in students' academic engagement. Perceived autonomy as a self-system process was not significantly related to academic engagement. However, when the measure of perceived autonomy (RAI) is broken down in to its two primary subcomponents, that is, autonomous regulation and controlled regulation have a differential effect on academic engagement and academic

performance. Autonomous regulation is positively and significantly related to both academic engagement and academic performance. However, controlled regulation is unrelated to academic engagement but had significant negative relations to academic performance.

This study also showed that academic engagement (β =.498) is a significant predictor of academic performance; 24.5% of the variance in academic performance is accounted for by academic engagement.

To test the indirect effects of 1) the components of teacher context on academic engagement via the self-system processes, and 2) to the self-system processes on academic performance via academic engagement path analyses were employed. The mediational analyses revealed that among the three self-system processes perceived competence and perceived relatedness mediated the relationship between teacher context and academic engagement. Specifically, perceived competence mediated the relationships between teacher structure and academic engagement as well as between teacher involvement and academic engagement. Perceived relatedness, on the other hand, mediated the relationships between all the three components of teacher context and academic engagement. Nevertheless, perceived autonomy did not mediate any of the relations between teacher context variables and academic engagement.

The indirect effects of teacher structure (β = .172, P<.05) and teacher involvement (β =.130, P<.05) on academic engagement were significant.

When we see the mediational role of academic engagement of the relationships between the self-systems and academic performance, it mediated the relations between perceived competence and academic performance as well as between perceived relatedness and academic performance. Nevertheless, academic engagement did not mediate the relationship between perceived autonomy and academic performance. The indirect effects of

both perceived competence (β =.216, P<.05) and perceived relatedness (β = .101, P<.05) were significant.

In general, the self system process model used in this study found evidence that it can be applied to the Ethiopian context to encourage students to engage in academic activities and there by to improve their academic performance.

5.2. Conclusions

Based on the findings of this study, the following conclusions are drawn:

1. The three facets of teacher context generally enhance the development of students' self-system processes. Specifically, teacher autonomy support facilitates students' perceived autonomy and perceived relatedness; teacher structure facilitates perceived competence and perceived relatedness; and teacher involvement facilitates perceived relatedness and perceived competence. Hence, it is evident that the three components of teacher context operating together in facilitating the self-system processes. Moreover, both teachers' provision of structure and their involvement in students learning have a positive and significant indirect effect on students' academic engagement through both perceived competence and perceived relatedness.
2. Students' perceived competence and perceived relatedness to teachers are significant predicators of academic engagement. The relationship of academic engagement is stronger to perceived competence than perceived relatedness. Perceived competence and perceived relatedness have also a significant indirect effect on academic performance via academic engagement. Thus, it appears that perceived competence and perceived relatedness are functioning simultaneously in promoting both students academic engagement and academic performance.

3. Students' perceived autonomy was not significantly related to academic engagement. However, when the measure of perceived autonomy (RAI) was broken down in to its two primary subcomponents, that is, autonomous regulation and controlled regulation orientations have a unique and differential effect on both academic engagement and academic performance. Specifically, autonomous regulation is positively related to both academic engagement and academic performance. Conversely, controlled regulation is not significantly related to academic engagement, but is negatively related to academic performance. Hence, it is clear that autonomous regulation enhanced students' academic engagement and performance than controlled regulation.
4. Students' academic engagement significantly and positively predicted academic performance.

5.3. Recommendations

Based on the results of this study, the following recommendations are forwarded:

- Teachers support is crucial for the development of students' self-system processes and in turn to students' academic engagement of general secondary school students. Specifically, teacher structure and teacher involvement were important to promote students sense of competence and feelings of student-teacher relatedness which in turn have an important impact on academic engagement. Thus, teachers should focus on facilitating students' perceived competence and feelings of connectedness. Teachers may enhance students' sense of competence by providing clear behavioral rules, optimally challenging expectations, and by consistent administration of the consequences. Teachers may also facilitate students feeling of relatedness through

providing of sufficient amount of feedback, and spending sufficient amount of time with a student talking about a personal problem and helping to solve academic problems. These teacher behaviors communicate to the student that he/she is important enough and help him/her to experience a sense of security which is found to be crucial to academic engagement.

- Students' perceived competence is important to augment academic engagement and academic performance. Students should believe that they have the ability to learn and performance can be improved by increasing effort. Thus, teachers, counselors, and school leaders should create an environment that encourages the development of student perceived competence.
- Students' autonomous regulation is important to enhance students' academic engagement and academic performance; where as, students controlled regulation has a negative impact on academic performance. To this end, teachers should communicate the learning objectives to students and relate how it is important to them and the society at large (i.e., encourage identified regulation) and try to make learning more interesting (i.e., encourage intrinsic regulation), and minimize the use of pressuring events. Curriculum developers and textbook writers should also incorporate learning experiences that are potentially interesting to the learner.
- Students' academic engagement is critical to boost students' academic performance. Thus, teachers, parents, school leaders, counselors, and other concerned authorities should find ways to encourage student engagement.
- Universities and Colleges should equip teachers, specially general secondary school teachers, with the knowledge and skills which enable them to nurture their students in terms of support for learners sense of competence, feelings of attachment and the

development of autonomous regulation that are seen important in improving students school engagement and performance. Nonetheless, the present researcher did not claim that the encouragement of the self-system processes as a replacement of teachers subject matter knowledge, but should be viewed as integral components to facilitate learning.

Suggestions for Future Research

- The present research only investigated the relationship of teacher context to students' self-systems and academic engagement and performance, future research should include the impacts of parents and peers which may have an important influence on the self-systems and academic engagement and performance.
- Although this study employed a structural equation modeling, it is nevertheless inappropriate to make strong causal inferences. Hence, future research should make use of experimental designs in order to make possible causal relationships.
- The data used in this study is mainly based on self-report measures. Future research should add observational data and teacher reports that could increase the validity.
- The present study was confined to two General Secondary schools of Debre Berhan town. The examination of the study variables in more diverse samples is an important next step.
- In the present study, the relationship between the composite scale of perceived autonomy (RAI) and academic engagement was inconsistent. Thus, to verify the inconsistency future research is required.

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Appendix A: Questionnaire

Addis Ababa University

School of Graduate Studies

Department of Psychology

Questionnaire to be Filled out by General Secondary School Students

Objective: - The objective of this questionnaire is to collect data about general secondary school students' reasons for going to school, perceptions of academic competence, levels of academic engagement, and feelings and experiences with their teachers support behaviors. The results of this study will have a significant contribution to the improvement of instruction. Therefore, your genuine responses for the given items are valuable to this end.

Note:

- The information that you provide will be kept highly confidential.
- Answer all items – there is no right or wrong answer. You only rate how the statement is true to you.
- If there is any ambiguity in the instructions or in the items, it is necessary to ask.
- Give your responses according to the given instructions.

Thank you for your cooperation!

Part I: Provide appropriate information to the following items that require your personal data on the space provided.

1. Name of the school_____
2. Grade level _____
3. Section _____
4. Roll No. _____
5. Sex _____
6. Age _____

Part II: General Direction

The items that are presented in the following subsequent tables have five alternatives. These are:

1= Not at all true
2= Not true
3= Some what true
4= True
5= Very true

Read each item and respond how true it is to you.

2.1. Measures of Teacher Context

Instruction: The Items below are related to your experience with your teachers in the classroom. Put a tick mark (✓) with respect to each statement about how you felt about your encounters with your current teachers. Use the given categories in front of each item to respond.

No.		(1) Not at all true	(2) Not true	3)Some what true	(4) True	(5) Very true
1	My teachers have plenty of time for me.					
2	My teachers do not explain why we have to learn certain things in school. (R)					
3	My teachers are fair with me.					
4	My teachers care about how I do in school.					
5	My teachers think what I say is important.					
6	The rules in my classroom are clear.					
7	My teachers do not seem to have enough time for me.(R)					
8	My teachers interrupt me when I have something to say. (R)					
9	My teachers' expectations for me are way off base. (R)					
10	My teachers like the other students in my class better than me. (R)					
11	My teachers try to control every thing I do. (R)					
12	My teachers are not fair with me.(R)					
13	My teachers like to be with me.					
14	My teachers do not make clear what they expect of me. (R)					

Note:
Teacher Autonomy Support = 2, 5, 8, 11
Teacher Structure = 3, 6, 9, 12, 14
Teacher Involvement= 1, 4, 7, 10, 13
R= scoring on the item is reversed

2.2. Perceived Autonomy Scale

Instruction: The following items are related to the reasons why you go to school. Please respond to each item by using a tick mark (✓) under the given categories in front of each item.

No.	**Why do you go to school?**	**(1)Not at all true**	**(2) Not true**	**3)Some what true**	**(4) True**	**(5) Very true**
1	Because I need at least to complete a high school education.					
2	Because I experience pleasure and satisfaction while learning new things.					
3	Because I think that a high school education will help me better prepare for the career I have chosen.					
4	To prove to my self that I am capable of completing my high school education.					
5	In order to obtain a more prestigious job later on.					
6	For the pleasure I experience when I discover new things never seen before.					
7	Because eventually it will enable me to enter the job market in a field that I like.					
8	Because of the fact that when I succeed in school I feel important.					
9	Because I want to have "the good life" later on.					
10	For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.					
11	Because this will help me make a better choice regarding my career orientation.					
12	To show my self that I am an intelligent person.					
13	In order to have a better salary later on.					
14	Because my studies allow me to continue to learn about many things that interest me.					
15	Because I believe that my high school education will improve my competence as a worker.					
16	Because I want to show my self that I can succeed in my studies.					

Note:

Intrinsic Regulation= 2, 6, 10, 14
Identified Regulation=3, 7, 11, 15
Introjected Regulation= 4, 8, 12, 16
External Regulation= 1, 5, 9, 13

2.3. Perceived Competence Scale

Instruction: Read the following statements carefully and indicate how it is true to you by using a tick mark (✓) under the given categories.

No.		(1) Not at all true	(2) Not true	3)Some what true	(4) True	(5) Very true
1	I can't do well in school.(R)					
2	I can do well in school if I want to.					
3	I don't know what it takes to get good grades in school.(R)					
4	I am not very smart in school.(R)					
5	I can't work very hard in school.(R)					
6	Trying hard is the best way for me to do well in school.					
7	I don't know how to keep myself from getting bad grades. (R)					
8	I am pretty smart in school.					
9	I am unlucky in school.(R)					

Note: R= scoring on the item is reversed

2.4. Perceived Relatedness Scale

Instruction: The items below are related to your relationship with your teachers. Put a tick mark (✓) with respect to each statement about how it is true for you. Use the given categories in front of each item to respond.

No.		(1)Not at all true	(2) Not true	3)Some what true	(4) True	(5) Very true
1	I felt really distant to my teachers.(R)					
2	My teachers never notice me .(R)					
3	I would like a chance to interact with my teachers.					
4	I really doubt that I could ever like my teachers.(R)					
5	I can ask my teachers for help.					
6	I feel close to my teachers.					
7	I don't feel like I could really trust my teachers.(R)					
8	It is likely that if I interacted with my teachers we could understand each other.					
9	My teachers and I care about each other.					
10	My teachers are not interested in what I do.(R)					

Note: R= scoring on the item is reversed

2.5. Academic Engagement Scale

Instruction: Respond to the following items in terms of how true/important is it to you with respect to your academic engagement. Put a tick mark (✓) under the given categories in front of each item.

No.		(1) Not at all true	(2) Not true	3)Some what true	(4) True	(5) Very true
1	I work very hard on my school work.					
2	I don't try very hard on my school work. (R)					
3	I pay attention in class.					
4	I often come to class unprepared. (R)					
		Not at all important	Not important	Some what important	Important	Very important
5	How important is to you to do the best in school?					

Note: R= scoring on the item is reversed

Appendix B: Amharic Version of the Questionnaire

አዲስ አበባ ዩኒቨርሲቲ
የድህረ ምርቃ ትምህርት ፕሮግራም
የሳይኮሎጂ ትምህርት ክፍል

በአጠቃላይ ሁለተኛ ደረጃ ት/ቤት ተማሪዎች የሚሞላ መጠይቅ

ዓላማ፡- የዚህ መጠይቅ ዓላማ መምህራን ለተማሪዎቻቸዉ የሚሰጡትን ትኩረትና እንክብካቤ፣ የክፍል ህግና ደንቦችን በግልጽ የማሳወቅና በፍትሃዊነት የመተግበር ሁኔታ፣ የተማሪዎችን የነጻነትና የሃላፊነት ስሜት የማበረታታት ሁኔታ፤ ተማሪዎች ትምህርታቸዉን የሚማሩበትን ምክንያት፣ ትምህርታቸዉን ለመማር ያላቸዉን የብቁነት ስሜት፣ ከአስተማሪዎቻቸዉ ጋር ያላቸዉን የቅርበት ስሜት፣ እንዲሁም ለትምህርታቸዉ የሚሰጡትን ትኩረት ለመረዳት የሚያስችል መረጃ መሰብሰብ ነዉ። የዚህ ጥናት ዉጤት የመማር ማስተማር ሂደትን ለማሻሻል ከፍተኛ ጠቀሜታ ይኖረዋል። በመሆኑም የጥናቱ ዉጤት በሚሰበሰበዉ መረጃ ላይ የሚመሰረት ስለሆነ ትኩረት ሰጥተህ/ሽ ትክክለኛ መረጃ በመስጠት የበኩልህን/ሽን አስተዋፅዖ ታደርግ/ጊ ዘንድ በትህትና እጠይቃለሁ።

ማሳሰቢያ፡-

- ለመጠይቁ የምትሰጡት ማንኛዉም መረጃ በከፍተኛ ሚስጥር ይያዛል።
- መመሪያዎች ወይም ጥያቄዎች ግልፅ በማይሆኑበት ግዜ መጠየቅ ተገቢ ነዉ።
- ለሁሉም ጥያቄዎች መልስ ስጡ። ትክክል ወይም ስህተት የሚባል መልስ የለም- የምትሰጡት መልስ የምታዉቁትን መረጃ ወይም የቀረቡት ጥያቄዎች ለእናንተ ምን ያክል እውነት እንደሆኑ ወይም እንዳልሆኑ ነዉ።
- በቀረቡት መመሪያዎች መሰረት መልስ ስጡ።

ስለምታደርጉልኝ ትብብር በቅድሚያ አመሰግናለሁ!!

ክፍል አንድ: መጠይቁን የሚሞላዉ/የምትሞላዉ ተማሪ አጠቃላይ መረጃ

1.1. የት/ቤት ስም _____
1.2. ት/ት ደረጃ _____
1.3. ሴክሽን_____
1.4. ተራ ቁጥር _____
1.5. ዕድሜ_____
1.6. ዕድሜ_____

ክፍል ሁለት

<u>አጠቃላይ መመሪያ</u>፡- ከዚህ ቀጥሎ ለቀረቡት ጥያቄዎች አምስት አማራጮች ማለትም፡

1 = ጭራሽ እውነት አይደለም

2 = እውነት አይደለም

3 = በመጠኑ እውነት ነዉ

4 = እውነት ነው

5 = በጣም እውነት ነዉ የሚሉ ቀርበዋል፡፡ ከነዚህ አማራጮች ዉስጥ በይበልጥ የምትስማሙበትን በመምረጥ በእያንዳንዱ ጥያቄ ፊትለፊት የኤክስ ምልክት (X) በማድረግ መልስ/ሽ፡፡

Measures of Teacher Context

2.1. ከዚህ በታች ለቀረቡት ጥያቄዎች ከፊትለፊታቸዉ ከተሰጡት አማራጮች ዉስጥ እያስተማሩህ/ሽ ያሉትን መምህራን ለአንተ/ች በይበልጥ የሚገልጸዉን አማራጭ የኤክስ ምልክት (X) በማድረግ መልስ/ሽ፡፡

ተ.ቁ.		1 ጭራሽ እውነት አይደለም	2 እውነት አይደለም	3 በመጠኑ እውነት ነዉ	4 እውነት ነዉ	5 በጣም እውነት ነዉ
1	አስተማሪዎቼ በቂ ጊዜ (ትኩረት) ይሰጡኛል፡፡					
2	አስተማሪዎቼ አንዳንድ የምንማራቸዉን ነገሮች ለምን እንደምንማር አይገልፁልንም፡፡					
3	አስተማሪዎቼ ለኔ ያላቸዉ አመለካከት ፍትሃዊ ነዉ፡፡					
4	አስተማሪዎቼ ዉጤቱ ጥሩ እንዲሆን ይጥራሉ፡፡					
5	አስተማሪዎቼ የምናገረዉን ነገር ይቀበሉኛል(ጠቃሚ እንደሆነ ያስባሉ)፡፡					
6	በክፍላችን ዉስጥ የምንመራባቸዉ ደንቦች ግልፅ ናቸዉ፡፡					
7	አስተማሪዎቼ በቂ ትኩረት አይሰጡኝም፡፡					
8	አስተማሪዎቼ መናገር የምፈልገዉን ነገር አያስጨርሱኝም፡፡					
9	አስተማሪዎቼ ለእኔ ያላቸዉ ግምት መሰረት የለዉም፡፡					
10	አስተማሪዎቼ ሌሎችን ተማሪዎች እኔን ከሚወዱኝ አስበልጠዉ ይወዷቸዋል፡፡					
11	አስተማሪዎቼ የማደርገዉን ማንኛዉንም ነገር ሊቆጣጠሩ ይሞክራሉ (ነፃነቴን ይጋፉኛል)፡፡					
12	አስተማሪዎቼ ለእኔ ያላቸዉ አመለካከት ፍትሃዊ አይደለም፡፡					
13	አስተማሪዎቼ ከእኔ ጋር መሆን ይመርጣሉ፡፡					
14	አስተማሪዎቼ ከእኔ ምን እንደሚጠበቅ ግልፅ አያደርጉልኝም፡፡					

Perceived Autonomy Scale

2.2. የሚከተሉት ጥያቄዎች ት/ቤት የምትሄዱበትን ምክንያት የሚመለከቱ ናቸዉ። በመሆኑም የቀረቡት ጥያቄዎች ለአንተ/ች ምን ያህል እዉነት እንደሆኑ ከፊትለፊታቸዉ በቀረቡት አማራጮች የኤክስ ምልክት(X) በማድረግ መልስ/ሽ።

ተ.ቁ.	ትምህርቴን የምማርበት ምክንያት፡	1 ጭራሽ እዉነት አይደለም	2 እዉነት አይደለም	3 በመጠኑ እዉነት ነዉ	4 እዉነት ነዉ	5 በጣም እዉነት ነዉ
1	ቢያንስ የሁለተኛ ደረጃ ትምህርቴን ማጠናቀቅ ስለምፈልግ					
2	አዳዲስ ነገሮችን በምማርበት ግዜ ደስታና እርካታ ስለማገኝ					
3	የሁለተኛ ደረጃ ትምህርቴ ወደፊት እሰማራበታለሁ ብየ የመረጥሁትን(ያቀድሁትን) የስራ መስክ ለማግኘት ይረዳኛል ብየ ስለማስብ					
4	የሁለተኛ ደረጃ ትምህርቴን የማጠናቀቅ አቅም እንዳለኝ ለራሴ ማረጋገጥ ስለምፈልግ					
5	ወደፊት ክብር ሊያስገኝልኝ የሚችል ስራ ለማግኘት					
6	ከዚህ በፊት ያላወቅሁዋቸዉን አዳዲስ ነገሮች ማወቅ ስለሚያስደስተኝ					
7	የምፈልገዉን የስራ ዘርፍ ለማግኘት ስለሚያስችለኝ					
8	በትምህርቴ ስኬታማ ስሆን ጠቃሚ ሰዉ እንደሆንሁ ስለሚሰማኝ					
9	ወደፊት ጥሩ ህይወት ለመኖር ስለምፈልግ					
10	በምወዳቸዉ የት/ት ዓይነቶች ላይ እዉቀቴን ማስፋት ስለሚያስደስተኝ					
11	ወደፊት የምሰማራበትን የሙያ ዘርፍ በተመለከተ የተሻለ ምርጫ እንዳደርግ ስለሚረዳኝ					
12	በጣም ጎበዝ መሆኔን ለራሴ ማረጋገጥ ስለምፈልግ					
13	ወደፊት ጥሩ ደመወዝ ለማግኘት ስለምፈልግ					
14	እየተማርሁ ያለሁት ት/ት በርካታ አስደሳች ነገሮችን እንድማር እያደረገኝ ስለሆነ					
15	የሁለተኛ ደረጃ ትምህርቴ ወደፊት በስራ አለም ላይ የሚኖረኝን የስራ ብቃት ያሻሽለዋል ብዬ ስለማምን					
16	በትምህርቴ ውጤታማ መሆን እንደምችል ለራሴ ማረጋገጥ ስለምፈልግ					

Perceived Competence Scale

2.3. ከዚህ በታች ለቀረቡት ጥያቄዎች ከፊትለፊታቸዉ ከተሰጡት አማራጮች ዉስጥ ለአንተ/ች በይበልጥ የሚገልጸዉን አማራጭ የኤክስ ምልክት (X) በማድረግ መልስ/ሽ።

ተ.ቁ.		1 ጭራሽ እዉነት አይደለም	2 እዉነት አይደለም	3 በመጠኑ እዉነት ነዉ	4 እዉነት ነዉ	5 በጣም እዉነት ነዉ
1	ጥሩ ዉጤት ማምጣት አልችልም።					
2	ከፊለማሁ ጥሩ ዉጤት ማምጣት እችላለሁ።					
3	ጥሩ ዉጤት ለማምጣት ምን ማድረግ እንዳለብኝ አላዉቅም።					
4	በጣም ጎበዝ ተማሪ አይደለሁም።					
5	በጣም ጠንክሬ መስራት(ለምሳሌ፡-ማጥናት፣የቤት ስራ መስራት፣አሳይመንት መስራት ወዘተ.) አልችልም።					
6	ጥሩ ዉጤት ለማምጣት ያሉኝን አማራጮች ሁሉ መጠቀም አለብኝ።					
7	ዉጤቴ መጥፎ እንዳይሆን ምን ማድረግ እንደምችል አላዉቅም።					
8	በጣም ጎበዝ ተማሪ ነኝ።					
9	እድለኛ ስላልሆንሁ ዉጤቴ ይበላሻል።					

Perceived Relatedness Scale

2.4. የሚከተሉት ጥያቄዎች ከአስተማሪዎቻችሁ ጋር ስላላችሁ ግንኙነት የሚሰማችሁን የሚመለከቱ ናቸዉ። በመሆኑም የቀረቡት ጥያቄዎች ለአንተ/ች ምን ያህል እዉነት እንደሆኑ ከፊትለፊታቸዉ በቀረቡት አማራጮች የኤክስ ምልክት(X) በማድረግ መልስ/ሽ።

ተ.ቁ.		1 ጭራሽ እዉነት አይደለም	2 እዉነት አይደለም	3 በመጠኑ እዉነት ነዉ	4 እዉነት ነዉ	5 በጣም እዉነት ነዉ
1	ከአስተማሪዎቼ ጋር ቅርበት የለኝም።					
2	አስተማሪዎቼ በጭራሽ አያውቁኝም።					
3	ከአስተማሪዎቼ ጋር የቅርብ ግንኙነት እንዲኖረኝ እፈልጋለሁ ።					
4	አስተማሪዎቼን መቼም ጊዜ ቢሆን የምወዳቸዉ አይመስለኝም።					
5	ችግሮች ሲያጋጥሙኝ ከአስተማሪዎቼ እርዳታ ማግኘት እችላለሁ።					
6	ከአስተማሪዎቼ ጋር የቅርብ ግንኙነት አለኝ፡					
7	በአስተማሪዎቼ ላይ እምነት ማሳደር አልችልም።					
8	እኔና አስተማሪዎቼ መቀራረብ ብንችል የምንግባባ ይመስለኛል።					
9	እኔና አስተማሪዎቼ እንተሳሰባለን።					
10	አስተማሪዎቼ የምሰራዉን ስራ አይወዱልኝም።					

Academic Engagement Scale

2.5. ከዚህ በታች ለቀረቡት ጥያቄዎች ከፊትለፊታቸዉ ከተሰጡት አማራጮች ዉስጥ ለአንተ/ች በይበልጥ የሚገልጸዉን አማራጭ የኤክስ ምልክት (X) በማድረግ መልስ/ሽ።

ተ.ቁ.		1 ጭራሽ እዉነት አይደለም	2 እዉነት አይደለም	3 በመጠኑ እዉነት ነዉ	4 እዉነት ነዉ	5 በጣም እዉነት ነዉ
1	ትምህርቴን ጠንክሬ እየተማርሁ ነዉ።					
2	ትምህርቴን በክፍል ዉስጥ በትኩረት እከታተላለሁ።					
3	ትምህርቴን ጠንክሬ እየተማርሁ አይደለሁም።					
4	ብዙ ጊዜ ወደ ክፍል ሳልዘጋጅ እመጣለሁ።					
		ጭራሽ አይጠቅመኝም	አይጠቅመኝም	በመጠኑ ይጠቅመኛል	ይጠቅመኛል	በጣም ይጠቅመኛል
5	ትምህርትህን/ሽን በጥንካሬ/በትጋት መማር ምን ያህል ይጠቅምሃል/ሻል?					

DECLARATION

I, the undersigned, declare that this thesis is my original work and that all sources used for the thesis have been dully acknowledged.

Name: Tadele Demelash

Signature: _____

June 2009

This thesis has been submitted for examination with my approval as a University advisor.

Name: Tamrie Andualem (Assistant Professor)

Signature: _____

June 2009