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## Physical Determinants of Educational Resources Management for Enhancing Students' Performance in Secondary Schools in Vihiga County, Kenya

Caroline Ayoti\*

Kisii University College P.O Box 408 – 40200, Kisii, Kenya

Grace Koteng

Kisii University College P.O Box 408 – 40200, Kisii, Kenya

Raphael Ongunya Odhiambo

Masinde Muliro University of Science and Technology P.O Box 190 – 50100, Kakamega, Kenya

**Abstract:** Resource utilization is an integral part of the overall management of the school. Education in a school is explored by provision of resources, their maximum utilization and management. Proper management of resources enhances students' performance and achieves the educational objectives. The success or failure of any organization, business or enterprise depends highly on proper management of human and material resources. The purpose of this study was to establish the physical determinants of management of educational resources for enhancing students' performance in secondary schools in Vihiga County. The specific objective was to establish the physical determinants of educational resources management and their influence on students' performance in secondary schools in Vihiga County. A descriptive survey design was adopted. The sample size composed of principles, teachers, students and County Quality Assurance and Standards Officers. Simple random sampling method, saturated sampling technique and purposive sampling method were used to select samples. Questionnaires, in-depth interview guides, observation schedules and document analysis were used to collect data. Reliability of instruments was explored in the pilot study conducted in 3 secondary schools. Results of reliability of the instruments were assessed using Pearson's product moment correlation coefficient test. Face validity was established by availing instruments to supervisors. Qualitative data from interviews was transcribed and reported according to emerging themes, categories and sub-categories while quantitative data was analyzed using descriptive statistics such as frequency counts and percentages. Pearson's product moment correlation coefficient was used to establish relationships between variables. Findings of the study revealed that the physical determinants of educational resources management were availability and adequacy of the resources. From the study, it is recommended that the government provides adequate educational resources in schools to enhance good performance of learners in exams.

**Keywords:** Educational resources; Management of educational resources; Students' performance.

### 1. Introduction

The primary purpose of education is to bring about desirable change in behavior through acquisition of skills, attitudes, competencies, critical and creative thinking. Teaching is a complex and demanding task that requires highly specialized skills, knowledge and resources to impact significantly on student learning. Availability and utilization of resources in an organization is important in achievement of its goals and objectives. Students learning outcome is influenced by appropriate management of school resources. Investing in educational resources is the key to ensuring that schools become institutions where students work together, learn from each other and benefit from a supportive school environment, and consequently maximize student learning so that all students achieve their full learning potential (Mugure, 2012).

According to Neill (2001) student learning outcomes in schools is largely dependent on availability and appropriate management of resources, because the students acquire skills using these resources. These resources include physical facilities such as spacious and well ventilated classrooms, adequately equipped laboratories and technical workshops, well-stocked libraries, assembly halls, recreational ground, farm land, gymnasias, health centers, counseling rooms, staff offices and conveniently placed urinals and latrines. The material resources are made up of items of furniture, laboratory materials (consumable and non consumable), motor vehicles, instructional tools, books and other stationery items as well as utilities such as electric power, gas and water in the schools. These

facilities play a pivotal role in the actualization of the educational goals and objectives by satisfying the physical and emotional needs of the staff and students. Categorizes educational resources as Human and Non-Human Resources. According to him Non-Human Resources can be grouped into three as follows: Funds which are required to acquire other resources, Physical Facilities; and Play grounds. Buildings, furniture and equipment are a highly visible aspect of the school for anyone who visits the school and it can create an immediate good or bad impression.

Hoop (2010) notes that education in most Sub-Saharan countries faces chronic shortages in physical and human resources. According to him, rather than distributing the limited resources available for secondary education uniformly across schools, many governments allocate a relatively large share of available resources to selected number of secondary schools. Similarly, findings by Mudulia (2012) in his study on provision of textbooks and physical resources in secondary schools observes that urban secondary schools have better textbook supplies and physical facilities than those in the rural areas. Mayama (2012) and Lumuli (2009) reported that lack of basic facilities like laboratories has compromised the teaching of science subjects. Topics that are meant to be taught practically are taught theoretically as part of adaptive mechanism by teachers due to inadequate resources to enable effective teaching of the same. This ends up affecting negatively students' performance reducing their competitiveness for opportunities whose placement is pegged on performance in such subjects. Reid and Stahi (2007) report the fact that laboratories are a necessity in school. They observed that one of the main objectives of teaching biology and chemistry is to enhance keen observation for identification of living things and the development of skills to handle chemicals respectively. Further, they noted that it is necessary for students to handle laboratory equipments regularly and adequate time should be given to students to learn the technique of using equipment and developing skills for practical activities. UNCST (2007) noted that practical experiments have been observed to be central to the teaching of science in that they help develop scientific investigation and motivates, creates curiosity, objectivity and willingness to evaluate evidence the reason why in availability and utilization of laboratories cannot be over emphasized.. Montagnes (2001) investigated the relationship between availability of textbooks and other learning materials on academic achievement. The findings indicated that classes with classroom libraries outperformed control school counterparts. Children whose schools lacked classroom materials and had an inadequate library were significantly more likely to show lower test scores and higher grade repetition than those whose schools were well-equipped (Wilms, 2000). Digolo (2012) investigated the availability and use of teaching and learning resources for music education in secondary schools. The study was necessitated by an urge to carry out an in depth investigation on the state of teaching and learning equipment and facilities in the schools in order to establish the limitations that hinder their acquisition and utilization. The study revealed that essential teaching and learning resources for music education were either inadequate or not available at all in most of the secondary schools. The insufficiency of the resources was established to be a serious drawback to students' learning and achievement. Lack of competence among some music teachers hindered proper utilization of the instructional resources. Physical materials in terms of adequacy and quality have a great impact on performance of students in the examination (Heyneymann *et al.*, 2000). A school that has adequate instructional materials is likely to post better quality grades than a school which has poor quality physical resources. A school with inadequate classrooms will be forced to accommodate more students than recommended. This will exert a lot of pressure on resources such as teachers who may compromise their methodology as part of adaptive mechanism (Nafukho, 1991). Ambuko and Odera (2013) did an investigation into the selection and use of instructional resources in teaching Kiswahili Language in secondary schools in Emuhaya, Kakamega County in Kenya. The findings showed that there was inadequate provision of instructional media in schools from which teachers could select for teaching Kiswahili. It also revealed a low frequency use of the few available instructional media during Kiswahili teaching. Resource availability and utilization is an integral part of the overall management of the school. Education in a school is explored by provision of resources, their maximum utilization and management. Advances in science and technology necessitates that the school manager adopts proper methods of facilities management in order to improve the quality of teaching and learning. A direct relationship exists between the quality of school facilities, teaching and learning materials, teaching personnel and the education process. Effective management of resources yields good result.

Prior to the introduction of CDF( Community Development Fund) in 2003 and subsidized secondary education in 2008 among other government interventions, educational resources in Kenya were provided through the cost sharing policy officially launched in 1988. The policy contributed to the burden of providing both physical and material resources passed on to parents and guardians. However according to Kippra (2003) the cost sharing policy led to disparities in the availability of physical and material resources in secondary schools because of the poverty levels among households and the dwindling economy. Therefore, with the current Government initiatives, one expects that there are adequate educational resources in secondary schools and they are being managed effectively to enhance students' performance. There has been downward trend in performance in Kenya Certificate of Secondary Examination in Vihiga County.

The average mean scores were very low. This is an indicator that many schools performed dismally in K.C.S.E. This poor performance has been attributed to inadequate number of teachers, inadequate syllabus coverage and high enrolment of students. However, the aspect on appropriate management of educational resources has not been considered with the magnitude it deserves yet it forms a basis for healthy learning. Academic performance of Vihiga County is below average and therefore it shows that poor management of educational resources may be influencing the academic performance of the students. This study therefore seeks to establish the determinants of educational resources management for enhancing performance in secondary schools in Vihiga County.

## 2. Methodology

The current study was guided by Dale’s cone of Experience (Dale, 1967), System Resource Theory on Organizational Effectiveness (Yutchman and Seashore, 1967) and reviewed literature. Dale (1967) in his cone of experience made a diagrammatic presentation that shows the importance of using resources in teaching. The study adopted the descriptive survey research design. It was conducted in public secondary schools in Vihiga County. The study population included 112 heads teacher from 112 secondary schools in Vihiga county, 1,120 teachers, 4,480 form four Secondary School students and 9 Quality Assurance and Standards Officers. 1344 Form IV students were sampled using stratified sampling method. 34 heads teacher were sampled by purposive sampling method while simple random sampling technique was used to select 336 teachers. Saturated sampling technique was used to sample 9 County Quality Assurance and Standards Officers (CQASOs). Data was gathered through questionnaires, in-depth interview guide, document analysis and observation schedules. The validity of instruments in the research was ensured by preparing items in the instruments that cover each of the study objectives and by seeking supervisors’ opinions to asses content validity while test-retest method of establishing reliability was used to explore the reliability. The correlation co-efficient of responses were 0.86 and 0.84 for teachers’ and students’ questionnaires respectively. Quantitative data was analyzed using descriptive statistics such as frequency counts, percentages and means. Pearson’s Product moment Correlation was used to establish the relationship between determinants of educational resources and students’ performance in secondary schools. A likert type of scale was used to explore levels of influence by use of mean ratings.

## 3. Results and Discussion

Data was collected on frequency of use of instructional media resources in secondary schools in Vihiga County. The results are illustrated in table 1.

**Table-1.** Instructional Media Resources used in Secondary Schools in Vihiga County

S/N	Media Resources	Students			Teachers		
		Frequency (f)	Percentage (%)	Mean (x)	Frequency (f)	Percentage (%)	Mean (x)
1.	Chalkboard and piece of chalk	1319	98.1	50.5	318	94.6	64.1
2.	Text books	1254	93.3	43.1	314	93.5	59.4
3.	English and Kiswahili set books	1238	92.1	40.5	298	88.7	43.5
4.	Charts	1070	79.6	37.6	318	94.6	20.3
5.	Newspapers	913	67.9	22.9	279	83.0	49.0
6.	Students’ Guide books	877	65.3	16.3	248	73.8	38.5
7.	Real things	831	61.8	18.1	248	73.8	12.7
8.	Magazines	746	55.5	9.8	205	61	4.9
9.	Computer	641	47.7	15.0	164	48.8	38.2
10.	Television	579	43.1	19.5	144	42.9	44.1
11.	Still pictures	435	32.4	27.7	125	37.2	24.5
12.	Posters	408	30.4	20.5	142	42.3	10.3
13.	Projectors	405	30.1	8.6	126	37.5	8.4
14.	Models	330	24.6	2.0	173	51.5	1.6
15.	Record players	268	19.9	16.2	81	24.1	0.8
16.	Filmstrips	217	16.1	3.8	25	7.4	0.3
17.	Radio	217	16.1	7.9	63	18.8	8.4
18.	Cartoons	209	15.6	1.4	15	4.5	0.6
19.	Internet	161	12.0	4.6	89	26.5	37.7
20.	Microfilms	134	10.0	1.1	12	3.6	0.5
21.	Diorama	58	4.3	0.6	10	3.0	0.1
22.	Puppetry	54	4.0	1.8	14	4.2	0.2

Results in table 1 indicate that chalkboard and piece of chalk were the leading instructional media used in schools as illustrated by respondents (98.1% of students and 94.6% of teachers), followed by text books according to 93.3% of students and 93.5% of teachers. In terms of mean calculated by ratio of coded likert scales and the number of respondents, use of chalkboard and pieces of chalk was still leading with a mean of 50.5% according to students and 64.1% according to teachers. This was followed by use of text books according to 43.1% of students’ responses and 59.4% of teachers’ responses. Diorama was identified not to be commonly used in schools since it had a mean of 0.6% for students’ responses and 0.1% for teachers’ responses. A few teachers and students reported to have interacted less with puppetry, microfilms, internet and cartoons. Other instructional media resources such as charts, newspapers, realia, magazines, computers, TVs and still pictures were also reported to have been used. From these

results, all schools had interacted at least with specific instructional media resources. The findings of the present study concur with those of Omiko (2011) who reports that the instructional resources commonly used in schools include textbooks, set books, teachers' guides, reference books, models, charts, calculators, computers and internet, Chalkboard, Stationery, Realia, Charts and Maps, Laboratory apparatus and materials, Resource persons, Televisions, Newspapers and Magazines, Radios, video among others.

The results obtained in this study on frequency of use of these instructional resources concur with those of Nicholls (2000) who reports that the use of instructional media is essential to support learning which cannot be easily expressed without the support of graphics, video and pictures. They help the teacher to make a lesson much clearer to the learner. To make the teaching learning process interesting, the teacher has to use instructional resources. Availability of instructional materials (class resources, chalk, wall charts and writing board) provides motivational conditions for learning hence predict academic achievements. The respondents were also asked to respond on availability of physical facilities in their schools. The following are results of the respondents as illustrated in table 2.

Table-2. Physical Facilities that are Available in Secondary Schools

S/N	Physical facilities	Students			Teachers		
		Frequency (f)	Percentage (%)	Mean (x)	Frequency (f)	Percentage (%)	Mean (x)
1.	Chairs	1319	98.1	56.7	318	94.6	71.3
2.	Tables	1261	93.8	40.3	318	94.6	39.2
3.	Lockers	1252	93.2	41.9	313	93.2	38.0
4.	Teachers' desks	1229	91.4	50.4	318	94.6	47.3
5.	Book shelves	1065	79.2	19.9	229	68.2	15.8
6.	Class rooms	1312	97.6	65.1	310	92.3	71.8
7.	Principal's office	1304	97.6	82.5	309	92.0	76.1
8.	Deputy principal's office	1312	97.0	52.2	299	88.9	47.8
9.	Secretary's office	1302	96.9	45.6	308	91.6	35.2
10.	Accounts clerk's office	1296	96.4	37.5	312	92.9	32.6
11.	Copy typist's office	960	71.4	19.5	200	59.5	15.7
12.	HoDs' office	992	73.8	9.7	218	64.9	7.9
13.	Guiding and counseling rooms	945	70.3	34.5	224	66.7	28.4
14.	Laboratories	1290	96.0	23.6	311	92.5	20.5
15.	Libraries	1290	96.0	17.7	306	91.1	16.8
16.	Computer rooms	887	66.0	16.9	201	59.8	15.6
17.	Football pitch	1236	92.0	42.6	312	92.9	35.8
18.	Volleyball pitch	1195	88.9	20.1	293	87.2	16.2
19.	Netball pitch	975	72.5	21.0	267	79.5	16.7
20.	Basketball pitch	402	29.9	14.3	95	28.3	10.5
21.	Toilets/latrines	1319	98.1	56.7	318	94.6	71.3

Results in table 2 indicate that 97.6% of teachers identified tables and chairs to be the most common facilities in schools. Teachers' desks were ranked third by 94.6% of teachers while 98.1% of students identified chairs as the most common facility. However, it was noted from observation check list that these facilities were not adequate enough. It was observed that physical resources such as tables, chairs lockers, desks and bookshelves were available in most schools but inadequate. These results are similar to those observed in other studies. For instance, in the Fiji islands, school furniture is reported to be poor and inadequate to the extent that in some schools furniture shortage is acute and students have to sit on the floor (Lingam and Lingam, 2013). Hoop (2010) notes that education in most Sub-Saharan countries faces persistent shortages in physical and human resources. According to him, many governments allocate a relatively large share of available resources to a selected number of secondary schools. 97.6% of students and 92.3% of teachers reported that classrooms were available but not adequate enough. This is also illustrated by results from tabulated means which indicate that availability of classrooms is at 65.1% according to students' responses and 71.8% for teachers' responses. It means that the available classrooms could not accommodate learners sufficiently. 16.9% of students and 16.3% teachers respectively supported the fact that lessons were conducted under trees because of inadequate classrooms. 60% of the head teachers who were interviewed reported that scrambling for rooms was a common practice among teachers, especially those who taught elective subjects. One of the head teachers who were interviewed said:

*In my schools some lessons are not attended to as required due to inadequate space. Such lessons are attended to during preps time. This therefore calls for sacrifice by teachers, so that they have to be found in school very early in the morning or late in the evening. In fact some lessons are attended to later on in the course of the term and this contributes to lagging behind in terms of syllabus coverage.*

In support of this, results from observation schedules recorded by the researcher indicated that 100% of all schools visited had classrooms though 75% of them were smaller because they were congested. In fact classrooms

accommodated between 60 and 90 students yet the required capacity is a maximum of 30 learners in one-seater desks or 40 learners in two-seater desks in line with the provisions of the Ministry of Education circular on Health and Safety Standards.

Findings of the study as illustrated in appendix H indicate that 56.8% of students and 67.9% of teachers supported the fact that schools did not have enough laboratories. This is likely to have contributed to poor results in practical oriented subjects hence lowering the schools' mean scores. Most schools reported that the available laboratories were not sufficient to cater for their needs. This is because, instead of them having several laboratories for all practical oriented subjects, they had one or two laboratories for all subjects. These findings concur with those of [Mayama \(2012\)](#) and [Lumuli \(2009\)](#) who observe that lack of basic facilities like laboratories has compromised the teaching of science subjects. Topics that are meant to be taught practically are taught theoretically as part of adaptive mechanism by teachers due to inadequate resources to enable effective teaching of the same. This ends up affecting negatively students' performance reducing their competitiveness for opportunities whose placement is pegged on performance in such subjects. [Reid and Stahi \(2007\)](#) support the fact that adequate laboratories are necessary in schools because one of the main objectives of teaching biology and chemistry is to enhance keen observation for identification of living things and the development of skills to handle chemicals respectively. Further, they note that it is necessary for students to handle laboratory equipments regularly and adequate time should be given to students to learn the technique of using equipment and developing skills for practical activities. [UNCST \(2007\)](#) asserts that practical experiments have been observed to be central to the teaching of science in that they help develop scientific investigation and motivates, creates curiosity, objectivity and willingness to evaluate evidence the reason why availability and utilization of laboratories cannot be over emphasized. Similar views are echoed by [Owolabi and Oginni \(2012\)](#) who observe that one of the activities in science is experimentation because it provides a forum for practicing the theoretical knowledge gained in the classroom and for demonstrating the psychomotor skills of a teacher and learner, thus reinforcing the fact that students' engaging in laboratory equipment and processes is key to achieving the learning objectives. Students who are not engaged in the laboratory equipment see science as abstract and irrelevant ([Owolabi and Oginni, 2012](#)).

Most schools were reported to be having libraries as reported by 96.0% of students and 91.1% of teachers. Unfortunately, they were not well stocked. There was serious shortage of textbooks and other library materials. Learners therefore dependent on information given to them by teachers. They were not able to do adequate research on their own. Doing assignments on time was a nightmare because of shortage of text books. Schools with classroom libraries outperformed those without ([Montagnes, 2001](#)).

The results illustrated in table 9 indicate that 28.9% of students and 28.3% of teachers reported that basket ball pitches were available while 72.5% of students and 79.5% of teachers acknowledged the availability of netball pitches. Availability of football pitches was acknowledged by 92.0% of student and 92.9% of teachers while netball pitch was acknowledged by 88.9% of students and 87.2% of teachers. This suggests that sports facilities were not available in some schools in Vihiga County. Responses from the likert scale as illustrated in appendix H indicate that 35.4% of students and 18.9% of teachers supported the fact that co-curricular activities were rarely conducted due to inadequate playgrounds. Some schools that lacked playgrounds reported to attend to co-curricular activities using playgrounds in their neighborhood. Therefore, some schools collaborated with others to enable them access playgrounds. Actually, availability of functional sports facility or resources would result in significant sports and physical activity participation among students. Also, participation in sports increases students' social capital which helps them improve their grades more than their test scores; it helps 'build character' which has a direct impact on the students' academic achievement, boosts students' achievement in the classroom and on standardized mathematics tests ([Broh, 2002](#)). Therefore students should be provided with playgrounds for them to participate in sports activities.

Results in appendix H illustrate that 50.8% of students and 50.3% of teachers agreed with the statement that storage rooms for manual work tools and farm tools were not available while 62.2% of students and 45.6% of teachers supported the fact that storage rooms for instructional media resources were not available. Most of the interviewed head teachers (67%) reported that as much as teachers struggled to prepare and use instructional media resources, after the lesson they were either left lying in the classroom or they were folded and kept in a corner in the staffroom. This killed morale such that teachers were not motivated to prepare them again for use during the next lesson.

It is also worth noting that the worst mean recorded was for HoDs' offices at 9.7% for students' responses and 7.9% for teachers' responses. This indicates that very few schools had offices for Heads of department. It was reported by head teachers that most of Heads of department did their operations from staff room. Other facilities that were reported to be available but inadequate in schools included: deputy principal's office; computer rooms and stores; secretary's office, copy typist's office and Accounts clerk's office, Guiding and counseling rooms. It was noted that only 17.6% of students and 11.8% of teachers agreed with the statement that some forms of educational resources could not be used because of lack of electricity. This means that most schools had electricity. They only had a challenge of going about the high bills as reported by 52% of head teachers. Unfortunately, 45% of students and 32.1% of teachers supported the fact that frequent blackouts interfered with the use of electronic educational resources during lessons. Teachers preferred using educational resources that did not need electricity because they did not like interferences caused by blackouts. 36.6% of students and 22% of teachers reported that schools had installed lightening arrestors to ensure safety of educational resources. This means that very few schools took

precaution against accidents caused by lightning. Therefore most schools were prone to damages caused by lightning. 43.4% of students and 48.2% of teachers agreed that all rooms were protected with leak proof therefore educational resources could not be destroyed by water. 33.2% of students and 33.3% of teachers reported that doors were burglar proof therefore educational resources could not be stolen. This indicates that security wise, most schools were at risk because they had not put in place correct measures to ensure security of educational resources. The management of the available resources is still not the best. There is need for proper management of resources in order to enhance teaching and learning. According to Clifford (2006), Facilities and instructional materials are not adequately maintained. He says some administrators prefer building new classroom instead of maintaining the old ones, laboratories and their equipment are allowed to waste, text books and other instructional materials are allowed to rot away in the cartons instead of displaying them on the shelves for easy retrieval and usage. The management and utilization of these teaching resources are not encouraging. There is need to re-dress the situation for effective learning to take place. No matter how good the teachers are and no matter how abundant the facilities are provided and regardless of how well education is funded, not much were achieved unless there are good educational resource managers. In order to determine whether physical determinants for educational resources management had any effect on students' performance in secondary schools in Vihiga County, the study set out the following hypothesis;

*H<sub>01</sub>: There is no significant relationship between physical determinants for educational resources management and students' performance in secondary Schools in Vihiga County.*

A Pearson Product Moment Correlation was run to test the hypothesis at an alpha level of 0.05, for responses given by both students and teachers. The responses which were scored and rated included availability and adequacy of the following facilities: classrooms, toilets, furniture – tables, chairs and lockers, laboratories, and libraries. These facilities were chosen because they are so crucial that schools cannot do without them. Their scores were run against the average mean scores of results obtained in the years 2012, 2013 and 2014 for each and every school under study. The results obtained were computed in a tabular form as indicated in tables 3 and 4.

**Table-3.** Correlations for Physical Determinants of Educational Resources Management and Students' Performance – Students' responses (n = 1319)

Correlations			
1.Physical Determinants of Educational Resources Management	Pearson Correlation	1	1.Students' Performance
	Sig. (2-tailed)		.062*
	N	1319	1319
2.Students' Performance	Pearson Correlation	.062*	1
	Sig. (2-tailed)	.024	
	N	1319	1319

\*. Correlation is significant at the 0.05

Students' data in table 3 shows that there was a positive correlation between the physical determinants of educational resources management and students' performance (r = 0.062, n = 1319 and p = 0.05). Since the p value is 0.024 at two tailed level of significance, this value is less than the alpha level of 0.05 and it is therefore suggested that the relationship is statistically significant.

The study also computed correlation between physical determinants of educational resources management and students' performance for responses given by teachers. Results are illustrated in table 4.

**Table-4.** Correlations for Physical Determinants of Educational Resources Management and Students' Performance – Teachers' responses (n = 318)

Correlations			
1.Physical Determinants of Educational Resources Management	Pearson Correlation	1	1.Students' Performance
	Sig. (2-tailed)		.071*
	N	318	318
2.Students' Performance	Pearson Correlation	.071*	1
	Sig. (2-tailed)	.019	
	N	318	318

Correlations			
1.Physical Determinants of Educational Resources Management		1.Physical Determinants of Educational Resources Management	1.Students' Performance
	Pearson Correlation	1	.071*
	Sig. (2-tailed)		.019
	N	318	318
2.Students' Performance			
	Pearson Correlation	.071*	1
	Sig. (2-tailed)	.019	
	N	318	318

\*. Correlation is significant at the 0.05

Similarly, teachers' data in table 4 shows that there was a positive correlation between the physical determinants of educational resources management and students' performance ( $r = 0.071$ ,  $n = 318$  and  $p = 0.05$ ). Since the p value is 0.019 at two tailed level of significance, this value is less than the alpha level of 0.05, it is therefore suggested that the relationship is statistically significant. The null hypothesis is rejected since there is a positive relationship between the physical determinants of educational resources management and students' performance in K.C.S. E exams. This indicates that if educational resources are available and adequate enough, then students will achieve high scores in K.C.S.E exams and the school's mean score will be high. In this case, most of the educational resources were not adequate enough; therefore schools in Vihiga County posted very poor results with mean scores of 5.01 in 2012, 5.31 in 2013 and 5.46 in 2014 as illustrated in table 1(pg 12). These findings concur with those of Heyneymann *et al.* (2000) who observe that physical materials in terms of adequacy and quality have a great impact on performance of students in the examination..

#### 4. Conclusions

From the findings of the study it is concluded that availability and adequacy of educational resources are the physical determinants of educational resources management in schools. They have an influence on academic achievement of students.The study recommended that the government should provide adequate physical structures such classrooms, libraries and laboratories to all secondary schools to enhance teaching and learning processes; and the management of the available resources is still not the best. There is need for proper management of resources in order to enhance teaching and learning.

#### List of Acronyms

<b>EFA</b>	Education for All
<b>KCSE</b>	Kenya Certificate of Secondary Examination
<b>MOE</b>	Ministry of Education
<b>PTA</b>	Parent-Teacher Association
<b>PPMCC</b>	Pearson's product moment correlation coefficient
<b>CQASO</b>	County Quality Assurance and Standards Officer
<b>SMASSE</b>	Science and Mathematics in Secondary School Education

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