

USE OF LEARNING MANAGEMENT SYSTEM AS CORRELATE OF STUDENT ACADEMIC ENGAGEMENT IN PUBLIC UNIVERSITIES IN ANAMBRA STATE, NIGERIA.

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Abstract

The study investigated the relationship between the use of LMS and students' academic engagement in public universities in Anambra State. One research question guided the study and one hypothesis was tested at 0.05 level of significance. The population of the study comprised of 289 regular 300 level undergraduates in the 2024/2025 academic session from two public universities. Two structured questionnaires developed by the researchers was used to collect data. The instrument was validated by three experts in education and subjected to a pilot test. The application of Cronbach Alpha reliability method yielded co-efficient value of 0.88 for QULMS and 0.83 for SAEQ. Pearson Product Moment Correlation statistics was used to answer the research question and test the hypothesis. The findings of the study revealed that the use of LMS has high positive relationship with students' academic engagement in public universities in Anambra State. Findings also revealed that there is a significant positive relationship between use of learning management system and students' academic engagement in public universities in Anambra State. Based on the findings of the study, the researchers conclude that the use of learning management systems significantly correlates students' academic engagement in public universities in Anambra State. The researchers therefore recommended among others that administrators of universities should integrate Learning Management Systems more thoroughly into their curriculum design and course delivery methods.

Keywords: *Learning Management System (LMS), Students, Academic Engagement, Public, Universities*

Introduction

Public universities are institutions established by law to provide post-secondary education for Nigerians and individuals from other nationalities. These universities are founded, managed, and funded by the government with the purpose of offering advanced educational services to the public (Ogunode et al., 2020). According to the Federal Republic of Nigeria (FRN), (2013), the objectives of higher education (university inclusive) in Nigeria are manifold. Firstly, it aims to foster proper value orientation, essential for the survival of both the individual and society. Additionally, it seeks to develop individuals' intellectual abilities, enabling them to comprehend and value their environment (Ochai, 2026). Higher education promotes the acquisition of both physical and mental skills, equipping individuals to become valuable members of the community. These goals, as outlined by the FRN, should be pursued by higher education institutions through teaching, research, dissemination of existing and new knowledge, community service, and the preservation of knowledge.

In essence, students are the learners in universities and their presence is essential to the realization of the mission and statements of universities (Iroegbu et al., 2021). It is therefore imperative that students are academically engaged. Students' academic engagement encompasses both the psychological and behavioural dimensions of students' connection to their school (Vogt, 2016). Psychologically, academic engagement involves students' identification with and appreciation of their educational outcomes (Abid & Akhtar, 2022). It embodies a sense of belonging within the school community and an acceptance of the institution's values and principles. Behaviourally, academic engagement refers to students' active involvement in a variety of academic and non-academic pursuits within the school. According to Akajiaku (2026), this includes participation in classroom discussions, timely completion of assignments, and involvement in extracurricular activities such as clubs, sports, or community service. Such behaviourally engaged students display a proactive approach to learning, often seeking opportunities to contribute and grow beyond the conventional classroom setting. Likewise, Ma and Wang (2022) identified the core dimensions of academic engagement—*affective, behavioural, cognitive, and social*—confirming that it is a meta-construct. *Affective engagement* relates to learning from experience; *behavioural engagement* implies active participation; *cognitive engagement* involves using learning strategies to achieve goals; and *social engagement* pertains to interpersonal skills. Mysore and Vijayalaxm (2020) stated that students who feel both psychologically and behaviourally connected to their school are more likely to experience positive educational outcomes, gain personal fulfilment, and build meaningful relationships with peers and educators. Abid and Akhtar (2022) asserted that engagement is often used by educators and researchers to understand and enhance students' overall school experience.

Sadly, the level of students engagement in some public universities in Anambra State appears to be low. Firstly, limited resources and infrastructure constraints may hinder students' ability to fully engage in their academic pursuits. Secondly, high staff-to-student ratios often make it

challenging for lecturers to provide the personalised attention necessary for fostering engagement (Adeyemi & Musa, 2026).

A Learning Management System (LMS) was described as a sophisticated, web-based application intended to deliver content, manage assessments, facilitate communication, and streamline course administration. Brown (2020) referred LMS as a unified platform for managing and delivering e-learning courses, while Binyamin et al. (2020) defined it as a digital learning tool that centralised course creation, training content management, and learner administration capabilities. Brush (2019) stated that LMS is a digital platform designed to aid in planning, implementing, and evaluating specific learning activities. Brush further stated that LMS comprised of two main components: a server responsible for managing essential functions and a user interface accessible to lecturers, students, and administrative staff. According to Ajijola, et al. (2021), LMS provides support for students in both online and blended learning contexts and was widely adopted in educational settings and corporate training environments.

Andersen (2019) explained that an LMS offered lecturers a structured approach to deliver educational materials, monitor student engagement, and evaluate academic progress. In addition, LMS commonly provided interactive features for students, such as threaded discussions, video conferencing, and forums, which Andersen highlighted as essential tools for enhancing student interaction and engagement. The use of platforms like Blackboard, Canvas, and Moodle, Andersen added, significantly improved the student learning experience when used effectively. Research conducted by Oguguo et al. (2021) demonstrated that LMS usage positively influenced students' academic achievement, particularly when compared to traditional computer-assisted instruction Mohammed (2021) observed that LMS contributed positively to students' academic performance. Odekeye et al. (2023) indicated that this lag was largely due to a continued reliance on conventional teaching methodologies, which, as Almoslamani (2018) remarked, restricted LMS adoption despite its potential benefits. Almoslamani opined that LMS systems sometimes struggled to maintain student engagement. These views however, have not been empirically proven in public universities in Anambra State. It is against this background that the researchers sought to determine the relationship between use of learning management system and students' academic engagement in public universities in Anambra State.

Statement of the Problem

Students' academic engagement is important for supporting improved academic performance in universities across Anambra State. Structuring courses with clear objectives and well-defined assignments can enhance students engagement, as these elements create a more organised learning experience Despite the importance of academic engagement, many universities face challenges in maintaining strong engagement levels among students. This is concerning, as low engagement can negatively impact undergraduates' academic outcomes. Observations by the researchers indicate that some undergraduates at various institutions struggle with academic engagement, often spending more time on social gatherings and

activities unrelated to their studies. For instance, some students participate in social events like night clubbing rather than focusing on their coursework or attending study groups. Also, some students prioritize extracurricular activities over academic responsibilities which results to a lack of attention to assignments and preparation for examinations. This disengagement is concerning, especially considering that these students are expected to become the skilled workforce necessary for national development upon graduation. The researchers noted that this trend may reflect broader issues within the educational system, including insufficient motivation and support for academic engagement. The researchers wonder if the use of LMS could improve students' academic engagement in public universities. Thus, the study therefore, sought to investigate the relationship between the use of LMS and students' academic engagement in public universities in Anambra State.

What is the relationship between use of learning management system and students' academic engagement in public universities in Anambra State?

The null hypothesis was tested at 0.05 level of significance:

There is no significant relationship between the use of management system and students' academic engagement in public universities in Anambra State.

Methodology

The study utilized correlational research design and was conducted in Anambra State. The population included 289 regular third-year undergraduates from two public universities during the 2024/2025 academic session. The undergraduates were from Department of Educational Management and Policy from Nnamdi Azikiwe University, Awka and Department of Educational Foundations from Chukwuemeka Odumegwu Ojukwu University, Igbariam campus all in Anambra State. Two instruments were used to collect data for the study. The first instrument was titled "Questionnaire on Use of Learning Management System (QULMS). It contained 10 items on use of learning management system in public universities. The second instrument was titled "Students Academic Engagement Questionnaire (SAEQ)." It contained 20 items on students' academic engagement. Both instruments were structured on a 4-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The instruments were validated by three experts from the Faculty of Education at Nnamdi Azikiwe University, Awka. The instruments were subjected to a pilot test which was administered on 20 undergraduates in public universities in Enugu State. The application of Cronbach Alpha reliability method yielded co-efficient value of 0.88 for QULMS and 0.83 for SAEQ. The instruments were administered by the researchers with the help of six research assistants.. The instruments were administered to the respondents on the spot and retrieved after completion. Out of the 289 copies of the instruments administered, 264 copies were retrieved in good condition which amounted to 91% questionnaire return rate. The 264 copies were used for the analysis of data. Pearson Product Moment Correlation statistics was used to answer the research questions and test the hypotheses. The decision rule was based on the following:

Correlation Coefficient	Interpretations
Plus (+) or minus (-) 0.00 to 0.20	Very Low Relationship
Plus (+) or minus (-) 0.20 to 0.40	Low Relationship
Plus (+) or minus (-) 0.40 to 0.60	Moderate Relationship
Plus (+) or minus (-) 0.60 to 0.80	High Relationship
Plus (+) or minus (-) 0.80 and above	Very High Relationship

A positive coefficient (+) signifies a positive relationship between the variables, while a negative coefficient (-) indicates a negative relationship. To assess the values of the null hypotheses, the following decision rule was established: if the p-value is less than or equal to .05 ($p \leq .05$), the null hypothesis was rejected. Conversely, if the p-value exceeds .05 ($p > .05$), the null hypothesis was not rejected, indicating that there is no significant relationship between the variables.

Results

What is the relationship between use of learning management system and students' academic engagement in public universities in Anambra State?

Table 1: Summary of Correlation between Learning Management System and Students' Academic Engagement in Public Universities in Anambra State

		Learning Management System	Students' Academic Engagement	Remark
Learning Management System	Pearson Correlation	1	.733**	Very High Positive Influence
	Sig, (2-tailed)		.000	
	N	264	264	
Students' Academic Engagement	Pearson Correlation	.733**	1	Very High Positive Influence
	Sig, (2-tailed)	.000		
	N	264	264	

Correlation is significant at the 0.05 level (2-tailed).

Data in Table 1 reveals that the Pearson’s Correlation Coefficient is $r = 0.733$. This means that use of LMS has high positive relationship with students’ academic engagement in public universities in Anambra State. This implies that the use of LMS in public universities would positively improve students’ academic engagement. Thus, the Pearson’s Correlation Coefficient r of 0.733 indicate that the use of LMS has high positive relationship with students’ academic engagement in public universities in Anambra State.

Hypothesis

There is no significant relationship between the use of management system and students’ academic engagement in public universities in Anambra State.

Table 2: Test of Significance of Correlation between Learning Management System and Students’ Academic Engagement in Public Universities in Anambra State

		Learning Management System	Students’ Academic Engagement	Remark
Learning Management System	Pearson Correlation	1	.733**	Significant
	Sig, (2-tailed)		.000	
	N	264	264	
Students’ Academic Engagement	Pearson Correlation	.733**	1	
	Sig, (2-tailed)	.000		
	N	264	264	

Correlation is significant at the 0.05 level (2-tailed).

Data presented on Table 2 revealed that the correlation coefficient (r) is 0.733 with a p -value of 0.000. Since the P value of 0.000 is less than .05 ($P < .05$), it means that the relationship between the use of management system and students’ academic engagement in public universities in Anambra State is statistically significant. This means that there is a significant positive relationship between use of management system and students’ academic engagement in public universities in Anambra State. Thus, the null hypothesis was rejected.

Discussion

The findings of the study revealed that the use of LMS has high positive relationship with students’ academic engagement in public universities in Anambra State. The findings of the study might have occurred because LMS platforms provide students with easy access to course

materials, assignments, and resources, enabling them to engage with their learning at their convenience.. The findings is in consonance with Oguguo et al. (2021) who reported that LMS usage positively influenced students' academic achievement, particularly when compared to traditional computer-assisted instruction. Similarly, Mohammed (2021) observed that LMS contributed positively to students' academic performance. Ajjola, et al. (2021) stated that LMS provides support for students in both online and blended learning contexts. Furthermore, findings of the study revealed that there is a significant positive relationship between use of management system and students' academic engagement in public universities in Anambra State. This is in agreement with Andersen (2019) who revealed that LMS creates a structured approach to deliver educational materials, monitor student engagement and evaluate academic progress.

Conclusion

Based on the findings of the study, the researchers conclude that the use of learning management systems significantly correlates students' academic engagement in public universities in Anambra State. The use of learning management system in universities would enhance students' academic engagement in public universities. Research indicates that putting in place an efficient learning management system (LMS) can have a good impact on how students engage with their peers and teachers, interact with their academic content and take part in course discussion. Therefore, it is necessary for measures to be put in place by relevant stakeholders so as to improve the use of learning management system in public universities.

Recommendations

Based on the findings of the study, the following recommendations were made:

Administrators of universities should integrate Learning Management Systems more thoroughly into their curriculum design and course delivery methods.

Administrators of universities should provide comprehensive training programmes for lecturers on the effective use of Learning Management Systems for teaching and learning.

REFERENCE

- Abid, N., & Akhtar, M. (2020). Relationship between academic engagement and academic achievement: An empirical evidence of secondary school students. *Journal of Educational Research*, 23(1), 48-61.
- Adeyemi, Y.L. & Musa, J.A.B. (2026). Conflict management strategies and teacher effectiveness in private secondary schools, Sokoto Statem *International Journal of Education, Management Sciences and Professional Studies*, 5(3), 213-225.
- Ajjola, E. M., Ogunlade, O. O., Aladesusi, G. A., & Olumorin, C. O. (2021). Perception of

- learning management system among distance learners in South-West, Nigeria. *Journal of Digital Learning & Education*, 1(2), 72-84.
- Akajiaku, E.A. (2026). Students' perception on school environment and academic performance in secondary schools in Enugu State, Nigeria. *International Journal of Education, Management Sciences and Professional Studies*, 2(3), 111-125.
- Almoslamani, Y. (2018). *Effectiveness of student engagement using learning management system in the blended learning environment at Saudi Electronic University* (Dissertation No. 484). <https://digscholarship.unco.edu/dissertations/484>
- Andersson, T. (2019). *Learning management systems (LMS). Case study on an implementation of an LMS and its perceived effects on teachers*. Master thesis in informatics, Linnaeus University, Sweden.
- Binyamin, S. S., Rutter, M. J. & Smith, S. (2020). The moderating effect of gender and age of students' acceptance of Learning Management System in Saudi higher education. *Knowledge Management and E-learning*. 12 (1), 30-62
- Brown, D. (2020). *The 13 must-have features of a learning management system*. [https://www.peoplefluent.com/blog/learning/13-must-have-features-of-a-learning Management - system](https://www.peoplefluent.com/blog/learning/13-must-have-features-of-a-learning-Management-system)
- Brush K. (2019). *Learning management system (LMS)*. <https://searchcio.techtarget.com/definition/learning-management->
- Federal Republic of Nigeria (2013). *National policy on education*. NERNERDC Pressroegbu, A. I., Abashi, L. E., & Ogunode, J. N. (2021). An evaluation of the problems faced by undergraduate of Federal University Wukari, Taraba State Nigeria. *European Journal of Humanities and Educational Advancements (EJHEA)*, 2(3), 20-24.
- Ma, Q., & Wang, F. (2022). The role of students' spiritual intelligence in enhancing their academic engagement: A theoretical review. *Frontiers in Psychology*, 13(4), 842-857. <https://doi.org/10.3389/fpsyg.2022.857842>.
- Mohammed, U. A. (2021). *Effect of using learning management system on academic performance of students in financial accounting in secondary schools in Bauchi State*. <https://www.grin.com/document/983916>.
- Mysore, L. & Vijayalaxm, A.H.M. (2020). Relationship between social intelligence and academic engagement among adolescents. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 10(4), 22-27.
- Ochai, D.P. (2026). Assessment of the relationship between application of artificial intelligence (AI) and students personal service management. *International Journal of Education, Management Sciences and Professional Studies*, 2(2), 79-91.

- Odekeye, O. T., Fakokunde, J. B., & Metu, D. V. (2023). Perception of learning management system (LMS) on the academic performance of undergraduate students during the COVID-19 pandemic. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 19(1), 7-19.
- Ogunode, N. J., Audu, E. I., & Ahaotu, G. N. (2020). Problems faced by students in public universities in Nigeria and the way forward. *Jurnal Sinestesia*, 10(2), 105.
- Oguguo, B. C. E., Nannim, F. A., Agah, J. J., Ugwuanyi, C. S., Ene, C. U. & Nzeadibe, A. C. (2021). *Effect of learning management system on Student's performance in educational measurement and evaluation*. <https://link.springer.com/article/10.1007/s10639-020-10318>