Influence of teaching and learning materials availability on the development of pupils in upper primary schools in Karunga Zone, Gilgil Sub County

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ABSTRACT

It is through education where a foundation for growth, groundwork on which most of our social and economic well-being is developed. This study sought to establish the influence of teaching and learning materials available on the development of pupils in upper primary schools in Karunga Zone, Gilgil Sub County. Teaching and learning materials are devices and aids through which learning and teaching are done in schools. The study was anchored on the Theory of Instruction and adopted the descriptive research design. The target population was 587 teachers of primary schools in Karunga zone, Gilgil Sub County from which a sample of 100 teachers were selected using the stratified random sampling method. Data was collected using questionnaires and analyzed through descriptive and inferential statistics. Results showed that teaching and learning materials availability (r = .652, p .000; β = .751, p .000) has a positive and statistically significant influence on the development of pupils in upper primary. Based on this finding, the study recommends that the government of Kenya through the Ministry of Education Science and Technology should improve the availability of teaching and learning resources in public primary schools in order to promote optimal development of pupils.

Introduction

Child development is the growth in a pupil’s cognitive, social, linguistic and physical skills (Bartolotta & Shulman, 2018). The foundation for child development is provided through education, ground work where most of our cognitive, social, motor, linguistic, and emotional skills are built. Generally, it raises the intellectual flexibility of an individual leading to the creation of a productive and all-rounded adult. It assists in ensuring that a nation is competitive in a world market characterized by production methods and changing technologies (Adalikwu & Iorkpilgh, 2013). Development can take place as a result of newly obtained facts, perception, principles, understanding, as well as new information. Development can be reinforced with instructional materials of various types since they motivate, stimulate and arrest the attention of the learner.

Teaching and learning materials are learning devices and aids via which learning and teaching are carried out in school (Machaba, 2013). They are tools used during learning activities, which consist of vigorous learning and measurement including every resource as well as any means a teacher employs for implementation of instructions and provide learners attainment of learning objectives. They help a learner in concretizing an experience in learning in order to make learning more interactive, enthusing and exciting. Examples include audio aids, visual aids, audio-visual aids, realia and lots of others. The visual materials in form of wall charts showed textbooks, pictorial materials, etc. therefore audio learning resources are those resources that employs the use of hearing sense only like audio tape recorder radio etc. an audio visual learning materials thus is a combination of materials that includes sense of seeing and hearing sense like computers, motion pictures and television. The materials should provide learners with the essential knowledge, skills as well as ability in the growth and support of institutions and equip learners with problem solving skills and analytical critical thinking (Saad & Sankaran, 2020).
Teaching and learning materials are important for the self-discovery of both teachers and pupils as they enhance child-centered methods of teaching and learning via pupil involvement, (Machaba, 2013). Utilization of instructional materials promotes academic achievements. Ashiono, Mwoma and Murungi (2018) noted that utilization of ICT during lesson delivery increased learners’ participation in learning thus higher academic retention. Lyimo, Too, and Kipng’etich (2017) suggested that instructional materials make teaching more effectual; assist in getting different needs for different learners and make lesson plans richer, therefore impacting positively on pupils and the performance of the school. No matter how well staffed the school is, without appropriate teaching and learning materials, the basic goals of the school, that is, teaching and learning to realize a good performance can be seriously handicapped (Saad & Sankaran, 2020).

A study by Leone, Wilson, and Mulcany (2010) on ways for enhancing mathematical instructions for learners in short-term tools in Washington DC, USA, showed that learners’ engagement in mathematics lessons as well as learning was affected by the classroom environment inclusiveness. An all-encompassing environment of learning enabled active participation of the learners. This meant that a variety of instructional materials was an ingredient. Use of instructional materials promoted their willingness to engage in the classroom activities. Leone et al, (2010) noted that use of instructional materials helped learners display positive attitude towards classroom activities, create learning conditions which are favorable and involve learners in the activities. It also enabled them have curiosity in this vicinity as well as enhance interest in desiring acquire more knowledge. According to Laozi, the ancient Chinese philosopher and writer when you offer an individual a fish as well he will consume it for a day. However, when you show person how to fish and the man will feed on it for a lifetime (Saad & Sankaran, 2020).

In Africa, learning in primary schools is hampered by insufficient learning resources (Machaba, 2013). Jojo (2019) observed that in South Africa, scarcity or unavailability of important school materials were associated to poor educational results in mathematics. Availability of teaching and learning materials improves the quality of education. According to Ashiono et al. (2018) inadequacy of books, references and other academic resource materials are the major problems which accelerate the poor performance in many schools in Tanzania. This author noted that many schools in Tanzania depend much upon donors to obtain teaching and learning materials. At time, the flow of donor funds is interrupted leading to insufficient learning materials.

In Kenya, the education sector is expected to play an imperative duty in providing the process of instilling knowledge, skills and attitude essential for propelling Kenya to a nationally competitive nation and gaining new knowledge systematically with an aim to enhance product and processes (Ogembo, Ngugi & Pelowski, 2012). Schools need to produce students who can effectively and efficiently apply the gained scientific abilities, knowledge and skills during the course for socio-economic benefit of human being and nation’s industrial growth. The education sector thus has a significant role of facilitating the process of enhancing manpower essential for changing Kenya into an internationally aggressive nation.

Pupils from government learning institutions fail to match the performance of their private primary school counterparts due to their disadvantaged learning environment that has been characterized by inadequate learning resources and teaching workforce (Ongaki & Musa, 2014). The overall performance in Gilgil Sub County was 230.18, 227.81, and 230.16 from 2016 to 2018 which is low compared to the national standard. Inadequate, inappropriate instructional materials lead to abstract teaching and showed passive learning and ultimately result in poor performance (Wambua and Murungi, 2018). With the developing technology and the new media of communication, efforts are on the rise in the employment of teaching and learning resources; a growth that has proven to be of benefit to learners in other regions. The study thus aimed to examine the influence of teaching and learning materials availability on development of pupils in upper primary schools in Karunga Zone, Gilgil Sub County.

**Literature Review**

**Theoretical Background**

The study was anchored on Theory of Instruction postulated by Bruner in 1966. He persisted on developing autonomous students, students who independently develop knowledge. Learners schooling must come along with essential outcomes like critical thinkers and problem solvers than just equipping them with ideas and categories as per the culture. For information to be encoded and kept in the reminiscence studying is supposed to move from enactive via iconic to figurative representation of the surrounding world, Bruner (1966). In enactive representation (from 0-1 year) learning is action-based where pupils learn through materials. Pupils acquire knowledge through manipulating materials. In iconic representation (1-6 years) concepts are stored in image forms. This is early childhood learners’ level. Lastly, in figurative representation (from 7 years and above) the process of acquiring knowledge is in form of symbols. Pupils of grade one learn best when all forms of depiction are used, (Bruner, 1966).

The theory was applicable to this research since well-organized instructions develop right concept acquisition. Good results are attained when teaching process is well organized. The theory stresses that, a pupil of a very young age is in a position of acquiring any concept in learning areas if only the instructions were correctly organized. Providing the right learning materials is one of the ways of organizing instructions. Grade one learners are in iconic representation and symbolic representation this is according to Bruner’s modes of representation. They acquire knowledge well by manipulating learning materials together with the use of symbols and illustrations. Teachers must provide variety of learning materials for fully participation of the pupils in learning and maximize on the acquisition of competences.
Empirical Review

Child development is an incremental process that changes as a child grows in age and maturity. Bartolotta and Shulman (2018) observed that the issue of child development is often given a lot of attention in the basic levels of education. When a child advances in age, attention is drawn towards academic performance and less emphasis is given to the holistic development of a child. Raphael and Burke (2012) observed that the issue of child development should be particularly important among middle school pupils as this is often a turbulent time when a child reaches the adolescent stage. At this stage, many pupils develop negative attitudes towards school in general as well as specific subjects such as mathematics.

According to Townley-Cochran, Leaf, Taubman, Leaf, McEachin, and Autism Partnership Foundation (2015), observational learning can enhance the cognitive development of pupils at this stage by helping them to quickly from modeled behavior. Another important developmental factor to take into consideration with learners at this stage is self-concept. This consists of the learners’ perceptions and unique role and perspective across many dimensions including peer groups, relationships with friends, teachers, and parents, our outlook on the future, ideas about careers, and so on (Raphael & Burke, 2012). Teaching and learning materials can increase the learners’ abilities to grasp concepts in the classroom situation.

Teaching and learning materials assist in developing personality traits, social roles, and academic skills among the pupils. The materials can also be tailored for career-building activities that focus on responsibility or how to prioritize work. Others include self-determination skills development (such as goal setting, decision making, problem solving, and self-advocacy), independent living skills development, interpersonal skills development, leisure skills development, transportation skills development, classroom behavior development and social skills development (Mynbayeva, Sadvakassova & Akshalova, 2017).

Teaching and learning resources include charts, textbook, maps, electronic as well as audiovisual learning resources like tape recorder, radio, cassette and TV. Additional types of learning materials include writing equipment like rubbers, pens, crayon, exercise book, chalk, notebook, drawing book, ruler, pencil, work book, slates and paper supplies and so on (Blazar & Kraft, 2017). Bukoye (2018) revealed incredibly strong positive important connection among learning materials and academic performance. Bukoye examined that schools gifted with adequate resources were in a position to give good performance than schools endowed with less materials. This supported the study by Okongo, Ngao, Rop, and Nyongesa (2015) that schools owned by individuals had good performance as a result of enough and availability of learning and teaching resources.

Adalikwu and Iorkpilgh (2013) as well maintain that the performance of students is affected by the amount and value of learning and teaching resources. The researcher identified that learning centers with enough facilities like textbooks are in a better position to attain good grades in examinations than school which are poorly equipped. Thus performance that is poor can be associated to insufficient training and learning resources and tools. The maintenance and development of corporeal amenities in learning centers by parents, sponsors as well as community must persist to be emphasized on. This is for the reason that lack of such amenities interferes with learning process. Ndirangu and Udoto (2011) show the significance of school amenities in connection to quality learning. Some of the physical facilities include lecturer theatres, classrooms, administrative block, auditoriums, laboratories, playgrounds, special rooms like clinic, meeting halls, learners’ hostels, employees’ quarters, cafeteria, kitchen as well as toilet amongst others.

Ndirangu and Udoto (2011) further states that presence of sufficient quantity and quality physical materials makes learning experiences more productive; and that school buildings which are not attractive, playing ground non-availability, crowded classrooms and environment that lacks artistic magnificence can lead to poor recital academically. Figueroa, Lim and Lee (2016) suggest that the institution condition of the school and the physical conditions prevent building of a society of achievement. Ministry of Education Science and Technology (2014) clarifies the significance of making sure that there are enough and correct teaching amenities for learning and teaching for effective implementation of educational programs.

Silverman, (2006) states that in mitigating the visual material roles contribution in the process of learning, tactile, auditory and visual materials assist learners in processing information. Most of the researchers agree that it is through visualization of the whole concept that most of the learners take in new information. Employing visual learning methods has a lot of benefits. For instance, visual materials assist learners to have clear thoughts as well as information, understand concepts via connections, and integrate knowledge with prior learning. It also assists the teacher in identifying misconception of learners. Visual learning as well provides ways for thinking (Foliaki, 2012). According to Cubillas (2020), visual resources are effectual in passing on concepts and content in an easy way compared to oral descriptions for visual pupils and they are significant enhancements of learning in the classroom. Course content supplemented with diagrams, videos, visual representations charts, maps, photographs and diagram, pupils absorbs it easily (Kurgatt & Omuna 2016).

A study by Makokha & Wanyonyi (2015), examined that there is shortage on learning materials availability and that educators carry out their teaching on talk and chalk techniques in training developments of language skills. Teachers conclude that learners’ poor performance in development of language skills has been as a result of inadequate learning resources. Hence it is indicative that the performance of the student is significantly influenced learning environment experiences as indicated by Onchera & Manyasi (2013) who identified that it necessitates a lot of observation of what takes place in the classroom so as to give more ideas on why learners get the results as they do.
Conceptual Framework

**Independent Variables**

- Availability of Teaching and learning materials
  - Textbooks
  - Reference books
  - Teachers’ guides
  - ICT devices

**Dependent Variable**

- Pupils’ Development
  - Interpersonal skills development
  - Cognitive skills
  - Linguistic skills

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**Figure 1:** Influence of Availability of Teaching and Learning Materials on Pupils’ Development

The conceptual framework shows that availability of teaching and learning materials was the independent variable of the study. It was assessed in terms of availability of such items as textbooks, reference books, teachers’ guides, and ICT devices, among others. Pupils’ development was the dependent variable of the study and was gauged in terms of interpersonal skills development, improved cognitive skills, and linguistic skills.

**Research and Methodology**

The study made use of quantitative research methods and employed a descriptive survey design. The target population comprised of all the 587 teachers of upper primary from 18 schools in Karunga Zone, Gilgil Sub County (Nakuru County Education Office, 2020). From this population, a sample of 100 teachers was selected using the stratified random sampling method. Each of the 18 schools were treated as a stratum from which teachers were selected randomly. The number of teachers selected in each stratum or school was proportional to the total number of upper primary school teachers. The sample size of 100 was arrived using the Nassiuma (2000) sample size formula.

\[
n = \frac{Nc^2}{C^2 + (N-1)e^2}
\]

Where \(n\) = sample size, \(N\) = population size (587) \(C\) = Coefficient of variance (30%), \(e\) = standard error of sampling (3%).

\[
n = 587^*(0.30^2) / [0.30^2 + (587 - 1) 0.03^2]
\]

\[n = 100\]

**Research Instruments**

Data was collected using questionnaires. The design of the questionnaires was based on a multiple-item measurement scale. The questionnaire was separated into three parts: section A that contains the background information, section B that contain questions assessing the pupil development, and section C that contained questions assessing teaching and learning materials.

The validity of the instrument was enhanced through expert judgment. The university research supervisors who have in-depth expertise in the research subject assessed the quality of questionnaire construction and its contents. Validity was further enhanced by conducting a pilot study in the neighboring zone. The pilot study data showed that the questionnaire was adequate in generating the data needed to address the research objective.

The pilot study data was also used to examine the reliability of the instrument. The Cronbach alpha method was used because the questions assessing the study variables were in the Likert scale format. The analysis showed that the scale measuring pupil development (\(\alpha = .812\)) and teaching and learning material availability (\(\alpha = .726\)) had alpha values that were greater than 0.7, which indicated that they had acceptable level of reliability.

**Data Analysis Techniques and Procedures**

Data acquired from the questionnaires was first cleaned and edited prior to coding as well as subjecting it to more analysis. Descriptive numerical analysis was carried out using, percentages, means and frequencies to illustrate the basic data characteristics. Likert scale items were combined to describe existing state within the schools in regards to pupil development and availability of teaching and learning materials. Inferential data analysis was done using the Pearson’s Product-Moment Correlation Coefficient and Multiple Regression. The following model guided the analysis.

\[y = \beta_0 + \beta_1X_1 + e \]  

Where \(Y\) = development of pupils in upper primary Schools in Karunga Zone, Gilgil County, \(\beta_0 = \) Constant, \(X_1 = \) Teaching and learning materials availability, \(\beta_1\) is the beta coefficient for teaching and learning materials, and \(e\) = the estimated error of the regression mode.
Results and Discussion

Seventy-four out of the 100 questionnaires issued out were returned duly done representing a response rate of 74%. About 56.8% of the respondents were female while the remaining 43.2% were male. Thirty-four (45.9%) of the respondents were teachers of languages, 12 (16.2%) taught technical subjects, 20 (27%) taught humanity subjects, and 8 (10.8%) taught science subjects. Six (8.1%) respondents had a Master’s in Education, 37 (50%) have a Bachelor in Education, 15 (20.3%) have a Bachelor of Science, and 16 (21.6%) have a Diploma in Education. Thus, majority (50%) have a Bachelor of Education. Fourteen (18.9%) of the respondents have experience of 0 – 5 years, while 42 (56.8%) have experience of 6 – 10 years, and 18 (24.3%) had experience of 11 - 15years.

Development of Pupils in Upper Primary

The dependent variable of the study was development of pupils in upper primary in the study area. This variable was assessed by presenting respondents with a set of six statements and asking them to indicate their level of agreement on a five-point scale ranging from 1 represents strongly disagree to 5 representing strongly agree. Results are summarized in Table 1.

Table 1: Results on Development and Academic Performance

| Strongly Agreed | Agreed | Neutral | Disagreed | Strongly Disagreed | Mean | SD |
|-----------------|--------|---------|-----------|--------------------|------|----|
| Most of our pupils in upper primary have effective verbal communication skills | 4(5.4%) | 36(48.6%) | 32(43.2%) | 2(2.7%) | 0(0%) | 3.57 | .643 |
| Most of our pupils in upper primary have effective written communication skills | 4(5.4%) | 42(56.8%) | 26(35.1%) | 2(2.7%) | 0(0%) | 3.65 | .629 |
| Most of the pupils in upper primary school can memorize information easily | 8(10.8%) | 40(54.1%) | 25(33.8%) | 1(1.4%) | 0(0%) | 3.74 | .663 |
| Most of our pupils in upper primary can apply knowledge that the learn to solve problems | 12(16.2%) | 36(48.6%) | 22(29.7%) | 4(5.4%) | 0(0%) | 3.76 | .791 |
| Most of the pupils in upper primary are interested in having debates and argument | 4(5.4%) | 46(62.2%) | 20(27.0%) | 4(5.4%) | 0(0%) | 3.68 | .664 |
| Most of the pupils in upper primary have adequate knowledge of grammar and vocabularies | 14(18.9%) | 27(36.1%) | 31(41.9%) | 2(2.7%) | 0(0%) | 3.72 | .803 |
| Overall mean | | | | | 3.70 | .705 |

Accessibility of learning and teaching resources (TLR) affects the development and performance of pupils in upper primary had 4(5.4%) of the respondents strongly agreeing, 36(48.6%) agreeing, 32(43.2%) being neutral, and 2(2.7%) disagreeing. Use of learning and teaching resources (TLR) affects the development and performance of pupils in upper primary had 4(5.4%) of the respondents strongly agreeing, 42(56.8%) agreeing, 26(35.1%) being neutral, and 2(2.7%) disagreeing. Variety of learning and teaching resources (TLR) affects the development and performance of pupils in upper primary had 8(10.8%) of the respondents strongly agreeing, 40(54.1%) agreeing, 25(33.8%) being neutral, and 1.4% disagreeing. Pupils learn better with teaching and learning materials had 12(16.2%) of the respondents strongly agreeing, 36(48.6%) agreeing, 22(29.7%) being neutral, and 4(5.4%) disagreeing. Teaching and learning materials improves academic performance of the slow learners had 4(5.4%) of the respondents strongly agreeing, 46(62.2%) agreeing, 20(27.0%) being neutral, and 4(5.4%) disagreeing. FDPE policy has contributed to sufficient stipulation of learning and teaching materials in the school had 14(18.9%) of the respondents strongly agreeing, 27(36.1%) agreeing, 31(41.9%) being neutral, and 2(2.7%) disagreeing. Provision of FDPE led to rise in provision of learning and teaching materials had 12(16.2%) of the respondents strongly agreeing, 36 (48.6%) agreeing, 24(32.4%) agreeing, 25(33.8%) being neutral, and 2(2.7%) disagreeing.

The results agree with those of Saad and Sankaran (2020) who found that materials provide learners with the essential knowledge, skills as well as ability in the growth and support of institutions and equip learners with problem solving skills and analytical critical thinking. They also agree with those of Kohler, Gothbern, and Fowler (2016), that found teaching and learning materials assist in developing personality traits, social roles, and academic skills, self-determination skills development (such as goal setting, decision making, problem solving, and self-advocacy), independent living skills development, interpersonal skills development, leisure skills development, transportation skills development, classroom behavior development and social skills development.
Availability of Resources in the Schools

The independent variable of the study was availability of teaching and learning materials. This variable was assessed by presenting respondents with a set of eight statements and asking them to indicate their level of agreement with each on the five-point scale ranging from 1 representing strongly disagree to 5 representing strongly agree. Results are summarized in Table 2.

### Table 2: Availability of Teaching and learning materials

| Area                                                   | Strongly Agreed | Agreed       | Neutral       | Disagreed | Strongly Disagreed | Mean   | SD    |
|--------------------------------------------------------|-----------------|--------------|---------------|-----------|--------------------|--------|-------|
| The school has sufficient reference books              | 2(2.7%)         | 36(48.6%)    | 27(36.5%)     | 9(12.2%)  | 0(0%)              | 3.42   | .740  |
| There is a sufficient number of equipment and books    | 6(8.1%)         | 24(32.4%)    | 37(50.0%)     | 7(9.5%)   | 0(0%)              | 3.39   | .773  |
| Set of the resource persons in the school is sufficient| 2(2.7%)         | 36(48.6%)    | 22(29.7%)     | 14(18.9%) | 0(0%)              | 3.35   | .818  |
| Teaching resources such as chalk, duster, manilas, charts, models, calculators are available and sufficient| 26(35.1%)       | 16(21.6%)    | 22(29.7%)     | 10(13.5%) | 0(0%)              | 3.78   | 1.076 |
| Teachers’ guides are available in the school          | 0(0%)           | 16(21.6%)    | 53(71.6%)     | 4(5.4%)   | 1(1.4%)            | 3.14   | .557  |
| ICT devices for use in teaching and learning are available| 0(0%)           | 34(45.9%)    | 24(32.4%)     | 16(21.6%) | 0(0%)              | 3.24   | .791  |
| Field trips/excursions in the school can be done      | 4(5.4%)         | 33(44.6%)    | 22(29.7%)     | 12(16.2%) | 3(4.1%)            | 3.31   | .950  |
| Overall mean                                          |                |              |               |           |                    | 3.38   | .815  |

The school has sufficient reference books had 2(2.7%) of the respondents strongly agreeing, 36 (48.6%) agreeing, 27(36.5%) being neutral, and 9(12.2%) disagreeing. There is a sufficient number of equipment and books had 6(8.1%) of the respondents strongly agreeing, 24(32.4%) agreeing, 37(50.0%) being neutral, and 7(9.5%) disagreeing. Set of the resource persons in the school is sufficient had 2(2.7%) of the respondents strongly agreeing, 36(48.6%) agreeing, 22(29.7%) being neutral, and 14(18.9%) disagreeing. Teaching resources like chalk, duster, manilas, charts, models, calculators are available and sufficient had 26(35.1%) of the participants strongly agreeing, 16(21.6%) agreeing, 22(29.7%) being neutral, and 10(13.5%) disagreeing.

Teachers’ guides are available in the school had 16(21.6%) of the respondents agreeing, 53(71.6%) agreeing, 4(5.4%) being neutral, and 1(1.4%) disagreeing. ICT devices for use in teaching and learning are available had 34(45.9%) of the participants agreeing, 24(32.4%) agreeing, and 16(21.6%) being neutral. Field trips/excursions in the school can be done had 4(5.4%) of the participants strongly agreeing, 33(44.6%) agreeing, 22(29.7%) being neutral, 12(16.2%) disagreeing, and 3(4.1%) strongly disagreeing. The calculated overall mean was 3.38; with standard deviation .815 implying that the teachers agreed that teaching learning resources were accessible in their schools.

The results agree with those of the Figueroa et al. (2016), which found that teaching and learning materials availability improves school effectiveness since they are reliable in giving out good academic performance to the learners. The results agree with those of Okongo et al. (2015) who found that schools that have a good performance is as a result of accessibility and sufficiency of learning and teaching resources. They also agree with those of Adalikwu and Iorkpurgh (2013) who found that the performance of students is influenced by the quantity and quality of learning and teaching resources. The composite mean 3.38 for teaching and learning materials availability obtained from the Likert data was used to determine the correlation among teaching and learning resources availability as well as academic performance.

### Influence of Teaching and Learning Material Availability and Pupil Development

The influence of teaching and learning material availability on pupil development was tested by correlating the composite mean for pupil development with the composite mean for teaching and learning material availability. Results are summarized in Table 3.

### Table 3: Correlation between teaching and learning materials availability and pupils’ development and academic performance

| Teaching and learning materials availability | Pearson Corr. | Sig. (2-tailed) |
|--------------------------------------------|---------------|----------------|
| Pupils’ Development and Academic           | .652          | .000           |
| Performance                                |               |                |
At the 0.05 significance level ($r=0.652$, $p = .000 < 0.05$), it was found that there is a statistically important relationship between teaching learning resources availability and development of upper primary pupils in Karunga Zone, Gilgil Sub County. It is thus inferred that teaching and learning materials availability predicate the development of upper primary pupils in Karunga Zone, Gilgil Sub County. Teaching and learning materials availability has an affirmative connection with Development and Academic performance of upper primary pupils in Karunga Zone, Gilgil Sub County. This relationship was further assessed using the linear regression method. Results are presented in Table 4.

### Table 4: Regression Analysis Results

| Variable                        | $r$  | $r^2$ | Constant | $F$    | $P$    |
|---------------------------------|------|-------|----------|--------|--------|
| **Dependent**                   |      |       |          |        |        |
| Development of pupils           | .794 | .626  | 3.862    | 79.253 | .000   |
| **Independent**                 |      |       |          |        |        |
| Teaching and learning materials | Beta | .751* | .794*    | 9.094  | .000   |

The model shows a goodness of fit as indicated by the adjusted R2 value of 0.626 implying that the variations in the independent variable, teaching and learning materials availability, explains sixty-two point six (62.6%) of the variation in Development of upper primary pupils in Karunga Zone, Gilgil Sub County. Thus, there are other factors that cater for the outstanding 37.4% in the variation in the pupils’ Development that are not covered in the model. The F-calculated value of 79.253 is greater than F-table of 4.00 (df. 1, 60) and the p value = .000 < 0.05, thus confirming that there is a significant variation among means of the independent variable and the actual Development and Academic performance of upper primary pupils in Karunga Zone, Gilgil Sub County.

The study findings indicate that there exists an affirmative and significant impact of Teaching learning resources availability on development of upper primary pupils in Karunga Zone, Gilgil Sub County ($β=0.751$, $p<.05$). Study’s results consequently imply that a single increase in teaching and learning materials availability will lead to 0.751-unit increase in the development of upper primary pupils in Karunga Zone, Gilgil Sub County. The results agree with those of Bukoye (2018) revealed incredibly strong positive important connection among learning materials and academic performance. Bukoye established that schools gifted with extra resources were in a position to give good performance than schools endowed with less teaching and learning materials.

### Conclusions

From the findings, the study concludes that availability of Teaching and learning materials contributes to increase in development of upper primary pupils in Karunga Zone, Gilgil Sub County. Correlation analysis on Teaching and learning materials availability and development of upper primary pupils in Karunga Zone, Gilgil Sub County showed that development was strongly and positively correlated with teaching and learning materials availability by a correlation coefficient of 0.652. In the model, teaching and learning materials availability had a coefficient of 0.751 hence rise in teaching learning resources availability contributes to development of upper primary pupils in Karunga Zone, Gilgil Sub County by a margin of 0.751. Results show that teaching and learning materials availability is very important and it brings positive change in the development of the pupils academically. Effective Teaching and learning materials availability makes the teachers and pupils have an easy learning interaction both in and outside the classroom.

The study recommends that the Government of Kenya, via the Ministry of Education reflect on reviewing its guiding principle and laying structure in place to make sure that public or municipal primary school head teachers are able to raise the teaching and learning resources in their schools so as to enhance the pupils’ performance. Further studies should be carried out on the influence of teachers on development of primary school pupils. A comparative study can be done between private as well as public primary schools to distinguish the differences in approach and subsequent performance from the same. A further study can also be done to establish specific aspects of the Teaching and learning materials use that influence development and academic performance.

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