

Creating an Effective Geography Teaching and Learning Environment in Teacher Training Colleges: A Case Study of TTC Matimba, Rwanda

Tawanda Shonhiwa

Tutor, Matimba Teacher Training College, Rwanda.

E-Mail: shonhiwatawanda@gmail.com

Abstract

This paper describes how effective teaching and learning environments can be created in teacher education. To understand better, the researcher explored how developing an effective teaching and learning environment is helpful in teacher development in teaching training colleges, as represented by one teacher training college in Rwanda. This article sought to discuss how student teachers from the teacher training college view the current learning environments and their suggestions. A qualitative case study research methodology was used to understand the participants' position in the learning environment. The sample was comprised of fifteen student teachers from Matimba Teacher Training College selected through purposive sampling. The data were collected through a semi-structured interview guide, and thematic analysis procedures were used to analyze data and identify common themes. The study results conclude that an effective teaching and learning environment is of great potential in improving educational quality. It was observed that tutors put much effort into developing the environment, which might be due to attitude. It is recommended that the colleges actively partner in disseminating information innovation and offer training and support to students and mentors regarding acquiring skills, attitudes, and knowledge that improve education.

Keywords: *Effective, teaching, environment, learning, Rwanda*

Introduction

Teaching and learning of different subjects have evolved over the years as their daily demand for meeting the global revolution keeps growing higher.

Science subjects like geography are no exception to the growing expectation of tackling modern problems; hence, there is a need for environments that promote growth amongst teachers and learners as the subject's development greatly impacts global development. (Madondo, 2020). The creation of a conducive teaching-learning environment has become a very effective tool in the general education system and teacher training. This environment creates a good base for effective implementation of the education policies.

Rwanda education is going through fast dynamism, requiring it to create a robust system that enables educational growth locally and internationally (Sahin-Taskin, 2018). A professional look into the education sector has unearthed the lack of focus into implementation of policies that create conducive learning and teaching environment. (Huet, 2018). To produce marketable teaching staff, the Rwandan government has partnered various stakeholders to provide enough support towards capacity building in teaching institutions across the country. (Yli-Panula et al, 2019). In that view, the researcher feels indebted into focusing towards building a better educational environment that meets the needs of current modern world, where the learners' needs are in line with the development strategies that are advancing the global scientific revolution (Chizhik et al, 2018; Turan et al, 2018).

The need for enhanced teacher professional development motivated an in-depth investigation of the concept. The current view towards educational space has a great bearing for both the education system and the learner's present and future needs. There is a strong linkage between the education system and learners needs which stimulated the desire to explore and ensure continuous improvement in our teaching and learning (Tawanda & Pinias, 2023). An environment that necessitates the involvement of both teachers and students with the latter playing a central role in its creation. However, a glimpse of the current teaching and learning environments in Rwanda teacher development reveals numerous barriers. It is very important to build an education system that meets the developmental goals set for achieving sustainable development goals (SDGs) and ensures that our teaching and learning environment enhances a collaborative (Heintzman, 2020). This study, thus examined the factors responsible for creating and ensuring an effective Geography teaching and learning

environment at a teacher training centre in Rwanda. Specifically, the study sought to answer the main research question: How is an effective Geography teaching and learning environment created in the context of a teacher training college? (Turan et al, 2018; Sahin-Taskin, 2018).

Purpose of the Study

This study analyses how effective Geography teaching and learning environment are created. The following objectives guide the study.

1. To derive a theoretical framework that looks at teaching and learning environment in education.
2. Review literature that deals with teaching and learning environments can benefit education in Rwanda.
3. To critically analyse how teaching and learning environment can improve education in Rwanda.
4. To suggest possible steps to be taken to improve the teaching and learning environment in Rwanda education system.

Methodological Approach

This study uses a qualitative lens, enabling the researcher to collect, analyse, interpret data and gain insights into the phenomenon under study (Firomumwe, 2019). This approach has been particularly attractive as it explores voices and experiences of the learners whom many scholars view as largely ignored and misrepresented. Thus, this methodological orientation was adopted on the footing that it provided the researcher with the experience grounded in data generation platforms (Van der Lans et al., 2018). It enabled the researcher to discover how participants interacted, and why these interactions happened in the way they did in given circumstances. Resultantly, focus group discussions, in-depth interviews and document analysis helped gather participants' emic perspectives to answer the central question (Tawanda & Pinias, 2023; Munna & Kalam, 2021).

The sample was comprised of fifteen student teachers from Matimba Teacher Training College selected through purposive sampling. The participants comprise a 1st year, 2nd year and 3rd year cohort studying Diploma in Primary Education, from three options: Science and Mathematics Education, Social Studies Education and Language Education. Qualitative data was analysed through thematic analysis,

allowing subjectivity and researcher's perspective to help identify common themes from the participants views. (Yli-Panula et al, 2019).

Results and Discussion

Presentation, analysis, and discussion of results are key components that guide towards attaining the goals of the modern teaching and learning provisions (Tawanda & Pinias, 2023) These perspective are intended to create a pathway that is pivotal in creating the avenues that bring about creation of modern teaching and learning environment. Thus, guidance is brought towards revealing the hidden concerns that were shaped during personal interviews and focus group discussions (Heintzman, 2020; Tawanda & Pinias, 2023).

Teacher-Learner Involvement

Knowledge and attitude are positive in the subject of geography. This is supported by the following response, which one selected participant gave: *We study Geography, the languages and Science also. I enjoy Geography a lot. In this subject we study climate, landforms and drainage systems. This gives me a picture of my country. The relief, the landforms of my country. Of course our teachers try their best although there are problems.* The other participant had this to say:

Studying science subjects like Geography have made some of us know more about our country. They motivate us to be able to see places of interest. For instance, the forest area in the Northern Province is where gorillas are found and are an attraction to tourists.

These excerpts reveal the importance of studying Geography in the schools. The view resonates with ideas from other literature. In this regard, it is very important to agree that an improved teaching and learning environment for geography will drive the projected trajectories towards the desired educational development. Geography teaching and learning environment is there to shape the way geography study is promoted in various learning institutions (Madondo, 2020). Geography teaching and learning environment is the most viable and preferred way to build a result oriented transformation of the entire Geography educational needs and development. The learners are expected to be of relevance, competent and reliable to the demands of the global development. In this regard, in this section, participant's view and their experiences will be followed through

arguments and decision making. (Lowenthal & Dunlap, 2018; Adebisi & Oyeleke, 2018). However, despite the learners' positive view of the subject, they expressed dissatisfaction with how teachers handled the teaching and learning. One participant said:

Our teacher does not care about the results each of their students achieves. They don't share areas where we are not doing well and allow us to work on those areas with them guiding us. There is no coherence between our needs as learners to what we are getting during studies. Notes are just dictated to us without clear explanations and we find ourselves in difficulty situations to understand Geography concepts. For some of us are drawn away from the lesson because we will not be attached to the whole process. (Participant 8).

From the above response, it seems that learning in this environment did not consider the learners' needs. The interactions in these Geography classes did not allow the learners to be part of the learning process through active participation. This finding is in line with what other scholars such as Raath and Hay (2019) have observed. The authors investigated pre-service Geography students' exposure to systems thinking and how they engaged collaborative learning. Their findings reveal challenges in the way teachers approached teaching with most classes providing inadequate time for active participation. This implies that learners need to be given roles that enable them to be in control of the teaching and learning activity especially through giving tasks to research on. This is supported by Participant 3's observation:

Most teachers leave us outside the educational process as they don't create tasks for us to do research where we share our understanding of the subject? They rather assign themselves to be the central figures during lessons as they research and deliver to us.

The above response shows that Geography teaching and learning environments are focused on content coverage instead of students' acquisition of knowledge, skills and attitude that are important to understanding the world's geographical needs. There are no tasks like research work given to learners that create an environment for them to become part of the Geography needs that foster development (Firomumwe, 2019). According to Wijayanto et al. (2023), when learners engage on problem-based learning activities their competences for creative thinking,

collaboration and problem solving is enhanced. An inadequate provision for a collaborative and problem solving environment meant no positive relationship between the learners and the Geography practical aspect suggested in literature. Perhaps this could lead to the creation of a gap between the theoretical understanding and the practical linkage. The study's other finding showed that learners had developed resentment to the study of Geography subject in the teacher training centre.

This is supported by a response from another respondent who said:

We are not motivated to learn the subject because we do not have central figure that makes us active participants of the process. They don't engage us in activities like discussions and presentations for example. We feel sidelined and of less important to the teaching and learning of Geography. (Participant 10)

From the above narration, it is very important for teaching and learning geography to involve academic engagements, which enable learners to be actively involved in teaching and learning (Huet, 2018). Learners' involvement in educational activities during lessons creates a sense of belonging, making them responsible for their knowledge acquisition process (Lowenthal & Dunlap, 2018). A variety of other approaches were also reported as missing. Participant 15 lamented:

Our Geography teacher do not include question and answer sessions where we can add our personal analysis towards the concept under discussion. This makes us become spectators during lessons even shutting out our psychological attention spun. We don't learn much from the sessions. Most of the content knowledge we have we read it from the notes the teachers give us. But to understand those notes again is a challenge.

From the above excerpt, it seems the teachers exhibited behaviours that created hostile teaching and learning environments. A hostile environment has many negatives that destroy the learners desire to pursue the path of the subject. Accordingly, teachers should therefore showcase behaviours that draw students psychologically closer to the teaching and learning environment (Heintzman, 2020). Behaviours like eye contact, smiles, opportunities for supporting one's arguments, allowing learners to draw conclusions from head arguments, head nods, calling learners by names, feedback from learners and even learner's personal views during the teaching and learning process (Van der Lans et al 2018). This opens up the

learner to become receptive to the subject and generates increased involvement and enthusiasm for material and instruction. When a teacher continues to make positive contact with students, students feel the care of the teacher and through that a positive relationship is created that leads to encouragement (Munna & Kalam, 2021).

Creating an Environment for Various Teaching Methods

This section centres on gaining an understanding of the various teaching methods that create an environment for teaching and learning geography in Rwanda. This necessitated the researcher to have an in-depth scrutiny of the various teaching methods that were used during teaching and learning processes (Ozdemir & Ozturk, 2022). In this context, it was noted that the only way to have a conducive atmosphere in teaching and learning process is when the various methods are employed. Another selected participant has this to say:

The approaches in our lessons is just getting notes from the teacher. The teacher comes in and dictates the notes as we write them down. We would want other ways to assist us, such as how things are done in other countries like Uganda. You will understand better when you draw examples from other places. (Participant 9)

The sentiments from the participant showed the need for a variety of teaching approaches. In particular the participant seemed to suggest the utility of the case study approach. Bendl et al. (2023) postulate the benefits of using a diverse teaching approaches such as case study and problem solving. The authors aver that the case approach brings reality to the learner in the sense that real life examples of phenomenon are brought to bare.

Another important observation of the study was the dissonance between policy and practice. The subject syllabus that the researcher viewed showed that a competence-based approach was encouraged and a number of different teaching methods such as field trips, case study, project-based learning, and concept mapping were suggested for the teacher. Despite this clear guideline I the syllabus the teachers seemed to stick to traditional teaching approaches. This is evident in the above excerpt which shows no apparent link between what is in the policy documents and implementation. Such gaps create instance for vulnerability to the learners. Constant

evaluation of the policies would have assisted in picking the areas which need to be this, a participant remarked that:

Since I came into this college I have never done research and presentation neither have we done field trips. We have never participated in any of these. We just hear about the importance of field trips. They say when you become teachers, they ensure to use many teaching methods, but in the college, these methods are not used. I think we learn better if get involved and in Geography most concepts need hands on for one to understand them. (Participant 6)

The other participant said:

We acquire skills, knowledge and attitude if we spend more time working in groups, sharing our findings of the educational space rather just being recipient of someone's findings and presentations. One wonders how we will acquire them without undertaking tasks that make us learn through involvement. (Participant 2)

The above excerpts show that learners were not allowed to explore the Geography concepts, which grows their interest in the subject. They needed to be part of the subject for them to have some input to the growth of the subject and its subsequent development and sustainability. This concurs with Bendl et al (2023) who argues for active involvement of the learners in Geography classes in order to create conducive environments for effective pupil-pupil interactions. Accordingly, students expect to have ownership over the learning session (Adebisi & Oyeleke, 2018; Meadows, 2020). Cooperation is expected from the students' teaching and learning process, where tasks are given and learners work in groups to develop a deep understanding of the concept and give their conclusions (Huet, 2018; Heintzman, 2020).

Conclusion

Higher education institutions do not prioritize Teaching and learning environments regardless of their importance towards creating a better learning atmosphere. A focused effort in creating a conducive teaching and learning environment is not being achieved. Given the findings of this study, a much concerted effort to reflect on the current teaching and learning environments and how they can be improved is largely needed. Focus should be directed towards identifying areas of the curriculum where

effective teaching and learning environment is lacking and be given enough attention. Also, the creation of an effective teaching and learning environment should be the basis of all curriculum planning and implementation. Furthermore, all educational activities should be benchmarked on creating conducive Geography teaching and learning environments. Policymakers and implementers must put more effort in modifying and implementing the policy through various activities like training and workshops which assist in providing skills, attitude and knowledge towards tertiary education development. Supervision of educational policies is very important in order to have a continuous monitoring and evaluation which leads to improvement in the system.

Reference

- Adebisi, T. A., & Oyeleke, O. (2018). Promoting effective teaching and learning in online environment: A blend of pedagogical and andragogical models. *Bulgarian Journal of Science and Education Policy*, 12(1), 153-172.
- Bendl, T., Marada, M., & Havelková, L. (2023). Preservice Geography Teachers' Exposure to Problem Solving and Different Teaching Styles. *Journal of Geography*, 1-11.
- Chizhik, E. W., Chizhik, A. W., Close, C., & Gallego, M. (2018). Developing student teachers' teaching self-efficacy through Shared Mentoring in Learning Environments (SMILE). *International Journal of Mentoring and Coaching in Education*, 7(1), 35-53.
- Firomumwe, T. (2019). Experiences out of the Classroom: The Importance of Fieldwork in Learning Geography at Secondary School. *I-manager's Journal on School Educational Technology*, 14 (3), 16-24.
- Heintzman, R. (2020). Interactive Geovisualizations (iGEO): A new approach to teaching and learning physical geography. *Review of International Geographical Education Online*, 10(4), 664-683.
- Huet, I. (2018). Based education as a model to change the teaching and learning environment in STEM disciplines. *European Journal of Engineering Education*, 43(5), 725-740.
- Lowenthal, P. R., & Dunlap, J. C. (2018). Investigating students' perceptions of instructional strategies to establish social presence. *Distance Education*, 39(3), 281-298.

- Madondo, M.M. (2020). Curriculum reform and classroom practice: teaching geography in the Zimbabwean curriculum framework 2015 - 2022. Unpublished PhD thesis. Bloemfontein: University of the Free State.
- Meadows, M. E. (2020). Geography education for sustainable development. *Geography and Sustainability*, 1(1), 88-92.
- Munna, A.S., & Kalam, A. (2021). Teaching and learning process to enhance teaching effectiveness: a literature review. London: Winchester House.
- Ozdemir, D., & Ozturk, F. (2022). The investigation of Mobile virtual reality application instructional content in geography education: academic achievement, presence, and student interaction. *International Journal of Human-Computer Interaction*, 38(16), 1487-1503.
- Raath, S., & Hay, A. (2019). Preservice geography students' exposure to systems thinking and cooperative learning in environmental education. *Journal of Geography*, 118(2), 66-76.
- Sahin-Taskin, C. (2018). Effects of active learning environments supported with self-and peer assessment on pre-service teachers' pedagogical and self-efficacy beliefs. *Asia-Pacific Journal of Teacher Education*, 46(5), 421-440.
- Tawanda, S., & Pinias, C. (2023). Implementing Competence-Based Advanced Level Human Geography Framework at One High School in Zimbabwe during the Covid 19 Era. *International Journal of Education, Teaching, and Social Sciences*, 3(1), 82-95.
- Turan, Z., Meral, E., & Sahin, I. F. (2018). The impact of mobile augmented reality in geography education: achievements, cognitive loads and views of university students. *Journal of Geography in Higher Education*, 42(3), 427-441.
- Van der Lans, R. M., Van de Grift, W. J., & van Veen, K. (2018). Developing an instrument for teacher feedback: using the rasch model to explore teachers' development of effective teaching strategies and behaviors. *The journal of experimental education*, 86(2), 247-264.
- Yli-Panula, E., Jeronen, E., & Lemmetty, P. (2019). Teaching and learning methods in geography promoting sustainability. *Education Sciences*, 10(1), 5.