

# Assessment Of The Effect Of Provision And Management Of Resources On Teaching And Learning In Secondary Schools In Bungoma County, Kenya

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*Abstract: The purpose of this study was to determine the effect of provision and management of resources on teaching and learning in sub-county secondary schools in Bungoma County. The study adopted a mixed methods approach and a descriptive survey design. Using purposive and simple random sampling techniques, a sample size of 44 principals, 369 class teachers and 369 class prefects was selected to participate in this study, giving a sample size of 782 respondents. Data was collected by using questionnaire and interview. Data was analyzed using frequencies and chi-square and by describing emerging content from the respondents in relation to the study objective. The study established that there was significant relationship between schools provision and management of resources and teaching and learning at  $p = 0.000 < 0.05$ . Therefore, it was concluded that provision and management of resources significantly influenced teaching and learning in secondary schools in Bungoma County. From the results it is concluded that academic performance could be improved if provision and management of resources is enhanced. The following recommendations were made: Ministry of Education (MoE) to induct school managers on more effective managerial skills, Teachers Service Commission (TSC) to employ more teachers and MoE to increase funding to enhance teaching and learning.*

*Keywords: provision and management, resources, teaching and learning*

## I. INTRODUCTION

Availability of teaching and learning resources enhance the effectiveness of schools as these are basic things that can bring about good academic performance in the students. Maicibi (2003) says that all institutions have human and non resources which if put in the right quantity and quality will enhance academic achievement.

Students in most public schools are disadvantaged in that classes are over-crowded and they do not have adequate learning facilities. Consequently, they do not get individual attention from their teachers (Onyango, 2010).

The management of material resources entails planning, acquisition, allocation, distribution and controlling the use and maintenance of the materials. Onyango (2001) states that planning for material resources involves the identification of the resource requirements, assessing quality in terms of the

need, establishing criteria for standards, determining cost per unit and use of the materials whether by individual or groups.

Teaching resources are of two major types: The human resources and non human resources. A teacher and any other human who interacts with the learners during the learning sessions fall under the human resource. The non human resources comprise the teaching materials which are textual (print) and non textual materials (non print) (Otunga et. al, 2011). Bell and Rhodes (1996) note that school facilities include the administrative office, staffrooms and offices, classrooms, laboratories, workshops, equipment, stores, libraries, hostels, staff houses and school grounds. Newby et al. (1996) asserts that: the manner in which targeted instructional materials are selected generally involves determining (1) where and under what conditions will the materials be experienced by the students (learning environment) and (2) what the optimal instructional approach

(e.g. simulation, presentation, discussion and problem solving) would be based on considerations of the learners, the content and the setting. (p.145)

Barasa (2005) commenting on language instruction in Kenya highlights the fact that the availability of teaching resources and the teacher awareness of their utility enhance learner performance. The adequacy and use of teaching and learning materials affect the effectiveness of a teacher's lesson. Schneider (2003) and Obugu (2004) found out that school facilities have a direct effect on teaching and learning and text books enable the pupils to follow the teacher's sequence of presentation and aids in understanding of lessons. Provision of adequate teaching and learning materials is therefore necessary for effective instruction. Gogo (2002) concluded that low performance could be attributed to lack of adequate finance which resulted in inadequate supply of teaching and learning materials and equipments. Lewis (1984) and Eshiwani (1983) also observe that a shortage of text books and teaching materials had harmful effects on satisfactory teaching in mathematics and sciences.

Wilma and Andrews (1989) say materials appropriate for the curriculum are provided through skillful management of the instructional budget, with an opportunity for staff input into the budgetary process. The entire budget process is viewed as a professional activity that enables the school staff members to maximize use of scarce resources and set priority for expenditures. The instructional leader shares data that enable staff members to participate in the decision-making processes. The principal uses group processes to get the most appropriate expertise and to make certain that up-to-date information flows through the school.

According to Marlow and Minehira (2011), the most effective school administrators are often those who have a clear picture of economic constraints and potential resources and are able to minimize the constraints and capitalize on the resources especially in these times of diminishing fiscal resources. School managers today therefore must be grant writers, and entrepreneurs, fundraisers and futurists; they must be able to gain economic support from the community as well as private business and futurists. Furthermore they need to work with teachers to decide when and how the school's funds will be spent to support curriculum programs. They should try to obtain necessary materials and equipment to support teachers in curriculum implementation. Also the principal should be aware of how the school's physical condition can have an impact on teaching and learning.

Routine administrative tasks such as discipline, providing an orderly school climate, personnel management and budget are all a part of mobilizing resources. An effective principal is able to blend and balance the elements through management (Sarason, 1982). Weick (1982) also reminds us that:

The administrator who manages symbols does not just sit in his office mouthing clever slogans. Eloquence must be disseminated and since channels are unpredictable, administrators must get out of their offices and spend lots of time one-on-one both to remind people of central visions and to assist them in applying these visions to their own activities. The administrator teaches people to interpret what they are doing in a common language. (P.76)

The role of education has been emphasized in contributing to the human resource development in today's globalizing context. Education is viewed as adding value to investment on human capital; there has been changing labour market requirements shift to the phenomena of 'life long learning.' As a result, individuals and companies engage in training programs to update the knowledge and skills of the labour force. A competitive global economy, changing production and technology requirements means that individuals have to constantly upgrade their skills in order to compete effectively in the labour market which today emphasize on the ability of individuals to acquire several qualifications in order to raise their profiles. The heralding of the 'knowledge society' due to rapid economic and technologically developing society characteristic of a globalizing world, means that education will continue to play a central role in the production of individuals who are equipped with the intellectual capacities needed for national and regional advancement (Mama, 2003)

Human resource development incorporated the basic assumption of human relations that people in an organization hold the key to more effective supervision of management. Human resource development suggests that the most important activity of supervision is to help people within an organization become as skillful and effective as possible. The organization will be improved because its employees will be more effective (Daresh and Playko, 1995). Sparks and Loucks-Horseley (1990) define staff development as "those processes that improve the job related knowledge, skills, or attitudes of school employees" (p.234). Based on research studies on professional development, the authors present four models. These models refer to teachers' identification of a need or an interest, development of a plan to meet the need, participation in the actual learning activity, and a self assessment of whether their learning meets the identified need. Many educators view improvement as systematic process and emphasize that changes in one part of a schooling system affects all of its other parts. Thus in order for an effective change to occur, staff development must become an integral part of school improvement efforts. As Duttweiler (1987) found, "significant improvement in educational practice takes considerable time and is the result of systematic, long range professional development." (p.4)

Effective professional development consists of activities directly focused on teachers helping students achieve learning goals and supporting student learning (ASCD, 2002). Instructional leaders become teachers of teachers by facilitating lifelong learning when promoting professional development (Dipaola and Hoy, 2003; Glatthorn, 1984). According to Lewis (2000), learner centered or research based professional development should be extended beyond the one shot workshop by promoting on going learning opportunities for teachers to learn in the same ways they are expected to teach.

Leaders of change recognize that the people in the organization are its greatest resource. To lead change, the leader must believe without question that people are the most important asset of an organization (Joiner, 1987, p.2). Wright, Horn and Sanders (1997) concluded that the most important factor influencing student learning is the teacher as he or she

stands in the interface of the transmission of knowledge, values and skills in the learning process. Onyango (2001) emphasizes that human resource is the most important resource in a school organization. He adds that teachers comprise the most important staff in the school. Odiambo (2005) adds that the most important purpose of a school is to provide children with equal and enhanced opportunities for learning and the most important resource a school has for achieving that purpose is the knowledge skills and dedication of its teachers. Therefore teachers need to be well managed through leading and motivation, delegating responsibility and conflict management in order to maximally harness their expertise.

Support of teachers' efforts was demonstrated in four areas: supporting teacher's instructional methods, their modification of instructional approach and materials; providing human and material resources for instruction; providing non evaluative comments on instructional practice; and protecting teachers' time and effort from non instructional tasks (Bossert et al., 1982; M and Eaculendez-Morse, 1991). Sarason (1982) states that principals' contributions to the implementation of a new project rested not in direct, programmatic advice "but in giving moral support to the staff" (p.77) Teachers who are still beginning teachers (1-4 years experience) should receive ongoing support to help them develop their pedagogical and classroom management skills. There is a growing body of research that supports that most teachers' education occur in the first four years of teaching. This means that colleagues with whom beginning teachers have the most contact during those formative years will have the most influence on their teaching. Unfortunately the influence can be negative as well as positive. Therefore it is important that the principal be proactive in the process of helping beginning teachers and not just expects that the grade level or department chairs will take care of them. Pairing them with a competent and sympathetic veteran teachers seem to work best, but it is also important that no matter how busy, the principal is, must take time to support new teachers (Marlow and Minehira, 2011). More so, while no principal wants to hire a teacher out of her/his area of certification, it sometimes becomes necessary when fully qualified teachers are not available. Should this occur, it is incumbent upon the principal to provide as much support to those teachers as possible. Marlow and Minehira (2011) further say that beginning teachers should also be encouraged to attend relevant workshops and enroll in courses that will help strengthen their competence and confidence. Most important, however, is for the administrators to take an active role and not expect other teachers to assume this responsibility.

## II. METHODOLOGY

The study approach was mixed methods and its research design was descriptive survey. Orodho (2003) and Fraenkel and Wallen (1993) describe descriptive survey as a method of collecting information by interviewing or administering a questionnaire to a sample of individuals. A survey, according to Kodhari (2003), is a method of securing information concerning an existing phenomenon from all or a selected

number of respondents of the concerned universe. From the sample results the researcher generalizes or makes claims about the population (Cresswell, 2003). The study was descriptive because it looked at the various aspects of a phenomenon that already existed, namely provision and management of resources influencing teaching and learning in sub-county secondary schools in Bungoma County. Class teachers and class prefects of Form I-IV each responded to a questionnaire and the principals were interviewed to get their views on the role of curriculum practices on teaching and learning. However, Kodhari (2003) says the main weakness of descriptive survey is that it may give low response rates especially in mailed questionnaire

The target population was 175 principals, 1433 class teachers and 2865 class prefects of the 175 sub-county secondary schools. The sample size selected for this research from the study population was 782. Using purposive and simple random sampling, a sample of 44 principals, 369 class prefects and 369 class teachers was chosen to participate in the study as respondents.

This study used questionnaires and interview schedules to elicit responses from the study subjects. The questionnaire titled class teachers and class prefects was used to gather data for this study. Interviews were scheduled for the principal to get qualitative data. Gay (1992) maintains that questionnaires give respondents freedom to express their views and their opinions and also make suggestions. According to Nzubuga (2000), qualitative data gives the researcher much information and helps them identify significant factors to measure.

The researcher conducted a pilot study in the neighbouring county using 2 schools to establish reliability of research instruments through the test re-test method. To validate the research instruments the researcher used the technique of content validity which showed whether the test items represented the content that the test intended to measure (Borg and Gall, 1989). Content validity ensured that the instruments covered all the areas to be examined. Two supervisors from the department of curriculum, instruction and Educational Media, and colleagues, Moi University scrutinized the instruments and made necessary adjustments so that the instruments were adequate and able to elicit adequate data. Validity was also further ascertained through the results of the pilot study.

Descriptive statistics was used to analyse data. Results from quantitative data were presented by use of frequencies and chi-square while qualitative data were recorded, grouped in themes and findings reported. Data were analysed using Statistical Package for Social Sciences (SPSS v. 20) for easy interpretation.

## III. RESULTS AND DISCUSSION

Analysis of the effect of provision and management of resources on teaching and learning

The objective of the study was to determine the effect of provision and management of resources on teaching and learning. To achieve this objective, respondents were asked to react to several statements concerning the principals'

provision and management of teaching and learning resources. The findings are indicated in table 1 and 2.

The findings in table 1 indicate that 56.4% of the class teachers and 34.7% of the class prefects rejected the statement that money is allocated each year for teachers and students to spend. 4.9% of the class teachers and 15.2% of the class prefects were undecided. 38.8% of the class teachers and 50.2% of the class prefects supported the statement. The results indicate that according to class teachers, majority of the schools do not allocate money for them to spend each year. But students on the other hand agree that majority of the schools allocate money each year for them to spend. The results could therefore be revealing that majority of the sampled schools give students money to spend on school activities such as educational tours, parties, games and sports than teachers. Gogo (2002) reports that low performance could be attributed to inadequate finance which leads to inadequate supply of teaching and learning materials and equipment. Schools in the sample could be experiencing financial constraints due to non-payment of fees, untapped school resources and delayed disbursement of Free Day Secondary Education funds by the ministry of education.

The issue of finance is crucial to the provision of quality education since it determines the quality of physical facilities, teaching and learning materials, quality of teacher motivation and teachers employed at the time of shortage (Mobegi, Ondigi and Oburu, 2010).

Regarding the statement that we do not receive appropriate resources for my class from school was rejected by 62.9% of the class teachers and 42% of the class prefects. 3.8% of the class teachers and 12.5% of the class prefects were undecided. 33.3% of the class teachers and 45.5% of the class prefects supported the statement. From the results, majority of the teachers receive appropriate resources from the school while majority of the students do not receive appropriate resources from the school. This could mean that schools have few resources which are given to teachers only so that they could use them to prepare and teach. Doharly (1993) observes that the head teacher should ensure curriculum supervision and provision of adequate physical resources in order to support teaching and learning processes. Mobegi, Ondigi and Oburu (2010) studying secondary school head teachers' quality assurance strategies and challenges in Gucha district, Kenya concluded that use of methods such as class discussions and lecture methods suggest that much of the work was initiated and done by teachers since they could use the very few textbooks, to make notes and then discuss these with learners. Lewis (1984) also observes that a shortage of textbooks and teaching materials have harmful effects on satisfactory teaching in Mathematics and Sciences.

The statement that resources provided by the school support school goals were rejected by 19.2% of the class teachers and 22.8% of the class prefects. 2.2% of the class teachers and 12.2% of the class prefects were undecided. 78.6% of the class teachers and 65% of the class prefects support the statement. The results indicate that majority of the class teachers and class prefects agree that they use the received resources for teaching and learning. Principals influence student achievement through helping teachers

acquire necessary resources to support instruction (Heck, Larsen and Marcoulides, 1990).

My school brings in experts in certain areas to enhance our academic performance. This statement was supported by 65.1% of the class teachers and 60.7% of the class prefects. 3.3% of the class teachers and 18.7% of the class prefects were undecided. 31.7% of the class teachers and 20.6% of the class prefects refuted the statement. These results indicate that majority of the studied schools organize in-service training in their schools.

Schools promote professional development by using supervisors and colleagues to train teachers on instructional strategies, giving teachers' time for independent studies and using external sources such as college courses, district level workshops and consultants who are experts in a particular area (Duke, 1987). Instructional leaders become teachers of teachers by facilitating life long learning when promoting professional development.

Statement	Respon dents	SD		D		UD		A		SA		TOTAL	MEAN RATE	
		F	%	F	%	F	%	F	%	F	%			
Money is allocated each year for teachers and students to spend.	C.TRS	152	41.2	56	15.2	18	4.9	107	29.0	36	9.8	369	100	2.51
	C.PRE	54	14.6	74	20.1	56	5.2	105	28.5	80	21.7	369	100	3.22
We do not receive appropriate resources for my class from school	C.TRS	69	18.7	163	44.2	14	3.8	89	24.1	34	9.2	369	100	2.61
	C.PRE	78	21.1	77	20.9	46	12.5	111	30.1	57	15.4	369	100	2.70
Resources provided by the school support school goals	C.TRS	20	5.4	51	13.8	8	2.2	221	59.9	69	18.7	369	100	3.73
	C.PRE	32	8.7	52	14.1	45	12.2	133	36.0	107	29.0	369	100	3.62
My school brings in experts in certain areas to enhance our academic performance.	C.TRS	46	12.5	71	19.2	12	3.3	167	45.3	73	19.8	369	100	3.41
	C.PRE	37	10.0	39	10.6	69	18.7	102	27.6	122	33.1	369	100	3.63
My school encourages peer coaching	C.TRS	31	8.4	83	22.5	11	3.0	168	45.5	76	20.6	369	100	3.47
	C.PRE	66	17.9	48	13.0	64	7.3	112	30.4	79	21.4	369	100	3.24
My school organizes in-service training activities	C.TRS	33	8.9	47	12.7	14	3.8	162	43.9	113	30.6	369	100	3.75
	C.PRE	45	12.2	83	22.5	14	3.8	168	45.5	59	16.0	369	100	3.30
My school participates in professional development activities with teachers	C.TRS	62	16.8	73	19.8	10	2.7	143	38.8	81	22.0	369	100	3.30
	C.PRE	48	13.0	71	19.2	15	4.1	162	43.9	73	19.8	369	100	3.40
I have learnt new instructional practices from professional development opportunities	C.TRS	54	14.6	67	18.2	12	3.3	154	41.7	82	22.2	369	100	3.39

The response categories were: 1=strongly Disagree, 2 = Disagree, 3=Undecided, 4 = Agree and 5=strongly Agree.

Table 1: Analysis of views of respondents on schools' provision and management of teaching and learning resources

(Dipaola and Hoy, 2003). Dipaola and Hoy (2008) say that the purpose of professional development is to improve a teacher's ability to teach. Providing opportunities for growth and development through training and promotion may be a good motivator as many people like to grow in skills, capability and experience. Dessler (2001) found out that many people experience satisfaction when they believe that their future prospects are good. This view was also held by majority of the principals in the qualitative study when they said that teachers improved their quality of teaching after attending subject workshops.

The statement that my school encourages peer coaching is rejected by 30.9% of the class teachers and 30.9% of the class prefects, 3.0% of the class teachers and 17.3% of the class prefects were undecided and 66.1% of the class teachers and 51.8% of the class prefects supported the statement. The findings indicate that majority of the respondents agree that schools encourage peer coaching. Marlow and Minehira (2011) say that no matter how busy principals are, they must take time to support new teachers and pair them up with a competent and sympathetic veteran (experienced) teachers for mentorship. Peer coaching promotes team work and enhances orientation into a department and or school. Peer coaching is an aspect of the differentiated supervision theory by Glatthorn (1984) on which two or more teachers agree to work together for their own professional growth.

My school organizes in-service training activities was rejected by 21.6% of the class teachers, 3.8% of the class teachers were undecided and 74.5% of the class teachers supported the statement

The statement that my school provides monetary support for professional development was rejected by 34.7% of the class teachers, 3.8% of the class teachers were undecided, while 61.5% of the class teachers accepted the statement.

Regarding the statement that my school participates in professional development activities with teachers, 36.6% of the class teachers rejected it, 27% of the class teachers were undecided, while 60.8% of class teachers accepted it.

My school alerts me to college courses for professional development was rejected by 32.2% of the class teachers, 4.1% of the class teachers were undecided and 63.7% of the class teachers supported the statement.

Regarding the statement that I have learned new instructional practices from professional development opportunities, 32.8% of the class teachers rejected it, 3.3% of the class teachers were undecided, while 63.9% of the class teachers supported it.

The Chi-square results for the effects of the provision and management of resources influencing teaching and learning

	pm
Chi-Square	160.431 <sup>c</sup>
df	31
Asymp. Sig.	.000

Table 2: Chi-square results of for the class teachers' responses

	pm
Chi-Square	282.951 <sup>b</sup>
df	21
Asymp. Sig.	.000

Table 3: Chi-square results for the class prefects' responses

The study sought to determine the effect of provision and management of resources on teaching and learning in district secondary schools in Bungoma County. To accomplish this, Chi-square was used to test the effects of provision and management of resources on the quality of teaching and learning as expressed in terms of KCSE performance. The results of the analysis are summarized in table 2 and 3 for the class teachers and class prefects respectively to answer the null hypothesis that: there is no significant relationship between schools' provision and management of resources and teaching and learning.

Chi-square was used to test the effect of schools' provision and management of resources on teaching and learning. The results of the analysis summarized in table 2 and 3 indicate that there was significant relationship between schools' provision and management of resources and teaching and learning at  $P=0.000 < 0.05$ . The study therefore rejected the null hypothesis and concluded schools' provision and management resource has significant effect on teaching and learning. Doharly (1993) observes that the head teachers should ensure quality curriculum supervision and provision of adequate physical resources. Eshiwani (1983) and Mwiria (1985) assert that availability of classrooms, desks, laboratories, workshops and library affected the quality and quality of teaching and learning in schools. They note that schools with adequate facilities such as laboratories stood a better chance of performing better in examinations than poorly equipped schools. In a research done on teaching and learning resources and academic performance in Bondo district, Yara (2010) concludes that there was a positive correlation between teaching and learning resources and performance in mathematics.

Principals interviewed in the qualitative study indicated that candidates acquired various techniques of revising for and answering of examination questions from examiners who had visited their schools. The sampled principals also said that teaching and learning resources commonly issued to students were textbooks (course and reference books) which they use for making notes, doing given assignments and group discussions. Textbooks enable the pupils to follow the teachers' sequence of presentation and aids in understanding of lessons (Ubogu 2004). Mwiria (1985) suggests that students' performance is affected by the quality and quantity of teaching and learning resources.

He notes that schools with adequate facilities such as laboratories stood a better chance of performing better in examinations than poorly equipped schools.

On the other hand, interviewed principals said the following on provision and management of resources:

QUESTION 13: WHAT TYPES OF SUPPORT DO TEACHERS IN YOUR SCHOOL RECEIVE?

All the principals said that they support their teachers in various ways. The types of support teachers got in various

schools included welfare free meals, financial assistance in form of imp rest and payments for accommodation/remedial teaching, professional training, moral support, provision of instructional materials, guiding and counselling.

The sources of the above named support were: The school, parents, Ministry of Education Science and Technology, and publishing houses such as Oxford, Moran, Kenya Literature Bureau (KLB), Jomo Kenyatta Foundation, and Macmillan. According to these principals, the support provided for teachers had the following effects on what teachers did in the classrooms.

Free Meals provided the energy needed to teach, kept teachers in school and therefore went to class and promoted staff unity. One principal had remarked that free meals had made teachers to come for early morning lessons and leave school late after evening remedial which had led to early coverage of the syllabus.

Financial assistance to teachers was in form of imp rests and payment for remedial lessons. Financial assistance enabled teachers to meet some of their financial obligations and settle in school to teach. Teachers are motivated to teach and be in school. Teachers' absenteeism reduces because teachers do not go out to look for money. Payment for remedial teaching encourages competition for teaching hours.

Provision of accommodation is a source of shelter, saves on teachers housing allowance and keeps teachers within the school compound.

Professional training perfects the skill of teaching. Teachers become informed of the current educational issues and enhance their chances of promotion. One principal mentioned that a teacher for English in her school improved on setting and marking of examinations after training as an examiner and attending subject workshop. Majority of the principals also commended that training improved content delivery and acts as a motivator and creates confidence. Providing opportunities for growth and development through training and promotion may be a good motivator as many people like to grow in skills, capability and experience (Dessler, 2001). Four other principals stated that promoting professional development influenced teachers to change their instructional practices. They did this by sending teachers to workshops, organizing in-house staff development opportunities, and bringing in guest speakers to address on instructional strategies. One principal stated:

"The third thing we have done is differentiated instruction. We are sponsoring a lot of professional development and allowing teachers to go to workshops to learn about different ways to reach all students instead of just teaching a few."

Training therefore inspires teachers to implement new strategies acquired Moral support and guiding and counseling according to the sampled principals, creates a sense of belonging and a solution to some issues especially when teachers, parents and students stand with a member of staff who is facing some challenge. Guiding and counseling prevents teachers from getting involved in professional misconduct. These principals said that teachers become serious with their work, own the school and are part of the system.

Principals provided teachers with technology and materials. Materials were sources of content and means of teaching. Teachers used instructional materials to prepare and present subject content and give assignments to students. Specifically, materials were used to prepare lessons, schemes of work, prepare lesson notes, revise covered work and conduct science practical. The principals observed that instructional materials enabled teachers and students to read widely, research widely and consult others, cover the syllabus and be current and updated. One principal said that ICT had been integrated in their teaching to make teaching and learning more effective and efficient. ICT instructional materials made evaluation faster and easier especially the use of computer and photo printer.

#### QUESTION 14: TELL ME ABOUT PROFESSIONAL DEVELOPMENT IN YOUR SCHOOL.

All the principals said that professional development existed in their schools. Training opportunities available to teachers were subject workshops, seminars for guiding and counseling and director of studies, SMASSE Training for science and mathematics teachers, management courses for principals and deputies, conferences for principals, KNEC Training and further education for teachers at colleges and universities. Workshops and seminars were organized by the Ministry of Education and publishing companies such as Oxford University Press, Moran Publishers, Jomo Kenyatta Foundation, Longhorn Kenya, Kenya Literature Bureau (KLB), and National Educational Services (NES). SMASSE Training was provided by the government of Kenya in conjunction with the government of Japan (JICA), management course for deputies and principals was organized by Kenya Educational Management Institute (KEMI), conferences for principals was organized by the National Secondary Schools Heads Association, KCSE marking examiners was organized by the Kenya National Examinations Council, (KNEC) while individual teachers at their own cost joined colleges and universities to pursue diplomas and degrees.

Teachers implemented ideas from these trainings in the following ways: the ASEI (Activity Student Experiment and Improve) and PDSI (Plan Do See and Improve) lesson study technique in SMASSE has been used in teaching sciences and mathematics where teachers observe each other in class and meet after the lesson to discuss the observation, seminars and workshops especially in languages has increased teachers' use of life shows for set books using CDs and hand outs obtained at the meetings, KNEC Training made teachers t set and mark standardized examinations using KNEC syllabus and format. Teachers have become examiners in their subjects, teachers have improvised materials and apparatus in science practical, active and supervised class discussion groups have been formed, Teachers have impressed centered approach of teaching and have improved on their master and delivery of subject content, starting active projects and clubs, for example Young Farmers Club from knowledge acquired in Agricultural shows and seminars, use of ICT in teaching and learning, formation of families between teachers and students by the guiding and counseling department, increased sharing of

experiences among teachers, organization and control of classrooms has improved, director of studies seminar created efficiency in drawing up academic calendar, department of guiding and counseling started inviting guest speakers and implementation of remedial teaching to especially slow learners

Training of teachers has therefore assisted them to acquire new and improved skills and knowledge of teaching. As Lineburg (2010) observes, professional development influences teachers to change their instructional practices.

#### QUESTION 15: WHAT ARE THE MAJOR RESOURCES PROVIDED TO TEACHERS IN YOUR SCHOOL TO SUPPORT INSTRUCTION?

From the collected data, all principals said that the major resources provided to teachers were: Text books, stationery, laboratory chemicals and apparatus and teaching aids. Few of the principals said that they had fully integrated ICT in teaching and learning. The main providers of resources according to the collected data were parents through payment of fees, government through subsidized day secondary education fund and constituency development Fund (CDF). A few of the principals reported that they acquired computers and text books from KAMARA Educational Centre, Korean government and UNICEF.

Text books according to the principals are key resources for instruction. They have led to the formation of active group discussions, setting and marking of examinations, students reading of text books, obtaining of syllabus content, assignments being given to students, prepare lesson notes, prepare schemes of work and peer teaching.

Science chemicals and apparatus are used to conduct practicals in science subjects to impart practical skills into the learners. Chemicals and laboratory equipments are also used as teaching aids, enable teachers to organize science congress and symposium.

Teaching aids and models reinforce teaching and learning. One principal commented that a classroom provided with teaching aids becomes a conducive physical environment which boosts teaching morale. This principal added that teaching aids simplified the content, illustrate ideas and concepts and capture students' attention.

Stationery materials such as exercise books, paper and pens are used to prepare lesson notes and administer examinations and assignments.

ICT is another resource that has gathered a lot of momentum in assisting teaching and learning. The few principals who said had fully integrated ICT in their teaching and learning said that ICT had the following advantages: boosted classroom communication by use of projectors and slides, enabled conduct of computer lessons, download of new ideas from the internet and present in class, make lessons lively and attractive to learners, enhance keeping records about school performance and students, is an audio visual learning aid that appeals to several senses, thus enhancing the level of students understanding the presented content, photo printers are faster and efficient in producing lesson notes, revision materials and examinations, it produces clear and quality work with minimal wastage of materials and

production of animations in biology made teaching learner friendly.

The principals interviewed in the sample schools said that the following resources affected what teachers did in class and what students learned as follows: Text books led to formation of group discussions, giving take away assignments, setting and marking of examinations, students reading texts in class, syllabus content was obtained from text books, preparation of lesson notes, preparation of schemes of work, sequential presentation of content, peer teaching, illustrations and drawing of diagrams.

ICT according to the principals has made teachers to quickly photo print lesson notes and examinations, download content from internet, teach using projectors and slides, use animations instead of life specimens, conduct computer lessons, teachers generate and maintain records about students and school's academic performance and quick analysis of academic work.

#### IV. SUMMARY AND CONCLUSIONS

The significance of Chi-square results indicated that resources positively influenced teaching and learning. It is therefore concluded that its inadequate provision and management is contributing to the poor performance of most district secondary schools in KCSE.

#### V. RECOMMENDATIONS

MoE to increase educational funding to enhance provision and management of teaching and learning resources.

MoE to improve on induction of teachers on more effective managerial skills.

ICT to be embraced in all schools' administration to enhance teachers communication skills.

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