



Assessment of learning environment and its impact on teaching and learning process of students in secondary schools in Mpigi District, Uganda

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ABSTRACT

The purpose of the study was to examine the assessment of the learning environment and its impact on the teaching and learning process of students in secondary schools in the Mpigi district of central Uganda. Based on systems theory, the study adopted a cross-sectional survey research design. The study involved 15 secondary schools in the Mpigi district, whereby 5 secondary schools were purposively sampled to participate in the study because the schools had a better learning environment; however, stakeholders complain about their teaching and learning process. The study used a purposive sampling technique to choose 5 headteachers, 5 directors of studies, 44 teachers, and 64 students to participate in the study. Interviews, focused group discussions, and observation guides were used for data collection. Qualitative data was analyzed thematically. The study concluded that learning environment resources are inadequate in Mpigi secondary schools; however, the few available resources are effectively used by teachers and students. The teaching and learning process of students in secondary schools of the Mpigi district is below the expectations of the stakeholders. Learning environments positively impact the teaching and learning process of students in Mpigi district secondary schools. The study recommended that the government of Uganda should aid secondary schools with adequate learning environment resources to improve on the teaching and learning process of students. School administrators should organize training sessions and workshops for the teachers to equip them with skills and knowledge required to use the available learning environment resources in order to elevate the teaching and learning process of students in schools.

Keywords: Central Uganda, Learning Environment, Mpigi District, Secondary Schools, Students, Teaching and Learning Process

I. INTRODUCTION

Globally, education is looked at as the key for unlocking the countries' development in areas such as cultural, social, economic and political affairs around the universe (Chazan, 2022). This has empowered developing countries to rebuild, redesign, reformulate and amend the learning systems to come up with Up-to-date skilled human resources needed for sustainable development of each state. It has provided opportunities to the developing countries to attain technical and professional work force which has enabled them to advance steadily in economy through skilling and training its work base. Furthermore, countries worldwide have positively improved on its learning environment including physical space such as classrooms, libraries, laboratories, computer labs, dormitories and playground, students' behavior and positive classroom interactions which has enabled them to regain a holistic individuals with knowledge, skills, values and attitudes that are instrumental for the national growth, India National Education Policy (NEP, 2023).

Education all over the universe is perceived as a right for humanity including the unprivileged, disabled, indigenous and individuals in vulnerable conditions around the world. It has been able to adjust and promote individual's character, talents, physical and psychological abilities which are significant in achieving the national success, European Union Agency for Fundamental Rights, FRA (2023). It is a landmark in attaining global targets for sustainable development goal number four of 2030 that stresses the training of all persons with required skills desired for the development of all countries worldwide (United Nations, 2023). Excellence education for all peoples on earth can only be realized by providing quality learning environment in secondary schools which favor the smooth teaching and learning process such as planning, implementation and controlling of students in on going lessons (Omoniyi, 2013).

African countries have appreciated the significance role of education towards elevating black continent from poverty through adopting free secondary education policy in which a lot of funds has been injected in the education system with the mega aim of achieving skilled and trained human resources that are responsible for national development (Gruijters *et al.*, 2024). For instance, South African government introduced two policies namely fee exemptions where learners are either partially or fully exempted from paying fees and in 2007, no-fee schools' policy were adopted with the aim of promoting the right to basic education and advancing the teaching and learning process of all students, Department of Basic Education South Africa (DoE, 2023). This was strengthened by Day of African Child, DAC (2023) on the education rights and welfare of children, emphasized the governments in Africa to adopt laws, policies, and other appropriate measures to ensure and encourage the development of secondary education in various forms including learning environment like libraries, laboratories, dormitories and playgrounds to progressively make it free and accessible to all persons. Musyoka (2018), also opined that students' excellent results in education system especially at the end of each assessment depends on the quality of learning environment applied in the teaching and learning process. Learners taught in a better learning environment scored higher than their counterparts with poor learning environment. Ngesu and Atieno (2019), opined that, well addressed learning environment greatly help learners in the teaching and learning process to achieve better grades. Administrators and all concerned stakeholders need to put in place quality learning environment that favors the teaching and learning process of schools to enable students attain good academic grades.

This has been experienced in the region of East Africa that inadequate learning environment resources such as classrooms, libraries, laboratories, playgrounds and dormitories negatively affect the teaching and learning process of secondary schools which in turn results in poor scores of students at the end of each assessment done. For example, in Tanzania, insufficient learning environment hinders students' creativity, innovativeness, think critically which deter students from expanding their knowledge, skills, and abilities that negatively affects the teaching and learning process of schools (Mgimba & Mwila, 2022). Similarly, in Kenya, mismanagement and scarce learning environment in secondary schools affects the teaching and learning process of institutions (Kamoet & Mbirithi, 2024). As a result, countries in East African region such as Kenya and Uganda have resorted on the introduction of free secondary education in which big chunks of money have been poured in the system to improve on the learning environment like libraries, laboratories, dormitories, latrines, bathrooms, playgrounds and ICT equipment with the aim of advancing the teaching and learning process of secondary schools, this amplified the registration of learners which enhanced and flourished the education system that empowered the states to obtain fully trained and skilled potential human resources desired for sustainable development (Brudevold-Newman, 2017).

Uganda like any other developing countries in the universe, perceived education as one of the key factors for transforming nationals' economy towards achieving sustainable development needed all over the world (Ministry of Education and Sports [MoES], 2017). As a result, Uganda set up the vision 2040 which was endorsed by the government's cabinet in 2007 to renovate the education system in Uganda by aiding secondary schools with the required learning environment such as libraries, laboratories, dormitories, playgrounds, ICT equipment, bathrooms and toilets which are crucial in attaining skilled and trained individuals with attitudes and knowledge desired for the country's development (Uganda National Planning Authority [NPA], 2020). The government of Uganda introduced Universal Secondary Education (USE) in 2007 with the aim of providing equal opportunities for all citizens to achieve quality education. This was intended to educate individuals with skills and knowledge required to establish small scale industries to combat unemployment and poverty in the country (Lauterbach, 2024).

Secondary schools in Uganda are administered by Education policy (Pre-primary, Primary and Post-Primary Act, 2008) which enshrines the procedures governing schools including effective use of learning environment like libraries, classrooms, laboratories and dormitories with the major purpose of elevating the education system in the country, (The Education Pre-primary, Primary and Post primary Act, 2008). Learning environment plays a significant rule in streamlining the teaching and learning process of students in schools (Kassab *et al.*, 2024). On the same view, Bassey *et al.* (2023) contents that, quality teaching and learning process of students is determined by effective use of learning environment. The constitution of Uganda chapter 11, article 176 provides for a decentralization of local government which is further consolidated in the local government act 1997 chapter 243, authorizes education service commission in Mpigi district to finance secondary education with learning environment favorable for teaching and learning process of students to enable institutions output holistic individuals capable for advancing national development yearned for around the world (Nakayi, 2018). Munna and Kalma, (2021) states that, effective teaching and learning process of students in schools enhances learners academic scores. Therefore, administrators, parents, teachers and other relevant stakeholders should ensure effective utilization of teaching and learning process of students to enable them attain good grades academically.

This research is unique and looks forward to advance the body of knowledge in different ways for example, it bridges a gap in literature by examining the relationship between learning environment, teaching and learning process of students in secondary schools in Mpigi district. This study gives a pragmatic analysis of the relationship between learning environment and the teaching and learning process of students. It also generates significant data towards



attaining the Ugandan vision of 2040 goals for quality education. Unlike the former academic paper that examined the influence of learning materials and teaching and learning process, this study assessed the relationship between learning environment and its impact on the teaching and learning process of students.

1.1 Statement of the Problem

The government of Uganda support secondary schools with better learning environment equipment such as classrooms, libraries, laboratories, dormitories, playgrounds, students' behavior and positive classroom interactions in order to improve the teaching and learning process of students including teacher plans, implementations, controls the students' learning. However, the teaching and learning process of learners is below the prospects of the stake holders like managers, teachers, parents and students (MoES, 2017). This encouraged the researcher to save the situation because its perseverance negatively affects the government targets and expectations of other stake holders. If this study was not carried out, secondary schools would continue to ineffectively use the learning environment hence consistence of poor teaching and learning process in institutions. The study conducted on students' academic performance in Mpigi secondary schools by Kibirige *et al.* (2025) focused on effective use of learning materials which is significant in teaching and learning process of students. However, there is a significant aspect that was skipped and this is the assessment of learning environment for improved teaching and learning process of students. Therefore, it is against this background that, the study was set purposely to assess learning environment for improved teaching and learning process of students

1.2 Research objectives

- i. To assess the learning environment and its impact on teaching and learning process of students in secondary schools of Mpigi district.
- ii. To assess how learning environment impact the teaching and learning process of the students' learning in secondary schools of Mpigi district.

II. LITERATURE REVIEW

2.1 Theoretical Review

The learning environment such as classrooms, libraries, laboratories, dormitories, playgrounds, students' behavior and positive classroom interactions impact the teaching and learning process of students like teacher plans, Implementations, controls the students' learning (MoES, 2017). Therefore, if learning environment is effectively utilized can elevate the teaching and learning process of students.

Though, it is not only learning environment which influence the teaching and learning process of students. Other factors, such as extraneous can also be determinant. The extraneous variable is learning materials. Learning materials affect the teaching and learning process because learning materials have a direct effect on teaching and learning process of students, Kibirige *et al.* (2025). Learning materials plays avital role in promoting teaching and learning process of students. However, the researcher did not address these extraneous variables. Other studies, such as Kibirige *et al.* (2025) have addressed them. Even future studies can address them from different perspectives.

2.1.1 Systems Theory

The study was guided by the Systems Theory. This study was proposed in 1956 by Ludwig Von Bertalanffy (Bertalanffy, 1956). The principle of system theory emphases on the relationships between the subsystems which join them as a whole. Thus, the same concepts and principles of secondary schools present the different learning environment elements to elevate the teaching and learning process of students. Learning environment equipment includes physical space like classroom, library, laboratories, computer labs, bathrooms, latrines, dormitories and play grounds. Students' behavior such as set up rules and procedures and Positive classroom interactions like encourage learner-learner and learner-teacher interactions.

Systems Theory was suite for this study because from its principle, it conducts a school as a system whereby all elements are branded by a combination of units whose purposes as a part are connected for specific goal (Bertalanffy, 1956). Therefore, the system units of schools' learning environment should be arranged to enable leaners achieve quality teaching and learning process such as teacher plans, Implementations, controls the students' learning. These subsystems in secondary schools are supposed to be effectively used by stakeholders to advance on the teaching and learning process of students.

2.2 Empirical Review

According to Ngina (2013), Learning environment is the social, physical, psychological and pedagogical context in which learning and teaching process occurs. He adds on that, learning environments are those factors that affect the academic performance of leaners within schools. Learning environment in schools includes, libraries and classes (Nyambura, 2015). In addition (Kapur 2018), emphasized that learning environment within the school that affects the

teaching and learning process contains, provision of library and laboratories. Also, Dhanapola (2021), indicated that learning environment influences teaching and learning process of students. Similarly, Nambuya (2013), stated that, learning environment like, play grounds, dormitories, toilets, latrines and classrooms influence teaching and learning process. Njuguna (2021) also stated that, inadequate classes and latrines affect teaching and learning process of learners. Learning environment like availability of classrooms, library, laboratory, washrooms and playgrounds if fully addressed will impact positively on the teaching and learning process of students (Ngesu & Atieno (2019)

Furthermore, Chemiat (2020), revealed that inadequate learning environment like libraries, laboratories, dormitories, classrooms, instructional materials affect the teaching and learning process of schools. Ojuok *et al.* (2020) showed that, lack of essential learning environment buildings like laboratory, library, computer rooms, classrooms and offices affect teaching and learning process in institutions. Okwisa *et al.* (2021) adds on that, supportive learning environment has an influence on students' learning process. In addition, Korir and Kipkemboi (2014) emphasized that, learning environment if improved by parents, guardians and government this will enables schools attain quality teaching and learning process which will yield in better students' academic performance. Also, Tuiteok *et al.* (2015) corroborated that, board of governors (BOGs) should build quality learning environment such as laboratories, libraries and stock them properly for meaningful and purposeful teaching and learning process of students. This implies that, stakeholders should put in place adequate learning environment resources to support and promote positive teaching and learning process of students. Therefore, inadequate learning environment negatively affects the teaching and learning process of schools which results in poor grads of students.

Teaching and learning are the two processes that cannot exist without the other and bound together permanently in which the teacher plans, implements, and controls the students' learning in schools (Hernandez, 2023). Teaching and learning process are created concurrently by physical, social and psychological organization of the learning environment (Bobadilla, 2018). Good teachers who manage the instructional time and students' behavior effectively, promote classroom interactions and use physical space appropriately always create attractive learning environment for students which easy the teaching and learning process of leaners in institutions (MoES, 2012). There are numerous factors that affects the teaching and learning process of students within and outside schools (Mathew & Poehner, 2014). Therefore, head of schools should concentrate on the issues within and outside schools that affects the teaching and learning process of leaners. For instance, Przybysz-Zaremba and Polok (2023) indicated that, different ways of assessing learners affects the teaching and learning process of schools. Friends who commonly associate with learners can affect the teaching and learning process of students in schools (Metekohy *et al.*, 2022). In the same vein, Reyes (2019) emphasized that, inadequate classrooms affect the teaching and learning process of learners in schools. Therefore, it is vital for secondary schools to have information about the learning environment such as ways of assessing students, friends for the learners and classrooms since it affects the teaching and learning process of students.

III. METHODOLOGY

3.1 Research Design

The study adopted cross-sectional survey research design in which information was gathered from many different persons at a single point in time (Thomas, 2020). It helped the researcher to collect detailed data from a small sample at the same time (Wang & Cheng, 2020). This design was used together with qualitative approach. This approach enabled the gathering of thorough non-numeric information on the topic. Data for the study was collected from secondary schools found in Mpigi district, one school from each of the 5 parishes found in Kiringente sub-counties Mpigi district. The inclusion of a school in each parish was crucial in order to generate a detailed knowledge of assessing the learning environment and its impact on the teaching and learning process of students in Mpigi district. For each parish, one school was selected purposively. Hence, making a total of 5 schools sampled to participate in this study.

3.2 Study Area

This study was carried out in Kiringente sub-county in Mpigi district central Uganda, Kiringente sub-county is made up of 5 parishes like Kavule, Ssekiwunga, Kikondo, Luvumbula and Kololo. Mpigi district Mpigi District covers a total land area of 1524Km² which accounts for 0.06% of the total land area of Uganda which is 241,000 km² (Lutalo, 2023). The district is boarded by Butambala district to the west, Kalungu district to the southwest, Wakiso district to the north and east, Mityana district to the northwest and Kalangala district to the south. The district has a total area of 1,207.8 km² (466.3 sq mi). The latitude of Mpigi, Uganda is 0.227353 and the longitude is 32.324924. The town of Mpigi, lies approximately 37 kilometers (23 mi) west of Kampala in the largest capital city of Uganda. The coordinates of the district are 00° 14N, 32° 20 E (Uganda Bureau of Statistics [UBOS], 2017). Mpigi district education service commission empowers the 15 secondary schools found in Kiringente sub-county with financial support in order to improve the quality education according to Mpigi District Education Department report of 2020. These schools are also aided by the government of Uganda with the aim of improving the quality of teaching and learning process of students (MoES, 2017)

3.3 The Scope of the Study

The study was carried out in secondary schools found in Kiringente sub-county Mpigi district central Uganda. These schools were selected basing on their suitable learning environment that favors quality teaching and learning progress of students. However, stakeholders are dissatisfied with the teaching and learning process of learners in these secondary schools. The study also focused on the learning environment, teaching and learning process of students in secondary.

3.4 Population and Sample

The targeted population were 200 including headteachers, director of studies, teachers and learners. However, only 118 of the total population partook in the study including 5 headteachers, 5 directors of studies, 44 teachers and 64 learners. The headteachers and directors of studies were purposively sampled; teachers and students were selected basing on the judgement of a researcher. The heads of schools helped to organize teachers and students in their corresponding schools. These participants were also chosen because they gave consistent, trustworthy and reliable data necessary for the study.

3.5 Data Collection

The study employed observations, interviews and focused group discussion techniques to collect data. Interviews were employed on 5 headteachers and 5 directors of studies. Focused group discussions were conducted on 44 teachers and 64 students. The study also carried out observation analysis, teachers and students were observed in the teaching and learning process.

3.6 Data Analysis

Qualitative data was scrutinized by thematic approaches. Interviews and focused group discussions were examined, summarized and recorded on the sheet of paper. The analysis was managed in three stages such as, preparing and organizing information, creating themes, and coding. The preparation and organization of data for analysis begun in the field with reading each recorded summarized interview and focused group session. This enabled the researcher to familiar with the data. This step was followed by a detailed transcription of the interview and focus group discussion reports which helped the scholar to create themes. After generating themes, the data were prof-read for coding, which included linking the data with the themes created.

IV. FINDINGS & DISCUSSION

4.1 Findings

In the interview with headteachers, all the 5 headteachers stressed that learning environment like physical space such as classrooms, libraries, laboratories, computer labs, dormitories and playground, students' behavior and positive classroom interactions are insufficient in secondary schools of Mpigi district though, teachers do their best to appropriately use the available learning environment in the teaching and learning process. This was confirmed in an interview with one of the headteachers, respondent number 1 who said:

".... Learning environment in my school such as physical space like classrooms, library, laboratory, computer lab, dormitories, bathrooms, latrines and play grounds, students' behavior and interactions are inadequate to enhance the teaching and learning process of students. For example, library, laboratory, classrooms and computer lab have limited space which is not enough for all students in school. In the same view, dormitories for instance that of boys and girls are too congested, bathrooms and latrines are few compared to the number of students we have in the school, the playground is not in the good shape to support effective co-curricular activities. This affects the academic performance of learners in the school. Again, teachers do not promote positive students' behavior and interactions in classrooms which affects teaching and learning process of students."

On the same issue, headteacher 5's response was in agreement with all the 4 head teachers when she said:

".... Learning environment resources are not favoring the teaching and learning process of students."

This was confirmed in the interview with the directors of studies who said that, however much teachers suitably utilize the available infrastructures, the learning environment resources including classrooms, libraries and laboratories in schools are inadequate compared to the number of learners.

In the same line, these views were emphasized by the directors of studies respondent 1 and 2 who revealed that,
"... Learning environment is not favoring the teaching and learning process of students in schools."

This was reechoed in an interview by the directors of studies, respondent number 3, 4 and 5 who said that:

"..... Learning environment like physical space such as classrooms, libraries, laboratories, dormitories, computer labs, playgrounds, bathrooms and latrines in my school are in critical conditions which is not favoring"

teaching and learning process of schools. In the same view, teachers do not create positive classroom interactions and students' behavior which affects teaching and learning process of students in institutions."

This was supported by teachers and students in the focused group discussion who emphasized that learning environment resources like dormitories and playgrounds are few in secondary schools however the little available is used well by teachers during the teaching and learning process. It was also noticed in the observation analysis that learning environment inform of students' behavior and positive classroom interactions are inadequate in secondary schools of Mpigi district, this negatively affect the teaching and learning process of students which results in poor grades of leaners in secondary schools of Mpigi district.

The interview held with headteachers revealed that, the teaching and learning process of students is under the expectation of schools. This was emphasized in the interview by one of the headteachers respondent 1 who said:

".... The teaching and learning process of our students like teacher plans, Implementations, controls the students' learning do not meet the expectations of stakeholders like administrators, teachers, parents and students themselves."

Related to above, another head teacher respondent 2 in the interview confirmed that:

"... The teaching and learning process of students in school is not yet to the level of meeting the expectations of our stakeholders."

This was confirmed by the directors of study in their interview, when they stated that, the teaching and learning process of students like teacher plans, implements, and controls the students' learning in secondary is below the set targets of the stakeholders in schools. On the same issue, director of studies respondent 1 confirmed that:

"... Teaching and learning process of students does not meet the expectations of their stakeholders."

In addition, director of studies respondent 3 also agreed that;

"... Teaching and learning process of learners such as teacher plans, Implementations, controls the students' learning do not meet the expectations of our stake holders."

This was reemphasized by teachers and students who narrated in the focused group discussions that, teaching and learning process of learners including planning and implementation of lessons by teachers is not meeting the set goals of stakeholders in schools. It was also confirmed in the observations analysis carried out that, teaching and learning process of students such as teacher plans, Implementations and controlling of students during conduction of lessons is below the standards of schools. This greatly affect leaners' academic progress in secondary schools of Mpigi district.

Headteachers emphasized in their interviews that, the sufficient learning environment including physical space such as classrooms, libraries, laboratories, computer labs, dormitories and playground, students' behavior and positive classroom interactions positively impacts the teaching and learning process of learners.

This was confirmed in an interview with one of the headteachers, respondent number 4 who said:

"..... Learning environment affect students' teaching and learning process, for instance, if physical spaces are arranged well, teachers effectively manage students' behavior and promote positive classroom interactions, this positively promotes students' teaching and learning process."

This was supported by the directors of study in their interviews that learning environment influences the teaching and learning process of students. For example, on the same issue, director of study respondent 3 was in agreement with director of studies respondent 1 and 2 he said:

"... Effective use of learning environment positively affects the teaching and learning process of students."

Similarly, respondent director of studies 4 and 5 respondent as follow:

"... Learning environment if effectively used impact positively on the teaching and learning process of students."

It was also reemphasized in the group focused discussions by teachers and students that, adequate leaning environment positively enables teacher to plan, implement, and controls the students' learning effectively which easy the teaching and learning process of students. The study also portrayed in the observation analysis that, schools with adequate learning environment have quality teaching and learning process of students than their counterparts with insufficient and inadequate learning environment. Therefore, adequate learning environment positively affects the teaching and learning process of learners in secondary schools of Mpigi district

4.2 Discussion

From the results of the study, secondary schools in Mpigi district have inadequate learning environment resources. This was emphasized by the headteachers, directors of studies, teachers and students partook in the study. Therefore, Inadequate learning environment negatively affects the teaching and learning process of students in schools. This was confirmed in the research conducted by Nyambura (2015), Kibirige *et al.* (2025), Dhanapola (2021) and Njuguna (2021) who emphasized that, inadequate learning environment resources influences the teaching and learning process of students in schools. In the same line, the study indicated that teachers in Mpigi secondary schools effectively utilizes the available learning environment resources which improve on the teaching and learning process of students.



Ngesu and Atieno (2019) also confirmed that, effective use of the existing learning environment positively affects the teaching and learning process of students in schools. Therefore, stakeholders in secondary schools should ensure the provision of adequate and effective use of the accessible learning environment resources to help schools acquire better teaching and learning process resulting in good grades of students.

The study revealed that, teaching and learning process of students in secondary schools is below the prospects of stakeholders like headteachers, director of studies, teachers and students which affect the set targets of meeting the vision 2040 of attaining skilled and trained individuals necessary for country development. This was confirmed by the headteacher, director of studies, teachers and students participated in the study who emphasized that, teaching and learning process such as teachers' planning, implementation and controlling of students in on going lessons is below the set goals of administrators. In the same vein, Hernandez (2023). Reeched that, poor teaching and learning process of students affects the sustainable development of the nation. Therefore, stakeholders should work collaboratively to improve on the teaching and learning process of learners as a way of attaining trained and skilled students necessary for sustainable development of a country.

The study also indicated that, effective use of adequate learning environment like physical space including classrooms, libraries, laboratories, computer labs, dormitories and playground, students' behavior and positive classroom interactions positively impacts the teaching and learning process of students. This was reemphasized by the head teachers, directors of studies and teachers participated the study who narrated that, sufficient learning environment positively easy the teaching and learning process of students. This was confirmed by Reyes (2019) and Kibirige *et al.* (2025) who revealed that, better utilization of available learning environment resources positively influences the teaching and learning process such as teachers' plans, implementation and controlling of students which improves on the good grades of learners. Therefore, concerned stakeholders should effectively use the available learning environment resources in secondary schools to improve on the teaching and learning process of students to attain quality academic progress of schools.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The study examined the assessment of learning environment and its impact on the teaching and learning process of students in secondary schools in Mpigi district central Uganda. From the findings of this research, the study concluded that learning environment resources are inadequate in secondary schools in Mpigi district however, the few available are effectively used by teachers and students during the teaching and learning process. Further the research revealed that, teaching and learning process of students is below the expectations of the stake holders. It also stressed that, learning environment positively impact the teaching and learning process of students in Mpigi secondary schools.

5.2 Recommendation

The study recommended that; the government of Uganda should aid secondary schools with adequate learning environment resources to uplift the standards of teaching and learning process of students in secondary schools. School administrators should also organize training sessions and workshops for the teachers to equip them with necessary skills and knowledge required to use the available learning environment resources in order to elevate the teaching and learning process of students in schools.

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Ethical statement: Authors professed that; ethical considerations included requesting permission from the heads of schools. The purpose of the research was well explained and appreciated by headteachers, directors of studies, teachers and students. In addition, the researcher made a good relationship between the research assistants and respondents. In conclusion, the academic work referred in the course of writing this article was correctly quoted in the text and corresponding titles were reflected in the reference list.

Data sharing statement: All the information supporting the findings and conclusions of the study are available upon requesting the concerned author.



REFERENCES

- Bassey, O., Sam, I. E., & Amos, P. (2023). Teaching-learning environment: A tool towards students' academic performance. *Journal of Environmental and Tourism Education*, 3(1), 17–26.
- Bertalanffy, L. V. (1956). A biologist looks at human nature. *Scientific Monthly*, 82(1), 33–41.
- Bobadilla, A. S. (2018). Assessment of students' learning environment and its relationship on the teaching learning process. *International Journal of Advanced Research*, 6(11), 567–579.
- Brudevold-Newman, A. (2017). The impacts of free secondary education: Evidence from Kenya. Education Evidence for Action.
- Chazan, B. (2022). *Principles and pedagogies in Jewish education*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-030-83925-3>
- Chemiat, W. I. (2020). School-based factors influencing academic performance in public secondary in Mt. Elgon Constituency, Bungoma County, Kenya [Bachelor's dissertation, Greta University].
- DAC. (2023). The rights of the child in the digital environment. African Committee of Experts on the Rights and Welfare of the Child. <http://www.acerwc.africa>
- DoE. (2023). *Education for All (EFA): Country Report*. Department of Basic Education.
- Dhanapola, R. M. (2021). The effect of learning environment on academic performance from students' perspective. *Global Scientific Journals*, 9(3), 1527–1534.
- FRA. (2023). *Fundamental rights report 2023*. Luxembourg.
- Grujters, R. J., Abango, M. A., & Casely-Hayford, L. (2024). Secondary school fees abolition in Sub-Saharan Africa: Taking stock of the evidence. *Comparative Education Review*, 68(3), 185–208.
- Hernandez, W. G. (2023). The teaching-learning process or the teaching process and the learning process. *Culture and Psychology*, 29(1), 96–115.
- Kamoet, P. C., & Mbirithi, D. M. (2024). Effect of classroom environment on the academic achievement of secondary schools' students in Mombasa County, Kenya. *International Academic Journal of Sciences and Education*, 2(3), 345–363.
- Kapur, R. (2018). Factors influencing the students' academic performance in secondary schools in India. *International Journal of Law, Management and Social Science*, 2(11), 13–25.
- Kassab, S. E., Rathana, R., & Taylor, D. C. M. (2024). The impact of the education environment on student engagement and academic performance. *BMC Medical Education*, 24, Article 1278. <https://doi.org/10.1186/s12909-024-06270-9>
- Kibirige, R., Lutalo, B., & Namutebi, E. (2025). Misuse of instructional time and its effect on students' academic achievement in secondary schools in Mpigi district, Uganda. *East African Journal of Education Studies*, 8(2), 986–997.
- Kibirige, R., Lutalo, B., & Saabavuma, C. (2025). Effective use of learning materials and its impact on students' academic performance in secondary schools in Mpigi district, Uganda. *African Quarterly Social Science Review*, 2(1), 123–132.
- Korir, D. K., & Kipkemboi, F. (2014). The impact of school environment and peer influences on students' academic performance in Vihiga county, Kenya. *International Journal of Humanities and Social Science*, 4(5), 240–251.
- Lauterbach, S. (2024). The benefits of private participation in free secondary education: Evidence from education and labor market outcomes in Uganda. SSRN. <https://ssrn.com/abstract=4685132>
- Lutalo, B. (2023). Response to land degradation in Muduuma Sub-County, Mpigi District-Uganda. *East African Journal of Education and Social Sciences*, 4(1), 141–150. <https://doi.org/10.46606/eajess2023v04i01.0267>
- Mathew, R., & Poehner, M. (2014). Monitoring process in the classroom. In A. J. Kunnan (Ed.), *The companion to language assessment*. John Wiley and Sons.
- Metekohy, L. M., Daliman, M., Metekohy, B., & Ming, D. (2022). The impact of teaching and learning quality process to school and university education for sustainable future. *Journal Penelitian Pendidikan Indonesia*, 8(1), 143–151.
- Mgimba, A. E., & Mwila, P. M. (2022). Infrastructural challenges influencing academic performance in rural public secondary schools in Iringa District, Tanzania. *Journal Research Innovative and Implications in Education*, 6(2), 17–24.
- MoES. (2012). *Directorate of education standards: Evaluating and improving the quality of education*. Suse Printers and Co. Ltd.
- MoES. (2017). *Uganda education and statistical abstract*. Kampala.
- Munna, A. S., & Kalam, M. A. (2021). Teaching and learning process to enhance effectiveness: A literature review. *International Journal of Humanities and Innovation*, 4(1), 1–4.



- Musyoka, J. M. (2018). School-based factors influencing students' performance in Kenya Certificate of Secondary Examination in public secondary schools in Kathaiani sub county [Master's thesis, South Eastern Kenya University].
- Nakayi, R. (2018). Local governance in Uganda: Administrative law and governance project, Kenya, Malawi and Uganda: IDRC: Synthesis Report. <https://nru.uncst.go.ug/handle/123456789/5530>
- Nambuya, O. B. (2013). School-based factors influencing students' academic performance at Kenya Certificate of Secondary Education in Teso South district [Master's thesis, University of Nairobi].
- NEP. (2023). Government of India, Ministry of Education.
- NPA. (2020). *Uganda Vision 2040*. <http://www.npa.go.ug/uganda-vision-2040/>
- Ngesu, L., & Atieno, A. F. (2019). Influence of home and school-based factors on pupils' academic performance at Kenya Certificate of Primary Education in Makadara Sub County, Nairobi, Kenya. *International Journal of Trend in Scientific Research and Development*, 3(3), 116–118.
- Ngina, K. P. (2013). Influence of learning environment on pupil academic performance in Kenya Certificate of Primary Education in Kaiti division, Makueni county, Kenya [Master's thesis, University of Nairobi].
- Njuguna, N. R. (2021). School-based factors which influence academic performance in public primary schools in Murang'a South sub county, Kenya. *Journal of Education*, 4(6), 1–15.
- Nyambura, R. E. (2015). School-based factors contributing to learners' academic achievement in public primary schools in Karvri Zone, Kiambu county, Kenya [Master's thesis, University of Nairobi].
- Ojuok, J. O., Gogo, J. O., & Olel, M. A. (2020). Influence of physical facilities on academic performance in constituency development fund (CDF) built secondary schools in Rachuonyo south-county, Kenya. *Africa Educational Research Journal*, 8(3), 462–471.
- Okwisa, C., Juma, D., & Wekesa, S. (2021). Relationship between supportive learning environment and performance of city public schools in Kenya. *The Strategic Journal of Business and Change Management*, 8(1), 605–617.
- Omoniyi, M. B. I. (2013). The role of education in poverty alleviation and economic development: A theoretical perspective and counselling implications. *British Journal of Arts and Social Sciences*, 15(11), 176–185.
- Przybysz-Zaremba, M., & Polok, K. (2023). Ways of assessing students' progress in school learning by language teachers during the lockdown and remote learning in Poland. *Alustath Journal for Human and Social Sciences*, 62(1), 368–381. <https://doi.org/10.36473/ujhss.v62i1.1986>
- Reyes, V. T. (2019). Effects of the teaching-learning process on new students in the area of modern language [Undergraduate dissertation, University of Santo Domingo, Dominican Republic].
- The Education (Pre-primary, Primary and Post-primary) Act, 2008. Uganda: UPPC.
- Thomas, L. (2020). Cross-sectional study: Definition, uses, and examples. Scribbr. <https://www.scribbr.com>
- Tuiteok, J. K. F., Yambo, J. M. O., & Adhanja, R. K. (2015). Contributions of school-based socio-economic factors on students' academic performance in public secondary schools in Eldoret West sub county, Uasin Gishu county, Kenya. *European Journal of Research and Reflection in Education Science*, 3(1), 1–7.
- UBOS. (2017). *The National Population and Housing Census 2014: Area specific profile series, Mpigi District*. UBOS.
- United Nations. (2023). *The Sustainable Development Goals Report: Implementing the SDG stimulus*. <https://sdgs.un.org/gedr/gedr2023>
- Wang, X., & Cheng, Z. (2020). Cross-sectional studies: Strengths, weaknesses, and recommendations. *Chest*, 158(1), 565–571.