



RELATIONSHIP BETWEEN HEAD TEACHERS' INSTRUCTIONAL LEADERSHIP PRACTICES AND THE ACADEMIC PERFORMANCE OF STUDENTS IN MACHAKOS COUNTY, KENYA

Muasya, P. Mutuku¹ⁱ,

Njuguna, W. Felicita²,

Ogola, Martin³

¹PhD Student,

Department of Educational Management, Policy and Curriculum Studies,
Kenyatta University, Kenya

²PhD, Senior Lecturer,

Department of Educational Management, Policy and Curriculum Studies,
Director, International Center for Capacity Development,
Kenyatta University, Kenya

³PhD, Lecturer,

Department of Educational Management, Policy and Curriculum Studies,
Director, Directorate of Alumni,
Kenyatta University, Kenya

Abstract:

The performance of students in Kenya Certificate of Secondary Education (KCSE) examination in Machakos County, Kenya has been low for the recent years. It is suspected that the head teachers may have ignored their instructional leadership practices which if put to consideration could help improve students' performance. Therefore, the purpose of this study was to determine the relationship between head teachers' instructional leadership practices and students' performance in KCSE examination. The study applied descriptive survey design. Stratified sampling technique was used to select 38 head teachers, 190 teachers and 345 students from 38 (42%) of target schools which were grouped as high performing and low performing categories. Pearson's product moment correlation was used and the study found strong positive correlations between instructional leadership practices and the performance of students, where poorly performing schools are also rated low in the instructional leadership practice, and vice versa for schools performing well. The study therefore

ⁱ Correspondence: email pmmuasya2007@gmail.com, wanjisjnu@gmail.com, ogolamartin@yahoo.com

recommends in-service training on instructional leadership for head teachers to enhance balanced instructional leadership, for better academic performance.

Keywords: head teachers, instructional leadership, academic performance, in-service training

1. Introduction

The concept of instructional leadership emerged and developed in the United States within the effective schools movement of the 1980s (Marshall, 2015). Since then, an appreciable number of studies have been done in order to establish the link between instructional leadership and learning. Studies in the United States by (Waters, et al., 2003, England by Price Waterhouse Coopers (2006), California by Chrispeels, et al., (2003) and Nigeria by Enueme and Egwunyenga (2008) have linked high school attainment to effective instructional leadership of head teachers. Studies in Kenya by (Nyagosia, et al., 2013; Musungu & Nasongo, 2008) are among those that have directly linked good performance in school examinations to effective instructional leadership by head teachers, and similarly ineffective instructional leadership to low academic performance.

However, some scholars have questioned whether instructional leadership really matters, contending that there is insufficient evidence to support its relationship with performance (Witziers, et al., 2003, Gaziel, 2007). Nettles and Herrington (2007) and Hallinger (2011) also decry the limited citations in the field of instructional leadership, while Mwangi (2009) highlights the need for further research into the impact of instructional leadership on students' academic achievement in Kenya.

The researcher therefore chose to establish the relationship of head teachers' instructional leadership practices on students' academic performance in secondary schools in Machakos County, whose performance in the Kenya Certificate of Secondary Education examination (KCSE) by many students has been below average for the years studied, as shown 1 below.

Table 1: Proportion of candidates who scored Grade D+ and below in secondary schools in Machakos County between 2009 and 2013

Year	County	
	Machakos County	Kitui County
2009	57.68%	51.27%
2010	54.07%	41.00%
2011	51.30%	30.10%
2012	52.76%	47.78%
2013	56.96%	42.28%

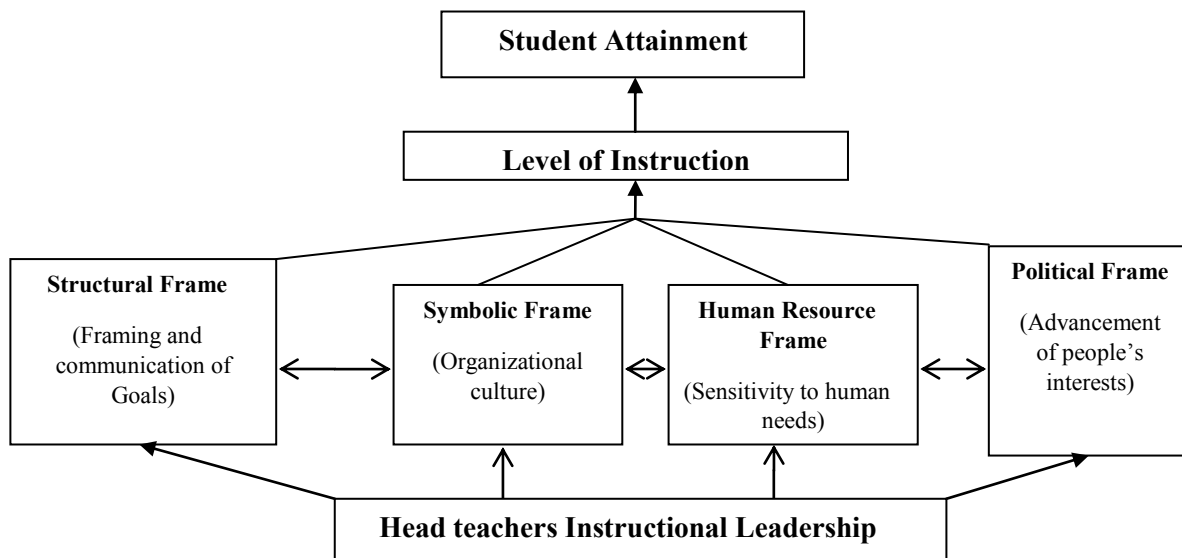
Source: Education Management Information Systems (EMIS) Machakos and Kitui Counties (2015)

The results on table 1 above depict low performance by students in most secondary schools in Machakos County has been rather poor for the years under study (2009 to 2013), compared to the neighboring Kitui County. A further analysis of the results reveals that an average of 185 out of 283 schools (65.4%) score a mean grade of D+ and below, while in Kitui county, 107 out of 205 (52%) posted similar results. Given that head teachers are believed to be responsible for effective leadership (Foster and Young, 2004), the researcher sought to answer the question: Could poor instructional leadership by head teachers be a major cause of the low academic attainment by pupils in KCSE examination in Machakos County?

2. Theoretical Framework

This study was based on the four frames leadership theory formulated by Bolman and Deal (2003) Bolman and Deal's (2003) which assumes that a leader uses the four leadership approaches (frames) thus structural, symbolic, human resource or political frame in instructional leadership in order to realize school effectiveness. Recent researches by Trees (2006), Day et al, (2009), Roddy (2010), and Tillman (2012) support the four frames leadership theory, where they agree that almost all successful leaders draw on the same repertoire of "basic" leadership practices of building the vision and setting direction, understanding and developing people, designing the organization, managing and supporting the teaching and learning programme. This theoretical framework can be illustrated as shown on figure 1 below:

Figure 1: The Bolman and Deal multi-dimensional leadership theory (2003)



Source: Bolman and Deal (2003)

3. Methodology

3.1 Design of the study

The study employed descriptive survey design.

Data was collected using self-administered questionnaires, where respondents were asked to fill in their responses without the researcher's intervention.

3.2 Population and Study Sample

The target population for this study was the 176 head teachers, 2,112 teachers and 16,000 Form three and Form four students from public secondary schools in Machakos County, South Eastern region of Kenya. Examination statistics show that performance of KCSE in most secondary schools in this County was not sufficiently competitive in the years under 2009 to 2013 (Education Management Information Systems, Machakos County, 2015). This attracted public concern, hence the need to assess the causes of this poor performance and its implication on overall school effectiveness

The researcher used stratified sampling technique to select the 38 (42%) of target schools from high performing and low performing categories, to give a total of 38 head teachers. Simple random sampling was then used to select five teachers from each school and a total of 380 form four and three students on the basis that they have stayed in the school for at least two years.

3.3 Data Collection Tools

The study used questionnaire as the research instrument: a Head Teacher Questionnaire (HTQ) was used on the 38 head teachers, a Teacher Questionnaire (TQ) on 190 teachers and a Student Questionnaire (SQ) on the 380 students who formed the study sample.

3.4 Data Analysis

The Objective of this study was to determine the relationship between head teachers' instructional leadership practices and students' performance. To achieve this objective, Pearson's product moment correlation (PPMC) was carried out. Correlation is a measure of the relationship or association between two continuous numeric variables (Orodho, 2009). It indicates both the direction and degree to which they relate with one another from case to case without implying that one is causing the other. Correlation analysis results give a correlation coefficient which measures the linear association between two variables (Crossman, 2013). Values of the correlation coefficient range between -1 and +1. A correlation coefficient of +1 indicates that two variables are perfectly related in a positive linear. A correlation of -1 indicates that two variables are negatively linearly related and a correlation coefficient of 0 indicates that there is no linear relationship between two variables (Orodho, 2009).

Teachers' rating of the head teachers leadership practice was used since, being adults and having gone through educational training and practice were presumed to give the most reliable judgement on the issue under study, while head teachers may have overrated themselves as observed in the significant difference between their own rating and that of teachers on some instructional leadership practices. The validity of the teachers' responses is further cemented by the observation that they do not significantly differ from those of students (the other direct recipients of the head teachers' instructional leadership practice).

The average mean score in KCSE for each school in the years under study (2009-2013) was used as the dependent variable (appendix B), while the four instructional leadership practices based on the teacher's responses for each school were the independent variables. The results of the correlation analysis show moderate correlation between defining the school mission ($r=0.628^{**}$) and the performance of students in KCSE examinations in Machakos County, which is significant at $p<0.01$ confidence level. A similarly moderate correlation is seen on promoting teachers interests ($r=0.603^{**}$). The results further reveal a very strong relationship between performance of students in KCSE and promoting a positive working climate ($r=0.818^{**}$), while managing the instructional programme shows a strong correlation ($r=0.691^{**}$) with

the performance of students in KCSE examination. All the correlations are significant at $p < 0.01$ confidence level.

The statistically significant positive relationships between the four leadership practices and the academic performance of students imply that the four framework theory of instructional leadership (Bolman and Deal, 2003) is applicable to schools in Machakos County. The moderate to strong correlations are a pointer that each of the four leadership practices is important for effective leadership to be realized, albeit at different levels (Norviewu-Mortty, 2012, Waters, et al., 2003). Noteworthy is the very strong positive relationship between performance of students in KCSE and promoting a positive working climate ($r=0.818^{**}$), which indicates the importance head teachers must attach to ensuring that staff and students are explicitly recognized and rewarded for exemplary school work, which in turn ensure continued positive input by the students and teachers towards the accomplishment of the school goals, primarily the attainment of good grades in KCSE examinations. It means that the more head teachers value their human resource, the better their school performs. Such findings are in agreement with those of Trees (2006) who found that senior administrators in Urban and Metropolitan Universities in America valued most the welfare needs of their staff and students (76.8% of the respondents in the research by Trees reported the use of the human resource frame, which is basically promoting a good working climate).

The results are shown on table 2 below:

Table 2: Pearson Correlation Showing the Relationship between Head Teachers Instructional Leadership Practices and KCSE performance in Machakos County

		School performance	Defining the school mission	Managing the instructional Programme	Positive working climate	Promoting teachers interests
School Performance	Pearson Correlation	1	.628**	.691**	.818**	.603**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	164	164	164	164	164
Defining the School Mission	Pearson Correlation	.628**	1	.721**	.633**	.439**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	164	164	164	164	164
Managing the Instructional	Pearson Correlation	.691**	.721**	1	.764**	.629**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	164	164	164	164	164

Programme	N	164	164	164	164	164
	Pearson					
Positive	Correlation	.818**	.633**	.764**	1	.721**
Working	Sig. (2-tailed)	.000	.000	.000		.000
Climate	N	164	164	164	164	164
	Pearson					
Promoting	Correlation	.603**	.439**	.629**	.721**	1
Teachers	Sig. (2-tailed)	.000	.000	.000	.000	
Interests	N	164	164	164	164	164

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

4. Summary of Findings

The results of the correlation analysis show that students' performance is strongly associated with positive working climate on the other hand, defining school mission has strong association with students' academic performance while the association between the head teachers instructional leadership practices and managing the instructional programme, and advancement of teacher's was found to be average. The relationship between the students' academic performance and the four leadership practices studied was significant at $p < 0.01$.

5. Conclusion and Recommendations

It can be concluded from these findings that effective instructional leadership practices lead to high attainment of students in examinations. It is therefore recommended that head teachers be properly trained and in-serviced in order to practice balanced instructional practices. This will enhance proper utilization of all resources (human and material), so as to realize good performance in examinations for their schools.

References

1. Bolman, L.G., & Deal, T.E. (2003). *Reframing organizations: artistry, choice and leadership*. San Francisco, CA: Jossey-Bass.
2. Chrispeels, J., Castillo, S. & Brown, J. (2000). *School effectiveness and school improvement*. California: National College for School Leadership. Crossman, A. (2012). *What is correlation analysis? Review of a common statistical technique used in sociological research*. Available at <http://sociology.about.com/od/Statistics/>
3. Day, C., Sammons, P., Hopkins, D., Harris, A, Leithwood, K., Gu, Q., Brown, E., Ahtaridou, E., & Kington, A. (2009). *The Impact of School Leadership on Pupil Outcomes: Final Report*. Nottingham: University of Nottingham.
4. Enueme, P. & Egwunyenga, J. (2008). Head teachers' instructional role and effect on teachers' job performance: a case study of secondary schools in Asaba Metropolis, Delta state, Nigeria. *Journal of Social Science* 16(1): 13-17
5. Hallinger, P. (2011). "Leadership for learning: lessons from 40 years of empirical research", *Journal of Educational Administration* 49 (2), 125 – 142
6. Marshall, G. (2015). "Coleman Report". *A Dictionary of Sociology*. Retrieved from: Encyclopedia.Com. Available at: <http://www.encyclopedia.com>.
7. Musungu, L. & Nasongo, J. (2008). The head teacher's instructional role in academic attainment in secondary schools in Vihiga County. *Educational Research and Review* Vol 3(10), 316-323
8. Mwangi, R. M. (2009). *The Role of school leadership in student achievement in Kenya*. Doctoral thesis, Weather head: Case Western Reserve University.
9. Nettles, S.M. & Herrington, C. (2007). Revisiting the Importance of the direct effects of school leadership on student achievement: the implications for school improvement policy. *PEABODY Journal of Education*, 82(4), 724-736
10. Nyagosia, P., Njuguna, F. & Waweru, S. (2013). Factors influencing academic achievement in public secondary schools in Central Kenya: An effective schools' perspective. *Educational Research International* 2(2), 174-184
11. Orodho, J. A. (2009). *Elements of education and social research methods*. Maseno: Kanezja publishers.
12. Roddy, T. (2010). *Frame analysis of the self-perceived leadership orientations of headmasters of the independent schools association of the southwest, southern association*

- of independent schools, and the association of independent schools of greater Washington member schools". PhD Dissertation, University of New Orleans*
13. Price Waterhouse coopers (2006). *Independent research on school leadership for the department of education and skills*. London: Price Waterhouse.
 14. Tillman, P. S. (2012). *Leadership orientations of female school superintendents: A Multidimensional framework perspective*. Doctoral dissertation, Georgia Southern University.
 15. Trees, D. H. (2006). *Leadership orientations of senior administrators at American metropolitan universities*: Doctoral dissertation, Central Florida University.
 16. Waters, T., Marzano, J. & Mc Nulty, B. (2003). *Balanced leadership: what 30 years tell us about the effect of leadership on student attainment*. Denver: Mid-Continent Research for Education and Learning.
 17. Witziers, B., Bosker, R. J., & Krüger, M. L. (2003). Educational leadership and student achievement: The elusive search for an association. *Educational Administration Quarterly*, 39 (3), 398 - 425.

Appendix B: Study Sample Schools

School serial	Mean grade						School serial	Mean grade					
	'09	'10	'11	'12	'13	Av. '09-'13		'09	'10	'11	'12	'13	Av. '09-'13
HP 1	6.80	7.20	6.94	6.30	6.73	6.79	LP 12	2.70	3.22	3.50	3.68	3.73	3.37
HP 2	8.00	8.10	8.80	9.30	8.98	8.64	LP 13	3.80	4.1	4.21	4.41	3.43	3.99
HP 3	7.80	7.43	8.20	7.88	8.64	7.99	LP 14	3.30	3.11	3.4	4.06	3.17	3.41
HP4	6.00	7.42	7.69	7.92	7.18	7.24	LP 15	2.70	3.61	2.88	2.69	2.52	2.88
HP 5	5.40	7.17	5.90	6.60	6.26	6.27	LP 16	3.30	3.34	3.7	3.51	3.15	3.40
HP 6	6.30	6.24	7.03	7.37	7.76	6.94	LP 17	3.60	3.32	3.7	3.07	3.00	3.33
HP 7	7.00	6.72	6.96	6.55	7.37	6.92	LP 18	4.20	3.74	3.00	2.93	2.61	3.30
HP 8	5.60	5.81	5.54	6.11	7.06	6.02	LP 19	3.40	3.31	3.55	3.06	3.06	3.28
LP 1	3.60	3.91	4.26	3.90	4.70	4.07	LP 20	3.40	3.14	3.26	3.52	3.01	3.27
LP 2	3.80	3.30	4.15	4.51	4.45	4.04	LP 21	3.60	3.58	2.53	3.35	3.18	3.25
LP 3	3.50	2.78	2.81	3.13	2.89	3.08	LP 22	2.90	3.00	3.19	3.13	2.99	3.04
LP 4	3.70	3.89	4.16	3.92	4.48	4.03	LP 23	1.80	3.03	3.41	4.47	3.42	3.23
LP 5	2.80	2.25	2.67	3.33	2.79	2.77	LP 24	2.80	3.83	3.23	3.39	2.65	3.18
LP 6	4.40	3.97	4.13	3.41	3.68	4.02	LP 25	3.30	2.48	3.2	3.17	3.69	3.17
LP 7	4.40	3.22	4.35	4.15	3.93	4.01	LP 26	3.30	3.57	2.87	3.25	2.77	3.15
LP 8	4.10	4.18	3.71	3.91	4.6	4.01	LP 27	3.20	3.09	2.5	3.41	3.29	3.10
LP 9	2.80	2.94	2.66	3.05	3.54	3.00	LP 28	2.70	2.94	2.83	3.59	3.3	3.07
LP 10	4.00	3.93	4.22	4.38	3.68	4.00	LP 29	3.40	3.07	2.82	3.14	2.82	3.05
LP 11	2.60	3.00	2.30	2.40	2.43	2.61	LP 30	2.80	2.77	2.52	2.73	2.39	2.64

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