

# Relationship between Leadership Styles used by Head teachers of Public Secondary Schools and Students' Academic Performance

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## Abstract

The study sought to determine the relationship between leadership styles of the Head teachers and students' performance at K.C.S.E in public secondary schools in Kericho County. The survey research design was used as a framework for data collection. Stratified and simple random sampling techniques were used to select fifty three secondary schools in the County targeted population was two thousand four hundred and ninety nine teachers posted and working in one hundred and nineteen public secondary schools in Kericho County. Out of this target population, one hundred and nineteen were head teachers. Simple random sampling was used to select one thousand and sixty teachers, while stratified sampling was used to select the head teachers from the targeted schools to participate in the study. The reliability of the instruments was established by computing a test re-test reliability coefficient. This was done by administering the test twice, but allowing an interval of one month between them. The pre-testing of the instrument was done in ten non-participating schools in Kipkelion Sub-county. Questionnaires were administered to 10 head-teachers and 100 teachers. Two sets of questionnaires known as the profile of leadership behavior (form LB) and profile of own behavior (form OB) for head teachers and teachers respectively and Interview Schedule were used as the primary tools for data collection. This research embraced an eclecticism paradigm. The findings revealed that the head teachers' leadership styles had a strong relationship with the schools' K.C.S.E results. The study recommends that head teachers' training in school management should be strengthened and supervision of the teachers should be objective. Head teachers should use a balance of autocratic and democratic leadership styles to achieve better K.C.S.E results. This research is vital in its contribution to understanding effective school management in the light of leadership styles and student academic performance.

**Keywords:** Relationship, head teachers, leadership, styles, performance

## Introduction

Leadership is one of the most important human activities in any society. No institution can function effectively without a leader (Dominique 2000). All societies continuously rely on

group effort. Many organized groups have become large, and the task of leadership has been increasing in importance and complexity. Leadership is a social process in which the leader seeks the voluntary participation of subordinates in an effort to achieve the organizational objectives and success (Buckmaster, 2004).

Leadership also concerns the spiritual aspect of work. That is, the followers deeply believe in them and they possess a latent power in the organization. Leaders deal with mundane tasks such as location of roles, tasks and resources needed to achieve organization goals, in addition to the co-ordination of the allocation activities and processes monitoring the everyday operation of the organization. Effective leadership is required during periods of turbulence (Squire, 2001). Lamb and McKee (2004) observe that when people are at peace, happy and satisfied, there is hardly any need for leaders. However when the human condition and the situation urges someone to step forward and initiate change, develop strategies that are necessary to bring about changes other qualities are needed to achieve the desired condition. Dere (2008) argues that leadership means creating and maintaining a sense of vision culture and interpersonal relationships. Okumbe (2001) asserts that leadership is a broader concept than management. Management is sub-skill of leadership in which achieving organizational goal is of paramount importance. Leadership involves working with and through people so as to accomplish set goals. The trait approach argues that leadership is inborn (Bryman, 1930, Beasson 2000). Leaders become good leaders because of the traits that they possess such as intelligence, appearance, and language ability. Bolman, Crow, Goldring, Slater and Thurston (1994) define leadership as the ability to influence the opinions, attributes and behavior of others. Throughout history, theoretical explanations of leadership have been offered. Up to the late 1940's, the trait approach claimed that leadership ability is in-born.

Studies done in Kenya by Kindiki (2007) holds that the head teacher is significant in determining the quality of the schools. Hoy & DiPaola, (2007) highlight various types of school climates: a school may have an open climate, an autonomous climate, a controlled climate, a familiar climate, a paternalistic climate or a closed climate. In the light of the above, it can be assumed that the head teacher's leadership style principally determines the kind of climate that prevails in the school. Ordinarily, the main task of the head teacher is to help create a healthy working environment in which pupils are happy and prepared to learn and teachers identify with the school's mission and goals.

Kericho County like other counties in Kenya has had its educational foundation advancement anchored on many factors, such as geographical, historical and infrastructural. Education in Kericho County has been influenced since its inception by factors such as missionary and government activities, roads network and the railway. This is a historical perspective shared by other counties of the country.

The larger Kericho County that includes is home to the Kipsigis people. However other communities have come to settle in the recent past. These included the whites who occupied the white highlands and started the tea plantations in many parts of central Kericho. Other communities such as the Luo, the Abagusii, the Luhya and others later came to work for the white man in the tea plantations. Within the urban area the Indians started businesses and other factories.

Table 1:  
K.C.S.E Kericho District

YEAR	A	A-	B+	B	B-	C+	Possible University Admission	Entry No Of Candidates	Mean Score
1998	0	5	22	66	147	248	93	2824	4.7234
1999	0	11	31	72	139	261	114	2932	4.7027
2000	0	22	70	125	228	337	217	3270	5.1223
2001	2	15	63	118	235	335	198	3296	5.0576
2002	0	26	74	149	221	304	249	3258	5.0669
2003	2	32	82	198	278	393	314	3429	5.334
2004	1	37	153	204	313	437	395	3754	5.4240
2005	3	55	149	274	342	506	481	4489	5.3880
2006	4	54	145	190	340	433	402	4503	4.87
2007	5	66	130	205	308	385	406	5102	5.78

Source- District Education Office – Kericho

The research considered a period of ten years as a baseline for considering school performance in KCSE. Ten years was considered a fair record for the purpose of generalization of performance trends. Table 1 below illustrates the trends (1988-2007). The total average mean-grade score of 5.146 (for the ten years 1988-2007) is quite low compared to the maximum national mean score of 12 in K.C.S.E. Out of 36,757 candidates who sat during those ten years, only 2869 (7.81%) qualified for public university admission. This poor performance in K.C.S.E presented a real problem to all education stakeholders and thus required investigation.

#### **Statement of the Problem.**

Employees are the most crucial asset in any organization. All organizations are started and run by people. Leadership is the most important factor in organizational success (Nzuve 2000), Koech (2004). In public secondary schools it is the task of stakeholders, particularly the head teachers to create and sustain a conducive learning environment to improve pupils' academic and behaviour standards. The head teacher, as an individual occupying the highest official position in the school, determines how the school is run. His/her expectations, values, beliefs, relationships with teachers and the examples he/she sets for the whole school shape the learning and working climate in the school. The head teacher can promote or inhibit a positive climate through his/her leadership behaviour patterns. Kericho County have had a small

portion of its schools performing relatively well, some perform on the average, while the majority are performing poorly. The problem this study sought to investigate therefore is “what role does the head play in influencing students’ performance in KSCE?”

### **Effects of Leadership Style on Student’s Performance**

Leadership is widely regarded as a key factor in accounting for differences in the success with which schools foster the learning of their students. The contribution of effective leadership is largest when it is needed most; there are virtually no documented instances of troubled schools being turned around in the absence of intervention by talented leaders. While other factors within the school also contribute to such turn around, leadership is the Catalyst (Okumbe, 2002). Astin and Astin (2001) describe leadership as the ability to get all members of the organizations to perform tasks required to achieve the organization’s goals and objectives. Good leadership is essential if schools are to improve. Exemplary leadership creates a sense of excitement about teaching and learning within the school and community by focusing on dreams and expectations of students, parents and the community.

Cuban (1988) refers to leadership as an influence process. Leadership, then refers to people bend the motivations and actions of others to achieve certain goals. It shows that the process of influence is purposeful in that it is intended to lead to specific outcomes. Yambo (2004) and Bass (1990) use the concept of “invitational” leadership to explain how leaders operate in schools. “Leadership is about communicating invitational messages to individuals and groups with whom leaders interact in order to build and act on a shared and evolving vision of enhanced educational experiences for pupils”.

Brook-smith (2003) note that leadership begins with the character of leaders, expressed in terms of personal values, self-awareness and emotional and moral capability. Day, Harris and Hadfield (2001) studied 12 schools in England and Wales which focused on heads who were deemed effective by the Office for Standards in Education. They conclude that good leaders are informed by and communicate clear sets of personal and educational values which represent their moral purposes for the school. The leaders possess the following qualities: respect for others, fairness and equality, caring for the well being and whole development of students and staff, integrity and honesty. Principals should be able to work with others to implant the vision into the structures and processes of the school. They should be able to communicate the vision to the staff of what their schools should become (Astin and Astin, 2001).

A study by Beairsto (1999) cited in Brooke-smith (2003) for the School Management Task Force illustrates a number of problems about the development and articulation of vision in English and Welsh schools. Their study of 12 “effective schools” shows that most school heads were able to describe “some sort of vision” but “they varied in their capacity to articulate the vision and the visions were more or less sophisticated”. The study casts doubt on the ability of school heads to communicate the vision effectively and to ensure that it is shared by staff. Within the field of educational administration, recognition is developing of the role played by culture in the formulation and exercise of leadership (Hallinger & Heck, 1998; Hallinger & Leithwood, 1996). Culture refers to more than the climate of the school and includes the broader societal culture which the school is located and functions. Hallinger & Leithwood (1996) hypothesized that societal culture exerts a significant influence on administrators beyond that of the specific organization’s culture. Moller and Pankate (2006) recognized a shift in the organizational structure in schools. These included educational leadership shifts

in roles, relationships and responsibilities. Blanchard (2000) contends that, systems that change require a variety of leadership styles at different times in organizational development. Principals have the central task of building schools that promote teaching and learning for all students (Barber, 1963). Several research studies have identified the critical role of principals. Okumbe (1998) suggests that the areas of principals' responsibilities have reportedly risen in percentage in the following areas:

- Marketing / politics and so on, to generate support for school and education.
- Working with social agencies.
- Planning / implementing site-based staff development.
- Development of instructional practices.
- Curriculum development.
- Attention to legal issues.

Principals are facing a complex environment and they have to change their roles to meet the Changing external environment. They must coordinate the services offered to their students, and to ensure that these services reach those with the greatest needs; and at the same time to ensure that there is no disruption of the teaching and learning process in school (Goldring & Sullivan, 1996). School principals must serve as change agents of the schools (Donaldson, 2001). They are to lead change in schools to fulfill the requirements that society has largely demanded. Research by Robin (2003) identifies five control parameters that determine the state of the system in which change agents function. These are rate of information flow, connectivity, diversity, power differentials and anxiety. According to Yambo (2004) effective leadership involves the alignment of people within the school. Aligning people means getting people to share the same vision and moving forward in the same direction. Aligning people with the same vision and a set of strategies for school improvements help produce the changes needed to cope with the changing environment (Wango, 2010). Leadership development occurs when individuals become more skilled in getting people to work together as a team and when they have opportunity to develop high-performing work teams. Teams should be the basic unit of performance regardless of the size of the organizations (Koech, 2004). School leaders must learn not to lead from the apex of the organizational pyramid but from the nexus of a web of interpersonal relationships, with people rather than through them (Murphy, 1992). Lunenburg and Oristeinm (1996) also acknowledges that competition in the educational market place results more in innovative marketing than in real innovative improvements in instructional practice.

The survival of many schools depends on their ability to marketing recruit new students and retain existing ones, mobilization of resources, student achievements and on their successes in making their programs attractive .Schools operating in competitive environments tend to incorporate various forms of marketing strategies to recruit prospective students Bennis and Nanus (1985).

Miner (2005) describes the principal as a mover to improve the general feelings of teachers. He observes that it is through transformational leadership and participative behavior that principals motivate the teachers. The influence of transformational leadership is also stressed by Girvin (2005). This study demonstrates the direct effects of transformational leadership on teachers' commitment to school reform and indirect effects on teachers' efforts through teacher motivation. They conclude that the extra commitment and efforts of teachers result in changes in their interactions with students and this have a positive influence on students' outcomes (Goldhaniner. 1971). Satisfaction is often regarded as an important determinant on the educational outcomes such as students' achievement (Robert and Hunter 1991). Okumbe

(1998) also note that, teacher leaders required a high tolerance for complexity and ambiguity. As the largest group of educators working within the school environment and those closest to their students, teachers are considered critical change agents in building professional communities and working towards school improvement (Miner 2005).

Effective learning requires good communication between teachers and students. Okumbe (1998) also maintains that it was not possible to understand exchanges between students of a classroom without knowledge of the cultural repertoire of the participants. It was not possible for a teacher to address the issues of communication with every student of a multicultural classroom. However, the teacher could be aware of the cultural differences and could make adjustments of his or her communication technique accordingly.

Study by Ochieng (2001) on students' performance indicated that the more autocratic one becomes, the poorer the performance of the school and the contrary is also true. School leaders who use the authoritarian leadership style lead to poor academic performance, because they adopt harsh leadership styles, which are highly resented by their subordinates. The greater the use of autocratic principles, the poorer the learners' academic performance will be. The coercive style leader often creates a reign of terror, bullying and demeaning his subordinates, roaring with displeasure at the slightest problem. Subordinates get intimidated and stop bringing bad news or any news in fear of getting bashed or blamed for it, and the morale of the workers plummets.

Sagimo (2002) revealed that most school managers used the democratic style of leadership. Schools are composed of intelligent people whose ideas are crucial in the day-to-day running of the same schools. Teachers, students and prefects, for example, have the capacity to advice effectively on academic matters in the school. Their ideas and contributions cannot be ignored.

This approach to management has led many school managers to rely on participatory governance mechanisms or the democratic leadership style. The leader in the school uses the democratic leadership style to build trust, respect and commitment because the style allows people to have a say in decisions that affect their goals and how they do their work. Students in schools need to be involved in the school's administration and in the implementation of decisions because they affect them directly. School head teachers contended that democracy was the best leadership strategy for school environments because schools are systems with parts that are interrelated.

Ochieng (2001) established that head-teachers who use the laissez faire leadership style tend to fail to follow up on those they have delegated tasks to and consequently performance declines. They leave everything to the mercy of their subordinates, some of whom may lack the necessary skills and competence to execute the work. Others may simply not like to do the work unless they are supervised. Laissez-faire leadership is not the best leadership style to use in the school's organization because complete delegation without follow-up mechanisms may create performance problems, which are likely to affect the school's effectiveness. This is in agreement with Wango (2010) study of laissez-faire leadership shows that it is associated with the highest rates of truancy and delinquency and with the slowest modifications in performance which lead to unproductive attitudes and disempowerment of subordinates.

Study by Beare, Cadwell and Milikanet (1994) on the relationship between the students performance of a school and the kind of leadership exhibited that the two were directly related. Kihara (1991) examined the relationship between pupils' performance in K.C.P.E and the leadership behavior by primary school head teachers in Thika Municipality. His result

revealed that good performances were attributed to head teachers who have both taste and relationship oriented behavior.

### **Methodology**

The study was basically a survey. The design was ex post facto. In such research, the investigator makes inferences concerning relationship among variables “without direct control of the independent variables because the events in question have already occurred (Kerlinger, 1979).

Target population is the entire set for which the survey data is to be used to make inferences Kothari (2004). The study target was 2,499 teachers consisting of 119 head-teachers and 2380 teachers working in the 119 public secondary schools Kericho District Education Office (2011). A mix of sampling techniques was used: Stratified random sampling, simple random sampling and systematic random sampling. All individuals were chosen by chance and had an equal opportunity of being included in the sample. According to Kothari (2004), probability-sampling procedures should be used as it minimizes selection bias, and estimates margins of error and govern the size design of the sample for the desired level of accuracy. Questionnaires are very convenient tools where a large numbers of subjects are to be handled. Questionnaires facilitate easy and quick responses (Day 2002). The descriptive statistics was used to calculate totals, percentages and frequencies while inferential statistics, specifically the chi-square ( $X^2$ ) was used to test relationships between the study variables. Conventional significance level at 0.05 was used. This level of significance of 0.05 is recommended in social science research (John and James 2006).

### **Results and Discussions**

Examination of data reveals that 474 (44.67%) of teachers perceived their head-teachers' leadership as autocratic, whereas 586 (55.33%) of the teachers perceived their head-teachers' leadership styles as democratic. The study observed that the prevalent leadership style exhibited by head-teachers in Kericho District was democratic. The finding further indicated that, there was no significant difference in perception of the head- teachers' leadership style as rated by both the head-teachers and teachers. The view that no conflict arose may have been because head- teachers were unwilling to rate themselves in any other way other than democratic. This tend to agree with Ochieng (2001) who argues that head- teachers only indicates the right answer to the questionnaire rather than what they actually felt there was their true leadership styles .Dou (1972) and Ngugi (1982) as quoted by Asundah (1982), also revealed that teachers perceived their head-teachers leadership style as democratic.

## Students' Academic Performance in K.C.S.E and Autocratic Leadership Style (Task Oriented)

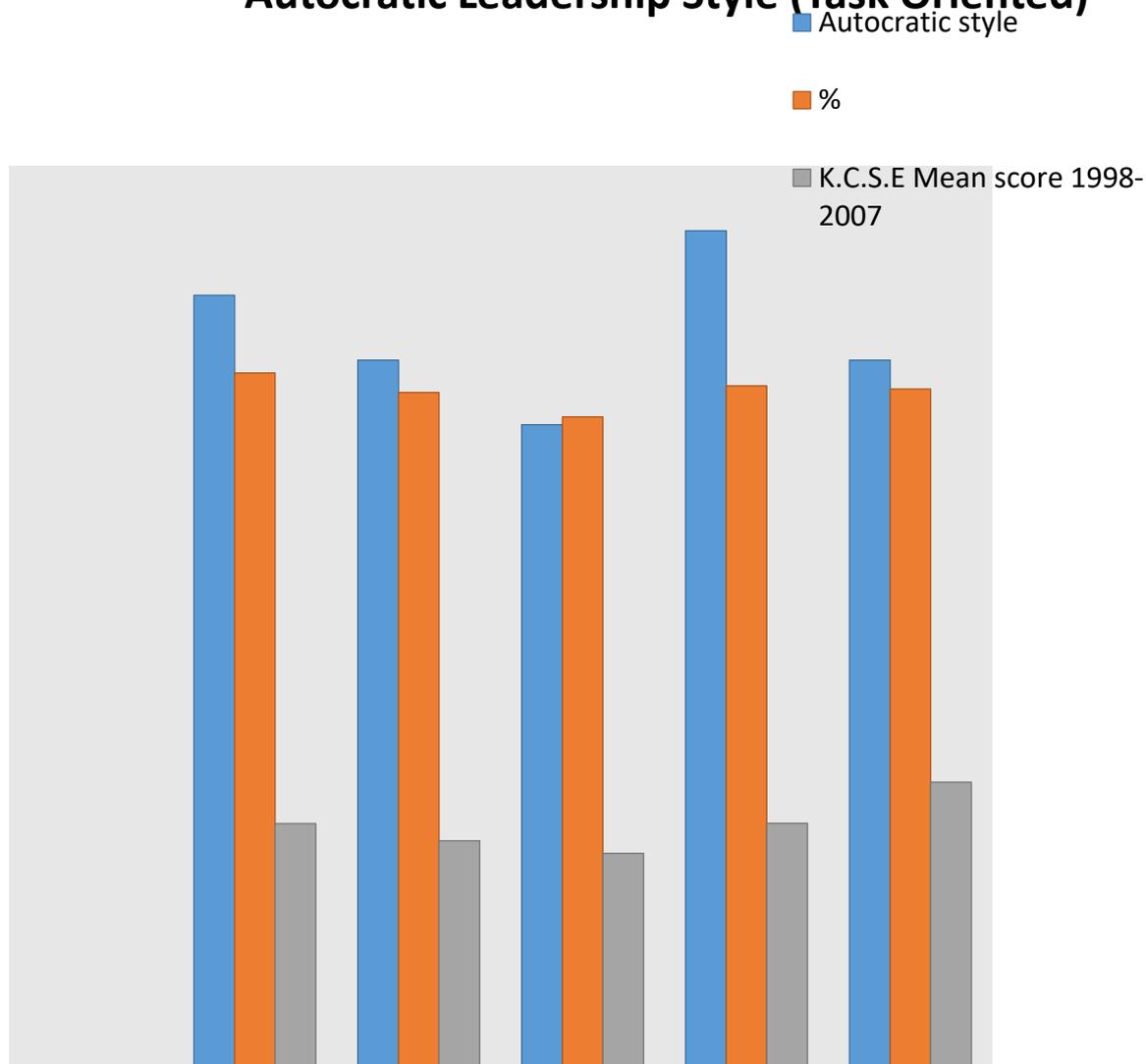


Fig. 1. Students' Academic Performance in K.C.S.E versus A Mixture of Autocratic and Democratic Leadership Style

The study revealed that out of 1060 respondents, 10.5% rated their head-teachers as autocratic leaders. Their KCSE mean score was 3.808 out of the expected 12.

The comparison of data showing the relationship between students' academic performance and the head-teachers autocratic leadership is shown on figure 4.6. Examination of data reveals that poor academic performance was attributed to head-teachers who were rated as autocratic leaders.

The finding concur with MC Gregory's theory as quoted by Okumbe (1998) which posit that employees;

- Are lazy

- Dislike work and like avoiding it.
- Therefore they must be coerced in order to do it.
- Avoid responsibilities and so will seek to be led.
- Are self – centered in that they place security above all other factors?

Table 2

Students' Academic Performance in K.C.S.E versus A Mixture of Autocratic and Democratic Leadership Style

Schools	Both Democratic and Autocratic leadership styles	%	K.C.S.E Mean Score 2002-2011
Londian Girls	19	18.00	7.519
Kabianga Boys	28	10.70	7.109
Kericho High	30	10.60	7.033
Kipsigis Girls	30	10.80	6.515
Sosiot Girls	29	16.40	6.515
<b>Total</b>	136	13.30	6.938

Delunga (2000) states that School managers have, through experience, come to terms with the fact that the adoption of a particularly relevant style in a specific situation leads to school effectiveness, rather than relying on a single style of one's choice.

### Recommendations

Leadership style affects greatly students' academic performance. Poor academic performance in K.C.S.E performance was attributed to autocratic leaders. Most teachers viewed autocratic style negatively, it demoralizes their efforts. Average performance in KCSE was attributed to head-teachers who were rated as democratic leaders.

### References

Astin, A,& Astin, H.(2001).*Principal of Transformative Leadership*. American Association of Higher

Education (AAHE) Bulletin

- Bass, S.(1990), *Theory, Research, and Managerial Application*. New York. The Free Press.
- Beare, H., Cadwell, B., & Millikan, R . (1994). *Creating an Excellent School, Some New Management Techniques*. London. Routledge.
- Blanchard, K.H., (2000). *Management of Organizational Behavior*. New Jersey. Prentice Hall.
- principal, Bolman, L.G., Crow, G.M., Goldring, E,Slater & Thurston.(2000).*The Renaissance Hill. Educational Administration*. Ucea.Document Base Pg.9 Usa: Mc Graw
- Brooke-Smith, R.(2003).*Leading Learners. Leading Schools*, London: Routledge Falmer
- Buckmaster, S. (2000). *Leadership and Gender. Let me count the way*. Depth Paper KAG Submitted to the Fielding Graduate Institute.
- Day, C, Harris, A & Hadfield M (2001), *Challenging the orthodoxy of effective school leadership, International journal of Leadership in education*, 4(1), 39-56
- Dawson, C.(2002). *Practical research method* ,New Delhi,UB, Publisher distributors
- Delunga, R. (1995). *Relationship of transformation and transactional leadership with Employ influencing strategies leaders and leadership progress*. Assessment And Application.Austin press
- Derel, M. (2007). *Leadership Styles of Elementally School Principal*. Unpublished Middle East Technical University.
- Dominique, D. (2000). *Journal of Organizational Change Management*. New York. Vol 13.
- Hallinger, P. (1992). *The evolving role of American principals: From managerial to instructional to transformational leaders*. *Journal of Educational Administration*,, 30 (3), 35-48.Company.
- Hoy, W, & DiPaola, F. (2007). *Essential ideas for the reform of American schools*. Charlotte,NC: Information Age Publishing.
- Huber, S, & West, M. (2002). *Developing School leaders: a critical review of current practices, approaches and issues and some directions for the future*.
- James, B, & Maloy, R. (1988). *Partnerships for improving schools*. New York: Glenwood.
- Kenya National Examination Council, (2005). *The year 2001-2004 K.C.S.E Examination candidates performance report*.
- Kericho District Education office records (2011).
- Kerlinger, F.N. (1973). *Foundation of Behavioral Research*. Second Edition. New York: Rihehert and Winston, inc. Holt,
- Kindiki, J.N., (2007). *Management and policy in education :Rhetoric and practice*.

Unpublished Teaching manual. Moi University Eldoret.

Koech, K.(2004). *Factors Influencing K.C.S.E Performance: Nandi District*. UnPublished Masters Thesis Egerton University.

Kotheri, C.R. (1998). *Research methodology methods and techniques*. Vishwa prakashen, New Delhi.

Lamb, L.F.,& Mckee, K.B. (2004). *Applied Public Relations: Cases In Stakeholder Management..Mahwah, New Jersey*.

McMillan, J.H., (1993). *Educational Research fundamentals for the consumer*. New York: Harper Collins.

Miner, J.B., (2005). *Organizational Behavior: Motivation and Leadership*. Armork: M.E Sharpe

Ministry Of Education,(2006).*Ministry of Education school management guide*, Nairobi Jomo Kenyatta foundation.

Ministry Of Education science and technology (2003), *Primary schools management hard book*, Nairobi Government printer.

Moller, G., and Pankate, A., (2006) *Lead with me: a principals Guide to teachers leadership*. Eye on Education, New York. Larchmont printers.

Mortyn (1999). *The Good Research guide for small scale research projects*. Open University press, London.

Marshall, H., and Ross P. (1989). *Designing qualitative research*. Newbury park, CA: sage

Miner, J. B. (2005). *Organizational Behaviour: Motivation and Leadership*. Armork:M.E Sharpe.

Nzuve, S.N. (2000). *Management of Human Resources*. Nairobi .Nairobi University Press.

Ochieng, A.H. (2001). *Students Academic Performance In K.C.S.E And Leadership Style Of Head Teachers Mombasa*. Unpublished Master's Thesis. Kenyatta University..

Oketch, M., & Rolleston, C. (2007). Policies on Free Primary and Secondary Education in East Africa: Retrospect and Prospect. *Review of Research in Education*, 31(1), 131-158.

Okumbe, J.A. (2002). *Human Resource Management*. Nairobi. Nairobi University Press.  
Okumbe, J.A. (1998). *Educational Management Theory and Practice*. Nairobi: Nairobi University Press.

- Sagimo, P.O. (2002). *Management Dynamic: Towards Effective Efficient Complete And Productivity*. Nairobi: East Africa Educational Publisher.
- Sergiovanni, T.J. (1999). *Organization or Communities? Focus on Schools*.
- Slade, C.(2000).*Form and style; research paper ,reports and theses 11<sup>th</sup> edit* Boston Houghton Mifflin.
- Squires, G. (2001). Management as a Professional Discipline. *Journal of Management Studies*. 34(4),Pg 11.
- Walker, A., & Qian, H. (2006). Beginning Principals: balancing at the top of greasy pole. *Journal of Educational Administration*, 44(4), 297-309.
- Wallbank, T. W. (1938). *British Colonial Policy and Native Education in Kenya*. The Journal of Negro Education. 7(4), 521-532.
- Wango, G.K. (2010). *School administration and management*. Nairobi. Jomo Kenyatta Foundation.
- Weber, M. (1978). *Economy and Society: An Outline of Interpretive Sociology*. (2 volumes). Edited by Guenther Roth and Claus Wittich. Berkeley: University of California Press 332
- Weick, K. E. (1978). *The spines of leadership*. In J. M.W. McCall, & M. M. Lombardo, Leadership: Where else can we go? (pp. 37-61). Durham, NC: Duke University Press.
- Weiss, H. B. (1995). *Raising our future: Families, schools, and communities joining together*. Cambridge, MA: Harvard Family Research Project, Harvard Graduate School of Education.
- Welman, J. C., & Kruger, S. J. (1999). *Research methodology for the business and administrative sciences*. Johannesburg, South Africa: International Thompson.
- Westrum, R. (1992). *Cultures with requisite imagination*. In D. H. J. A.Wise, *Verification and validation of complex systems: Human factors issues* (pp. 402-405). Berlin, Germany:
- Yambo, J. M. O. (2014) *High school Principals' Stress in Relation to their job experience in schools in Southern Nyanza Region*. Unpublished PhD Thesis Moi University, Eldoret.
- Zamberia, A. M. (1996). *Self-help secondary education in Kenya*. International Journal of Comparative Sociology, 37, 47-71.