

**ORGANISATIONAL CLIMATE, ORGANISATIONAL LEARNING, INNOVATION
AND ACADEMIC ACHIEVEMENT IN GOVERNMENT AIDED PRIMARY SCHOOLS
IN KAMPALA DISTRICT**

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DECLARATION

I, Denish Butagasa Galimaka, declare that, this dissertation is my original work which has never been published and/or submitted for any award in any other University.

Signed

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2008/HD10/13967U

Date:

APPROVAL

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DEDICATION

This dissertation is dedicated to my family, relatives and friends for their continued support and encouragement.

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Above all God, I thank you for giving me wisdom that has guided me to this height, I rejoice exceedingly for the positive changes you have created in my life.

LIST OF ACRYNOMS

UPE:	Universal Primary Education
PLE:	Primary Leaving Examination
UNEB:	Uganda National Examinations Board
MOES:	Ministry of Education and Sports
ANOVA:	Analysis of Variance

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ABSTRACT

This study focused on examining the relationship between Organizational Climate, Organizational Learning, Innovation and Academic Achievement in public primary schools in Kampala district. This study was driven by the consistent decline in the Academic Achievement of pupils in public primary schools and yet lower level education is the foundation for higher level education and human resource development for the country.

A sample of 59 schools from all the five divisions in Kampala were considered, of which 34 (58%) provided complete data for the study and a cross sectional survey design was used. Primary data was collected from respondents using a structured self administered questionnaire. Data on academic achievement was obtained from the Uganda National examinations Board (UNEB) database .Data was analyzed using SPSS with focus on Pearson's correlation coefficient, regression analyses and ANOVA tests.

Results showed strong significant relationships between study variables, with Organizational Learning being strong predictor of academic achievement. The findings also indicate that Organizational Climate, Organizational Learning, and Innovation combined explain up to 37.7% of the variance in the Academic Achievement.

It was concluded that Innovation significantly predict the high level of Academic Achievement compared with school climate It was recommended that education managers and policy makers should allow some degree of flexibility in public primary schools which can promote innovations as opposed to the need to follow strict policy guidelines initiated by the Ministry of Education and Sports.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In most developing countries, Uganda no exception, the inability of the nation states to control the influence of worldwide linkages and associated competition has forced most nations to refocus their human capital development strategies. Specifically, most governments have resorted to the education system with emphasis on quality for competitiveness (Odiahambo, 2008; Pak, 2008).

To emphasize the importance of education, most states prioritized primary education by making it accessible to all (Dauda, 2004; Grogan, 2006; Tooley et al., 2008), and in Uganda, the government undertook in 1997 to meet the costs of education for four children per household (Grogan 2006), which was later modified to benefit all children in 2003 while parents meet the other auxiliary costs (Mikiko, et al, 2005). The budget share of the primary education sub-sector increased from 40% in 1996 to 65% in 2004 (MOES Report, 2008). While much emphasis is being placed on enrolment of pupils, little has been put on academic achievements of pupils (Munene, 2009). Academic achievement here means academic performance in primary education. In the seven-year primary school cycle in Uganda, an indicator of this performance is the grade achievement in the national Primary Leaving Examinations (PLE) administered by the Uganda National Examinations Board (UNEB) (Oluka & Okurut, 2008). Analyses of the examination results show that academic achievement in public primary schools in Kampala District of Uganda is very poor, and consistently so, compared to privately owned schools. For

instance, in 2008 Primary Leaving Examinations, no public primary school was among the top 30 best performing schools (UNEB, 2009) in the district which raises questions on the performance of such schools. Public schools that used to perform well such as Nakivubo Blue and Nakivubo Settlement have all seen their grades plummet in recent years (Ssenkabirwa & Khisa, 2010). Bugembe, (2009) further asserts that for the past three years (2006-2008), private schools have taken the lion's share among the top PLE schools in Kampala District.

According to Karsten et al, (2000) schools must bring about change and should be learning organizations. Contrary to common understanding that bureaucratic tendencies in public primary schools hinder innovation, Cuttanace (2001) cites public primary schools in Australia which adopted process innovations by undertaking off-site learning, flexible pupils grouping and flexible use of teachers in classes. Rajeev (2005) also argues that public primary schools can adopt certain process and administrative innovations in any of the areas of classroom teaching, resource mobilization and management. As Nakabugo (2006) argues, innovations in public primary schools in Uganda seem to be limited and attracting less research. Innovation is a function of climate of an organization, Munene (2009) however argues that the climate in some public primary schools is characterized by lack of discipline by the head teacher and pupils, late coming by pupils and reduced involvement of stakeholder in the affairs of the school. This has the potential of affecting innovative practices in those schools.

The challenge for public primary schools is to create conducive climate which can foster school organizational learning and innovations within the established guidelines of the Ministry of Education and Sports for improved pupil's achievement in national examinations.

1.2 Statement of the Problem

The government of Uganda and the donor partners have devoted substantial amount of resources to public primary schools especially after the introduction of UPE policy (MOES, 2008). Post-UPE implementation studies have however cited that pupil's academic achievements still remain low (Mikiko, et al., 2005; Mukisa, et al., 2009). This seems to be due to unfavorable organizational climate which could be impacting on learning and innovation activities in most public primary schools and Academic achievements.

Furthermore, the process of innovations has been a topic of intense research and study for many years (Baker & Sinkula, 2002; Darroch & McNaughton, 2002; Lyon & Ferrier, 2002; Vrakking, 1990; Wolfe, 1994). A majority of these studies were conducted in the industrial and business sectors and, therefore, their applicability to educational institutions, particularly schools, would be limited. This study therefore has a strong foundation on the basis of limited studies on school level innovation especially in the Ugandan context.

1.3 Purpose of the Study

The study sought to examine the relationship between Organizational Climate, Organizational Learning, Innovation and Academic achievements in Public Primary Schools in Kampala district

1.4 Objectives of the Study

- i. To examine the relationship between Organizational Climate and Innovation
- ii. To assess the influence of Organizational Learning on Innovation
- iii. To determine the relationship between Organizational Climate and Organizational Learning

- iv. To assess the influence of Organizational Climate on Academic achievement
- v. To determine relationship between Organizational Learning and Academic Achievement
- vi. To determine the relationship between Innovation and Academic achievement

1.5 Research Questions

- i. What is the relationship between Organizational Climate and Innovation?
- ii. What is the influence of Organizational Learning on Innovation?
- iii. What is the relationship between Organizational Climate and Organizational Learning?
- iv. What is the influence of Organizational Climate on Academic achievement?
- v. What is relationship between Organizational Learning and Academic Achievement?
- vi. What is the relationship between Innovation and Academic achievement?

1.6 Scope of the Study

1.6.1 Conceptual Scope

The study was limited to assessing the influence of Organizational Climate, Organizational Learning and Innovation on Academic achievement in public primary schools in Kampala district of Uganda.

1.6.2 Geographical Scope

The study focused within the public primary schools in Kampala District. The district was purposefully chosen primarily because it has a variety of schools with different characteristics such as peri-urban and urban, class size, best and poor performing schools, and schools with teachers of varying qualifications, and children of various economic, social and academic

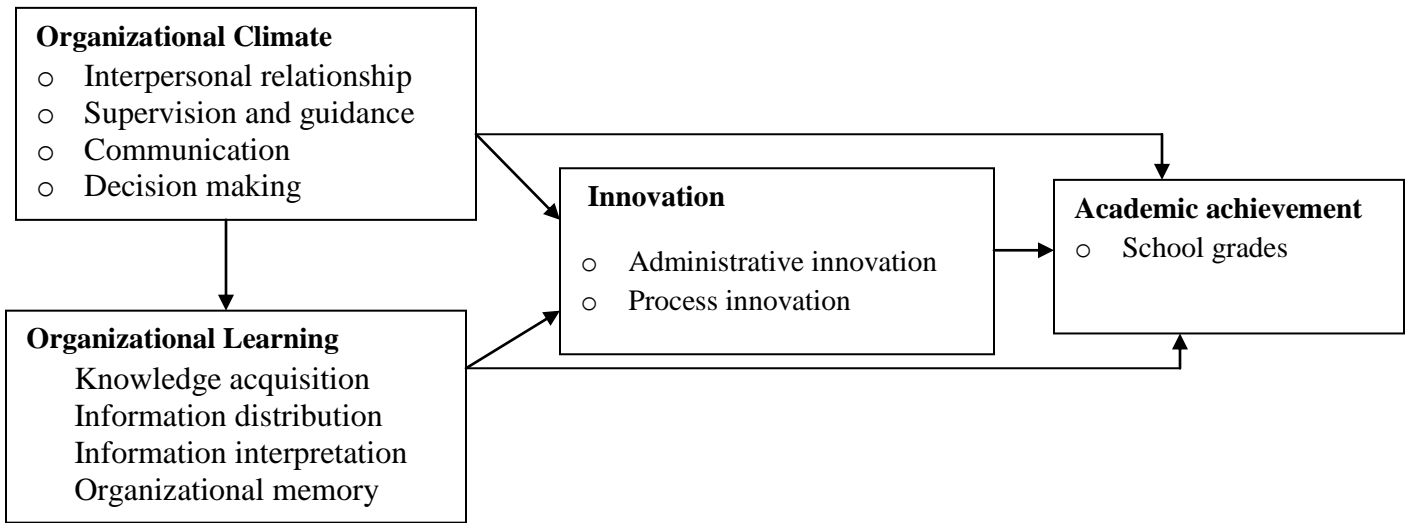
backgrounds. Although it would have been useful to consider many districts to attain a broader understanding of the problem of low academic achievement in Uganda, in this study it was not possible due to inadequate resources

1.7 Significance of the Study

The study provides theoretical and managerial implications for education stakeholders in the country, specifically;

- i. The study provides vital information on the silent determinants of academic achievement in primary education based on creation of innovative culture in schools in Uganda that can cause a shift in focus from centralized to school-initiated interventions aimed at improving the academic achievement in schools.
- i. To the education managers, the study provides a clear understanding of the critical learning outcomes at primary level. This therefore creates a shift from emphasizing the traditional input and process indicators of academic achievement to output indicators.

Figure 1: The Conceptual Framework



Source: Developed from literature

The model is developed by the researcher from the review of related literature on factors that have considerable influence on academic achievement in schools. Basing on previous works, the model denotes that organizational climate, examined in terms interpersonal relationships, supervision and guidance, communication and decision making, (Munene, 2009) and organizational learning examined in terms of knowledge acquisition, information distribution, information interpretation and organizational memory (Perez, et al., 2004, Jime´nez-Jimenez et al., 2008) will influence innovation activities and academic achievement. Also, consistent innovations which is examined in terms of administrative innovation (Afuah, 1998; Damanpour, 1990) and process innovation (Jime´nez-Jimenez et al, 2008) leads to high academic achievement which is examined in terms school grades in national examination (Kannapel, et al., 2005; McEvoy & Welker, 2000; Oluka& Okurut, 2008; Salfi & Saeed, 2007; Towns, et al., 2001)

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, literatures written by other researchers and scholars on organizational climate, organizational learning, innovation and academic achievement have been reviewed.

2.1 Organizational Climate and Innovation

Organizational climate has been examined by many researchers (Freiberg, 1998; Haynes & Comer, 1993; Johnson & Johnson, 1993; Manning & Saddlemire, 1996; Kuperminc et al., 1997, and Munene, 2009) for many years and much emphasis continues to be put on it due to its considerable impact on educational outputs. Indeed, school climate is multi-dimensional and influences many stakeholders (Munene, 2009). It has been looked at as emanating from many factors for instance; the number and quality of interactions between adults and students (Kuperminc, Leadbeater and Blatt, 2001), environmental factors (such as the physical buildings and classrooms, and materials used for instruction), academic performance (Johnson & Johnson, 1993), feelings of safeness and school size (Freiberg, 1998) and feelings of trust and respect for students and teachers (Manning & Saddlemire, 1996). As noted, the multidimensionality of the term is widely accepted by researchers (Manning & Saddlemire, 1996; Kuperminc et al., 1997, and Munene, 2009). The present study adopted the approach in Munene, (2009) who suggested among others *Interpersonal Relationship, communication, decision making, and supervision and guidance* as core elements of school climate because it was considered to be the most appropriate to reflect the current context. Interpersonal Relationship focuses on the relationship between

managers and employees and the management of conflict within the organization. Decision Making is concerned with the extent to which an organization allows members to have choice in carrying out their own work. Supervision and guidance is concerned with the quality of supportive relationships between a supervisor and subordinates. Communication is concerned with open and transparent flow of information based on trust between individuals, teams, and departments (Hartmann, 2006; Munene, 2009; Tierney, 1999)

There are limited studies done on pro innovation climate in schools (Yan & Chang, 2005) the literature reviewed here therefore is largely based on studies done in business organizations. From earlier studies, (Thistlethwaite, 1963; Torrance, 1965; West & Farr, 1989) to recent studies (Martins & Terblanche, 2003; Nystrom, 1990; Rajeev 2005; Yan & Chang, 2005) done in both educational and industry oriented organizations the general conclusion is that a supportive climate facilitated effective innovation. Apparently, there is no collective view regarding the specific elements of pro-innovation climate, numerous aspects have been indicated as aiding or inhibiting innovation (Nystrom, 1990; West & Farr, 1989)

According to Tesluk, et al., (1997) all organizations need to forge an internal climate to promote organizational readiness for innovation in the face of fierce competition and rapidly changing technological, economic, regulatory, and market conditions. Yan & Chang (2005) indicated that a school innovation operation means that, the schools create an organizational culture and environment for the members' creativity development. They encourage and guide staff members to participate in innovation activities. Through knowledge system management and operation, the schools construct the creativity by systematic operational strategy to develop the dynamic

process of sustainable operation (Yan & Chang 2005). Ahmed, (1998) developed a comprehensive list of organizational characteristics which he classifies as either promotive or restrictive for innovation to occur within organizations. He argued that most of the successful innovation projects happen in promotive climates while a large number of failures occur in restrictive climates. Some commonly suggested aspects of promotive internal climate for innovation are willingness to tolerate unpredictability and failure, openness and trust, employee involvement, practices that promote extensive participation, supportiveness and commitment to innovation on the level of management, and reward/recognition mechanisms that encourage risk taking and experimenting (Ahmed, 1998)

Martins & Terblanche, (2003) pointed out that organizational climate characterized by support for ideas and willingness to tolerate their failure; challenge, freedom, and constructive controversy leads to innovative practices. Also Pillinger and West (1995) in their study of 54 manufacturing organizations discovered that organizational climate with emphasis on quality, interdepartmental cooperation, reflexivity, effective communication, teamwork, and support for new ideas promotes creativity and innovations. Nystrom (1990) on the other hand looked at innovation as an outcome of the interaction between organizational strategy and structure, with climate as an important intervening variable. In his study of Swedish chemical manufacturing firm, he found out that organizational climate which strongly encourages risk taking and debate and high on challenge, idea support, playfulness, and freedom facilitates the making of most innovative decisions. Considering these studies, we therefore hypothesize that;

H1: There is a significant positive relationship between organizational climate and innovation

2.2 Organizational Learning and Innovation

The concept of schools as learning organizations has evolved in response to the difficulties experienced in bringing about school reform. Over a relatively short period of time, support for the importance of organizational learning in schools has grown (Chapman, 1997; Leithwood, Leonard & Sharratt, 1998; Louis, 1994). Schools that function as learning organizations in a context of rapid global change are those that have systems and structures in place that enable staff at all levels to collaboratively and continuously learn and put new learnings to use.

Organizational learning refers to the process of developing new knowledge and insights derived from the common experiences of people within the organization and have the potential to influence behaviors and improve a firm's capabilities (Fiol & Lyles, 1985; Huber, 1991; Senge, 1990; Slater & Narver, 1995). Several researchers (Nevis, DiBella, & Gould, 1995; Shrivastava, 1983; Templeton et al., 2002) have identified a variety of elements in organizational learning. However, synthesizing the literature, Huber (1991) and Templeton et al. (2002) proposed four inter-related elements of organizational learning: *knowledge acquisition*, *information distribution*, *information interpretation* and *organizational memory*.

Knowledge acquisition is the process by which knowledge is obtained. The knowledge/information may be obtained from a vast range of sources including customer surveys, research and development activities, performance reviews, scanning the organizational environment, analyzing competitors' products, internal and external networks (Huber, 1991; Nevis et al., 1995).

Information distribution is a process by which information from different sources is shared, leading to new information or understandings (Huber, 1991). In this process, information is

distributed through the organization which actually facilitates knowledge sharing among the employees.

Information interpretation is a process by which distributed information is given one or more commonly understood interpretations (Huber, 1991). This process involves organizational members conceptualizing the information that is distributed. Information interpretation is synonymous with Senge's (1990) construct of building a shared vision, where a firm's vision is to be shared with every organizational member so that the organization can learn.

Organizational memory is a means by which knowledge is stored for future use. Organizational memory is important to learning because without memory learning would have a short life due to employee turnover and the passage of time (Huber, 1991; Levitt & March, 1988).

Management literature highlights organizational learning as an antecedent of innovation (Carneiro, 2000; Leonard-Barton, 1995). Several models have been proposed to explain the relationship between them (Cohen & Levinthal, 1990; Hedlund, 1994; Kogut & Zander, 1992; Leonard-Barton & Sensiper, 1998; March, 1991; Nonaka & Takeuchi, 1995). In general, it is considered that innovation requires that individuals acquire existing knowledge and that they share it within the organization. In this sense, Hurley and Hult (1998) suggest that being oriented towards learning indicates an appreciation of new ideas and a desire to assimilate them. The acquisition of knowledge also depends upon the organization's knowledge base (Salavou et al., 2004) as well as on the absorptive capacity of the firm and its members, that is to say, their ability to understand the new knowledge, to assimilate it and apply it for commercial ends (Cohen & Levinthal, 1990). Thus, organizational learning enhances the absorptive capacity of the firm. Innovation also involves the transformation and exploitation of existing knowledge; this

requires employees to share information and knowledge. As Nonaka (1994) suggests, innovation occurs when employees share their knowledge within the organization and when this shared knowledge generates new and common insights, in a process of divergence and convergence (Leonard-Barton and Sensiper, 1998), and new key capabilities (Kogut and Zander, 1992; Leonard-Barton, 1995) which enhance innovation in the firm. In conclusion, organizational learning results in the development, acquisition, transformation and exploitation of new knowledge, which fosters organizational innovation.

While many studies have reported aspects of organizational learning as antecedent of innovation, the literature does not provide enough empirical evidence to link the process of organizational learning and innovation (Darroch & McNaughton, 2002). Only a few studies have found a relation between these concepts (Forrester, 2000; Hurley & Hult, 1998; Katila, 2002). Other studies have focused on one of the sub-processes of organizational learning or one type of innovation. For instance, Yli-Renko et al. (2001) studied the relationship between knowledge acquisition and product innovation. In general, empirical research has found evidence of a positive relationship between organizational learning and innovation. Considering these studies, it can therefore be hypothesized that;

H2: Organizational learning will have a positive influence on innovation.

2.3 Organizational Climate and Organizational Learning

Organizational climate plays an essential role in shaping employees' behaviors and influencing their perception of learning (Chen & Lin, 2004; Long, 2000; Sveiby & Simons, 2002). Organization can encourage employees to think freely, to communicate their opinions and ideas

openly, and to explore non-routine alternatives through creating favorable climate (Jaw & Liu, 2003; Norrgren & Schaller, 1999). Under favorable climate, when team members encounter certain dilemmas, they may participate aggressively in their work teams and interact with each other to find out appropriate solutions thus promoting learning (Hoegl et al., 2003). When firms possess a higher level of learning climate, employees are more inclined to increasing interaction to exchange and share knowledge for creative thoughts (Norrgren & Schaller, 1999).

According to Jaw & Liu, (2003) and Sveiby & Simons, (2002) pro-learning climate increases the social interaction among organizational members. When insightful and innovative ideas occur to individuals, cooperation between individuals typically plays a critical role in developing these ideas which facilitate further learning. As Floyd & Lane, (2000) argued new organizational knowledge initially generated by the individual is developed through the communities of interaction.

When cooperative climate exists in companies, members of a group are more inclined to working together to share and develop tacit knowledge and try to promote each other's performance and learning (Janz & Prasarnphanich, 2003). In other words, organizations can enhance individuals' willingness to interact with others by nurturing a cooperative climate. When employees perceive a higher degree of cooperative atmosphere inside the organization, they will be more likely to build up the interactive relationships with other members which promote learning. Accordingly, social interaction among individuals would be influenced by the organizational climate (Jaw & Liu, 2003). If the organization possesses a strong innovative and cooperative climate, employees would receive a clear signal that it is acceptable or desirable for them to build up interaction

networks to share and gather knowledge. Conversely, if the innovative and cooperative climate is relatively weak or inexistent, employees would perceive a lower need to interact with colleagues.

Considering these studies, it can therefore be hypothesized that;

H4: There is a significant positive relationship between organizational climate and organizational learning

2.4 Organizational Climate and Academic Achievement

Considerable research has been conducted linking school climate to academic achievement. The overall conclusion is that climate exists as an essential element of successful schools (Bliss, Firestone, & Richards, 1991; Carter, 2000; Cruickshank, 1990; DuFour, 2000; DuFour & Eaker, 1998; Goddard, Tschannen-Moran, & Hoy, 2001; 1997; Klinger, 2000; Lezotte, 2001).

Towns, et al (2001) examined four urban schools serving low-income populations with high academic achievement in national assessment. All four schools had strong head teachers, high expectations for achievement, monitored student progress, maintained discipline, and strong parental involvement. Kannapel, et al (2005) concluded that in high-performing, the school climate factors that related to academic achievement are: high expectations for students, collaborative decision making between the teacher and the head teacher, caring staff, parent/teacher communication, strong school morale and work ethic, a strong academic and instructional focus, and coordinated staffing strategies.

Salfi and Saeed, (2007) in their study found that those schools in which teachers were more involved in decision making process; teacher-parent interaction was frequent and had better cooperation with each others; better relationships among school teaching and supporting staff;

their pupils' performance was better than other schools which had no such positive school climate characteristics. On the other hand, McEvoy & Welker, (2000) argues that high academic achievement is associated with school climate characterized by high teacher commitment or engagement, positive peer norms, an emphasis on group or team cooperation, high level of expectation held by teachers and administrators, consistency in administering rewards and punishments, consensus over curriculum and discipline, and clearly defined goals and objectives

Earlier studies have found school climate to exert significant influence over academic achievements. For instance, Kuperminc, et al. (1997) found that a positive school climate is associated with fewer behavioral and emotional problems for students. Behavioral and emotional problems impede academic achievements. (Haynes & Comer, 1993) in their study in high-risk urban environments found that a positive, supportive, and culturally conscious school climate considerably determines the degree of academic success experienced by urban students.

Haynes, (1998) and Kuperminc et al., (1997) on the other hand found out that a positive school climate perceptions are protective factors for boys and may supply high-risk students with a supportive learning environment yielding healthy development, as well as preventing antisocial behavior which leads to high academic achievement at school

Taylor & Tashakkori (1995) while focusing on the roles of teachers and administrators found that a positive school climate is associated with increased job satisfaction for school personnel which is crucial for learning. Considering both recent and old studies, it can therefore be hypothesized that;

H4: There is a significant positive relationship between Organisational Climate and Academic achievement

2.5 Organizational Learning and Academic Achievement

In light of the growing complexity and competitiveness of an ever changing society, Schlechty (1997) contended that, the demands of modern society are such that public schools must now provide what they have never provided before: a first-rate academic education for nearly all students. According to Blankstein (2004), the moral imperative of providing a first-rate education is realized when failure is no longer considered an acceptable alternative and all students are successful. While many schools accept the notion of success for all, schools which have embraced and accomplished this ideal remain the exception rather than the rule (Darling-Hammond, 1996; DuFour et al., 2004; Louis & Kruse, 1995). School more than ever are required to function as learning organization in order to continue to improve performance and build capacity to manage change (Corcoran & Goertz, 1995)

Schools that function as learning communities have consistently been linked to improved student outcomes (Bryk et al., 1998; DuFour et al., 2004; Huffman & Hipp, 2000) and are believed to provide a promising strategy for improvement. In case studies of 15 high-performing high-poverty urban schools that had improved and sustained achievement, Duke (2007) concluded that systemic change based upon local needs and unique to each school had characterized the transformation from low-achieving to high-performing in national examinations.

In a three-year study of low-income elementary schools which improved and sustained school-wide achievement from less than 50% proficient to more than 75% proficient on state

achievement tests, Strahan (2003) concluded that professional staffs developed supportive cultures that enabled participants to coordinate and strengthen schools as learning communities.

Researching the characteristics of high-performing schools in North Carolina, Cooper, et al. (2005) identified the use of on-going formative assessments, analysis of work, and timely student interventions as key components of school success. In schools where the use of formative assessments and instructional supports were routinely practiced, the researchers found that student learning improved and the expectation for high achievement was perceived as a cultural norm among staff.

DuFour et al. (2004) reported similar findings in their study of four high achieving in schools that embraced learning, indicating that continuous improvement was centered around a strong clarity of purpose, a collaborative culture, norms supporting collective inquiry into best practices, and an orientation for action. According to DuFour et al. (2004), these schools demonstrated that a shift from a focus on teaching to a focus on learning is a powerful coherence-maker. Rather than adopting externally driven staff development initiatives and programs, effective teacher learning communities develop sustained improvement and a deepening of practice based upon analysis of their school's specific needs and by avoiding the fragmented interference of externally driven initiatives (Duke, 2007; Liebman et al., 2005; Strahan, 2003). Considering these studies, it can therefore be hypothesized that;

H5: There is a significant positive relationship between Organizational learning and Academic achievement

2.6 Innovation and Academic Achievement

According to Caldwell & Spinks, (2008) school improvement has entered a new era, with calls for transformation with the realization that an industrial model of schooling is proving insufficient to the more complex needs of what is summarized as the 21st century (Gilbert, 2005). There is widespread policy interest in more personalized learning, not only as something that might be more successful in tackling the persistent proportions of students who leave school with only low levels of knowledge and skills in the core areas of literacy and mathematics, but also as a means to increase student engagement in learning and the development of “lifelong learning” attitudes and strategies. Interest has grown in approaches such as ‘authentic’ or ‘inquiry-based’ learning that are intended to develop skills and confidence in problem-solving in complex situations, critical thinking, working with different kinds of people, creativity and innovation (Gilbert, 2005).

Considering the researchers’ views, innovation in schools would be different. For instance, Wu (2006) suggested that innovation operation includes concept, technique, product, service, process, activity environment and characteristic innovation. Lee (2005) suggested that the four constructs of school innovation are instructional behaviour, facility resource innovation, organizational climate innovation and administration innovation. In other words, the schools encourage innovation by new instructional facilities and administration to enhance educational innovation and organizational innovation. They guide the teachers to instruct the students by using an innovative instructional approach and tool to enhance further school effectiveness. Hsiao, et al, (2009) constructed seven organizational innovation indices for elementary schools

in Taiwan by innovation of leadership, administration, student affairs, curriculum and instruction, teachers' professional development, resource applications and campus.

Damanpour (1991) maintains that among numerous typologies of innovation advanced in the literature, *administrative and process innovations* are among the three which have gained most attention, the other being radical and incremental innovation. An administrative innovation relates to management oriented processes such as structure, human resource management, and accounting systems. It is concerned with the implementation of a new organizational method in the firm's business practices, workplace organization or external relations. A process innovation assists the organization to produce products or services (outputs) from inputs. It is concerned with the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. Process innovation can be intended to decrease unit costs of production or delivery, to increase quality, or to produce or deliver new or significantly improved products. (Damanpour, 1991; Hsiao, et al, 2009; Lee, 2005; Wu, 2006)

According to (Liu, 2006) a higher level of school organizational innovation would improve school grades. Yan & Chang (2005) also indicated that school innovation operations enhance educational performance in school. They suggested that schools should encourage innovation in teaching, administration and learning in order to survive through sustainable management. As a result, education personnel must exhibit creativity and mobility to pursue the goal of innovation and to benefit students.

Calhoun, et al (2006) in their study found that the way teachers group and mix students can theoretically help them to cope with large numbers as well as with diverse abilities in their classrooms. Students in groups of like ability can provide challenge and support to one another; while mixed groupings or pairs make it possible to draw productively on the skills of more able students. When groups are used effectively, they can have strong learning benefits for children and improve school grades. In a study done in Kenya, children assigned to ability grouped classes had higher grade scores than those who were randomly assigned to classes (Duflo, Dupas, & Kremer, 2008). Also the innovative practice of assigning children to classes based on their achievement, on the assumption that teachers can teach more effectively with children of similar abilities is being adopted in many schools. Evidence from the minority world has in general pointed to mixed benefits, although a recent experimental study in Kenya indicated solid advantages to ability streaming, both in terms of children's achievement in national examination and the involvement and motivation of teachers (Duflo et al., 2008).

In Ghana, certain schools adopted innovations where classrooms were print-rich environments, with "talking walls" filled with reminders of past lessons, and with desks grouped for cooperative work. Instruction was focused simultaneously on listening, reading and writing, and there was a mix of whole class, group and one-on-one instruction. When Grade 1 children's reading skills were assessed and compared to those of children in control schools, the innovative children outperformed others on all fronts, with the most marked difference in the advanced test sections on oral reading and comprehension (Lipson, et al., 2004). Also studies of individual tutoring programmes indicate that, while tutoring is not a guarantee of improved learning, it tends to lead to gains in achievement, and to be most effective in the lowest grades and in

mathematics. For instance in urban India, group tutoring for low-achieving 3rd and 4th graders also had significant impacts for achievement (Banerjee, et al., 2008). Considering these studies it can be hypothesed that:

H6: There is a significant positive relationship between school innovation and academic achievement

Conclusion

Considerable studies indicate that there is significant positive relationship between organizational climate, organizational learning, innovation and academic achievement in schools. In Some studies however, the relationship is not significant for instance; Feigenberg's (2007) found a moderate positive relationship between a healthy school climate and student reading achievement. Smith (2008) found a moderate positive relationship between school climate and English achievement, but failed to find any significant relationship between climate and mathematics achievement. Nonetheless, climate exists as an essential element of successful schools.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter highlights how the research was conducted. It discusses the research design, study population, sampling design and procedure, data sources and collection instruments, measurement of research variables, validity and reliability of the research instruments, data processing and analysis and ethical issues.

3.1 Research Design

The researcher adopted a cross-sectional quantitative design to collect data on organizational climate, innovation and academic achievement. Quantitative design was used to enable the researcher express and present some of the data numerically and estimate statistically specific measurements that can then be said to be representative of the target population as a whole.

3.2 Study Population

The study population was public primary schools in Kampala districts. The district was purposefully chosen primarily because of the reported academic achievement problems in public schools making most parents to prefer private primary schools. Also the district has a variety of schools with different characteristics such as peri-urban and urban, class size, best and poor performing schools, and schools with teachers of varying qualifications, and children of various economic, social and academic backgrounds.

3.3 Sampling Design and Procedure

The study used multi-stage cluster sampling procedure to get the sample of the population for the study, first drawing out the parishes in the district, and then drawing out schools from each of the parishes selected. The units of inquiry were purposefully selected as Head teachers, Director of studies and 3 Teachers from upper, middle and lower classes. In total, 5 respondents were selected from each school.

Table 1: Target Population and Sample size

	Population	Sample
Parish	55	48
Schools	72	59

Source: (MOES, 2009)

The sample is determined using the principle in Krejcie and Morgan, (1970).

The findings described in the subsequent section are based on the data collected from 34 (58%) schools of the sampled public primary schools which were able to provide complete data.

3.4 Data Sources and Collection Instruments

The study used both primary and secondary sources of data. Primary data was collected using semi-structured questionnaires that were administered to head teachers and teachers, to collect data on organizational climate, organizational learning and school level innovation. The questionnaire consisted of closed ended questions that are in line with the study objectives. The questionnaires were self-administered in order to clarify on issues and seek respondents' opinions.

The Profile of Primary School academic achievement was the data obtained from the Uganda National examinations Board (UNEB) database for each of the four examinable subjects, namely

English, Mathematics, Science and Social Studies for 2008 and 2009 indicating both the grades pupils obtained and the summary of the division passes obtained by candidates in each school each year. The data for the study schools were generated from the UNEB database over a period of three weeks.

3.5 Measurement of Research Variables

A structured questionnaire built on a Likert scale ranging from 1 strongly disagrees to 5 strongly agrees were administered in order to get quantifiable data from individual respondents. The constructs were measured as follows;

Organizational Climate was measured by interpersonal relationships, supervision and guidance, communication and decision making. These measures are adopted from Munene, (2009) who undertook a related study in the Ugandan context.

Organizational Learning was measured using the scales of Perez et al. (2004) and Jime´nez-Jimenez et al, (2008) which describe the organizational learning phases of Huber’s (1991) model. The measures are; knowledge acquisition, information distribution, information interpretation and organizational memory.

Innovation was measured in terms of administrative innovation (Afuah, 1998; Damanpour, 1990) and process innovation (Jime´nez-Jimenez et al, 2008). These dimensions are considered to be relevant in the school setting.

Academic achievement was examined in terms of school grades in national examinations (Kannapel, et al., 2005; McEvoy & Welker, 2000; Oluka& Okurut, 2008; Salfi & Saeed, 2007; Towns, et al., 2001)

3.6 Validity and Reliability of Research Instruments

To improve the validity of the questionnaire, the researcher sought guidance from the available research experts who aided in moderating the tool to fit the study objectives. By doing this, it ensured improvement on clarity of language, relevancy, and comprehensiveness of the content and standard length of the questionnaire. The content validity index was computed to ensure that all the items in the questionnaire were valid to achieve the study objectives.

To ensure reliability of the research instrument, a Cronbach alpha test was computed as a measure of scale reliability. Cronbach's alpha allows us to measure the reliability of different variables. It consists of estimates of how much variation in scores of different variables is attributable to chance or random errors (Selltiz et al., 1976). As a general rule, a coefficient greater than or equal to 0.7 is considered acceptable and a good indication of construct reliability (Nunnally, 1978)

Table 2: Reliability of the instrument

Name	Anchor	Cronbach Alpha Value	Content Validity Index
Organizational Climate	32	.907	.719
Organizational Learning	21	.870	.857
Innovation	18	.742	.778
Academic Achievement	Measured using Secondary Data		

3.7 Data Processing and Analysis

The collected data was organized and edited at the end of each step to ensure accuracy, completeness and consistency of the information given by the respondents. The result of which, was used for data coding. Coded data was analyzed using SPSS. Quantitative statistical

manipulations was run such as regression analysis to show the predictive power between variables, correlation analysis to indicate the degree to which variables relate to each other, and the ANOVA test to establish the differences in results across different school location. Academic achievement data was analyzed through the use of percentages and means of grades obtained in the four examinable subjects using the SPSS. The grades are indicated as they are recorded in the national examinations but as percentages.

3.8 Ethical considerations

The researcher first obtained a letter of introduction from the University which was presented to the different schools for their consent. The data obtained from the respondents has been treated purely for academic purposes.

CHAPTER FOUR
RESULTS AND FINDINGS OF THE STUDY

4.0 Introduction

This chapter presents the findings of the study. This is done in line with the objectives for which the study was undertaken as highlighted in chapter one section 1.3.

4.1 Background Information

Distribution of the Schools

Table 3: Distribution of the Schools by location

Location	Frequency	Valid %
Urban	26	76
Peri-Urban	8	24
Total	34	100

Source: Primary Data

Results in the table above show that 76% of the schools were urban schools while 24% were Peri- urban schools. These schools were sampled from all the divisions in Kampala.

Gender and Individual Status Distribution of respondents

Results in the table 4 are clear that 41.8% of the respondents were male while the majority were the female, constituting 58.2% of the sample. Teachers were noted to form the greater proportion of the sample (94.0%). Among teachers, the greater percentages were the female (60.8%) while among the head teachers, the greater proportion were male (81.8%).

Table 4: Frequency distribution of teachers by Gender in schools

			Status		Total
			Head teacher	Teacher	
Gender	Male	Count	9	67	76
		Column %	81.8%	39.2%	41.8%
	Female	Count	2	104	106
		Column %	18.2%	60.8%	58.2%
Total	Count	11	171	182	
	Sample %	6.0%	94.0%	100.0%	

Source: Primary Data**Tenure of service and Academic Qualification of respondents****Table 5: Frequency distribution of respondents by Tenure of service and Academic Qualification**

			Academic Qualification			Total
			Diploma & Below	Degree	Post Graduate Qualification	
Less than 1 yr	Count	16	1	1	18	
	Column %	88.9%	5.6%	5.6%	100.0%	
1 - 3 yrs	Count	33	7	1	41	
	Column %	80.5%	17.1%	2.4%	100.0%	
Tenure 4 - 7 yrs	Count	45	4		49	
	Column %	91.8%	8.2%		100.0%	
8 - 12 yrs	Count	32	4		36	
	Column %	88.9%	11.1%		100.0%	
More than 12 yrs	Count	29	9		38	
	Column %	76.3%	23.7%		100.0%	
Total	Count	155	25	2	182	
	Sample %	85.2%	13.7%	1.1%	100.0%	

Source: Primary Data

Table 5 above shows findings on the tenure of service and academic qualification of respondents.

In terms of the respondents' level of education, the study revealed that most teachers have

diploma in primary education (85.2%), with 13.7% having Bachelor Degree and only 1.1% having Post Graduate Qualification. Also, findings show that the majority of staff had spent between 4-7 years in service. A small proportion of the teachers had spent less than one year in service.

Table 6: Frequency distribution of respondents by Age group

		Individual Status		Total	
		Head Teacher	Teacher		
Age Group	20 - 24 yrs	Count	8	8	
		Column %	4.7%	4.4%	
	25 - 29 yrs	Count	31	31	
		Column %	18.1%	17.0%	
	30 - 34 yrs	Count	47	47	
		Column %	27.5%	25.8%	
	35 yrs & Above	Count	11	85	96
		Column %	100.0%	49.7%	52.7%
Total	Count	11	171	182	
	Sample %	6.0%	94.0%	100.0%	

Source: Primary Data

Results in the table 6 indicate the age distribution of the respondents. The minority of the teachers were between the age group of 20-24 years (4.4%) while greater proportions were above 35 years old. All the head teachers were above 35 years of age.

Marital Status and Individual Status Distribution of respondents

As indicated in table 7, the majority of the teachers (72.0%) were married, 25.3% were still single and 2.2% divorced, while all the head teachers were married.

Table 7: Frequency distribution of respondents by Marital Status

		Individual Status		Total	
		<i>Head Teacher</i>	<i>Teacher</i>		
Marital Status	Single	Count	46	46	
		Column %	26.9%	25.3%	
	Married	Count	11	120	131
		Column %	100.0%	70.2%	72.0%
	Divorced	Count	4	4	4
		Column %		2.3%	2.2%
	Others	Count	1	1	1
		Column %		.6%	.5%
	Total	Count	11	171	182
		Sample %	6.0%	94.0%	100.0%

Source: Primary Data**4.2 Relationship between the variables**

Relationship between the variables was established with the help of the Pearson (r) correlation coefficient. This helped the researcher to fully understand the nature of the relationships that are extant among the study variables and was therefore able to make interpretations and finally discussions and conclusions in the next chapter,

Table 8: Pearson's correlations of the study variables

	Organizational Climate	Organizational Learning	Innovation	Academic achievement
Organizational Climate	1.000			
Organizational Learning	.399**	1.000		
Innovation	.324**	.571**	1.000	
Academic achievement	.293**	.493**	.598**	1.000

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

Source: Primary Data

Organizational Climate and Innovation

Organizational Climate and Innovation were positively related ($r = .324^{**}$, $p < .01$). From these results, it's clear that if the school has a good organizational climate reflected in terms of good supervision to members of staff, team work and cooperation coupled with willingness to learn from each other among members of staff, innovative practices are initiated, and this will be seen in coming up with effective ways of teaching.

The influence of Organizational Learning on Innovation

Findings showed that Organizational Learning has a positive influence on Innovation ($r = .571^{**}$, $p < .01$). It's therefore likely that if the school encourages knowledge acquisition, information distribution and interpretation then creative and innovative practices in the areas of teaching and administration are probably initiated and adopted.

Organizational Climate and Organizational Learning

Organizational Climate and Organizational Learning were positively related ($r = .399^{**}$, $p < .01$). From this finding, it clearly indicated that a school that creates climate characterized by open communication, cooperation among staff, and flexibility in decision making will have the potential to learn through the various stakeholders.

The influence of Organizational Climate on the Academic achievement

The findings showed that Organizational Climate influences the level of Academic achievement ($r = .293^{**}$, $p < .01$). It can be asserted that schools with a conducive climate characterized by

sharing of ideas among staff, teamwork, open communication, joint decision making, trust and respect among staff will register high level of academic achievement in national examinations.

Organizational Learning and Academic achievement

Findings indicated that organization learning and academic achievement were positively related ($r = .493^{**}$, $p < .01$). This result is clear that schools that demonstrate active commitment to continuous improvement and to the diffusion of best practices throughout the school; horizontal networks of information flow to help bring together expertise as well as links with the external world; and, the ability to understand, analyze, and use the dynamic system within which they are functioning are likely to record high academic achievement.

Innovation and Academic achievement

Innovation and Academic achievement were positively related ($r = .598^{**}$, $p < .01$). From this result, it's likely that a school that continuously initiates both administrative and process changes in the areas of teaching and resource mobilization will record high level of academic achievement in national examinations.

4.3 Prediction Regression Model

In order to assess the relative potential of Organizational Learning, Organizational Climate, and Innovation to predict the Academic Achievement, the researcher used the Hierarchical Regression Model indicated in table 9.

4.4 Hierarchical Regression Model

The results in the table 9 below indicate the hierarchical model for the prediction of the Academic Achievement. The confounding influence of the sample characteristic which is considered to influence Organizational climate, Organizational Learning, innovation and Academic Achievement by earlier scholars has been controlled in Model 1. The location of the school influences specifically the rate of knowledge acquisition and distribution (Glaeser, 1999, Feldman & Audretsch, 1999, Fujita & Thisse, 2002, Johansson & Quigley, 2004). , rate of innovation (Antonelli, 1994, Glaeser, 1999, Feldman& Audretsch, 1999) and academic achievement (Eraikhuemen, 2003, Considine & Zappala 2002).

Table 9: Hierarchical Regression Model showing the extent of contribution of Organizational Climate, Organizational Learning, and Innovation to predict Academic Achievement

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
(Constant)	4.523**	3.362**	1.302**	.272
Location	.301*	.346*	.336*	.194
Organizational Climate		.302**	.134	.075
Organizational Learning			.633**	.307**
Innovation				.608**
Dependent Variable: Academic achievement				
R	.151(a)	.340(b)	.536(c)	.639(d)
R Square	.023	.116	.287	.408
Adjusted R Square	.017	.105	.274	.394
F Statistic	3.946	17.802	40.311	34.273
Sig.	.049	.000	.000	.000

a Predictors: (Constant), Location

b Predictors: (Constant), Location, School Organizational Climate

c Predictors: (Constant), Location, School Organizational Climate, School Organizational Learning

d Predictors: (Constant), Location, School Organizational Climate, School Organizational Learning, School Innovation

Results indicated in table 9 show that the characteristic of the school (location of the school) was not statistically significant. The location of school as seen from model 1 explained only 1.7% of the variance in academic achievement.

In models 2, 3 and 4, the study variables; organizational climate, organizational learning and innovation yielded statistically significant results (beta coefficient of .302, .633 and .608 respectively), further supporting hypotheses 3, 4 and 5 (H3 H4 and H5).

In model 2 Organizational Climate was entered into the equation. With the location of the school as control variable, organizational climate explained an additional 8.8% of the variance in academic achievement and produced a statistically significant beta coefficient (beta=.302, $P < 0.01$). This finding supports hypothesis 3 (H3).

Model 3 entered Organizational Learning in the equation. This yielded additional 16.9% to the explanatory power of the model. Organizational Learning therefore explained an additional 16.9% of the variance in academic achievement and produced a statistically significant beta coefficient (beta=.633, $P < 0.01$). This finding supports hypothesis 4 (H4).

Finally model 4 added innovations to the equation, which yielded an additional 12% to the explanatory power of the model. School level innovations therefore explained an additional 12% of the variance in academic achievement and produced a statistically significant beta coefficient (beta=.608, $P < 0.01$). This finding supports hypothesis 5 (H5).

The total overall explanatory power of the model was 37.7%. This implies that Organizational Climate, Organizational Learning, and Innovations combined explain 37.7% of the variance in academic achievement. However, Organizational Learning explains the biggest variance, followed by Innovations and lastly Organizational Climate.

4.5 Analysis of Variance Results for Location of School by Variable

Table 10: Analysis of Variance Results for Location of School by Variable

		N	Mean	Std. Deviation	Std. Error	F	Sig.
Organizational Climate	Urban	26	4.095	.419	.084	.552	.463
	Peri-Urban	8	4.234	.584	.207		
Organizational Learning	Urban	26	4.352	.332	.065	.121	.730
	Peri-Urban	8	4.399	.343	.121		
Innovation	Urban	26	4.128	.370	.073	.373	.546
	Peri-Urban	8	4.038	.360	.127		
Academic Achievement	Urban	26	4.201	.617	.121	.416	.524
	Peri-Urban	8	4.046	.512	.181		

Source: Primary Data

Findings from table 8 above show that there are no significant differences among the schools on Organizational Climate, Organizational Learning, Innovation and Academic Achievement (sig. > .05)

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter is divided into three sections; the discussion of research results, conclusions and recommendations. The discussion and conclusions are in accordance with the research objectives namely:

- i. To examine the relationship between Organizational Climate and Innovation
- ii. To assess the influence of Organizational Learning on Innovation
- iii. To determine the relationship between Organizational Climate and Organizational Learning
- iv. To assess the influence of Organizational Climate on the Academic achievement
- v. To determine the relationship between Organizational Learning and Academic achievement
- vi. To determine the relationship between Innovation and Academic achievement

5.1 Discussion of Results

Organizational Climate and Innovation

The findings of the study indicated a significant positive relationship between Organizational Climate and Innovation. From these results, it seems that if a school has a good Organizational climate reflected in terms of good supervision to members of staff, team work, support of new ideas and cooperation coupled with willingness to learn from each other among members of

staff, innovative practices are initiated and this will be seen in coming up with effective ways of teaching.

This finding is consistent with findings from other studies done both in educational and manufacturing oriented industry. For instance, Yan & Chang (2005) concluded that a school that creates a climate and environment for the members' creativity development encourages and guide staff members to participate in innovation activities. Furthermore, Martins & Terblanche, (2003) pointed out that organizational climate characterized by support for ideas and willingness to tolerate their failure; challenge, freedom, and constructive controversy leads to innovative practices.

Also, Nystrom (1990) in his study of Swedish chemical manufacturing firm, found out that organizational climate which strongly encourages risk taking and debate and high on challenge, idea support, playfulness, and freedom facilitates the making of most innovative decisions

The influence of Organizational Learning on Innovation

Study findings showed that Organizational Learning has a positive influence on Innovation. It's therefore likely that if the school encourages knowledge acquisition, information distribution and interpretation then creative and innovative practices in the areas of teaching and administration are probably initiated and adopted. This is consistent with Nonaka (1994) who suggests that innovation occurs when employees share their knowledge within the organization and when this shared knowledge generates new and common insights, in a process of divergence and convergence.

Furthermore (Forrester, 2000; Hurley & Hult, 1998; Katila, 2002) in their studies found out that organizational learning significantly influences innovations. Also Yli-Renko et al. (2001) in their

study of the relationship between knowledge acquisition which is the sub component of organizational Learning and product innovation, found out a significant relationship.

The result is also consistent with findings in (Baker & Sinkula, 1999; Huber, 1998; Kieser & Koch, 2008; Nonaka, 1991, Cayer, 1999) who have suggested that a relationship exists between organizational learning and innovation. Also Stata (1989) in her earlier study maintained that organizational learning is the principal process by which organizational innovation occurs. Similarly, Hurley & Hutt (1998) argued that if learning is to appear in new behavior, then organizational learning is synonymous with the capacity to innovate. Further, they found a strong connection between the development of people and the innovativeness of the culture, specifically that the more an organization encourages members to learn and develop and influence group decisions, the more innovative that organization is.

Organizational Climate and Organizational Learning

Results indicated that there is significant positive relationship between Organizational Climate and Organizational Learning. From this finding, it seems that a school that creates climate characterized by open communication, cooperation among staff, and flexibility in decision making will have the potential to learn through the various stakeholders. This is consistent with findings in (Norrgren & Schaller, 1999) who argue that when firms possess a higher level of learning climate, employees are more inclined to increasing interaction to exchange and share knowledge for creative thoughts.

This is further supported by Jaw & Liu, (2003) and Sveiby & Simons, (2002) who indicate that pro-learning climate increases the social interaction among organizational members. When insightful and innovative ideas occur to individuals, cooperation between individuals typically plays a critical role in developing these ideas which facilitate further learning. (Long, 2000) also agrees that organizational climate plays an essential role in shaping employees' behaviors and influencing their perception of learning. Furthermore, a study conducted among managers of information technology in Malaysia revealed that creative organizational climate had a positive and significant impact on organization learning (Samad 2004).

The influence of Organizational Climate on the Academic achievement

The findings showed that Organizational Climate influences the level of Academic achievement. It can be probably asserted that schools with a conducive climate characterized by sharing of ideas among staff, teamwork, open communication, joint decision making, trust and respect among staff will register high level of academic achievement in national examinations. This finding is consistent with findings in Salfi & Saeed, (2007) who found that those schools in which teachers were more involved in decision making process; teacher-parent interaction was frequent and had better cooperation with each others; better relationships among school teaching and supporting staff; their students' performance was better than other schools which had no such positive school climate characteristics.

The result of the study is further supported by findings in earlier studies for instance, Haynes & Comer, 1993) in their study in high-risk urban environments found that a positive, supportive, and culturally conscious school climate considerably determines the degree of academic success

experienced by urban students. Also, Kuperminc et al. (1997) found that a positive school climate is associated with fewer behavioral and emotional problems for students. Behavioral and Emotional problems impede academic achievements.

Organizational Learning and Academic achievement

Findings indicated organization learning and academic achievement were positively related. This result is clear that schools that demonstrate active commitment to continuous improvement and to the diffusion of best practices throughout the school; horizontal networks of information flow to help bring together expertise as well as links with the external world; and, the ability to understand, analyze, and use the dynamic system within which they are functioning are likely to record high academic achievement. This finding is consistent with results from other studies, for instance in case studies of 15 high-performing high-poverty urban schools that had improved and sustained achievement, Duke (2007) concluded that systemic change based upon local needs and unique to each school had characterized the transformation from low-achieving to high-performing.

The finding is further supported by Strahan (2003) who found out that, low-income elementary schools which improved and sustained school-wide achievement from less than 50% proficient to more than 75% proficient on state achievement tests had developed supportive cultures that enabled participants to coordinate and promote learning.

Also, DuFour et al. (2004) reported similar findings in their study of four high achieving in schools that embraced learning, indicating that continuous improvement was centered around a

strong clarity of purpose, a collaborative culture, norms supporting collective inquiry into best practices, and an orientation for action.

Innovation and Academic achievement

Findings showed that Innovation and Academic achievement were positively related. From this result, it's likely that a school that continuously initiates both administrative and process changes in the areas of teaching and resource mobilization will record high level of academic achievement in national examinations. This finding is in line with other studies, for instance (Liu, 2006) found that a higher level of school organizational innovation would enhance school effectiveness. Yan and Chang (2005) also indicated that school innovation operations enhance educational performance in school.

It is further supported by Calhoun et al (2006) who found that the way teachers group and mix students can theoretically help them to cope with large numbers as well as with diverse abilities in their classrooms. Students in groups of like ability can provide challenge and support to one another; while mixed groupings or pairs make it possible to draw productively on the skills of more able students. When groups are used effectively, they can have strong learning benefits for children.

The finding is further supported by study in Ghana where certain schools adopted innovations where classrooms were print-rich environments, with “talking walls” filled with reminders of past lessons, and with desks grouped for cooperative work. Instruction was focused simultaneously on listening, reading and writing, and there was a mix of whole class, group and

one-on- one instruction. When Grade 1 children's reading skills were assessed and compared to those of children in control schools, the innovative children outperformed others on all fronts, with the most marked difference in the advanced test sections on oral reading and comprehension (Lipson, et al, 2004)

5.2 Conclusion

Findings show that Organizational Learning explains most of the variance in academic achievement as compared with the other study variables. This result is clear that schools that demonstrate active commitment to continuous improvement and to the diffusion of best practices throughout the school and use the dynamic system within which they are functioning are likely to record high academic achievement.

Findings also indicate that school innovation significantly explains the high level of academic achievement compared with school climate. This may be because aspects of school innovations such as team teaching, the provision of opportunities for pupils with different learning styles to adapt, an emphasis on clear goals for students, and targeting of teaching to the needs of individual pupils all affect the climate of the school.

Findings indicate a significant positive relationship between organizational climate, organizational learning and innovation. This implies that creating a conducive climate can directly impact on the level of learning, and also the pro-innovation climate can lead to school innovation which impacts on the level of academic achievement.

5.3 Recommendations

Findings indicate that innovation significantly explain the high level of academic achievement compared with school climate. Therefore education managers and policy makers should allow some degree of flexibility in public primary schools which can promote innovations as opposed to the need to follow strict policy guidelines initiated by the Ministry of Education and Sports.

Study findings showed that Organizational Learning has a positive influence on School Innovation. School stakeholders therefore should develop an elaborate Knowledge Management system with emphasis on knowledge acquisition, information distribution and interpretation creating school memory to facilitate learning processes in the school.

Results indicated that there is significant positive relationship between Organizational Climate and Organizational Learning. It is therefore imperative for education stakeholders to create pro-learning climate to make schools learning organizations. The climate should be characterized by open communication, cooperation among staff, and flexibility in decision making among others.

Finally, there is need to create independent public schools that encourage innovation and are held accountable for improved pupil's achievement. Schools could adopt innovations such as, organizing pupils into small learning groups in an effort to enhance pupils' individual learning readiness and capabilities, team teaching to manage big classes, regular assessment to monitor progress, setting up revenue generating activities to supplement grants from central government, and making pupils develop their own learning and development plans and timetable.

5.4 Limitations of the Study

- i. The measurement scales used in this research were adopted from previous studies on the research variables which studies were conducted mostly in the Western world with the exception of school organizational climate (Munene, 2009) where the social-economic dispositions are different from the local region of analysis. However, this was addressed by developing customized scales within the research context that match the study environment.
- ii. Due to logistical considerations, only Kampala district has been studied. The representative sample that was used is limited in scope. The findings of this study may consequently not be generalized to all public primary schools in Uganda, since different geographical areas may have their own peculiar characteristics in terms of location, the socio-economic status of parents and the climate of schools.

5.5 Areas for further study

- i. From the regression analysis it is seen that 62.3% of the variance in academic achievement is attributed to other variables outside the scope of this study. It is therefore necessary that future researchers investigate into other variables affecting academic achievement such as teachers competence, pupils' economic background, and class attendance
- ii. The study looked at school innovations in terms of process and administrations innovations which collectively impact on the level of academic achievement. Specific study could still be done to explore the relative significance of each form of innovation to academic achievement

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MAKERERE UNIVERSITY BUSINESS SCHOOL

RESEARCH QUESTIONNAIRE

By Denis Galimaka

Dear respondent,

This is an academic research about the relationship between Organizational Climate, Organizational Learning, Innovation and Academic Achievements: A case study of Public Primary Schools in Kampala district of Uganda. As one of the respondents, your opinions are very important to this study. The information provided will be used for academic purposes, and will be treated with outmost confidentiality. This form will not be seen by anyone other than the researcher. No names of pupils, teachers or schools will be mentioned in any report of the study.

For purpose of this study;

- ✓ School climate refers to *the social atmosphere of a setting or learning environment in which pupils have different experiences, depending upon the common practices by the teachers and administrators*
- ✓ School Organisational Learning means *the process of developing new knowledge and insights derived from the common experiences of people within the school and has the potential to influence behaviors and improve a school's capabilities.*
- ✓ School Innovation means *an idea, practice or object adopted by the school that is perceived by pupils, teachers and headmaster as new or outside the established guidelines set by the Ministry of Education and Sports of Uganda*

You are kindly requested to provide responses to all statements. Thank you very much for your cooperation and time in advance.

SECTION A: BACKGROUND INFORMATION

1. Name of school.....

2. Location of the school

Urban	Peri-urban

3. Your status in school

Head teacher	Teacher

4. Gender

Male	Female

5. Age group

20-24	25-29	30-34	35 and above

6. Marital status

Single	Married	Divorced	Other (specify)

7. Highest academic qualification

Certificate	Diploma	Degree	Post Graduate Qualification	Masters	Other (specify)

8. Number of years in school

Less than 1 year	1-3 years	4-7 years	8-12 years	More than 12 years

ORGANISATIONAL CLIMATE

Please indicate the level of your agreement in regard to each of the statements in your own view about the climate of your school on this scale.

<i>I strongly agree</i>		<i>I agree</i>		<i>I neither agree nor disagree</i>		<i>I disagree</i>		<i>I strongly disagree</i>	
5		4		3		2		1	
A	Interpersonal Relationship	1	2	3	4	5			
IR1	Staff are divided into two groups, one is against the Head teacher, and the other is supporting him								
IR2	Cooperation between the staff and head teacher is good								
IR3	Head teacher engages in teaching and discussions with teachers								
IR4	Staff share ideas and materials with others								
IR5	Staff are keen to learn from each other.								
IR6	Staff accept others comments and reactions								
IR7	There is an atmosphere of trust among staff								
IR7	Teachers respect and trust the professional competence of others								
IR9	Staff have feeling of caring for one another								
IR10	Staff support and help one another								
IR11	When disagreement occurs between staff, its quickly addressed								
B	Supervision and Guidance								
SG1	Head teacher supervises teachers during working hours								

SG2	Head teacher provides guidance to teachers in their official work					
SG3	Head teacher supervises schemes of work and lesson plans prepared by teachers					
SG4	Staff make choices about their own work and process of completion					
SG5	Staff receive support and encouragement when presenting new ideas					
SG6	Staff are encouraged to be innovative in this school.					
SG7	The head teacher corrects teacher's mistakes					
C	Communication					
C1	Staff within the school setting are adequately informed					
C2	Staff are encouraged to communicate with the Head teacher					
C3	When there is a serious problem with a particular teacher, the Head Teacher calls him to the office for a discussion					
C4	Head teacher provides adequate feedback to staff					
C5	Head teacher communicates with parents about students behavior					
C6	Staff hold meetings to discuss term's programmes					
C7	Staff meetings are dominated by administrative matters					
C8	The pupils receive communication through the teacher on duty at assemblies.					
C9	Head teacher and teachers are open to the pupils' suggestions					
D	Decision Making					
DM1	Decisions about the running of the school are usually made by the Head Teacher					
DM2	Staff are asked to participate in decisions making process in the school					
DM3	Many different points of view are shared freely within the school					
DM4	Decisions can be made within the school without gaining the approval of the Head Teacher.					
DM5	In this school, there is a clear mechanism for decision making					

ORGANISATIONAL LEARNING

Please indicate the degree of your agreement in regard to each of the statements in your own view about learning in your school on this scale

<i>I strongly agree</i>	<i>I agree</i>	<i>I neither agree nor disagree</i>	<i>I disagree</i>	<i>I strongly disagree</i>				
5	4	3	2	1				
A	Knowledge Acquisition			1	2	3	4	5
KA1	The school encourages its staff to join formal or informal networks made up by people from outside the school							
KA2	New ideas and approaches on work performance are experimented continuously							
KA3	School systems and procedures support innovation							
KA4	The school is in touch with professional experts in different subject areas							
KA5	Cooperation agreements with other primary schools and organizations are encouraged							

KA6	The school recognizes staff who come up with new ideas					
B	Information Distribution					
ID1	All members are informed about the aims of the school					
ID2	Meetings are periodically held for staff to share experiences					
ID3	The school has formal mechanisms to guarantee the sharing of the best practices among the different areas of its operation.					
ID4	There are individuals in this school who take part in several teams and who also act as links between them					
ID5	There are individuals in this school responsible for collecting, assembling and distributing internally staff's suggestions					
C	Information Interpretation					
II1	In this school, staff evaluate different information before action is taken					
II2	In this school, staff can challenge general rules and norms that govern activities and behaviors					
II3	In this school, several opinions are considered to assess its standing in the public					
II4	In this school, information is usually examined and interpreted by different individuals					
II5	In this school, there are mechanisms for discussion and information exchange between staff					
C	Organizational Memory					
OM1	The school has up-to-date records of its pupils and mode of operation					
OM2	There is easy access to the school's records and documents					
OM3	The school keeps records and documents according to the area they belong to					
OM4	The school has a system for keeping information					
OM5	Staff can access information needed on-line					

INNOVATION

Please indicate the degree of your agreement in regard to each of the statements in your own view about innovation in your school on this scale

<i>I strongly agree</i>	<i>I agree</i>	<i>I neither agree nor disagree</i>	<i>I disagree</i>	<i>I strongly disagree</i>					
5	4	3	2	1					
A	Administrative Innovations				1	2	3	4	5
AI1	The school has introduced a system where classroom acts as dormitory to facilitate some pupils who travel long journeys to the school								
AI2	The school has introduced staff development program through seminars organized by the Head Teacher								
AI3	The school has initiated recognition program where best performing pupils are recognized as a way of encouraging others.								
AI4	The school allows guest teachers to conduct classes at least every term								

AI5	The school has set up revenue generating activities to supplement grants received from the central government					
AI6	The school has introduced a system where all pupils are required to develop individual learning timetable and plans					
AI7	The school initiated a system where children are interviewed before being admitted to the school					
AI8	This school has introduced a system where pupils are allocated to different groups(classes) basing on their cognitive abilities					
AI9	Teachers in this school started engaging in team teaching or co-teaching to manage large classes					
AI10	The school generally initiates and implements administrative changes in its day-to-day operation					
B	Process Innovations					
PI1	In this school, teachers introduced group work to enhance learning in class					
PI2	In this school, initiative is undertaken where slow learning pupils are given special teaching contacts outside the normal hours					
PI3	The school has introduced the use of ICT to facilitate learning in class					
PI4	The school introduced a strategy where much emphasis is on teaching some subjects making them to appear on the timetable many times than other subjects					
PI5	The school has introduced a strategy where hard to understand subjects like mathematics are taught during morning periods to enhance learning					
PI6	The school has adopted an extended day system where classes go beyond the normal teaching hours					
PI7	The school has started administering tests frequently to monitor the performance of pupils					
PI8	The school generally initiates and implements changes in the way work is done					

THANK YOU FOR YOUR TIME

APPENDIX TWO
SUMMARY OF PERFORMANCE RESULTS FOR GOVERNMENT AIDED
PRIMARY SCHOOLS CONSIDERED IN THE
STUDY

PERCENTAGE OF PUPILS IN DIVISION 1

SNO	SCHOOL	2008 (%)	2009 (%)	MEAN
1	Nakasero P.S.	47.4	27.7	37.55
2	St. Peters P.S. - Nsambya	38	26.6	32.3
3	Kitante P.S.	43.6	18.5	31.05
4	Nabagereka P.S.	4.3	17.5	10.9
5	Mengo P.S.	26.3	16.5	21.4
6	Buganda Road	27.4	13.7	20.55
7	Ntinda P.S.	8.4	11.8	10.1
8	Railway Children P.S.	32	11	21.5
9	Namirembe Infant	14.1	10.9	12.5
10	St. James Bbina P/S	18.5	10	14.25
11	Queen of Peace P.S. Lubaga	22.7	9.5	16.1
12	Police Children School	8.2	9	8.6
13	Shimoni Demo. P.S.	15.5	7.8	11.65
14	Kiswa P.S.	17.4	7.4	12.4
15	Kibuye P.S.	7.1	7.2	7.15
16	St.Paul Banda P.S	22	7	14.5
17	Kibuli Demonstration School	58.9	6	32.45
18	Kisugu COU P.S.	13.1	5.9	9.5
19	Kyambogo P.S.	7	5.9	6.45
20	St. Paul's Kyebando CoU P.S	10.2	5.7	7.95
21	Kisaasi P.S.	11.3	5.7	8.5
22	Mbuya COU P.S.	12.6	4.1	8.35
23	St. Paul's Nsambya P.S.	7.4	4.1	5.75
24	Murchison Bay P.S.	5.9	4.1	5
25	Kasubi COU P.S.	12.5	3.9	8.2
26	K.C.C Busega Community P.S.	5.6	3.8	4.7
27	Bbiina Islamic P.S	3.8	3.6	3.7
28	Luzira C.O.U P.S.	3.5	3.4	3.45
29	Makerere P.S.	16.4	3	9.7
30	Kawempe Muslim P.S.	8.1	2.3	5.2

31	Ggaba Demonstration School	5	2.2	3.6
32	S.D.A. Bat Valley P.S.	13.7	2.1	7.9
33	Upper Prisons P.S	6.9	2	4.45
34	East Kololo P.S.	3.2	0.9	2.05

SOURCE: UGANDA NATIONAL EXAMINATION BOARD