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## **Influence of School Physical Facilities on Academic Performance of Community Secondary Schools' Students in Form Four National Examinations in Longido District, Tanzania**

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**ABSTRACT:** *The study investigated the influence of physical facilities on academic performance of community secondary schools students' in the form four national examinations in Longido District, Tanzania. The study was guided by one research question aimed at finding out how physical facilities influence academic performance of community secondary school students in form four national examinations. Social Learning Theory developed by Psychologist Albert Bandura in 1977 guided the study. Convergent design under mixed research method was adopted whereby probability and non-probability sampling were used in selecting respondents. The target population for this study included 9 community secondary schools, 9 heads of community secondary schools, 283 teachers and 1545 form four students in Longido District, Tanzania. Stratified and simple random sampling techniques were used to obtain 4 schools, 32 teachers and 160 form four students where by 4 heads of community secondary schools were directly included from the study which make total of 196 respondents. Questionnaires, interview guides and document analysis guide were used to collect data from respondents. Cronbach Alpha was used to obtain reliability of quantitative data ( $r=0.78$  for teachers' questionnaire and  $r=0.62$  for students' questionnaire) While member checking and triangulation were used to obtain reliability of qualitative data. Quantitative data was analyzed and presented by using frequencies, percentages, means and tables while qualitative data were analyzed into words and developing themes from the research questions and presented in summaries and direct quotations. The study found out that shortage of school physical facilities like classrooms, dormitories, libraries, laboratories, dining halls and teaching and learning materials like books, chalks, manilas, laboratory apparatus and others influence poor academic performance of students. The study concluded that insufficient or sometimes absent of school physical facilities, had negative influence on students academic performance of form four students in national examinations in Longido District. The study recommends that government and all stakeholders to work together and collaborate in order to construct and provide school physical facilities in order to solve the problem of poor academic performance of students in examinations.*

**KEY WORDS:** School physical facilities, academic performance and national examinations

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## **INTRODUCTION**

According to Roser et al (2019), a school is an educational institution designed to provide learning

spaces and learning environments for the teaching of students under the direction of teachers. Learning environment includes physical, psychological and socio- cultural environment where by teaching and learning process occur. Therefore, a school is a set of buildings, human resources, non-human resources or an institution designed for teaching of students under the direction of teachers. Academic performance of students depend on school physical facilities around them. School physical facilities determine largely how a student behaves and interacts during teaching and learning process. (Dangara and Geradine , 2019) Kirch et al (2021), observed that, school physical facilities like libraries, laboratories, books, dormitories, classrooms, teachers and other facilities have influence on academic performance of students learning environment. Most of private learning environments have good and enough physical facilities that makes performance of private schools to be high than those of community schools.

According to Khan et al (2019), identified that as the number of students in a classroom grows, so do the negative effects to both the teacher and the students. That is a teacher can only give much attention to one student than to divide his attention among twenty or more students in a class. As a result, when the number of students in a classroom rises from twenty to twenty-five or thirty to thirty- five, it is impossible to give all students attention that they need. This is due to limited teaching and learning resources. The performance of form four examination results in Longido District has been a problem hence this made the researcher to investigate on the influence of physical environment on academic performance of students. Certificate of Secondary Education Examination (CSEE) results have been fluctuating from year to year thereby making the researcher to conduct the study. Table 1 shows Form four national examinations results in Longido District for three years.

**Table 1****Form four national examinations results in Longido District for the 2018-2020 period**

YEAR	TOTAL NUMBER OF STUDENTS	PERFORMANCE IN DIVISION					%		%	
		I	II	III	IV	O	I-III	I-III	IV-O	IV-O
2018	1244	11	131	284	635	183	426	34.2	818	65.8
2019	1321	26	145	278	740	132	449	33.9	872	66.1
2020	1326	96	226	289	656	69	611	46	715	54

**Source: D.E.O'S Office 2020**

Table 1 shows performance of students in the national form four examinations were the majority got divisions four and zero. Specifically the information in table 1 indicated that in 2018 those who got divisions 4-0 were 65.8 %, 2019 were 66.1 % and in 2020 were 54 %. This kind of situation leaves much to be desired as far as the vision 2025 is concerned. The question that comes to mind immediately is to what extent the existing learning environment contributes to this situation.

Therefore, due to poor academic performance, the study investigated the influence of school physical facilities on students' academic performance in the form four national examinations in Community secondary schools in Longido District, Tanzania.

### **Statement of the Problem**

The society need good academic performance of students in order to get people who can work for them as teachers, doctors, nurses, accountants and others. Poor academic performance of form four students in community secondary schools in Longido District has been a big problem due to different reasons in spite of different efforts made by educational stakeholders.

There has been wide complains about poor performance of students in form four national examinations in Longido District by parents and other stakeholders. Different strategies like remedial classes, interschool examinations and others have been employed to improve students' academic performance; however, the performance of community secondary schools in the National Examinations in Longido district has continued to be poor for the last three years (2018 – 2020). According to CSEE results of 2018-2020 students who passed with division I-III in Longido district were 38.03% while division four and zero were 61.97 %.

Kimario (2020), Wu and Yali (2019) and Binong (2020), conducted studies on academic performance in Tanzania, China and India. The studies identified that, there is poor academic performance of form four students due to different factors like absenteeism, poor teaching and learning environment, poor cooperation, and family background. From the reviewed studies, the researchers have talked about factors and causes of poor academic performance and none of them has talked about the influence of learning environment on academic performance. Therefore, this current study filled the gap by investigating on the influence of school physical facilities on students' academic performance in the form four national examinations in Community Secondary Schools in Longido District, Tanzania.

### **Research Question**

How do School Physical facilities influence students' academic performance in the form four national examinations in Longido District?

### **Significance of the study**

The study adds knowledge to the heads of schools in order to come up with various solutions based on strategies used to improve academic performance of form four students in national examinations. The study adds to the existing body of knowledge on the factors that contribute to poor academic performance of students in school and national examinations. More specifically the study assists the government with policy recommendation that is to be applied to improve learning environment in many community secondary schools in Longido District in Arusha region. This will be through provision of resources and facilities that make the learning environment favorable hence make the school environment friendly for learning. In addition, the findings from this study

adds knowledge to researchers on how to improve school physical facilities in order to improve students' academic performance in community secondary schools and serve as a reference point for other researchers . Moreover, the theory was significant to the researcher by emphasized conducive school physical facilities in order in order to improve students' academic performance.

## **THEORETICAL FRAMEWORK**

The study was guided by Social Learning theory developed by Psychologist Albert Bandura in 1977. The theory suggests that social behavior is learned by observing and imitating the behavior of others. Psychologist Albert Bandura developed the social learning theory as an alternative to the earlier work of fellow psychologist B.F. Skinner, known for his influence on behaviorism. While behavioral psychology focuses on how the environment and reinforcement affect behavior, Bandura observed that individuals could learn behavior through observation.

The social learning theory emphasized on learning environment that is suitable in order to improve academic performance in schools. According to this theory, learning environment can be influenced by physical, psychological and socio- cultural environment that have great impact on academic performance of students. The theory put emphasis on attention, retention, reproduction and motivation of students when associated with learning environment.

### **Assumptions of the Theory**

The theory assumes that students perform well if learning environment is conducive with adequate teachers, teaching and learning materials, cooperation from stakeholders, motivation and students struggle. These have an influence on academic performance hence improve examination results of students and improve physical, psychological and socio- cultural environment when students learning.

### **Strengths of the theory**

One of the strengths of social learning theory is its flexibility in explaining the differences in a learning environment, because when learning environment change it improves students' academic performance. In addition, strength of the social learning theory is that it allows different ways of learning in schools hence students can learn through observation or direct experiences.

### **The Weaknesses of the theory**

The theory neglects the importance of accountability of students and deals more on the learning environment that influence academic performance. In addition, the theory assumes learning environment is determined by society around the school, not by how a person struggle in learning.

### **Applications of the theory**

Despite the limitations of the theory, the researcher used it in assessing the influence of learning environment on students' academic performance in the form four national examinations in

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community secondary schools in Longido district. The theory helps the researcher to understand factors that might lead students to fail in examinations. The theory helps the researcher to determine the influence of learning environment on the students' academic performance in the form four national examinations in community secondary schools in Longido district. Moreover, the theory can be utilized to help the researcher to understand how learning environment used to encourage students to perform well in the form four national examinations in community secondary schools in Longido district.

### **Empirical Review**

The main scope of empirical reviews on this study was to review different studies on school physical facilities in order to identify how school physical facilities influence students' academic performance in form four national examinations. Closs et al (2021), conducted a study on Learning Environments' Influence on Students Learning Experience in an Australian Faculty of Business and Economics and identified that classroom size, furniture, technology, laboratories and library rooms have a great influence on students' academic performance.

The study used quantitative approach to collect data from 27 respondents by using questionnaire instrument from students. This current study filled the gap by increasing the sample size to 196 respondents where by questionnaire, interview guide and document analysis guide were used to collect data from heads of schools, teachers and students. These instruments were used to triangulate data from different respondents and generalized both qualitative and quantitative data by employed research mixed method because in questionnaire it is difficult to identify the responses of the respondents while answering questions that can be seen through interview. In addition, large sample reduced number of errors.

Tiruneh et al (2020), conducted a study on Facility-Related Factors Affecting Academic Performance of Medical Students in Human Anatomy California and observed that, physical facilities like overcrowded dormitories, inadequate classroom facilities, low internet access, availability of library resources and large class size affect academic achievement of the students at schools. School physical facilities play a fundamental role in improving the academic performance of the students in the school system.

The study used questionnaire to collect data from 120 respondents. The study did not show sampling technique used to select respondents hence this current study filled the gap by using simple random sampling and stratified sampling techniques to sample respondents in order to collect data from 196 respondents by using questionnaire, interview guide and document analysis guide in order to triangulate data from different sources on the influence of school physical facilities on academic performance of form four national examination in Longido District. In addition, the researcher used these findings and look on other findings like school furniture, teaching and learning facilities and dormitories

Alani and Hawas (2021), conducted a study on Factors Affecting Students 'Academic performance: A case study of Sahor University, Oman and identified that; physical factors that affect academic performance of students include, building condition like classrooms, laboratory rooms, library, campus layout and neighboring surroundings.

From the reviewed study, online survey was used to collect data from 562 respondents. However the study used online survey to collect data, this current study collected data from respondents using questionnaire, interview guide and document analysis guide in order to triangulate data from different sources because to collect data using online survey in our environment is a challenge due to lack of internet facilities and computer knowledge hence need a researcher to go for field data. Baafi (2020), conducted a study to examine and compared the effect of the school physical environment on academic achievement of senior high school students in Ghana. The study used simple random sampling techniques to select respondents. The findings of the study confirmed that the students in senior high schools with good physical environment perform better than those whose learning environment is not conducive because adequate school facilities provide a positive educational climate suitable for students learning. The study employed quantitative approach method to collect data from respondents. The current study filled the gap by using simple random and stratified sampling techniques to select respondents because in simple random sampling technique sometimes the researcher can get wrong sample since every member has equal chance of being selected. In addition, mixed research method was employed to collect both qualitative and quantitative data.

Olayinka et al (2021), conducted a study on Influence of School Facilities on Students' Academic performance in Basic Science and Technology in Junior Secondary Schools in Osun State, Nigeria and identified that, low level of availability of school facilities like science laboratories which are inadequate, computers, electricity supply services, health care services and first aid boxes influence poor academic performance of students. The study also identified that interaction affect school physical facilities and gender of students in academic performance. This current study filled the gap by looking on these factors and others in order to investigated the influence of school physical facilities on students academic performance in form four national examinations in Longido District, Tanzania.

Ojuok et al (2020), conducted a study on Influence of physical facilities on academic performance in constituency development fund (CDF)built secondary schools in Rachuonyo South sub county, Kenya. The study involved 38 respondents where by data were collected through questionnaires, interview schedules and document analysis guide. The study found out that, inadequate libraries, laboratories, and classrooms have negative influence on students' academic performance. Though the study identified causes of poor academic performance of students in national examination, still this study was conducted to look on these facilities and other physical facilities that influence academic performance of form four students in Longido District, Tanzania



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Kimario (2020), conducted a study to examine the role of learning environment to students' academic performance in public secondary schools in Shinyanga Municipal in Tanzania. The study collected data from 70 respondents by using questionnaires, observation, documentary review and interview. From the findings the study observed that; most of schools visited had few classes compared to number of students available, overcrowded classes, scarcity of books, apparatus and other teaching and learning materials, some of the schools were located far from students' area of domicile and there were no important infrastructures like electricity, clean water and hostels. Furthermore all schools observed had no provision of food services to the students. The current study filled the gap by increasing number of respondents to 196 because larger sample reduce number of errors.

Ngussa (2020), investigated on the effect of school environment on students' commitment toward learning among Secondary Schools in Monduli District, Tanzania. The study employed the quantitative approach to collect data from 346 respondents. The findings revealed that students' perception were negative on the learning environment due to inadequate books, computers, laboratories and overcrowded classrooms. Therefore, effective learning environment predicts the rate of students' commitment toward learning hence increase academic performance. The current study filled the gap by adopting convergent design under mixed method in order the researcher to collect both qualitative and quantitative data.

Edward (2018), conducted the study on the Influence of Physical Facilities on Students' Academic Achievement in Community Secondary Schools of Karagwe District in Tanzania. The study observed that; in adequate physical facilities like libraries, chairs, desks, teachers' houses, laboratories and game facilities influence poor academic performance of students. The study did not identified how 287 participants were selected. This study used simple random sampling and stratified sampling techniques to select 196 respondents to investigate the influence of school physical facilities on students' academic performance in form four national examinations in Longido District, Tanzania.

## METHODOLOGY

The study employed a convergent design under mixed research method in order to collect and analyze data concurrently, and merging the results to draw conclusions. Data were collected from the respondents at once and then the findings were generalized to the population. The target population of this study included 9 community secondary schools, 9 heads of community secondary schools, 283 teachers, and 1545 form four students from the community secondary schools in Longido District, Tanzania. 196 respondents were included in the study where by stratified, and simple random sampling techniques were used to obtain 4 schools, 32 teachers and 160 form four students where by 4 heads of schools were directly included in the study where by questionnaires, interview guides and document analysis guide were used to collect data from respondents.

The quantitative data collected were coded, entered into the computer and summarized into frequency, percentages and means presented in tables by the help of statistical package for social science (SPSS) version 22. The reliability of quantitative data was established through Cronbach Alpha; ( $r=0.78$  in questionnaire for teachers and  $r=0.62$  from the questionnaire for students') while the reliability for the qualitative data was established through member checking and triangulation of data. Qualitative data was summarized and analyzed according to themes and then presented in summaries and direct quotations

## RESULTS AND DISCUSSIONS

This research question aimed at finding out the extent to which school physical facilities influence students' academic performance in Longido district, Tanzania. Data from questionnaires, interviews and document analysis guides were used to address this research question where by teachers, heads of schools and form four students were involved in this study. Table 2 presents the responses of teachers on the extent to which school physical facilities influence students' academic performance in Longido district. The results were abbreviated in Key: VLE=Very low extent: L=Low extent, ME=Moderate extent: HE=High Extent VHE=Very high extent.

**Table 2 : Teachers' responses on the extent to which school physical facilities influence students' academic performance (n=32)**

S/N	STATEMENT	VLE		LE		ME		HE		VHE		Mean Score
		f	%	f	%	f	%	f	%	F	%	
1.	My school has enough classrooms for students to learn well	9	28.1	6	18.8	13	40.6	3	9.4	1	3.1	2.40
2.	My school has enough laboratories for all subjects for students to do practical work effectively.	7	21.9	13	40.6	10	31.3	2	6.3	-	-	2.21
3.	My school has enough and separate latrines for boys and girls in order to make privacy happy and go quickly to class to continue with studies	4	12.5	12	37.5	11	34.4	4	12.5	1	3.1	2.56
4.	My school has a modern library with modern books for students to learn	8	25.0	7	21.9	9	28.1	7	21.9	1	3.1	2.56
5.	In my school, library has a lot of current books that making teaching and learning easy	4	12.9	10	32.3	9	29	5	16.1	3	9.7	2.61
6.	My school has enough furniture proportional to the number of students.	6	18.8	11	34.4	10	31.3	4	12.5	1	3.1	2.34



7.	My school has a computer room for teachers to search materials for teaching students.	12	37.5	8	25.0	7	21.9	2	6.3	3	9.4	2.25
8.	My school has enough teaching and learning textbooks for teachers and students to learn hence improve academic performance.	5	15.6	11	34.4	12	37.5	3	9.4	1	3.1	2.43
9.	I use teaching aids during teaching and learning process for students to understand well the lesson taught	8	25.0	10	31.3	10	31.3	4	12.5	-	-	2.31
10.	My school has adequate playgrounds of different sports for students	9	28.1	13	40.6	8	25.0	2	6.3			2.09
<b>Average Mean score</b>												<b>2.37</b>

**Source: Field Data (2022)**

Data from table 2 shows that, 62.5 % of teachers rated the statement that schools had no computer room for teachers to search materials for teaching students at low extent , 21.9 % of teachers responded at moderate extent while 15.7 % of teachers said they had computer rooms for teachers to search materials for teaching students at high extent. This indicated that the schools lack computers for teachers to search materials for teaching and learning process by mean score of 2.25. This statement was concurred by Ngussa (2020) and Ojuok (2020), who observed that computer and technology had great influence on students' academic performance because it simplifies teaching and learning process hence high performance of students.

In addition, data from table 2 shows that, 62.5 % of teachers responded to low extent on the statement schools had enough laboratories for all subjects for students to do practical work effectively, 31.3 % of teachers' responded moderate extent on this statement while 6.3 % of teachers responded high extent on enough laboratories for all subjects. This revealed that there were inadequate laboratories for science subjects in schools at Longido District hence poor academic performance by mean score of 2.21. The finding was different from those of Alani and Hawas (2021), who observed that enough laboratory rooms were fundamental facilities of science subjects that help in improving the academic performance of the students in the school system. The findings were similar with those of document analysis guide that showed low extent on laboratories for practical works at school.

Data obtained from document analysis in all four schools, showed that there were few laboratories used for practical work of science subjects compared to number of students in schools. This indicated that there were insufficient laboratories for different science subjects hence forcing teachers to use more theoretical sessions than practical sessions.

Moreover, on the use of teaching aids during teaching and learning process, data from table 2 shows that 62.5 % of teachers responded to low extent, 31.3 % of teachers responded moderate extent while 12.5 % of teachers responded high extent on the use of teaching aids during teaching and learning process. This indicated that teachers did not use teaching aids during teaching and learning process due to inadequate teaching and learning materials hence poor students' academic performance in examinations by mean score of 2.31. These findings were in line with the study of Ojuok (2020), who found out that inadequate teaching and learning materials had negative influence on academic performance of students in schools where teachers failed to prepare teaching aids for the specific lesson prepared. In addition, the findings were similar with one head of school who observed that teachers did not want to use teaching aids all the times because they thought that teaching aids wasted their time to finish the syllabus.

*“aah...! teachers use teaching aids when quality assurance and other education leaders come to school but after that they do not use any more because they complain that they waste time to prepare teaching aids instead of teaching”*(Personal interview on 14<sup>th</sup> July, 2022)

From the comments given by head of school, this would mean that the use of teaching aids during teaching and learning process were low extent hence students fail to perform well in examination. This indicated that teachers ignore the use of teaching aids during teaching and learning process by complaining of time.

The findings revealed that, 53.2 % of teachers said that number of furniture in school was not proportional to number of students at low extent, 31.3 % of teachers were responded moderate extent while 15.6 % of teachers responded high extent on the statement. This indicated that; schools had inadequate furniture like desks, tables, chairs and other furniture by mean score of 2.34. This was supported by one head of community secondary school in Longido District who reported that;

*“Number of furniture was not proportional to number of students; we have in school. We have in adequate beds, chairs, tables, cupboards and shelves. That is the major challenge we have in our school.”* (Personal interview on 14<sup>th</sup> July, 2022)

The findings given by head of school shows that; number of furniture was not proportional to number of students at low extent that would mean that there were inadequate furniture in schools hence poor academic performance in Longido District.

On the issue of enough classrooms for students to learn well, data from table 2 shows that 46.9 % of teachers' responded low extent on that, 40 % of teachers responded moderate extent while 12.5 % of teachers' responded high extent. This shows that classrooms were not enough for students to learn well by mean score of 2.40. This was agreed by Tiruneh et al (2020), who observed that, in adequate classrooms in schools affect academic achievement of the students at schools because in

overcrowded classrooms it was difficult for teachers to reach all students during teaching and learning process. The findings were in agreement with interview guide with one of the school head in Longido District, who reported that,

*“According to the number of students we had, we are missing enough classrooms. We are sharing classrooms by shifting to other classes in term of uses and combine streams.”* (Interview on July 10, 2022)

The comments given by head of school revealed that the issue of enough classrooms were at low extent hence students sharing classrooms by shifting from one classroom to another in order for all to learn.

The researcher also sought information from students responses on the extent to which school physical facilities influence students’ academic performance and the results were presented in table 3.

**Table 3: Students’ responses on the extent to which school physical facilities influence students’ academic performance (n=160)**

S/N	STATEMENT	VLE		L		ME		HE		VHE		Mean Score
		f	%	f	%	f	%	f	%	F	%	
1.	My school has enough classrooms fitted with windows and door that make me comfortable in learning hence perform well in my studies	70	44.0	42	26.4	34	21.4	6	3.8	7	4.4	1.83
2.	My teachers teach well by using teaching aids and involve students in participation for me to perform well in examination	80	50.0	55	34.4	20	12.5	3	1.9	2	1.3	1.61
3.	My teacher takes me to the laboratory for practical work for better understanding of the lesson in order to understand the lesson well and perform well in examinations	112	70.0	29	18.1	15	9.4	4	2.5	-	-	2.29
4.	My teachers provide books to read at home in order to engage in learning activities at home for better performance	39	24.4	54	33.8	39	24.4	19	11.9	9	5.6	1.44
5.	My school has a good library which makes me to study well and perform well in my studies	52	32.3	36	22.5	45	28.1	27	16.9	-	-	2.41
6.	The teacher helps me to identify laboratory apparatus	34	21.3	40	25.0	38	23.8	21	13.1	27	16.9	2.77

	for practical work hence I perform well											
7.	I always go to the library when teachers give me homework in order to perform well in my studies	104	65.0	35	21.9	16	10.0	3	1.9	-	-	1.48
8.	Teachers mark students' work and give feedback on our progress on time in order to improve academic performance	85	53.1	43	26.9	25	15.6	7	4.4	-	-	2.36
9.	My school provides learning materials to students for reading in order to perform well in studies	78	48.8	44	27.5	32	20.0	3	1.9	3	1.9	1.73
10.	My school has a computer room for studying in order for me to search for materials and perform well in my studies	84	52.5	25	15.6	7	4.4	8	5.0	36	22.5	2.26
<b>Average mean</b>											<b>2.01</b>	

**Source: Field Data (2022)**

Data in table 3 shows that, majority of students (88.1%) responded low extent on practical work, 9.4 % of students were responded moderate extent while 2.5% of students responded high extent on practical work. This indicated that there were few laboratories for practical work to be done in schools in order for students to perform well in examinations by mean score of 2.29. This finding was concurred with the study of Closs et al (2021), who observed that students understand well when teachers teach practically. Therefore, having enough laboratories reduce the tendency of teachers to teach theoretically and take students to laboratories for practical work.

The interview guide with one head of community secondary schools in Longido district was in agreement with low extent on laboratory for practical work and observed that; there was a shortage of laboratories for practical work hence teachers teach theoretically.

*“All science teachers want to use laboratory during practical work so it is a challenge when both have practical lessons... eeh!”* (Personal interview on, 10<sup>th</sup> July, 2022).

The findings from the interview indicated that the use of laboratories for practical work was at low extent due to inadequate laboratories in schools. Teachers fail to teach students practically due to inadequate laboratory rooms at schools in Longido District.

In addition, majority of students (86.9 %) responded low extent that always they go to the library when they had assignment, 10.0 % of students were responded moderate extent while 1.9 % of students responded high extent that always they go to the library when they were given assignments by mean score of 1.47. This shows that students did not go to the library due to

inadequate books or library rooms. The finding was different with the study of Tiruneh et al (2020), who observed that availability of library resources influence students to study hard and search materials hence improve academic performance. Therefore, in order for students to perform well and build a culture of studying themselves schools should have libraries with adequate books. The finding was agreed by a head of school X on the interview observed that; his school had no library, books were kept at the office and teachers used them only during the period when they go to the classes. (Personal interview on 13<sup>rd</sup> July, 2022)

Another interview with one head of school supported the statement on low extent on library he reported saying when he was asked as to whether his school had library or not. “No! *There is no library in my school*” (Personal interview on 13<sup>rd</sup> July, 2022)

In another interview with head of school Y, the head said;  
*Textbooks according to number of students are not enough because when they want to borrow, they use it for the short time and return for others to use it. In addition, we share practical with other schools with the problem of other physical facilities like laboratories.* (Personal interview on 10<sup>th</sup> July, 2022)

From comments given by different heads of schools, the findings indicated that students went to the libraries at low extent due to absence and inadequate libraries in schools hence difficult for them to use their time in library when they had assignments.

On the other side, the information from document analysis guides for all four schools visited showed that two schools had no libraries at all and two schools had one library each which in fact were not enough compared to the number of students and that they were just small rooms with few books.

Data from table 3 shows that 84.4 % of students’ responded low extent that teachers teach by using teaching aids and involve students to enable them perform well in examinations, 12.5 % of students were responded moderate extent while 3.2 % of students responded high extent on the use of teaching aids by mean score of 1.61. This indicated that, there was inadequate teaching and learning materials hence, teachers failed to use teaching aids. This finding was different with Ojuok (2020), who observed that teaching aids like chalkboards, projectors, manilas, improve academic performance of student in schools. Therefore, teachers must use teaching aids in order to improve academic performance and involve students’ participation in teaching and learning process for better understanding.

In addition, the findings from table 3 shows that, 70.4 % of students responded low extent on enough classrooms, 21.4 % of students were responded moderate extent while 8.2 % of students’ responded high extent on enough classrooms by mean score of 1.83. This implied that, there were

inadequate classrooms for students to learn well in a conducive environment. This was supported by the interview of head of school X who reported that;

*To accommodate number of students we have in classrooms we create awareness of students and teachers on class sharing in order to cope with the situation of inadequate classrooms by shifting and combine classes in order to cope with problem we have. (Personal interview on 10<sup>th</sup> July, 2022).*

The findings reported by head of schools indicated that enough classrooms fitted with windows and doors were at low extent due to inadequate classrooms in Longido District hence the classrooms they had, were overcrowded.

In addition, the information from document analysis guides, for all four schools indicated that they had shortage of 20 classrooms and those classrooms available were not in a good condition then need maintenance.

From the data collected, the general mean score for students' responses was 2.01 and teachers was 2.37 which show that extent to which school physical facilities influence students' academic performance was low extent hence poor academic performance in form four national examinations in Longido District.

## **CONCLUSIONS AND RECOMMENDATIONS**

Based on the findings observed on the extent to which school physical facilities influence students' academic performance of students in Longido district, the researcher concluded that physical facilities in teaching and learning process had a great impact on students' academic performance. Inadequate classrooms, laboratories, libraries, teaching and learning resources like books, chalks, manilas and others had influence poor academic performance of students in Longido district. Heads of schools must ensure that school physical facilities are available, maintained and kept in a good manner in order to improve academic performance of students. Therefore, it is the responsibility of the government to provide good and enough physical facilities for both teachers and students in order to enhance good academic performance of students in schools.

From the conclusions, the study recommends that government and all stakeholders like private sector, individuals and others to work together and collaborate in order to construct and provide school physical facilities in order to solve the problem of poor performance of students in examinations. In addition, the government should increase education budget in order to construct and provide school infrastructures like classrooms, libraries, laboratories, dormitories, teachers' houses and other infrastructures in order to solve the problem of poor performance of form four students in examinations.



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