

# Learning Management Systems as Correlate of Effective Instructional Delivery in Educational Management Programme in Public Universities in Rivers State

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## ABSTRACT

The study examined Learning Management Systems (LMS) as correlate of effective instructional delivery in educational management programme in public universities in River State. Correlational research design was adopted in the study. The population of study comprised 69 lectures in educational management in two public universities in River State: Uniport (35) and IAUE (34). The entire population was used due to its manageable size, hence, there was no sample. Two instruments entitled: Learning Management Systems Rating Scale (LMSRS) and Teachers' Instructional Delivery Test (TIDT) were used for data collection. LMSRS was divided into two clusters. Cluster 1: Canvas Platform (10 items) and cluster 2: Moodle Platform (10 items). TIDT also have a 10 items; making a total of 30 items in both instruments. Both instruments were validated by experts and tested for reliability using Crombach Alpha Coefficient for LMSRS and K-R 20 for TIDT. LMSRS had reliability coefficient of 0.76 while TIDT result was 0.79. Data were analysed using Pearson Product Moment Correlation Coefficient ( $r$ ) to answer the research questions, while the null hypotheses were tested using regression. Result revealed that Canvas and Moodle platforms contributed effectively to instructional delivery. There is positive relationship between Canvas platform; Moodle Platform and effective instructional delivery in educational management programme. It was recommended that the Government of River State should invest in LMSs like Canvas and Moodle as an alternative to the traditional classroom system to ensure effective teaching and learning at all times.

## INTRODUCTION

Education Management Programme (EMP) is a field of study which is concerned with managing educational institutions at various levels. In the view of Soliman (2024), EMP is a field of study which is concerned with the operation of educational organizations. Experience suggests that EMP is more than just the operation of educational institutions since its scope is broad. In the assertion of National Universities Commission (2022), EMP is concerned with the acquisition of appropriate managerial skills, abilities and competences such that the prospective educational manager would better understand human behaviour and interrelationships; predict them and be in a vantage position to manage both the human behaviour and the interrelationships. EMP focuses in improving the quality of education, enhancing the performance of teachers and students, and ensuring the overall success of the institution. The programme is aimed at improving the overall performance of the educational institution; enhances the quality of education provided to students; boosts the morale and motivation of teachers and staff and ensures effective communication and collaboration within the school system.

EMP involves planning, organizing, directing, and controlling various activities related to education and the

effective utilization of human and material resources, in order to achieve the objectives of educational institution. The objectives of the programme according to National Universities Commission (2022:332) are to: (i) produce graduates that are competent as both teachers and managers of educational organizations; (ii) enhances the productivity and relevance of education to the society through professional management of the sector; (iii) lead the spirit of enquiry, creativity and entrepreneurship of teaching through leadership by example; (iv) enlist motivation into all personnel of the different segments of the Education sector; (v) be in a better position to lead others in the education sector and outside it; (vi) produce the needed manpower and human resource to fill vacancies in Ministries of Education, Several Education Related Agencies and in all levels of educational institutions; and (vii) adequately train and produce graduates for employment in all levels of educational ladder, the Ministries of Education, Local Government and other Education related agencies. The primary goal of educational management programme is to ensure that educational institutions operate efficiently and effectively to provide high-quality education to students at various levels of educational institutions. In achieving this goal, there is much emphasis on effective instructional delivery.

Instructional delivery is the process of presenting educational material to learners in an engaging and effective manner so that learning can take place. According to Wordu and Akor (2018), instructional delivery has been seen as the process showing every activity the teachers and the learners does in classroom settings. Instructional delivery is the main fabric of curriculum implementation. It is one of the indicators often linked with quality education (Olorunsola, 2014). It involve the utilization of various teaching techniques and strategies to facilitate learning and understanding. Instructional delivery plays a crucial role in the success of any educational programme, as it directly impacts the learning outcomes of students. Instructional delivery is said to be effective if it cater to diverse learning styles and needs of students. It can be enhanced by using technology. This agrees with Dooge (2017) that for meaningful and qualitative teaching and learning outcomes to take place, there is absolute need for teachers and students to be conversant with the latest technology so as to improve their strategy of information dissemination and learning. One of such technologies is Learning Management Systems (LMS) which integrate online platforms and virtual tools for interactive learning experiences.

A Learning Management Systems (LMS) are software application which facilitate the administration, documentation, tracking, and reporting of e-learning activities. In the assertion of Clarity Innovations (2014), LMSs are online platforms that enables the delivery of materials, resources, tools, and activities to students both in and out of the classroom environment. Walker in Reid (2019) considered LMSs to be course management platforms for instructors to design, develop, and prepare their classroom to deliver online education to their students. Learning Management Systems (LMS) play a crucial role in the effective delivery of instruction in educational management programmes. They provide a platform for organizing course materials, facilitating communication among students and instructors, and tracking student progress. LMS serve as a central hub for instructional content, allowing instructors to create, distribute, and assess learning materials. Clarity Innovations (2014) elucidated that LMSs allows teachers to offer tailored instruction that can be accessed by students anytime, anywhere without geographic constraints. LMSs also enable instructors to deliver content in various formats, such as videos, quizzes, and discussion boards. Furthermore, Bradley (2021) noted LMS that provide teachers and students with an online classroom that reinforces learning processes. LMS also support real-time feedback, collaboration among students, and personalized learning experiences.

There are various types of LMS platforms. However, Al-Dhief et al. (2024) noted that the most applied systems of LMS platforms are Canvas, Blackboard, Moodle and Desire to learn. This paper systematically selected and focused on Canvas and Moodle. The Rio Hondo College (2022) considered Canvas as a course management system that supports online learning and teaching. It allows instructors to post information, learning contents, monitor learning, assess and grade students online. Canvas is a software built using web standards, which can run on Windows, Mac, Linux, iOS, Android, or any other device with a modern web

browser. Follett Discover (2021:1) noted that the basic features of Canvas include: communication tools (inbox, announcements, discussions and conferencing); assessment tools (assignments, quizzes, grades, speed-grader and outcomes); content tools (pages, modules, syllabus and files); interactive tools (group work, conferencing and collaboration) and analytics tool. Research has shown that Canvas enhanced English teaching and learning process since it offers various features, such as modules for sharing materials, discussion boards, assignments, conferencing tools for online meeting, and wider links to other platforms (Al Khoeri et al, 2021).

Modular Object Oriented Dynamic Learning Environment (Moodle) is another important LMS platform. Kasim and Khalid (2016) elucidated that it was developed in 2001 and is based on the social constructionist pedagogical principle. According to Devi, et al. (2020) Moodle is a software package for producing internet-based courses and websites. It is the LMS platform that allows better cooperation among learners, tutors and students. Moodle is increasingly gaining popularity. It is being used as a platform for adaptive and collaborative learning and used to improve online assessments (Gamage et al., 2022).

Moodle platform wide acceptance could be attributed to its ability to streamline training processes for the best learning experiences and proves to be invaluable when it comes to structuring and sharing course materials with learners, and also in monitoring and assessing progress (Hubken Group, 2024). In the opinion of Goodwin-Jones in Kotzer and Elran (2012), Moodle allows the integration of a wide range of resources, from chats and forums to online booklets, a variety of questions, collections of problems and exercises, lecture notes; including any kind of text-based or Html-formatted documents, multimedia resources such as graphics, video or audio (e.g., MP3 files), PowerPoint, or Flash-based applications and Java applets. Furthermore, the existence of an important number of courses available freely from many institutions online, along with the ease of organization an LMS inherently provides, enables lecturers to raise the quality of their courses by using new teaching material that would otherwise be complicated for them to get their hands on (Garcia and Somé, 2012). In addition, Moodle has features which supports quizzes and tests that can automatically be generated from a pool of questions. It also has enhances students' supervision and can monitor learning activities from a distance.

## **Statement of the Problem**

The emergence of LMS technology in education has enhanced teaching and learning. However, much of the attention of scholars, as evidence in literature in this area, concentrated more on students' learning (Endozo et al., 2019). It is even uncommon to find works on LMS in relation to instructional delivery in educational management programme that supposed to be in the forefront of LMS in the educational system. More worrisome is the fact that most institutions, especially, those in advanced world are integrating LMS into the school system at fast pace leaving some behind in a globally competitive digital era. This means that collaboration which is an element of LMS and other of its benefits may not be experienced by educators in some institutions. Based on this backdrop, it became imperative to investigate learning management systems as correlate of effective instructional delivery in educational management programme in public universities in River State.

## **Purpose of the Study**

The main purpose of the study was to ascertain learning management systems as correlate of effective instructional delivery in educational management programme in public universities in River State. Specifically, the study determined:

1. The relationship between Canvas platform and effective instructional delivery in educational management programme in public universities in River State.
2. The relationship between Moodle platform and effective instructional delivery in educational

management programme in public universities in River State.

## Research Questions

The following research questions were formulated for the study:

1. What is the relationship between Canvas platform and effective instructional delivery in educational management programme in public universities in River State?
2. What is the relationship between Moodle platform and effective instructional delivery in educational management programme in public universities in River State?

## Hypotheses

The following null hypotheses guided the study and were tested at 0.05 alpha level of significance:

1. There is no significant relationship between Canvas platform and effective instructional delivery in educational management programme in public universities in River State.
2. There is no significant relationship between Moodle platform and effective instructional delivery in educational management programme in public universities in River State.

## METHODOLOGY

Correlational research design was adopted in the study. The population of study comprised 69 lectures in educational management in two public universities in River State: University of Port Harcourt (35) and IAUE (34). The entire population was used due to its manageable size, hence, there was no sample. Two instruments entitled: Learning Management Systems Rating Scale (LMSRS) and Teachers' Instructional Delivery Test (TIDT) were used for data collection. LMSRS was divided into two clusters. Cluster 1: Canvas Platform (10 items) and cluster 2: Moodle Platform (10 items). TIDT also have a 10 items; making a total of 30 items in both instruments. Both instruments were validated by experts and tested for reliability using Crombach Alpha Coefficient for LMSRS and K-R 20 for TIDT. LMSRS had reliability coefficient of 0.76 while TIDT result was 0.79. These results indicates that the instruments are suitable for use in the study. Data collected were analysed using Pearson Product Moment Correlation Coefficient ( $r$ ) to answer the research questions, while the null hypotheses were tested using regression.

## RESULTS

### Research Questions

**Research Question 1:** What is the relationship between Canvas platform and effective instructional delivery in educational management programme in public universities in River State?

Summary of results for research question one is presented in Table 1

Table 1: The Relationship between Canvas Platform and Effective Instructional Delivery in Educational Management Programme in public universities in River State

Computed r	r. Square	Adjusted r Square	Standard Error of estimate
0.651	0.424	0.415	12.66532

Table 1 reveals that the calculated regression coefficient  $r$  is 0.651. This indicates a high positive relationship between Canvas platform and effective instructional delivery in educational management

programme. Furthermore, the regression coefficient squared ( $r^2$ ) value is computed to be 0.424. This means that Canvas platform contributes approximately 42% to effective instructional delivery in educational management programme in public universities in River State.

**Research Question 2:** What is the relationship between Moodle platform and effective instructional delivery in educational management programme in public universities in River State?

Summary of results for research question two is presented in Table 2

Table 2: The Relationship between Moodle Platform and Effective Instructional Delivery in Educational Management Programme in public universities in River State

Computed r	r. Square	Adjusted r Square	Standard Error of estimate
0.717	0.514	0.507	11.63468

Table 2 shows that the calculated regression coefficient  $r$  is 0.717. This indicates a high positive relationship between Moodle platform and effective instructional delivery in educational management programme. Furthermore, the regression coefficient squared ( $r^2$ ) value is computed to be 0.514. This implies that Moodle platform contributed approximately 51% to effective instructional delivery in educational management programme in public universities in River State.

**Hypotheses**

**Hypothesis 1:** There is no significant relationship between Canvas platform and effective instructional delivery in educational management programme in public universities in River State.

Summary of results for hypothesis one is presented in Table 3

Table 3: Test of Significance of Relationship between Canvas Platform and Effective Instructional Delivery in Educational Management Programme in public universities in River State

Computed r	r. Square	Adjusted r Square	Standard Error	Beta	T	Sig of t
0.651	0.424	0.415	0.105	0.651	7.031	0.000

Table 3 indicates that the alpha level (0.05) is greater than the significance of  $t$  (0.000). Furthermore, the calculated- $t$  value of 7.031 is greater than the critical- $t$  value 2.00. The researcher rejects null hypothesis one and concludes that the relationship between Canvas platform and effective instructional delivery in educational management programme in in public universities in River State is statistically significant.

**Hypothesis 2:** There is no significant relationship between Moodle platform and effective instructional delivery in educational management programme in public universities in River State.

Summary of results for null hypothesis two is presented in Table 4

Table 4: Test of Significance of Relationship between Moodle Platform and Effective Instructional Delivery in Educational Management Programme in public universities in River State

Computed r	r. Square	Adjusted r Square	Standard Error	Beta	T	Sig of t
0.717	0.514	0.507	0.106	0.717	8.415	0.000

Table 4 reveals that the alpha level (0.05) is greater than the significance of  $t$  (0.000). More so, the



calculated-t value of 8.415 is greater than the critical-t value 2.00. The researcher rejects null hypothesis two and concludes that the relationship between Moodle platform and effective instructional delivery in educational management programme in public universities in River State is statistically significant.

## DISCUSSION

Analysed data revealed a high positive relationship between Canvas platform and effective instructional delivery in educational management programme in public universities in River State. The finding indicated that Canvas platform is an effective educational tool that contributed approximately 42% to effective instructional delivery in educational management programme. This is because Canvas allows instructors to post information, learning contents, monitor learning, assess and grade students online. Canvas has become an essential tool for educators worldwide and has continue to play a significant role in revolutionizing instructional delivery with its numerous benefits. The platform allows for seamless communication between instructors and students; enabling real-time feedback with its instant messaging features. With its analytics feature, Canvas provide valuable data for instructors to track students' performance and tailor instruction for better their outcomes. The finding aligns with the Salt Lake Community College (2021:4) that Canvas can easily connects instructors and students; used to monitor grades; manage active enrolments and assignment submissions; share course documents; facilitate message correspondence between students and instructors; contain course and institutional syllabus information for all to access. The finding also agrees with Rio Hondo College (2022) that Canvas offers discussion boards for asynchronous discussions, chat rooms for live discussions, centralized email (Canvas Conversations), so students can stay in touch with their instructor and communicate with other students, and even a way to submit assignments and take examinations.

Analysed data further revealed that the relationship between Canvas platform and effective instructional delivery in educational management programme is statistically significant. This implies that Moodle positively enhances educators' effectiveness because the platform allow for better cooperation among learners, tutors and students. The platform supports adaptive and collaborative learning. Moodle also improve online assessments. The finding is in line with Al Khoeri et al, (2021) that Canvas enhanced English teaching and learning process since it offers various features, such as modules for sharing materials, discussion boards, assignments, conferencing tools for online meeting, and wider links to other platforms. The finding is also supported by Oudat and Othman (2024) that Canvas accommodate diverse learning needs and schedules; thereby making it an effective tool for instructional delivery.

Data analysed revealed a high positive relationship between Moodle platform and effective instructional delivery in educational management programme in public universities in River State. This indicates that Moodle platform is a very effective instructional tool, as it contributed approximately 51% to effective instructional delivery in educational management programme. The finding agrees with Salas-Rueda et al. (2020) that Moodle positively influences the participation and communication during the educational process; the performance of the activities inside and outside the classroom and improving the educational field through the realization of the online exams and discussion forums, diffusion of the tasks and consultation of the contents at any time. The finding is also supported by Posese-Okesene (2018) that Moodle facilitate online interactions between student-lecturer, student-student and student-content interactions as well as impact on students' motivation, confidence and performance.

Analysed data further revealed that the relationship between Moodle platform and effective instructional delivery in educational management programme is statistically significant. This indicates that Moodle contributes positively to effective instructional delivery. The finding is supported by Sallam and Alzouebi (2014) that, teachers had a very positive view about Moodle as a tool for enhancing teaching and learning. The finding also agrees with Salas-Rueda et al. (2020) that, teachers have a positive perception of Moodle as

a learning tool that allows improving the educational field through the realization of the online exams and discussion forums, diffusion of the tasks and consultation of the contents at any time. The finding also aligns with Egorov, et al. (2021:3) that Moodle provide wide opportunities for developing students' independence, responsibility, and activity; – the use of various information resources that develop skills to work with information; the ability to create individual educational paths, personal portfolios and databases of students' academic performance, achievements, etc.; and the opportunity for creation of new knowledge, experience exchange and consulting.

## CONCLUSION

Learning Management Systems play a significant role in enhancing instructional delivery in educational management programmes. Their use is associated with improved student outcomes, increased engagement, and more effective teaching practices. As technology continues to advance, the importance of LMS in educational settings is likely to grow, making them a valuable tool for educators and students alike. It is pertinent therefore, for public universities in River State to embrace LMS technology particularly, Canvas and Moodle to enhance effective teaching and learning.

## EDUCATIONAL IMPLICATION OF THE STUDY

LMSs are capable of providing alternative to the traditional approach of teaching and learning. They enables the delivery of materials, resources, tools, and activities to students both in and out of the classroom environment. They are crucial in organizing course materials, facilitating communication among students and instructors, and tracking student progress. They can provide opportunity for personalized learning, which means learning can be customized to suit the individual need of each learner. Thus, it is essential to integrate LMS into the teaching and learning of educational management programme in public universities in River State.

## RECOMMENDATION

The following recommendations were made:

1. Teachers in educational management programme should be encourage to use Canvas and Moodle to update the activities of the courses and build new educational spaces that allow the active role of the students during the learning process.
2. The Government of River State should invest in LMSs like Canvas and Moodle as an alternative to the traditional classroom system to ensure effective teaching and learning at all times.

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