



An Assessment on the influence of Teaching and Learning Environment in Performance of the Higher Learning Students, a Case of Arusha City Council Universities

Angelus Shokia and Henry Mgina

Tengeru Institute of Community Development; P. O. Box 1006, Arusha, Tanzania.

DOI: <https://doi.org/10.55248/gengpi.5.0424.0926>

ABSTRACT

Studies done over the years indicate that teaching and learning environment influence academic performance of universities students to a great extent. This is because the teaching and learning environment is the platform for instructing, coordinating and motivating of both lecturers and students. Academic performance for Universities in Arusha City Council has been raising questions on the roles of teaching and learning environment on students' academic performance. This study therefore endeavoured to make findings on the role of teaching and learning environment in improving students' academic performance in Universities in Tanzania particularly in Arusha City Council. The study used mixed research design which describes attitudes towards an issue. The target population was 60 respondents from the Universities in Arusha City Council. The study used simple random sampling technique in determining 10% sample size of the respondents. The study used both closed-ended and open-ended questionnaire to measure the role of teaching and learning environment in improving students' academic performance. The researcher adhered to all ethical research requirements. The researcher used MICROSOFT EXCEL to facilitate data analysis. The researcher concluded that caring, feeding and educating students as part of teaching and learning environment that should be innovated. The study recommends a similar study to be conducted in Universities to identify the role of teaching and learning environment in improving students' academic performance in Universities in Tanzania particularly in Arusha City Council.

Key Words: Teaching and Learning Environment, Academic Performance, Higher Learning Students

1. Introduction

In china Investment in the education system in absolute terms has continued to increase at a high rate. China's investment in education has increased at a rate of 19% on average in the last ten years. This trend of increased investment is due to government laws and policies (Alvaro, 2010). The Education Law requires increased government appropriations for education at all levels proportional to the growth of the national economy as a result of better teaching and learning environment of the students. The State Council is tasked with determining the appropriate proportional increase in government appropriations for education. Therefore China's educational expenditure per student, as well as lecturer salaries, should see continued growth so as to improve quality teaching and learning environment.

In United states of America education is combined with teaching and learning systems, technology based assessments can be used formatively to diagnose and modify the conditions of teaching-learning environment and instructional practices while at the same time determining what students have learned for grading and accountability purposes. Both uses are important, but the former can improve student teaching and learning environment in the moment (Plumbely, 1987). Furthermore, teaching and learning environment can be designed to capture students' inputs and collect evidence of their knowledge and problem solving abilities as they work. Over time, the lecturers learn more about students' abilities and can provide increasingly appropriate support.

1. In South Africa Successful lecturer education programmes underscore the integration of knowledge for teaching with knowledge of teaching, the 'how' of teaching. Such programmes necessitate an integrative teaching and learning environment to counteract the schism between the 'world of theory' and 'the world of practice' and draw optimally on collaboration between lecturer educators and lecturers who supervise students in schools to achieve their education goals (Entwistle, 1987). Better teaching and learning environment create competence and experiences of lecturers who are prepared to uplift students and involvement in an academic rally to serve as a practice of developing instructional objectives.

(Improving Teaching and Learning Environment:

- Darling-Hammond, L. (2010). Teacher Education and the American Future. *Journal of Teacher Education*, 61(1-2), 35-47. <https://doi.org/10.1177/0022487109348024>

This article discusses the importance of creating supportive teaching environments to foster effective teaching and learning practices.

Preparation of Lecturers:

- Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching*, 15(2), 273–289. <https://doi.org/10.1080/13540600902875340>

This article explores how teacher education programs can better prepare educators for the demands of modern classrooms, which includes creating supportive learning environments.)

In Kenya, educators utilize largely behaviourist teaching approaches that tend to be lecturer-centred rather than student-centred (Hite, 2004). But in a globalized world, the use of lecturer-centred instructional approaches is not as valuable because learners need to learn collaboration and problem solving skills; skills that are better mastered in learner-centred instructional practices (Nganga & Kambutu, 2012). A student-centred learning environment is fundamentally different from a lecturer-centred one. For example, in a lecturer-centred instruction, the lecturer is not only the dispenser of knowledge, but he/she is also the planner, questioner, challenger, and truth-teller to passive students. These roles are virtually reversed in a student-centred learning environment. Instead, the lecturer becomes a facilitator of learning that is guided by the students (Kambutu & Nganga, 2009). Additionally, in a student-centred learning environment, learners formulate their ideas and conclusions. Consequently, in a learner-centred learning environment, students are expected to generate their own understanding through active involvement with content rather than through imitation and repetition of what their lecturer says.

In Uganda teaching and learning environment as the infrastructure the government suggested that it should be increasing the ownership, commitment and capacity of schools to sustain the principles that underlie the reforms in education and to provide support for ongoing school improvement efforts. This will involve making clear what the key principles are that all schools are expected to meet or follow but, equally critical is to emphasize where schools can, on their own or with other schools, work out what makes most sense for their pupils (Proshanky, 1975). Schools need to see and understand the threads and themes that tie the reforms together, so that they can see how to build on what they have already accomplished, rather than having to discard it as new policies come into effect.

In Tanzania the Government formulated a Poverty Reduction Strategy in 2000. The Strategy is underpinned by the notion that education growth is a precondition for poverty reduction. In turn, this requires sound of teaching and learning environment by increasing investment and improvements in education productivity (Kambutu, 2013). Expansion of the educational system is at the centre of the Government's strategy to both increase the rate of economic growth and productivity, as well as to ensure that the proceeds are more equitably distributed widely in our country basing on teaching and learning environment. So this study interested to assess on the role of teaching and learning environment in improving higher learning students' performance, a Case of Arusha City Council Universities

2. Theoretical Literature review

Theories of teaching and learning environment are conceptual frameworks describing how information is absorbed, processed and retained during learning cognitive, emotional and environmental influence as well as prior experience all play a part in how understanding or world view is acquired or changed and knowledge and skills retained Phillips et al (2009). Plato said that, if one did not previously know something can learn it, learning as passive process where information and knowledge are ironed into the soul over time.

2.1 Behaviourism Theory

(Modern Perspectives:

- Domjan, M. (2018). *The Principles of Learning and Behavior*. Cengage Learning. This textbook provides an overview of various principles of learning, including classical and operant conditioning, from a behaviorist perspective.
- Bouton, M. E. (2016). *Learning and Behavior: A Contemporary Synthesis*. Sinauer Associates. This book offers a contemporary synthesis of learning theories, including behaviorism, and discusses how they apply to understanding human behavior.

) According to Skinner & Watson (1974) who based on behaviour on learning process said that all behaviours are acquired through conditioning, also social psychological theory centred on specific phenomena including group behaviour, social influence, love and much more. Those theories insisted on the learning environment on which can enable to shape the future of pupils. In learning process the environment should allow pupils to practice so as to have the permanent memory also to stay in groups whereby they can learn something. This theory is applicable to this study because it is anticipated that students' use of the learning materials for educational purposes may affect their academic achievement positively while the non-educational use of the learning materials in their learning environment especially carelessly, might negatively affect students' academic achievement. In general the theories want the learning environment to have all needs for learning process including teaching and learning materials, competent lecturers with love to their pupils hence attract them to attend at school every day.

2.2 Socio-cultural Theory

Lev Semyonovich Vygotsky (1896-1934) was born in Russia in 1896. He graduated with a law degree from Moscow University. Vygotsky's first big research project was in 1925 with a focus on psychology of art. Vygotsky is best known for being an educational psychologist with a socio-cultural theory. This theory suggests that social interaction leads to continuous step-by-step changes in children's thought and behaviour that can vary greatly from culture to culture (Woolfolk, 1998). Basically, Vygotsky's theory suggests that development depends on interaction with people and the tools that the culture provides to help form their own view of the world. There are three ways a cultural tool can be passed from one individual to another. The first one is imitative learning, where one person tries to imitate or copy another. The second way is by instructed learning which involves remembering the instructions of the teacher and then using these instructions to self-regulate. This theory was applicable to this study because cultural tools are passed on to others is through collaborative learning, which involves a group of peers who strive to understand each other and work together to learn a specific skill.

3. Empirical Literature Review

Abedian et al (2001) conducted the study about ways of overcoming the obstacles faced by teaching and learning environment in Kenyan public universities. The purpose of his study was to investigate how to overcome the obstacles/challenges faced by teaching and learning environment in public universities in Kenya. Field work research involved a survey of the participants divided into two groups. Data was collected using observations with one group while questionnaire and interview schedule were used with the other group. This study was succeeded to suggest the best ways to overcome challenges faced by university education like the government should consider employing more lecturers to ease the shortage, universities facilities and learning environment should be improved, monitoring and evaluation of teaching and learning environment, implication and sustainability, enhance clarity of education policy. The weakness of this study is that, failed to show clearly the methodologies used in the study that is qualitative, quantitative or mixed method (Adamu, 2015). But it also failed to show the challenges facing university education in public universities in Kenya. He succeeded to show the impact of introduction of better teaching and learning environment education.

Nganga et al (2013) conducted a study concerning the impact of teaching and learning environment in education in Katangi, Yatta District. His study based on the impact of the introduction of university education on quality of university education in Katangi Division of Yatta District. The researcher used questionnaires and interview schedules to collect data. The finding of this study showed that facilities necessary for proper learning environment were limited; toilets were found to be inadequate in some of the universities visited. This was shown by a 50% of the universities who had no staff toilets, although all the universities had boys' and girls' toilets, their numbers were not adequate. For instance, 50% of the universities had one toilet for boys and one toilet for girls while 30% had two for each group and only 20% had four for each group. The one toilet for each group scenario caused a lot of commotion of the students. Results show that the majority of the lecturers in the visited universities were male (80%). This area of education officer noted that the universities were under staffed. He reported that the universities under his jurisdiction had an average of 5 lecturers per universities. The weakness of this study ignored some of the impact and also failed to show clearly challenges facing teaching and learning environment and their suggestion. Also it failed to show methodologies of his study either quantitative or qualitative since all the methods identified and studied are critical to better learning outcomes, but their effectiveness differ. This suggests that lecturers should apply a variety of methods.

Alvaro (2010) demonstrates that how the teaching techniques are applied is very important because teaching methods are purely pristine, and packed with pedagogical power that is generic in nature. The author further asserts that the techniques can be applied to a wide variety of circumstances. For example, learning is facilitated when the instructor demonstrates what is to be learned rather than merely telling what is to be learned. In the Ugandan context, and in practice, there seems to be limited application of child-centred methods, which require a lot of preparation by the side of the lecturer

Inadequate preparation of lecturers to teach is revealed by limited use of charts, prepared notes, group discussion(s), question and answer, and other student-centered approaches to teaching. With ineffective supervision of lecturers, universities lecturers seem to have opted for the easier to use lecturer-centered teaching methods, which are less effective. Plausibly, adequate lecturer supervision mainly explains persistent use of the easier lecturer-centered methods of teaching Ancess (2000). Only six course classes were used as the unit of analysis. The findings suggested that gains in student understanding in science were associated with the level of cognitive demands made by the lecturers and the warmth exhibited by the lecturer

Arul Lawrence (2012) from a study in Victoria of mathematics lecture theatre in the infant universities also reported significant findings associated with the warmth of lecturer-student relationships. Collins et al. (2009) recently conducted a randomized evaluation of a computer-assisted learning programme in India and found much more positive results than those from the computer-assisted learning programme in Israel (Fouts et al 2006). The strength of this study was succeeded to show the challenges teaching and learning environment and university education in Kenya and also suggests ways to overcome those challenges. But also this study failed to show clearly research methodologies either may used qualitative or quantitative methods, as a results to base much on university data collection during data collections.

According to Hite (2004) wrote on the journal about the challenges in provision of university Education in public universities in Mombasa, Kenya. The main purpose of this Journal was to investigate about challenges to universities administrators as a result of teaching and learning environment in universities. These work tried to show the challenges faced by universities administrators like high enrolment, lack of trust between lecturers and parents, lecturers' shortage and lack of teaching and learning materials. The weakness of this study was failed to suggest the solutions towards challenges faced by lecturers in preparing better teaching and learning environment in public universities.

4. Methodology

The study aimed to evaluate the impact of the teaching and learning environment on academic performance in public universities in Tanzania, utilizing both qualitative and quantitative methods to provide a comprehensive analysis. Employing a mixed research design, data collection involved questionnaires and interviews conducted among lecturers and students from three universities in Arusha City Council, representing broader trends in Tanzanian higher education. A sample size of 60 respondents was randomly selected, comprising 25% lecturers and 75% students, ensuring a diverse representation. Data analysis encompassed both qualitative and quantitative techniques, facilitating a thorough examination of the teaching and learning environment's role in academic performance improvement. Ethical considerations were meticulously observed, ensuring respondent confidentiality, informed consent, and adherence to research ethics throughout the study. Overall, the study employed a mixed-methods approach to investigate the teaching and learning environment's impact on academic performance in Tanzanian universities. Through rigorous data collection and analysis, the study sought to identify strategies for enhancing academic outcomes and contribute valuable insights to educational practices in Tanzania. Ethical considerations were paramount, ensuring the integrity of the research process and safeguarding the rights and privacy of the participants.

5. Findings and Discussion

The study aimed at determining the role of teaching and learning environment in improving students' academic performance in Universities in Tanzania particularly in Arusha City Council. Data analysis resulted to the findings and discussion presented in the following section.

5.1 Kind and Nature of Teaching and Learning Environment in Universities

The tables below state the percentages of the findings regarding the level of strong agree, agree, strong disagree and disagree from the respondents within the sampled Universities.

Table 2.1: Kind and Nature of Teaching and Learning Environment in Universities

Statements	SA	A	SD	D
Better teaching methods enhance to good academic achievement	31(54.3%)	20(35%)	4(7%)	2(3.5%)
The modules taught are finished on time	18(31.5%)	31(54.3%)	3(5.2%)	5(8.7%)
Lecturers show their experiences to make students learn	30(52.6%)	24(42.1%)	2(3.5%)	1(1.7%)
Teaching equipments help lecturers in classroom	23(40.3%)	32(56.1%)	1(1.7%)	1(1.7%)
Lecturers prepare themselves before the period	34(59.6%)	20(35%)	2(3.5%)	1(1.7%)

Source: Research Data 2023

The study findings, as outlined, reveal a complex perspective on factors influencing students' academic performance within the sampled universities. A significant proportion of respondents strongly agreed (54.3%) and agreed (35%) that higher student performance is facilitated by effective teaching, although a small percentage (3.5%) disagreed. Similarly, a substantial number of respondents (31.5% strongly agreed, 54.3% agreed) noted that timely coverage of modules by lecturers positively impacts student performance, yet a minority (5.2% strongly disagreed, 8.7% disagreed). Moreover, the importance of lecturer experience was emphasized by 52.6% strongly agreeing and 42.1% agreeing, while a minority (3.5% strongly disagreed, 1.7% disagreed) challenged this notion. Additionally, the availability of teaching equipment was deemed crucial by a majority (40.3% strongly agreed, 56.1% agreed), despite some dissent (1.7% strongly disagreed, 1.7% disagreed). Furthermore, the significance of lecturer preparation was underscored by 59.6% strongly agreeing and 35% agreeing, with a small percentage (3.5% strongly disagreed, 1.7% disagreed) holding opposing views. These findings suggest a nuanced understanding of the multifaceted dynamics influencing academic achievement within university settings.

5.2 Influence of Teaching and Learning Environment on Students' Academic Performance

The table below indicates the percentages of the statement of the findings regarding the level of strong agree, agree, strong disagree and disagree as it was responded by the respondents within the sampled Universities.

Table 2.2: Influence of Teaching and Learning Environment on Students' Academic Performance

Statements	SA	A	SD	D
Learning resources enhance better academic achievement	24(42.1%)	30(52.6%)	1(1.7%)	2(3.5%)
Lecturers have friendly environment to the students	19(33.3%)	35(61.4%)	2(3.5%)	1(1.7%)
Lecturers depend on teaching aid to meet students academic achievement	36(63.1%)	17(29.8%)	2(3.5%)	2(3.5%)

Academic expectations is developed through lecturers competence	21(36.8%)	32(56.1%)	3(5.2%)	1(1.7%)
Good instructions of the lecturers develop positive achievement in learning	24(42.1%)	26(45.6%)	4(7%)	3(5.2%)

Source: Research Data 2023

The findings of the study reveal significant perspectives regarding the correlation between learning resources, teaching environment, lecturer competency, and academic achievement. A considerable proportion of respondents, 42.1%, strongly agree that ample learning resources facilitate better student performance, echoing Nganga's (2013) assertion that lecturer competency is enhanced by sufficient teaching materials. Additionally, a majority, 52.6%, affirm that learning resources contribute to higher academic achievement. A substantial portion, 33.3%, strongly agrees that a positive teaching environment influences student performance, supported by 61.4% who agree. Conversely, a small percentage, 3.5%, strongly disagree that a friendly teaching environment could yield negative academic outcomes. The study suggests that 63.1% of respondents believe lecturers should utilize teaching aids for academic development, while 36.8% strongly agree that students' academic improvement hinges on lecturer competency. Notably, 42.1% strongly agree that effective instruction leads to higher academic achievement, with 45.6% in agreement, though 7% and 5.2% respectively strongly or simply disagree. Nganga (2013) further posits that good instruction positively impacts academic performance

5.3 Strategies for Improving Teaching and Learning Environment in Universities

The table below indicates the percentages of the statement of the findings regarding the level of strong agree, agree, strong disagree and disagree as it was responded by the respondents within the sampled Universities.

Table 2.3: Strategies for Improving Teaching and Learning Environment

Statements	SA	A	SD	D
Distribution of textbooks to the students enhance learning	34(59.6%)	19(33.3%)	2(3.5%)	2(3.5%)
Repairing and addition of lecture theatre plus laboratories could lead to better performance	30(52.6%)	22(38.5%)	2(3.5%)	2(3.5%)
Employing of enough lecturers to meet the academic needs of the students is very important	25(43.8%)	30(52.6%)	1(1.7%)	1(1.7%)
Developing of universities feeding programs is helpful in students learning	31(54.3%)	23(40.3%)	2(3.5%)	1(1.7%)
Presence of enough water, toilets and playgrounds could inspire motivation in learning	24(42.1%)	25(43.8%)	3(5.2%)	5(8.7%)

Source: Research Data 2023

The survey findings indicate strong support for the role of textbooks in enhancing learning, with approximately 34% of respondents strongly agreeing and an additional 19% agreeing. However, a small minority (2%) strongly disagreed. Similarly, there is overwhelming support (59.6% strongly agreeing and 33.3% agreeing) for creating a friendly learning environment through repairs and additions to lecture theaters and laboratories, as suggested by Nganga (2013). Additionally, a majority (52.6% strongly agreeing and 38.5% agreeing) believe that the government should increase the number of lecturers in universities to meet academic demands, with only a small percentage (3.5%) in disagreement. Furthermore, there is significant support (43.8% strongly agreeing and 52.6% agreeing) for implementing university feeding programs to prevent students from leaving campus during lesson hours due to hunger, as advocated by Alvaro (2010). Lastly, a majority (54.3% strongly agreeing and 43.8% agreeing) support the presence of water, toilets, and playgrounds in teaching and learning environments, although a small minority (5.2% strongly disagreeing and 8.7% disagreeing) oppose this notion.

5.4 Results of the Interviewed Lecturers in Universities in Arusha City Council

The study findings from interviews conducted at universities in Arusha City Council revealed key aspects of the teaching and learning environment as perceived by respondents. These included timely completion of topics, experienced lecturers sharing insights, effective use of teaching equipment, and preparedness of lecturers. These factors were cited as contributors to better academic achievement. The lecturer of Institute of Accountancy Arusha u acknowledged these findings, underscoring the importance of parental involvement in students' academic success by saying that;

".....There is a need to involve lecturers and parents in matters of students' performance in universities by dealing with the discipline of the students so that Lecturers can concentrate more on the general management of the universities"

According to a study across three universities in Arusha City Council, respondents highlighted several influences of the teaching and learning environment on students' academic performance. These included the enhancement of academic achievement through learning resources, a conducive and friendly environment fostered by lecturers, reliance on teaching aids for meeting academic goals, the development of academic expectations through lecturer competence, and the positive impact of good instruction on learning outcomes. Lecture from St. Augustine University of Tanzania said that;

“.....Leadership within our universities should remain important and useful towards the promotion of quality education by making the teaching and learning environment to be friendly to both lecturers and students”

6.0 Conclusion and Recommendation

The study emphasizes the essential role of caring, feeding, and educating students from lower-class families in Arusha City Council to improve their academic achievement. It suggests governmental support in maintaining conducive teaching and learning environments in public universities. Collaboration between parents and lecturers is advocated to combat indiscipline and drug addiction among students. Furthermore, the study recommends the distribution of qualified guidance and counseling experts in universities to address student challenges effectively. The need for increased laboratory facilities, teaching equipment, and instructional materials is highlighted to enhance the learning experience and mitigate issues like absenteeism and poor academic performance. Additional recommendations include increasing pocket money for students, donor investment, parental involvement in academic activities, and community support through providing uniforms and assistance to foster a conducive learning environment for students.

Reference

- Abedian, I., Strachan. B & Ajam T. (2001). *Transformation in action: Budgeting for health service*
- Adamu, N.,(2015). *Impact of Learning Environment on the Performance of Students in Social Studies in Junior Universities in Taraba State, Nigeria*. Master Degree Thesis, Universities of Postgraduate Studies, Ahmadu Bello University, Zaria, Nigeria.
- Alvaro, J.A.,(2010). *An Investigation of an Assessment-Centered Learning Environment with Formative Use*. Pearson assessment bulletin 18.pearson education inc. Accessed 30/09/2019from:<https://images.pearsonassessments.com/images/PDF/TMRSBulletin18.pdf>
- Ancess, J. (2000). *The reciprocal influence of lecturer learning, teaching practice, universities restructuring, and student learning outcomes*. *Lecturers College Record* 102 (3): 590–619. Baker,
- Arul Laurence, A.S. (2012). Universities Environment & Academic Performance of Standard Six Students, *Journal of Educational and Industrial Studies in the World*, vol. 2, issue 3 article 22. Accessed 20/11/2019 from <https://files.eric.ed.gov/fulltext/ED542331>.
- Collins, A., & R. Halverson. (2009). *Rethinking education in the age of technology: The digital revolution and universities in America*. New York: Lecturers College Press.
- Entwistle, N. J. (1987). *A model of the teaching-learning process derived from research on student learning*. In J. T. E.
- Fouts, C. A. Gratama, J. N. Clay, and S. G. Scott. (2006). *Digital Learning Commons: High universities seniors' online course taking patterns in Washington State*. Seattle: Fouts and Associates. <http://www.learningcommons.org>.
- Hite, J., et al.(2004) *Exploring the relationship between critical resources and student performance in Universities in Mukono, Uganda*. in 48th Annual Conference of the Comparative and International Education Society, Salt Lake City, UT.
- Kambutu, J. (2013). *Globalization: History, consequences and what to do with it*. In L.
- Nganga, J. Kambutu, & W. B. Russell III (2013) (Eds.) *Exploring globalization opportunities and challenges in social studies. Effective instructional strategies (pp.1-10)*. New York: Peter Lang.(12 September, 2013) and Notice 932 of 2013 (Government Gazette No 38837 of 2013).
- Plumbley, J. P., Jr. (1978). *The impact of universities building age on the academic achievement of pupils from selected universitiess in the State of Georgia*. Unpublished doctoral dissertation,
- Proshansky, H. M. (1975). *Theoretical issues in environmental psychology*. In T. G. David
- Skinner, B. F. & Watson, J. B. (1974). *About behaviorism*. Chicago: University of Chicago Press. *Utopia through the control of human behavior (1st ed.)*. New York, NY:
- RandomHouse.Retrievedfromhttp://books.google.com/books?id=Ndx7awW_1OcC&lpg=PP1&pg=PP1#v=onepage&q&f=false.
- Vygotsky, L. S. (2016). *Socio-cultural theory*. Cambridge, MA: Harvard University Press.