

## Physical Facilities and Its Influence in Promoting Academic Performance in Upgraded National Schools in Nyanza Region, Kenya

<sup>1</sup>Jackline Akinyi, <sup>2</sup>Jacinta Mary Adhiambo PhD, <sup>3</sup>Jared Anyona Ntabo, PhD

**Abstract:** *The paper examines physical facilities and its influence in promoting academic performance in upgraded national schools in Nyanza region, Kenya. The study adopted mixed method approach of convergent parallel research design. The study adopted mixed method approach. Participants included 11 Upgraded National Schools in the Nyanza region's principals, teachers, support staff, and students. Purposive sampling was used to pick 11 principals, while stratified and simple random selection was used to select 2099 pupils, 43 instructors, and 44 members of the support staff. Questionnaires and an interview guide were used to acquire the data. While the quantitative information was analyzed using the Statistics Package for the Social Sciences (SPSS) version 20.0 to provide frequencies and percentages, the qualitative data was organized into themes and communicated through narratives and direct quotes. The results showed that there was poor academic performance de to as inadequate physical facilities. The findings show that the Upgraded National Schools' physical facilities are insufficient to support and stimulate teaching and learning at the Improved National School level. The Ministry of Education (MoE) should upgrade the upgraded national schools to include extra classrooms, labs, libraries, dormitories, staffrooms, music and home science rooms, and computer rooms. To raise money for building physical facilities and buying instructional materials, stakeholders must organize fundraising events and write bids.*

### I. Introduction

It appears that the physical facilities in the school setting go a long way to motivate students to learn. Physical facilities in any school system range from the school plant, that is the school buildings, classroom, library, laboratories, toilet facilities, learning materials to other infrastructures that would likely motivate students towards learning. Experience has shown that most of the physical facilities that are germane to effective learning/academic performance of students appear not to be sufficient in our public secondary schools today. Those available seem not to be of standard quality, some seem to lack maintenance culture, while some are in dilapidated conditions.

The status of physical facilities especially in our public secondary schools today appears to be of great concern to educators. It seems that the provisions of these school facilities have dwindled over the years, perhaps due to increase in school enrolment rate which had led to population explosion in public schools. It has been observed that school physical facilities are essential tools to facilitate and stimulate learning programmes. Teachers need them in an ideal working environment. Experience shows that if physical facilities are available, students tend to have interest in learning; this will invariably lead to high performance.

A close observation of the performance of secondary school students perhaps could be traced to lack of physical facilities and a motivating learning environment. Most schools seems to lack the necessary facilities that could enhance effective teaching and learning as a result little is expected from students in terms of academic performance. Experience shows that inadequate physical facilities have some adverse effect on

students' interest to learn. Hence, this may invariably affect their academic performance. In a situation where students are not having access to normal facilities like library equipment and inadequate seats in the classroom it is observed that these could contribute to low performance of students.

Apart from protecting student from sun, rain, heat and cold, there should be enough space, seats, laboratory and internet facilities and a host of other physical facilities that could enhance the level of motivation and academic performance of students. In MoEST (2016) emphasizes the necessity of ensuring that there are adequate and acceptable facilities for teaching and learning to improve students' academic performance. It was therefore, believed that where facilities are adequately provided, there seems to be an increase in students' performance.

### **Physical Facilities**

Physical facilities refers to the school plant, that is, the school buildings, classrooms, library, laboratories, toilet facilities, offices and other materials and infrastructures that would likely motivate students towards learning. Physical facilities are germane to effective learning and academic performance of students. In support of this, Hallak (1990), identified facilities as the main factor contributing to academic achievement in the school system. They include the school buildings, classroom, libraries, laboratories and recreational equipment among others. Hallak claimed that the quality, appropriateness and adequacy of these items contribute to performance in the school system.

It is evident in their contribution (Brome, 2005) that students' achievement depended upon the physical school facilities, its age, the design and the conditions of the school. School plant played a significant role in directing the task of teaching and learning and that of shaping students' learning process in and out of school. No doubt, school buildings as a tool for instituting an effective teaching and learning, constituted sizeable investment of public funds over its development and maintenance by the administrators.

Toria (2003) argues that school facilities have a profound impact on both teachers and students' outcome. With respect to teachers, school facilities affect teachers' recruitment, retention, commitment and effort. In respect to students, school facilities affect health behavior, engagement, learning and growth in achievement. Thus, researchers generally conclude that without adequate facilities and resources, it is extremely difficult to serve a large number of children with complex needs.

In many instances; recent studies have emphasized the importance of the availability of physical facilities. Summarizing Ajayi and Ayodele (2001), they emphasized that the availability of these resources are quite important to achieving effectiveness in instructional delivery and supervision in the school system. They further buttressed the fact that non-availability of basic facilities such as classrooms, office accommodation, workshops, sporting facilities, laboratories, library et cetera which is being experienced in secondary schools is a perfect reflection of what obtains in the university system.

According to Ogunniyi (1982), laboratories play a key role in the teaching and learning of science that is why Adedeji (1998), noted that these facilities have to be adequate and should be in good condition for schools to function properly.

In support of the above Okunola (1985), said that well sited school buildings with aesthetic conditions, laboratory and playground often contribute to improved performance in the school system. He also argued that the availability of school building and other plant facilities are very important as they could enhance effective teaching and learning. Altbach (1998), is of the view that adequate facilities are essential for academic work. Also, in support of this Chandan (1999), claimed that for effective teaching to take place in any educational setting there must be provision of adequate and quality physical facilities.

School physical facilities here may be seen as material found within the school settings/environment including class rooms, chalk boards, tables, desks, laboratories, libraries and others for enhanced learning outcomes. FRN (2013) noted that secondary school needs school plant and facilities which consist of all types of buildings for academic and non-academic activities; equipment for academic and non-academic activities; areas for sports and games, landscape, farms and gardens, including trees, roads and paths. Other facilities

needed by secondary schools include furniture and toilet facilities, lightings, acoustics, storage facilities and parking lots, security, transportations, cleaning materials, food services, and special facilities for special needs. Their appearance and maintenance influences most parents and convince them to make judgment about the qualities and effectiveness as to what goes on in the school. It is believed that, without such facilities, the empty buildings, no matter how attractive they are cannot be effectively used for educational purposes, (Abiodun-Oyebanji, 2008).

From the assertion of Akomolafe and Adesua (2016), physical facilities in the school contribute and motivate students to learn. As stipulated by the above authors, physical facilities are the school site, building, playground and the equipment as well as material resources available within school to enhance efficient teaching and learning operation. This is also supported by Sam-Kalagbor (2021). While Olutola (2010) saw “physical facilities as classroom, dormitories, libraries, laboratory buildings, staff rooms, teachers’ quarters, examination halls, administrative buildings, educational equipment” (machines, audio-visual materials, chalkboard, cleaners’ tools and workshops equipment).

The quality and quantity of a school's physical facilities had a significant impact on students' ability to learn, and unappealing physical facilities in a school's environment, such as overcrowded classrooms, lack of a playing field, or an absence of aesthetic beauty, could have a negative effect on students' ability to learn and their grades. This was the conclusion drawn from research conducted in Zambia by Nandila (2015), which was driven by the students' dismal showings on standardized tests like the Junior Secondary School Leaving Exam and the General Certificate of Education Exam.

When schools lack adequate resources, it has a negative impact on both students' learning and teachers' morale. The new Improved National Schools in Kenya require a conducive atmosphere for teaching and learning, with suitable physical facilities and instructional resources, because research suggests that many Kenyan schools are under-resourced and under-equipped (Akechukwu, 2017).

As stated by Akdil Sönmez and Akpınar (2017), there is a lack of classrooms, desks, and chairs, and the classrooms that do exist are badly built and have insufficient spacing. An unsafe school would be bad for everyone's health, including teachers and students, and would have a detrimental effect on learning. In agreement, Onukwo (2004) argues that a child's physical and mental growth are enhanced when they are immersed in a nurturing environment. Environmental considerations include the school's interior conditions, which influence students' performance in the classroom. How well pupils do in school is affected by several things, including the school's atmosphere, facilities, and curriculum. The environment has a major impact on a person's potential for both physical and mental growth. This has led to claims that many students aren't being challenged enough in the classroom. While the vast majority of studies on physical factors have found no correlation or effect between academic performance and physical facilities, the research of Ayça and Ali (2017) on the impact of physical amenities on students' performance in Turkey provides a striking exception.

Physical facilities refer to school, spaced classrooms, furniture, toilets, library and water, the standard of construction and conditions of facilities and others (Ankomah et al, 2005). In Kenya a study conducted by Mutua (2014) on the importance of physical facilities revealed that most schools in Mtito-Andei Division were poorly equipped and they lack the essential facilities, which are necessary for learning. The Republic of Rwanda, Ministry of Education, Science, Technology and Scientific Research (2009) committed to match physical facilities with facility requirements, provide textbooks, Science equipment and ICT laboratory in schools to meet curricula demands especially teaching and learning materials for science and technology, expand education facilities specifically laboratories and equipment for priority subjects, improve learning environment in terms of space, equipment and learning materials taking into account gender differences.

In Kobauni Division Machakos County Kenya, Muendo (2016) conducted a study on influence of school infrastructural environment on academic performance in Kenya Certificate of Secondary Education. The study results found out that schools do not have adequate physical facilities such as classrooms, laboratories, libraries and dormitories among others which negatively affect their academic performance.

A number of factors continue to frustrate the provision of quality education for a majority of Kenyan students; poverty being one of them. More affluent institutions of learning often have well equipped laboratories, classrooms and instructional materials. On the other hand, low income private, public and district schools are often characterized by lack of infrastructural and learning equipment and facilities (Ojiambo, 2009). Gogo (2002) found out that performance in the then Rachuonyo District in the national examinations was poor due to inadequacy of infrastructure, learning equipment and facilities and that schools which had low enrolments (hence low incomes) performed relatively poorly compared to the schools with high enrolments.

In addition, according to Siringi (2014), better achievement in better National schools is crucial to the academic and national success of any country, and as such, can no longer be ignored. According to UNESCO (2015a, 2015b), a quality education takes into account not only the unique qualities of each student, but also the school's resources, teachers' methods, principals' policies, and students' overall academic achievement. According to Dilbil and Basaran (2017), the education system includes classrooms, textbooks, lecturers, and learners. They discuss in depth how classrooms, auditoriums, cafeterias, and gymnasiums are situated on campus and how it affects students' drive to learn and sense of belonging there. By investing in the upkeep of 89 secondary schools, the Kenyan government was able to increase the number of National Schools from 15 to 104. The following are a few examples of freshly renovated National Schools: There are many good secondary schools in Nyanza, including Asumbi Girls', Kanga, Maranda, Ngiya, Nyabururu, Kisii, Kisumu, Moi, Nyabohanse, Mbita, Sironga, and Nyambare. A variety of prestigious schools can be found in the western part of the country. These include Bunyore Girls' High School, Chavakali Boys' High School, Friends' Schools, St. Brigid's Girls Kiminini, Kakamega High School, and Butere Girls' High School. Eldoret's Moi Women, Nakuru's Boys, Kipsigis' Girls, Nakuru's Girls, St. Patrick's of Iten, Kaplong's Girls, and Kilgoris' Boys are all excellent examples of tertiary institutions in the Rift Valley.

According to Sammeni (2018), the most important aspects of public school buildings are the faculty lounge, classrooms, and administrative offices. In public secondary schools, the availability of desks, new books, and library assistants was found to have a positive effect on students' academic performance.

Teachers' confidence and ability to affect their students' learning and success is bolstered when they prioritize their own professional development (Okello, 2018). The quality of classroom management and content delivery is associated with the quality of teaching and learning materials, as stated by Bizimana and Orodho (2014).

## II. METHOD

### 1. Research Design

According to Creswell, (2014). Research design is the specific procedure involved in the research process: data collection, data analysis and report writing. Research design is the set of procedures and methods used for data analysis of different variables used in research model. A convergent parallel research design was adopted for this study. Quantitative and qualitative information were gathered at the same time and analyzed simultaneously, and then combined into a single interpretation.

### 2. Locale of the Study

The study was conducted in the Nyanza region, which is home to eleven upgraded National schools, including the Maranda high school and Nagoya girls high school in Saia County, the Kisumu girls high school in Kisumu County, the Mbita high school and Asumbi girls national school in Homabay County, the Kisii high school and Nyabururu girls high school in Kisii County, the Nyambaria high school and Sironga girls high school in Nyanza.

### 3. Target Population

The term "target population" refers to the people who will be the focus of a study's findings. The survey data was utilized to draw conclusions about the whole unit. All 11 principals, 43 instructors, 2209 pupils,

and 44 support staffs from the 11 Improved National Schools in the Nyanza Region of Kenya were selected as the study's population of interest. Principals were incorporated in the research because of their significant role in the educational institutions. Students were consulted because they stand to gain from the initiatives being implemented at their schools. Because they are essential to the smooth operation of the educational process, instructors were included in the research. The inclusion of the institution's support staff was motivated by the latter's familiarity with the tools necessary for practical use and the extent to which they are already available.

#### **4.4 Adequacy of physical Facilities and teaching – Learning Process for academic performance in the Upgraded National Schools**

Findings from the first study question are shown here. This question asked whether or not the improved physical facilities at national schools in Nyanza, Kenya had a significant impact on the quality of instruction and student achievement.

##### **4.4.1 Teachers views on adequacy of physical facilities**

Teachers were polled on questions pertaining to the variable in question, and the results are summarized in Table 4.6.

**Table 4. 1: Teachers’ responses on the adequacy of physical facilities (n=30)**

Item	Adequate		Not adequate		Not sure	
	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)
Classroom	10	33.3	18	60.0	2	6.7
Computer room	9	30.0	20	66.7	1	3.3
H/science room	6	20.0	23	76.7	1	3.3
Music room	7	23.3	18	60.0	5	16.7
Library	6	20.0	15	50.0	9	30
Laboratories	5	16.7	18	60.0	7	23.3
D/Hall	2	6.7	23	76.7	5	16.6
Dormitories	4	13.3	23	76.7	3	10.0
Staffroom	5	16.7	21	70.0	4	13.3

**Source: Researcher, 2021**

Table 4.6 shows that just one-third of teachers felt their classrooms were sufficient while the remaining two-thirds felt they were inadequate. If there weren't enough desks and chairs in the classroom, teachers wouldn't be able to use successful teaching methods like rotating between students to let each one learn on their own or doing small group discussions. As may be observed from the following replies regarding individual facilities, instructors generally felt that school infrastructure was lacking. The Dining Room With that many people eating at once, the dining hall would be too crowded for comfort, forcing some students to dine outside or stand while they ate. Lessons that follow meals like breakfast, break, lunch, and supper may also have been impacted by the lack of appropriate air circulation. If dorms are rated as poor by 76% of students, then there is a major lack of space. Since students had to spend a considerable amount of time getting ready for school and taking turns using the restroom, this disrupted morning preparations and lessons, and had a negative impact on kids' grades.

With 76% of schools reporting an inadequate home science room, it's clear that students are missing out on opportunities to practice skills like sewing and cooking. Academic performance suffered because of insufficient time spent on practice and review outside of class. There was insufficient use of the computer lab (66.7%), suggesting that students did not regularly use the space to study, complete homework assignments, or

do research across disciplines. Because of this, the review process was slowed considerably, which had a severe impact on the academic outcomes in these modernized national schools.

The results accorded with those of Mege (2014), who argued that schools' classrooms, libraries, and laboratories all play an integral role in the educational process. Since physical facilities are the fundamental means by which to improve students' academic performance, their availability boosts the efficacy of teaching and learning in schools. Communities, parents, and sponsors should still be strongly encouraged to build and maintain physical infrastructure in the educational environment, as confirmed by Maimela and Bobonong (2015). This is because students and teachers are hindered by a lack of enough space. Recent research has emphasized the significance of having access to physical facilities, therefore this finding was in keeping with that.

#### 4.4.2: Principals' views on physical facilities

Principal 1 from School A and Principal 3 from School C, both of whom agreed that the schools lacked adequate physical facilities, said that the purpose of a school was to "gear up, motivate, and trigger the expected outcomes of academic performance." Space was a major concern in these modernized educational institutions. The administration was eager to raise education standards, but moved slowly to provide the identified national schools with the necessary resources. This had slowed down the anticipated outcomes as well. Teachers, parents, and students all put in extra effort so that students at Principal 1 and 3 Schools A and C (6th April 2021) would have a better chance of being recognized as high achievers.

Table 4.6 shows that most respondents felt that the school's physical facilities were inadequate, including those for home science (76.7 percent), dorms (76.7 percent), the dining hall (76.7 percent), and the staffroom (70.1 percent). According to the social constructivist perspective, learning occurs when students engage with their surroundings, demonstrate prior knowledge of the material being studied, and gain experience. That's according to research (Vygotsky, 1978). Classrooms, labs, the cafeteria, the library, and the computer labs are all places where students can learn and interact with others. As a result of inadequate infrastructure, the quality of education suffers. Because of this, researchers in Nyanza Region need to look into whether or not the enhanced national schools' physical amenities are sufficient.

#### 4.4.3 Students' views on adequacy of physical facilities

Triangulating data from classroom teachers and school administrators, the researcher polled pupils. Table 4.7 summarized the findings.

**Table 4. 2: Students' Responses on the adequacy of physical facilities (n=2099)**

	Adequate		Not adequate		Not sure	
	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)
Class room	913	43.5	1129	53.8	57	2.7
Computer room	406	19.4	1175	55.9	518	24.7
H/science room	560	26.7	1032	49.1	507	24.2
Music room	436	20.8	1092	52.0	571	27.2
Library	814	38.8	1050	50.0	235	11.2
Laboratories	859	40.9	1201	57.2	39	1.9
D/Hall	296	14.1	1748	83.3	55	2.6
Dormitories	696	33.2	1365	65.0	38	1.8
Staffroom	211	10.1	1853	88.2	35	1.7

Source: Researcher, 2021



Table 4.7 shows that the majority of students (55.9%) believe that the following facilities are inadequate: the computer room, music room, library, laboratories, dining hall, dorms (65%), and staffroom (88%). This led many to conclude that the infrastructure was subpar. For instance, students had to share beds because there wasn't enough space in the dorms, which made it harder for them to get ready quickly in the mornings and be on time for both morning and evening preps. Because of this, it would be difficult to do morning and evening reviews with the students. They also wouldn't have time to do their own studying and finish their tasks on time.

Teachers also reported that the staffroom did not provide sufficient space for storing classroom supplies, holding meetings, or consulting with one another (88.2%). They may have been less prepared for class as a result of this. It was intrusive to their privacy and had a negative impact on academic achievement in the nation's newly renovated schools. Similar explanations for the inadequacy of physical amenities offered by professors in their responses were also provided by pupils.

These results highlight the fact that inadequate school infrastructure has a negative impact on students' ability to learn. According to Sanoff (2001) discusses the evaluation of educational facilities and concludes that schools have an effect on students' cognitive growth. Sanoff (2001) said that students were more engaged in their studies and stayed in school longer when the facilities were well-maintained and aesthetically pleasing.

#### 4.4.4: Principals' views on physical facilities

Both the second principal of School B and the first principal of School A mentioned in the interview that the improved national schools need money to make cosmetic improvements to their facilities and to build brand new facilities. The government should reevaluate its funding priorities and provide more resources to the upgraded national schools so that they can compete on a level playing field with the original national schools. This will address the concerns of parents and students who are making unfair comparisons between the two types of institutions. Unfortunately, many educational facilities, including classrooms, libraries, dorms, the campus green, the cafeteria, and the laboratories, are still inadequate. Students that are relocated to these enriched learning environments will not notice any difference from their previous schools. This discourages people from achieving their full potential in the classroom. (6 APRIL 2021).

#### 4.4.5: Support Staff views on adequacy of physical facilities

Table 4.8 displays the results of the support staff's responses to the items pertaining to the variables in question.

**Table 4. 3: Support staffs' Reponses on the adequacy of physical facilities (n=40)**

	Adequate		Not adequate		Not sure	
	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)
Class room	14	35.0	25	62.5	1	2.5
Computer room	7	17.5	32	80.0	1	2.5
H/science room	8	20.0	30	75.0	2	5.0
Music room	9	22.5	30	75.0	1	2.5
Library	7	17.5	32	80	1	2.5

Laboratories	4	10.0	33	82.5	3	7.5
D/Hall	3	7.5	35	87.5	2	5.0
Dormitories	2	5.0	35	87.5	3	7.5
Staffroom	2	5.0	37	92.5	1	2.5

**Source: Researcher, 2021**

Table 4.8 shows that 62.5% of the support workers reported that the physical amenities were insufficient. This highlighted the issue of classroom congestion. This also restricted teachers' ability to walk freely around the classroom and engage in unrestricted conversation with their students. It also prevented teachers from providing individual feedback to pupils during class. Respondents also reported that the facilities were inadequate for computer classes (80%), home economics (75%), music (75%), the library (80%), laboratories (82.5%), the cafeteria (87.5%), and the staffroom (92.5%).

The majority of the support employees felt the physical spaces were insufficient. When lab space is inadequate, it slows down the pace at which subjects like biology, physics, and chemistry are covered in the classroom, and students have less opportunity for regular revision in the lab.

#### **4.4.6: Principals' views on physical facilities**

When asked about what constitutes adequate physical facilities, the principals of schools 4 and 6 D and F said that they needed enough classrooms, laboratories, staffrooms, spacious offices for department heads, administration, dorms, dining halls, and libraries to meet the needs of their students.

Students were unable to fully grasp topics and complete exercises due to a lack of adequate physical facilities. They have limited opportunities to engage in hands-on activities as a means of reviewing material in science, home economics, IT, and music. And this has a negative impact on their ability to study and succeed in the classroom. (Grade 4 Principal, Building D, April 8th, 2021) Han, Moon, and Lee (2019) note the need of having adequate classroom amenities, but they argue that the physical environment has a significant impact on student engagement, motivation, and learning outcomes. Principals, instructors, students, and support staff all agreed that the school's physical amenities were lacking. Classrooms, home science rooms, computer rooms, staffrooms, dorms, labs, and music rooms are all examples of the kinds of physical amenities that the study finds contribute to a conducive learning environment at our nation's best-equipped secondary schools.

Both Principals 3 and 4 (from Schools C and D) emphasized the importance of having adequate school facilities. The principal was asked about how the school's physical amenities affect students' grades and how they contributed to the teaching and learning process. More classrooms and specialized spaces for home science, laboratories, libraries, dorms, and dining halls attract more students, which in turn boosts the school's enrollment and productivity. The principal went on to say that despite the government's best efforts to improve education in the Nyanza region, overcrowding in dorms, libraries, dining halls, laboratories, and other special rooms still prevented students from studying in comfort or achieving their academic potential. Third and fourth graders at Schools C and D on April 10, 2021)

### **III. Discussions**

In many instances; recent studies have emphasized the importance of the availability of physical



facilities. Summarizing Ajayi and Ayodele (2001), they emphasized that the availability of these resources are quite important to achieving effectiveness in instructional delivery and supervision in the school system. They further buttressed the fact that non-availability of basic facilities such as classrooms, office accommodation, workshops, sporting facilities, laboratories, library et cetera which is being experienced in secondary schools is a perfect reflection of what obtains in the university system.

Han Moon and Lee (2019) found that students' moods, attitudes, and academic performance were all influenced by the classroom setting. There is optimism that the newly rebuilt public schools in the country will improve teaching and learning circumstances for everybody involved. The school's ability to recruit and retain quality educators is influenced by its overall climate. The health, conduct, engagement, instruction, and learning of students, as well as their academic development, are all influenced by the schools' settings.

The infrastructure and instructional resources of a school affect its teachers, students, and the Kenyan educational system as a whole. To date Kigenya (2017), furthermore, students' academic outcomes are significantly impacted by the classroom setting. A supportive and optimistic outlook on school has been shown to improve students' academic performance (Fraser, 2015). When students have a stake in the success of their school, their actions reflect that (Wang & Degol, 2016). The newly renovated Kenyan public schools are a great example of effective methods for boosting students' academic performance.

Mege (2014), argued that schools' classrooms, libraries, and laboratories all play an integral role in the educational process. Since physical facilities are the fundamental means by which to improve students' academic performance, their availability boosts the efficacy of teaching and learning in schools. Communities, parents, and sponsors should still be strongly encouraged to build and maintain physical infrastructure in the educational environment, as confirmed by Maimela and Bobonong (2015). This is because students and teachers are hindered by a lack of enough space. Thus, access to physical facilities is necessary for academic performance.

#### IV. CONCLUSION

Physical facilities are important factors in students' academic success. Therefore Classrooms, labs, dining halls, dorms, and libraries can all benefit from upgrades to make these national schools more comfortable for students and teachers alike. Practice and retention are aided by the use of instructional materials like projectors, textbooks, revision books, the blackboard, and musical instruments; utensils, sewing machines, and clothing materials in home science; and apparatus, reagents, chemicals, and tables in laboratories.

The study recommends that more classrooms, laboratories, libraries, dorms, staffrooms, music and home science rooms, and other physical amenities should be added by the Ministry of Education (MoE) to the modernized national schools. It is recommended that the school infrastructure committee be given more resources so that they can build the necessary physical facilities, and that the board of directors and the ministry of education be kept updated through this committee.

#### References

- [1] Ajayi, I.A. and Ayodele, J.B. (2001). *Introduction to Educational Planning, Administration and Supervision*. Ado-Ekiti. Yemi Printing Services.
- [2] Akomolafe, C. A. & Adesua, V. O. (2016). The impact of physical facilities on students' level of motivation and academic performance in secondary schools in south-west Nigeria. *Journal of Education and Practice*, 7 (4), 232-264.
- [3] Brome J.K. (2005). Safe school survey leads to system upgrades. *School planning and management*, 42(11), 16-21
- [4] Chandan, J.S. (1999). *Management Theory and Practice*. New Delhi Vikas Publishing House. PUT. Ltd.

- [5] Creswell, J.W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, California: Sage Publications.
- [6] Federal Republic of Nigeria (FRN, 2014). *National policy on education*. Lagos: Federal Government.
- [7] Gogo, J. O. (2002). The Impact of Cost-Sharing Strategy on Access, Equity and Quality of Secondary Education in Rachuonyo District, Kenya. Unpublished MED Thesis, Maseno University.
- [8] Hallak, J. (1990). *Investing in the Future Setting Educational Priorities in the Developing World*. Paris. IIEP and Pergamon Press.
- [9] Han, H., Moon, H., and Lee, H. (2019). *Physical classroom Environment Affects Students' Satisfaction: attitude and quality as mediators*. Soc Behav. Pers.Int J.47, 1-10. Doi: 10.2224/sbp.7961
- [10] Ibrahim, W. Y., Abdullahi, H. U. & Igbaji, C. (2017). Impact of school facilities on students' academic achievement. *International Journal of Advanced Research (IJAR)*. [journaljar.com](http://journaljar.com).
- [11] Kigenya, S. and Kakuru, M. (2017). *School environment and performance of public primary school teachers in Uganda*. Unpublished Doctoral Dissertation, Makerere University.
- [12] Mege, C. A. (2014). *Influence of school environmental factors on teaching-learning process in public primary schools in lower Nyokal division, Homa-bay district, Kenya*.
- [13] MoE, (2014) *Basic Educational Statistical Booklet*.
- [14] Muendo, J. k. (2016). *Influence of School Infrastructural Environment on Academic Performance in Kenya Certificate of Secondary Education in Kobauni Division, Machakos County Kenya*. Retrieved January 10, 2019, from <http://www.erepository.uonbi.ac.ke/muendo>.
- [15] Mugenda O M & Mugenda A G (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: African Centre for Technology Studies Press.
- [16] Mutua, P. (2014). *Performance in Kitui County* Obtained from, on March 2015.
- [17] Ogunniyi, M.B. (1982). *Teaching and Learning of Primary Science*. 24<sup>th</sup> Annual Conference Proceedings of the STAN. P.56
- [18] Ojiambo, P. C. O. (2009). Quality of Education and its Role in National Development: A Case Study of Kenya's Educational Reforms. KSR Vol.1 Number1.
- [19] Okunola, P.O. (1985). *Resource Utilization and Projection in secondary Education in Oyo State of Nigeria*. An Unpublished Ph.D. Thesis. University of Ibadan.
- [20] Sam-Kalagbor, V. O. (2021). Perceived influence of school physical facilities on students' academic performance. *International Journal of Innovative Social and Science Education Research*, 9 (1), 46-59.
- [21] Toria S.L. (2000). DO school facilities affect academic outcomes? National clearing house from <https://www.azdeq.gov/ceh/download/greenschool.pdf>.
- [22] Unpublished M.E. D Thesis, University of Nairobi. Ming Te Wang and J.L. Degol, (2016). *Educational Psychology Review* 28,315-352. Published in 23:6:2015. Review article.