

Full Length Research Paper

# The head-teacher's instructional role in academic achievement in secondary schools in Vihiga district, Kenya

L. L. Musungu<sup>1</sup> and J. W. Nasongo<sup>2\*</sup>

<sup>1</sup>Department of Educational Planning and Management, Kenya.

<sup>2</sup>Department of Educational Foundations, Masinde Muliro University of Science and Technology, Kenya.

Accepted 22 April, 2020

The head teachers' role is to promote academic performance. It is therefore important that the performance of a school is appraised against the performance of the person who leads it. The purpose of the study was to investigate the instructional role of the head-teacher in academic achievement in Kenya Certificate of Secondary Education (KCSE) examinations in Vihiga district of Western province. The population of the study comprised 84 head-teachers and 1,280 teachers serving in the 84 secondary schools. Saturated sampling technique was used to select a sample from the high and average performing schools, while stratified random sampling technique was used to select a sample from the low performing schools. The sample comprised 7 high performing schools, 17 average performing schools and 20 low performing schools. All the 44 head-teachers of the selected schools formed part of the sample for the study together with 8 teachers from each school sampled randomly. Data was collected by use of questionnaires, in-depth interviews and document analysis guide. Data was analyzed by the use of descriptive statistics of frequencies and percentages. The findings of the study showed that head-teachers' instructional role included regular checking of teachers' professional records, regular class supervision, and management plan for carrying out curriculum goals. Therefore, since the role of the head-teacher is associated with high student achievement, the study recommends that head-teachers should enhance internal supervision of teachers.

**Key words:** Academic achievement, effectiveness, efficiency, head-teacher, high performing schools, horizontal teaching, instructional supervision, performance, school size, staffing, supervision, vertical teaching.

## Background to the study

The education system in Kenya is examination oriented. The quality of education is seen in terms of the number of students passing national examinations (Eshiwani, 1993). Educators and the general public have often expressed concern over factors that influence student performance in examinations. The organizational management of schools greatly influences student academic outcomes. Rutter et al, (1979) and Wekesa (1993) noted that to improve students' performance head-teachers are required first to improve the management of the schools. This can be done by setting a clear vision for the schools and communicate this vision to students, support its

achievement by giving instructional leadership, resources and being visible in every part of the institution that account for students' performance.

Both the government and parents expect teachers to perform better at their present levels of training. The whole issue of students' performance should be considered from the broad framework of input and output. One of the core functions of schools is to take human raw material (students) and convert them into something more valuable, as in employable adults. Of paramount importance, therefore, is the proper management of teachers for its absence will invariably lead to low productivity on the part of the teachers (Republic of Kenya, 1988). Head-teachers as schools' chief executives are charged with this daunting task of managing teachers among other school resources.

Toward this end, Ayot and Briggs (1992) are of the view

\*Corresponding author. E-mail: [lwamocha@yahoo.com](mailto:lwamocha@yahoo.com), [jwamocha@yahoo.com](mailto:jwamocha@yahoo.com).

**Table 1.** Western Province KCSE performance per district for the period 2000 – 2003.

District	Mean score for			
	2000	2001	2002	2003
Butere/Mumias	5.61	5.36	5.25	5.38
Lugari	New	5.17	4.81	4.94
Teso	5.24	5.12	5.03	5.42
Bungoma	5.37	4.79	4.58	5.38
Busia	4.9	5.21	5.43	5.76
Mt. Elgon	4.55	4.81	4.41	4.67
Vihiga	4.50	4.60	4.45	4.46
Kakamega	4.65	4.73	4.87	4.55

Source: PDE's Office Kakamega: 2004.

that input-output studies should be done using learning achieved as seen from student examination performance. The impact of school management is an essential element in such studies.

The quality of leadership makes the difference between the success and failure of a school (Millette, 1988). He further explains that research and inspection clarify the extent to which the quality of leadership is crucial to improvement. In highly effective schools, as well as schools which have reversed a trend of poor performance and declining achievement, it is the head-teacher who sets the pace, leading and motivating pupils and staff to perform to their highest potential.

According to Sushila (2004), the head- teacher is the leader in a school, the pivot around which many aspects of the school revolve, and the person in charge of every detail of the running of the school, be it academic or administrative. The head-teacher should be involved in making most of the decisions of the school. It is therefore important that the head-teacher is a leader, a thinker and a decision maker. A discreet head-teacher will employ teamwork as a working strategy. He will set up committees and smaller groups of members of staff to investigate ideas or strategies. It therefore behooves the head-teacher to be a good team player. It is important that the performance of a school is appraised against the performance of the person who leads it.

Kwakwa (1973) describes the head-teacher as the keeper of keys, the director of transportation, the coordinator of correspondence, the quartermaster of stores, the divisor of intricate schedules, the publisher of handbooks, the director of public relations and the instructional leader. The head-teacher is therefore a key person in any education system. He takes care of the final arrangements for the education of students in a school. His role as a facilitator of all school activities cannot be taken for granted if he is expected to give the right kind of education to students, hence this sets the focus of the study. Konchar (1988) states that:

Schools are bad or good, in a healthy or unhealthy

mental, moral and physical condition, flourishing or perishing, as the principal is capable, energetic of high ideals or the reverse. Schools rise to fame or sink to obscurity as greater or lesser principals have charge of them. It is said 'the school is as great as the principal, because of everything in the school, the plant, the staff, the curriculum methods and techniques of teaching human relationships, bear the impress of his or her personality'. Schools do not become great because of magnificent buildings but because of magnificent principals.

The quality of education as measured by student achievement in national examinations is considered as below average standards (Ongiri and Abdi, 2004). This fact concurs with what the government of Kenya noted in its master plan on education and training (1997 - 2010) that the majority of schools fall short of providing for the learning needs of their students, leading to poor academic performance (Republic of Kenya, 1998). Ongiri and Abdi (2004) reported that many of the country's 4,000 secondary schools post bad examinations results year in year out and that there are only about 600 schools that excel and if a student is not in any of these schools he or she is not expected to get a credible grade.

### Statement of the problem

Performance in national examinations in secondary schools in Vihiga district is poor. The expected maximum mean score is 12 the equivalent of grade A, while the minimum score is 1 the equivalent of grade E. The performance of the district in national examinations between the years 2000 - 2003 was examined. Table 2 gives a comparison of Vihiga district with other districts in the province.

The descriptive statistics in table 1 indicate that poor performance in Vihiga district has persisted despite the fact that the schools in the district are assumed to be having: adequate and well-trained teachers, fairly well qualified pupils from primary schools, as well as trained and qualified head-teachers. Table 1 shows that Vihiga district had the lowest mean score in the years 2000, 2001 and 2003, and the second lowest mean score in 2002. Undoubtedly, the reasons for poor performance in the district cannot be easily discerned without focused investigation. Surveys on examination performance have shown that a majority of schools which display good results each year have adequate facilities and good human resources. Certainly, the same cannot be said of Vihiga district. This is because the district has consistently posted poor examination results in the previous years as shown in Table 2.

Statistics in Table 2 show that only 7 (8.33%) are high performing schools, 17 (20.24%) are average performing schools and 60 (71.43%) are low performing schools. The high percentage of poor performing schools reflects

**Table 2.** Vihiga District K.C.S.E performance for the period 2000 - 2003

Category	No	%
High performing schools	7	8.33
Average performing schools	17	20.24
Low performing schools	60	71.43
Total	84	100.00

the general picture of poor performance in Vihiga district. The issue of poor academic performance in examinations signifies a critical impediment in any country since education is a major contributor to economic growth (Atkinson, 1987). As earlier noted, head- teachers play a significant role in determining academic performance in a school due to their varied tasks and roles. Their tactful fulfillment of their roles together with their constant supervision of their teachers determines the level of teacher in-put and student academic achievement. The puzzle in Vihiga district however, is that the district has consistently performed poorly academically.

### **Purpose and objective of the study**

The purpose of this study was to investigate the role of the head-teacher in academic achievement in Kenya Certificate of Secondary Education examination in Vihiga District. Specifically, the objective of the study was to:

Investigate the influence of head-teachers' frequency of internal supervision of teachers' work on academic achievement.

### **Research question**

The following specific research question guided the study:

How useful is the frequent internal supervision of head-teachers in academic achievement?

### **Assumptions of the study**

**Basic assumptions of the study were that:**

- i) The Kenya Certificate of Secondary Education examination is a reliable and accurate instrument for measuring student achievement at the secondary school level.
- ii) Head-teachers are trained and qualified persons in management of school curriculum.
- iii) Human and material resources are provided for and effectively used for teaching.
- iv) Head-teachers supervise and provide for academic and professional guidance to the teachers.

- v) All secondary schools in Vihiga district offer similar curriculum as required by the Ministry of Education.
- vii) The head-teacher is the central factor determining academic achievement in the school.

### **Significance of the study**

When other factors are held constant it was found that the head-teachers who supervised teachers' and students' work achieved better results than those who did not. The findings of this study therefore would be significant in various ways: first on the theoretical value, they would provide greater insight to the administrators and managers of schools into the factors that contribute to high academic performance in schools in Vihiga district. Second on the practical value, the findings would serve as reference points for head-teachers of schools in Vihiga district on management skills that would lead to improvement of students' performance in national examinations. Besides, the findings would also enlighten school head-teachers in order to address the problem of how to improve students' achievement in national examinations. The findings of the study would also benefit Kenya Education staff Institute (KESI) with regard to salient training needs for head- teachers that need to be addressed in Vihiga district.

### **Scope of the study**

The study included a sample of high performing schools, average performing schools, and those that performed poorly in Vihiga district. The study focused on the instructional role of the head-teacher in academic achievement of secondary schools in Vihiga district. The head-teachers and teachers of the sample schools were the respondents. They provided information on the instructional role of the head-teacher in relation to the influence of the head-teachers' frequency of internal supervision of teachers' work on academic achievement.

### **Limitations of the study**

The study was limited to the head-teachers' internal supervision of teachers and students work. Other relevant variables that have not been covered will form the basis for further research. Given that the study covered Vihiga district only the findings can not be generalized for the whole country. Performance was only limited to KCSE examination results. Formative evaluation was not put into consideration. Determination of the relationship between the head-teachers' role and academic achievement was inferred from the head-teachers' involvement in internal supervision which is an attribute of effective schools. Therefore this relationship was not based on statistical analysis.

**Table 3.** Schools stratified by performance and sample selection.

Schools mean score	Girls	Boys	Mixed	Total	Sample
6.00 and above	3	3	1	7	7
5.00 - 5.99	3	4	10	17	17
1.00 - 4.99	7	nil	53	60	20
Total	13	7	64	84	44

Source: District Education Office Vihiga: 2003.

## Conceptual framework

The study was conceptualized based on the variable that was used in the study. In this conceptual framework it was conceptualized that high academic achievement was influenced by effective internal supervision. The focus was on the head-teacher who was the central independent variable. Effective internal supervision depended on the head-teacher and eventually determined the kind of results. The model is diagrammatically demonstrated in Figure 1.

The head-teachers' internal supervision leads to effective teaching resulting into high academic achievement. Internal supervision includes management plan for carrying out curriculum goals, regular checking of teachers' internal professional records, and regular class supervision. The conceptual model is useful to the study in various ways. First the study is based on the premise that headship plays a significant role in determining academic performance. Second, headship encompasses a variety of tasks and roles whose effective operationalisation positively affects academic achievement. Given the fact that the study investigated these factors, the conceptual framework is invaluable.

## Research methodology

### Research design

The study design used was descriptive analysis. Fraenkel and Wallen (1993) describe descriptive analysis as that method that involves asking a large group of people questions about a particular issue. Information is obtained from a sample rather than the entire population at one point in time which may range from one day to a few weeks. The study employed descriptive analysis to establish opinions and knowledge about the role of the head-teacher in academic achievement. Any research undertaking involves lots of cost implications hence this design was deliberately selected for the study because it allows for quick data collection at a comparatively cheap cost (Grinnell, 1993).

### Area of study

Vihiga district formed the study area. It is one of the eight districts in Western Province. It was carved out of Kakamega district in 1991. It borders Kakamega district to the North, Nandi to the East, Kisumu district to the South and Siaya to the Southwest. The district is divided into six administrative divisions namely Vihiga, Sabatia, Tiriki East, Tiriki West, Emuhaya and Luanda. According to the

National Population census of 1989, the district had a total population of 460,538 (Republic of Kenya, 1997).

### Study population

The study focused on the 84 secondary schools in Vihiga District with a population of 26,979 students, 84 head-teachers and 1,280 teachers. The high performing schools were seven, average performing schools were 17 and the remaining 60 were poor performing schools. It had 13 girls' boarding schools, seven boys' boarding schools and 64 mixed boarding and day schools. The district had more mixed day than single sex boarding schools. That could be attributed to the high poverty levels in the district that made boarding fees too high for most parents to afford. The secondary schools that met the conditions of the study were those that had presented candidates for the Kenya National Examinations Council (KNEC) between 2000 - 2003. The three schools in Vihiga district that did not meet the conditions of the study were part of the population though they were not sampled for lack of results for the four years of study.

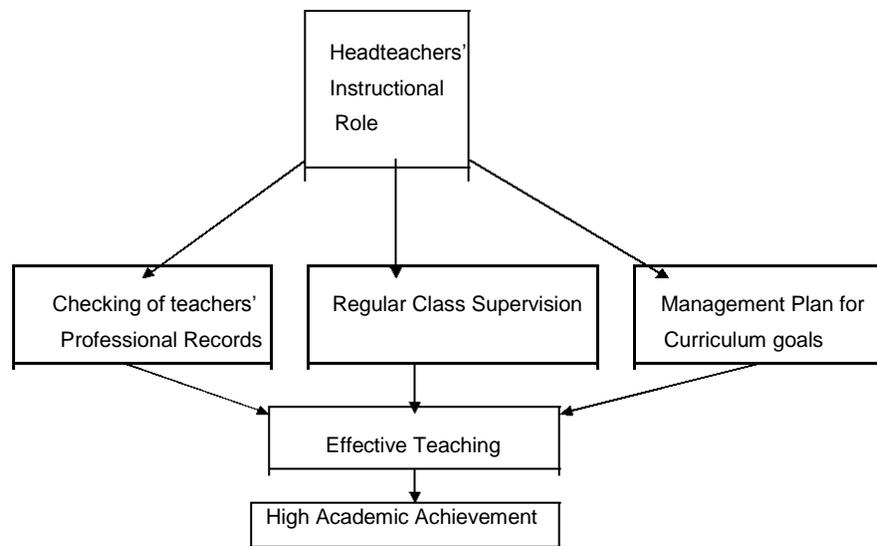
### Sample and sampling technique

The secondary schools were stratified into high performing with a mean of 6.00 and above in KCSE examinations, average performing with a mean of 5.00 to 5.9 in KCSE examinations and low performing schools with a mean of 4.9 and below in KCSE examinations (of 2000 to 2003). The identification of schools was based on the mean examination scores posted in the Kenya Certificate of Secondary Education examinations for the four years of study.

Saturated sampling method was used to select the high and average performing schools since they were few, while stratified random sampling method was used to select the poor performing schools. There were seven high performing schools, 17 average performing schools and 60 poor performing schools. A third of the poor performing schools were randomly sampled. A sample of 44 schools was selected based on the above stratification. The principals of the 44 sampled schools participated in the study. Similarly, 8 teachers from each school were sampled to participate. In total 396 respondents were selected for the study. The population and the sample of the study are shown in Table 3.

### Instruments for data collection

The data were collected using questionnaires, interviews and document analysis guide. The questionnaire was preferred for its suitability to this study. It was suitable as a method of data collection because it allowed the researcher to reach a larger sample within limited time. It also ensures confidentiality and thus gathers more candid and objective replies. The questionnaires were prepared both for head-teachers and class teachers.



**Figure 1.** A model of the instructional role of the head-teacher in academic achievement.

Face to face interview was also used because it helped to enlist the cooperation of respondents and establish a rapport with them. Borg et al. (1993) observe that questionnaires are often used to collect basic descriptive information from a large sample while interviews are used to follow up questionnaires, responses in-depth with a smaller sample. The three instruments, that is, questionnaire, interviews and document analysis guide were used in the study for the purpose of triangulation and confirming information collected from various respondents.

The head-teachers' questionnaire had two sections. Section A of the questionnaire comprised general information from the schools in Vihiga district and Section B comprised open-ended questions related to the instructional role of the head-teacher. The questions included the head-teachers' role in curriculum implementation and supervision, and evaluation. The number of respondents was seven from the high performing schools, 17 from the average performing schools and 20 head-teachers from the low performing schools.

The teachers' questionnaire was used to collect data on the head-teachers' role in academic performance in Vihiga district. It sought information on education inputs prevailing in schools that affected performance. This included the head-teachers' organization and internal supervision. In part two of the section the teachers were asked to give their views on how the head-teachers would promote academic achievement in the schools. The number of respondents was 56 from the high performing schools, 136 from the average performing schools, and 160 from the low performing schools.

### Interviews

Face to face interviews of 44 head-teachers of the schools involved to give detailed information on the study. The interviews were administered to the principals of high, average and low performing schools with an aim of getting more information on the role of the head-teacher in academic achievement. Responses from interviews were recorded under headings emerging from interviews with the interviewees. It was hoped that this would give a deeper insight into the inputs that would be associated more with examination performance.

### Validity and reliability of the instruments

It was necessary to ascertain the validity and reliability of the instruments used to collect data so that the research findings could be reliable. In order to ascertain content and face validity, the questionnaires and in-depth interviews were presented to three lecturers in the Department of Educational Management and Foundations at Maseno University who are authorities in the area for scrutiny and advice. The contents and impressions of the instruments were improved based on the authorities' advice and comments. The questionnaire and interview items were then constructed in a way that they related to the question. That ensured that the research question was well covered.

Grinnell (1993) observes that reliability measures the degree of accuracy in the measurements an instrument provides. It ensures that the instruments generate similar data when used by independent researchers. He further observes that to remove possible errors, every instrument should be tested before it is formally administered. To ensure reliability of the questionnaires and interview schedule the researcher conducted a pilot study in two secondary schools in Vihiga district before the actual study. The two schools were not included in the main study. The main purpose of the pilot study was to check on suitability and the clarity of the questions on the designed instruments, relevance of the Information being sought, the language used and the content validity of the instruments from the responses given.

### Methods of data analysis

in the study were conducted. The head-teachers were better placed The data collected from questionnaires was analyzed by the use of descriptive statistics (frequencies and percentages). The descriptive analysis was appropriate for this study because it involved the description, analysis and interpretation of circumstances prevailing at the time of study. Basic statistical techniques were used to analyze various items of the questionnaire. These included averages, percentages, frequencies and totals. This study used frequencies and percentages because they easily communicate the research findings to majority of readers (Gay, 1992). Frequencies easily show the number of subjects in a given category. A number

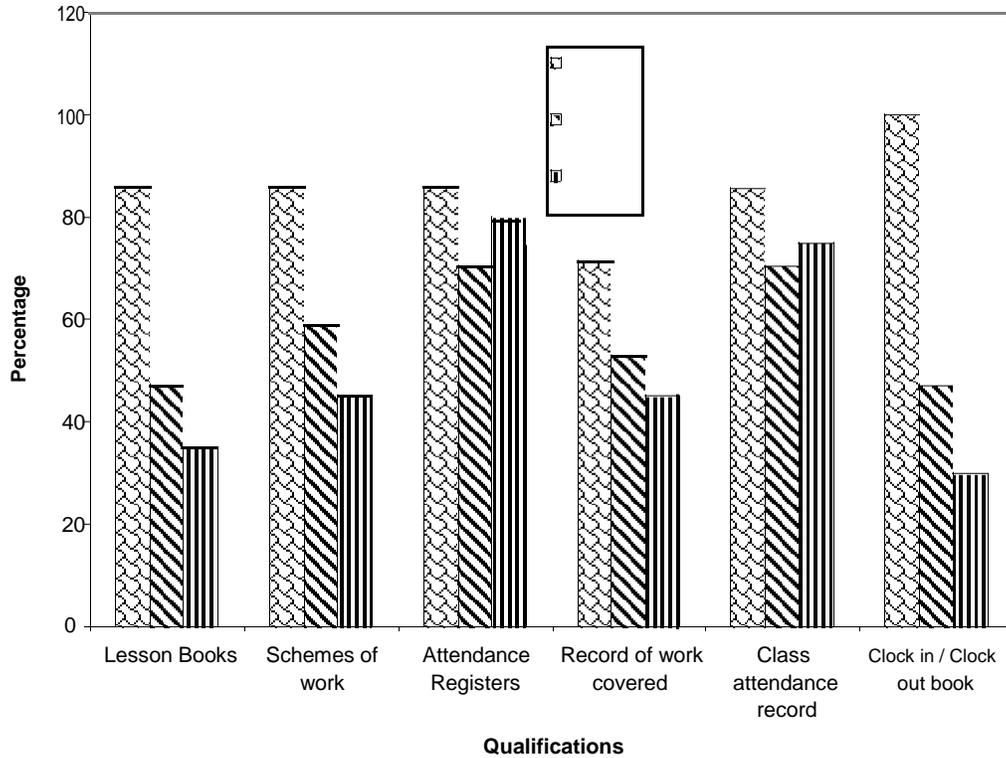


Figure 2. Supervision of records.

of tables and charts were used to present data findings. Data collected was analyzed according to the nature of the response. Once the coding was completed, the responses were transferred into a summary sheet by tabulating. This was then tallied to establish frequencies, which were converted to percentage of the total number. Responses from open-ended questions were recorded. To determine the frequencies of each response, the number of respondents giving similar answers was converted to percentages to illustrate related levels of opinion.

Interviews were carried out in the sampled schools. Responses from in-depth interviews were transcribed. The transcribed data was then organized in themes and categories that emerged. Information from the records on the role of the head-teacher was used to complement and to cross check data collected using the main instruments.

## RESULTS AND DISCUSSION

### The head-teachers' internal supervision of teachers' work

The head-teachers were asked to state how often they check the teachers' lesson books, schemes of work, attendance registers, records of work covered, class attendance records and clock in clock out book.

#### Supervision of internal records

Head-teachers supervised teachers' work by inspecting records such as schemes of work, lesson books, records

of work covered, class attendance records, and clock in/clock out book. The document analysis performance was used to find out how frequently the head-teacher checked on the internal records. The information is graphically presented in Figure 2.

Figure 2 shows that over 80% of the head-teachers in high performing schools checked lesson books, schemes of work and registers of class attendance and school enrolment and clock in clock out records. However 71.43% of them checked records of work covered. On the contrary over 70.59% of the head-teachers in the average and low performing schools focused on checking registers and class attendance records while less than 60% of the head-teachers checked lesson plans, schemes of work, records of work covered and clock in clock out books. Internal supervision was seen as a way of ensuring that work in the school was done efficiently. To ensure that curriculum goals were achieved, head-teachers conducted internal supervision of the development and implementation of schemes of work and lesson plans, checked assignments, records of work covered and discussed their observations and findings with teachers. The high level of supervision of internal records by the high performing schools' head-teachers was reflected in the performance of their schools as shown by the percentages.

A general trend observed was that head-teachers' frequency of internal supervision contributed towards better

performance. This involved proper tuition and revision, thorough supervision of teachers and pupils' work, proper testing policy, syllabus coverage, teacher induction courses and team building. According to Andrews as reported by Brandt (1987) effective principals are perceived as those who were involved in proper tuition and revision, thorough supervision of teachers' and students' work, proper testing policy, syllabus coverage, teacher induction courses and team building as well as communicating the school vision effectively, providing resources for instruction, and maintaining a high visible presence in all parts of the school.

### **The head-teachers' internal supervision of students' learning**

In order to get more information on the head-teachers' supervisory role, interviews were carried out by the use of an interview schedule. The aim was to find out the head-teachers' instructional role in academic achievement of their schools. From interviews with the head-teachers and the observation of school records including examination scores, a general trend regarding supervision of students' learning emerged.

Concerning the frequency of supervision 6 out of 7 head-teachers of the high performing schools said that they looked at the teachers' lesson plans, records of work covered and schemes of work. They also looked at the students' exercise books weekly with the help of deputy head-teachers. This was contrary to the average and low performing head-teachers where only 9 out of 17 and 3 out of 20 head-teachers of the average and low performing schools respectively checked the work occasionally. The head-teachers were also asked to explain how they worked with their teachers and students by assisting them in teaching and learning. There were 5 out of 7, 10 out of 17 and 11 out of 20 head-teachers of high, average and low performing schools respectively who said they organized for extra tuition. They also purchased revision material and helped teachers to go for induction courses.

Studies show that head-teachers who focus on other issues rather than internal supervision record poor results in examinations. Kangania (1986) observed that many head-teachers of schools in Meru district spent more time with finance and business management than with the curriculum and instruction, and student personnel. Head-teachers seem to believe that they are only accountable for financial management of their schools because they are liable for prosecution of financial mismanagement if discovered. According to Sweeney (1982) it is time head-teachers were held accountable for the academic achievement of their students as well. The head-teacher is legally seen as the first supervisor because he or she has to play the role of supervision from time to time by checking the teachers' classroom work and assessing their overall performance based on pupil achievement.

The head-teacher gives direction on how to attain the goals set by the school. The performance of the school therefore depends on the ability and the capacity of the head-teacher (Sweeney, 1982).

### **Research findings**

The study revealed that the head-teachers supervised the teachers' work by checking lesson books, schemes of work, records of work covered, attendance registers, class attendance records and clock in clock out books. The percentages given per category also revealed that the head-teachers in high performing schools checked the records frequently compared to those in the average and low performing schools.

### **Conclusion**

#### **The following conclusion was reached:**

It was concluded that effective supervision of teachers is necessary if they are to remain productive. Influencing is a key process in supervision. It is almost impossible to work with people towards a common goal by use of force or coercion. The head-teacher would therefore need to know how to establish good working relationships with the teachers in the school.

### **Policy and practice recommendations**

The findings of the study have implications for policy and for practice. Therefore the following are the recommendations emanating from the findings of the study:

To improve on supervision of teachers' and students' work the following measures should be adopted:

- i.) Signing of attendance register: this could be done to help deputy head-teachers to organize replacement of teachers who are absent.
- ii.) Spot checks: this is management by walking around. Moving while lessons are going on would enable head-teachers to know whether all lessons are being taught.
- iii.) Regular inspection of lesson notes, schemes of work and attendance registers. However, the aim should not be that of fault finding. It should be done also to find a way of discussing the lessons with the teachers and thanking them for the work done.
- iv.) Random inspection of pupils' books and assignments. This should be done often to ensure that teachers' assignments are marked as required. Head-teachers would then compare lesson notes, lesson plans and schemes of work.

## Recommendation for further research

The study did not exhaust all matters related to high academic achievement in KCSE examinations in Vihiga district. Other issues emanated from the study that requires further investigation. These are as follows:

- i.) More comprehensive studies should be undertaken to include a larger population in order to ascertain or not whether the problem transcends other districts.
- ii.) Research should be done on other strategies used by head-teachers in academic achievement in secondary schools.

## REFERENCES

- Atkinson GBJ (1987). *The Economics of Education*. London: Hodder and Stoughton Educational.
- Ayot HO, Briggs H (1992). *Economics of Education*. Nairobi: Educational Research and Publications
- Eshiwani GS (1993). *Education in Kenya Since Independence*. Nairobi: Government printer.
- Fraenkel RJ, Wallen EN (1993). *How to Design and Evaluate Research in Education*. 4<sup>th</sup> Edition. Illinois: F.E. Peacock Publishers, Inc.
- Grinnel MRJR (1993). *Social Work Research and Evaluation*. 4<sup>th</sup> ed. Illinois: F.E Peacock Publishers, Inc.
- Konchar SK (1988). *Secondary School Administration*. New Delhi: Sterling Publishers Private Ltd.
- Kwakwa M (1973). "Is the School Principal an Educational Leader or an Administrator?" *J. educ.* 4(1): 10.
- Millette A (1988). *Tes / Kelle Lectures on Educational Leadership in the Millennium "Professionals, Pedagogy and Leadership"*. A lecture given on 3 June 1988.
- Ministry of Education (1979). *A manual for Heads of Secondary Schools in Kenya*. Nairobi: Jomo Kenyatta Foundation.
- Norris N (1993). "Evaluation, Economics and Performance Indicators" in J. Elliot (ed) *Reconstructing Teacher Education*. London: Falmer Press.
- Ongiri I, Abdi A (2004,). "Hard Work is the Secret of Success". Nairobi: Kenya. *The Standard*, 21<sup>st</sup> March p.5.
- Republic of Kenya. (1988). *Report of the Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond*. Nairobi: Government printer.
- Republic of Kenya. (1988). "Report of the Education Administration Conference". Nairobi: Jomo Kenyatta Foundation.
- Republic of Kenya. (1998). *Master Plan on Education and Training 1997-2010*. Nairobi: Government printer.
- Rutter M, Maugham B, Mortimer P, Smith A (1979). *Fifteen Thousand Hours in Secondary Schools and their Effects on Children*. Cambridge Havard University U.S.A.
- Sushila B (2004). *Management and evaluation of schools*. Nairobi: Oxford University Press, East African Ltd.
- Wekesa GW (1993). "The Impacts of Head-teachers' Instructional Leadership on Student Academic Achievement in Kenya", Unpublished Ph.D. Dissertation, Teachers college, Columbia, Columbia University.