

# Influence of Learning Management System on Students Learning Attitude among Undergraduates of Osun State University.

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## ABSTRACT

This study examined the influence of learning management system on students learning attitude among undergraduate of Osun state University, Osun State, Nigeria. four research questions with one hypothesis were raised to guide the study. The researchers provide answer to the following research questions: What is the influence of Learning Management System (LMS) usage on students attitude to learning, to what extent is LMS usage adequate for effective learning in Osun State University, how proficient are students in the use LMS to enhance learning in Osun State University, what are the factors that inhibit the use of LMS in Osun State University?

The study adopted descriptive survey design. The target populations are the undergraduates of Osun State University. Two hundred and ten (210) undergraduates were sampled for this study through a simple random sampling technique and three (3) Campus (College of Management and Social sciences in Okuku, College of Humanities and Culture in Ikire and College of Education in Ipetu-ijesa) out of the Six Campuses owed by the Osun state University were thereby used for the study. from the selected Colleges, three (3) departments were selected through a stratified sampling method, while a convenience sampling method was used to select seventy (70) students from 100 level – 300 level of the selected department in the three (3) selected Colleges, giving a total number of 210 students. a questionnaire, titled Classroom learning Management system Questionnaire (CMSQ) was used. The questionnaires consisted of two sections (A and B), section A elicited responses on the demographic data of the respondents while section B was subdivided into three with relevant items that could be used to elicit relevant responses from the respondents in line with the research questions. Data collected were analysed by using descriptive statistics and t-test.

The findings of the study revealed that the mean age of respondents was 22.4 years and majority of them are male while 48(22.0%) are in three hundred level of their academic years (**Table 1**).

The study showed that 66.6% ( $\bar{x} \bar{x}=2.83$ ) of the undergraduates stated that LMS improves their understanding and 57.6% ( $\bar{x} \bar{x}=2.62$ ) of the respondents asserted that LMS promotes individual learning while 53.8% ( $\bar{x} \bar{x}=2.59$ ) of the participants believed that LMS usage make student to learn on their own without attending lecture. The summary of the findings is that LMS improves their understanding, promotes individual learning, make student to learn on their own without attending lecture and LMS provides students with time and place flexibility (**Table 2**). Also it revealed that 68.1% ( $\bar{x} \bar{x}=2.85$ ) of the undergraduates agreed that LMS tools are expensive and cumbersome for learning and 56.2% ( $\bar{x} \bar{x}=2.71$ ) of the participants asserted that they use LMS frequently while 53.8% ( $\bar{x} \bar{x}=2.53$ ) of the students had the opinion that availability of ICT make students have access to LMS. It was concluded that there LMS tools are expensive and cumbersome for learning, students use LMS frequently and availability of ICT make students have access to LMS (**Table 3**). However, 66.7% ( $\bar{x} \bar{x} = 2.80$ ) of the undergraduates strongly believed that they

prefer LMS to book when sourcing for academic information and 60.0% ( $\bar{x} \bar{x}=2.71$ ) of them alleged that they work on assignments through the use of LMS while 58.1% ( $\bar{x} \bar{x}=2.60$ ) of them vehemently alleged that student-teachers can use the LMS efficiently. This simply revealed that good number of the undergraduates in this opined that they prefer LMS to book when sourcing for academic information because they solve assignments through the use of LMS (**Table 4**). The study confirmed that the computed mean and standard deviation values of male and female were (3.54, 3.56) and (0.68, 0.55) respectively. The result further showed that the calculated t-value of 0.05 was lower than the critical t-value of 3.05 at 5% level of significance or that the probability value of 0.786 is being greater than 5% (0.05) significance level. This implied that the difference between male and female in the use of LMS in Osun State university did not significantly differ based on gender. This means that both male and female undergraduates opined that learning management system (LMS) useful in their academic activities such as assignments, tests, and quizzes (**Table 6**).

Based on the findings of the study, it was recommended that government should invest more in the area of communication infrastructural facilities as well as partnering with telecommunication companies for free internet service to university servers and students during online learning classes.

**Keywords:** Influence, learning management system, undergraduates, and learning attitude.

## INTRODUCTION

Electronic learning (E-learning) is a broad term used interchangeably with online education and distance learning. Most university students nowadays also have access to the internet as their university provides internet access, and usually, there are internet cafes within a walking distance from the university's campus, catering for students' e-learning needs. Some also have internet access within their home as they subscribe to an internet service provider.<sup>1</sup>

Learning Management Systems are e-learning systems that are often described as Virtual Learning Environments (VLE), Knowledge Management Systems (KMS) and Content Management Systems (CMS).<sup>2</sup> They provide students and lecturers with a set of tools for improving the learning process and its management and function as a support in traditional classroom education as well as in distance education.<sup>3,4</sup>

University students are mostly independent in their learning as lecturers usually give out lecture notes, and further information is left for students to discover on their own, as this is not the learning process in the primary and secondary schools.<sup>2</sup> The learning process at the university level is at a two-way level, lecturers share their knowledge and students give their opinions or thoughts in return.<sup>2</sup>

The most significant development in the use of e-learning at universities in the last decade has been the adoption of a Learning Management System to support the teaching and learning process. It is usually implemented on a very wide range across entire university, faculty or school and then adopted by lecturers, who use it in a variety of ways to support course management and students' learning.<sup>1</sup>

The evolution of the Learning Management Systems has made teaching and learning a lot more practical, exciting and innovative in higher education. The Learning Management Systems provides the means and ways for universities to manage and administer courses. It is mainly a type of application which allows students to obtain materials from lectures, discussions, assessments and as a medium of virtual interaction between instructors and other students.<sup>8</sup>

Learning Management System is a software application which enables users or learning managers to disseminate information by adopting an appropriate pedagogical approach. It allows users to share information and collaborate online.<sup>5</sup> In Learning Management System, the instructor or learning manager

can monitor students' involvement, and assess their performance. Thus, Learning Management Systems must include interactive features, for instance, video conferencing and chat or group discussion tools.<sup>5</sup>

Learning Management Systems makes it possible for instructors to choose the right kind of blended learning to suit the lessons. For example, the instructor can break the boredom of a classroom session by introducing chat, video conference and discussion boards, depending on how effective the system is in that particular higher institution.<sup>6</sup> By applying this way of teaching, students become more eager to learn the subject as the method is different from the traditional ways or styles of teaching. Furthermore, it increases the level of communication among students and the instructor.<sup>7</sup> Students will not face the problem of missing out on class lectures and activities as they will be able to access the learning activities and recorded lectures through Learning Management Systems. By doing this the students are able to access knowledge at their own comfort besides encouraging independence and a self-paced learning style.<sup>8</sup> Students' motivation can be heightened as they are able to manage their learning using the platform.

Learning Management Systems provides students with the opportunity to use interactive features such as threaded discussions and discussion forums, get comments from their lectures, submit their assignments, get extra resources for lectures, make the connection with their lectures easily as well as help them to organize lecture materials.<sup>7</sup> However, in practice, many Learning Management Systems platforms have a lot of setbacks. These include lack of financial budget, compatibility of software and hardware, technical staff, etc. An efficient and effective Learning Management Systems must support students' engagement, satisfaction and improve learning outcomes.<sup>8</sup>

Despite the importance attached to Learning Management System, it is unfortunate to note that the system has failed to produce the expected results.<sup>9</sup> This is due to the inadequate use of the LMS, which often focuses more on the needs of the institution and courses instead of that of the students. To come to terms with these complex problems, Learning Management System needs to open up for integration and support other systems. This means that the quality of Learning Management Systems needs to be improved to be able to deliver the desired results.

However, whether or not the Learning Management Systems tool is useful, it still depends on the way the tool is used in a given course. Students will need to know how to use the system to enhance their learning practices. The lack of knowledge and interest in utilizing the system among students can also make the Learning Management Systems become less effective. The instructor henceforth plays a vital role in motivating the students to access it and make it interactive.<sup>9,10</sup>

Osun State University makes use of the Moodle Learning Management System (MLMS) like discussion forums, chats, file sharing, video conferences, shared white boards among other e-learning platforms. This is an e-learning platform that deals with collection of online software applications, packaged together to deliver teaching and learning in either a distance education or an on-campus mode.<sup>17</sup> The management of the Osun State University is driving the integration of e-learning platforms with traditional teaching and learning methods, with emphasis on the former. The year 2020-2022 has seen a revolutionized learning and teaching environment in the University, since the adoption of the Moodle learning management system (MLMS). The Moodle system of learning and lecture delivery has been roundly embraced with over 450,500 activities, with a projection that by the commencement of the first and second semesters of 2022/2023 academic session, the Virtual Learning Environment of the University would have attracted as much as 2.5 million activities.<sup>17</sup>

In most cases, classroom teachers seems tired of using verbal instruction in attempts to manage the class effectively because verbal instruction does not produce desired results. Many teachers use corporal punishment to instill fear and discipline in the classroom yet there are prevalence of disruptive behaviors in

the classroom. A lot of teachers waste time and energy in intensive classroom supervision so that the classroom climate could be conducive for lessons but still many of them are unable to achieve their stated objective at the end of the teaching process. Some classroom teachers delegates authority to deserving prefects such as time – keeper, noise prefects, class prefects, etc. to share in the responsibility of ensuring a conducive learning atmosphere in the classroom but still all their effort will be abortive and they will still be unable to control and manage the class adequately.<sup>8</sup>

However, public concern is high over the dismal performance of students. The poor achievement of students in examinations is a clear indication that there are deficiencies with respect to classroom management practices within undergraduates. Therefore, this study investigated the influence of learning management system on undergraduate in Osun state University learning attitude.

## METHODOLOGY

This study was carried out at Osun State University, Osogbo, which is the capital city of Osun State, Nigeria. The Osun state University is a multi-college University with Six Colleges across the major cities of Osun State i.e Osogbo, Okuku, Ipetuijesa, Ifetedo, Ikire, and Ejigbo. The University comprises six Colleges which are the College of Health Sciences in Osogbo, College of Engineering and Science Technology in Osogbo, College of Management and Social Sciences in Okuku, College of Humanities and Culture in Ikire, College of Education in Ipetu-ijesa, College of Agricultural Science in Ejigbo and College of Law in Ifetedo.

The study adopted a descriptive survey design. The study populations were undergraduates of Osun state University. Researchers include undergraduates who were above the age 18years. The legal age to give informed consent in Nigeria is 18years, and the age was used as a inclusion criterion for participants in this study.

Two hundred and ten (210) respondents were sampled for this study. The simple random sampling technique was used to select three (3) Colleges (College of Management and Social sciences in Okuku, College of Humanities and Culture in Ikire and College of Education in Ipetu-ijesa) out of the Six Colleges owned by the Osun state University. from the selected Colleges, three (3) departments were selected through a stratified sampling method, while a convenience sampling method was used to select seventy (70) students from 100 level – 300 level of the selected department in the three (3) selected Colleges, giving a total number of 210 students.

The study adapted a questionnaire, titled Classroom learning Management system Questionnaire (CMSQ). The questionnaires consisted of two sections (A and B), section A elicited responses on the demographic data of the respondents while section B was sub- divided into three with relevant items that could be used to elicit relevant responses from the respondents in line with the research questions. The items on section B of the instrument measured on a four point Likert Scale of strongly agreed, agreed, disagreed and strongly disagreed.

The researcher distributed the questionnaire to the selected number of students. Copies of the questionnaire were distributed to the respondents by the researcher and effort was made to see that the respondents understood the contents of the instrument. Assistance was given where necessary in compliance with the instructions. At the end of the exercise the copies of the questionnaire administered was collected by the researcher immediately so as to meet up the target sample size.

The data collected was subjected to descriptive statistics of Simple frequency count, percentages, specifically mean, standard deviation and charts. All the research questions are answered by using this Data Analysis procedure.

## FINDINGS

Table 4.1: Distribution of Students according to Age, Gender, College, and Level

Variables	Frequency (n)	Percentage (%)
<b>Age (years)</b>		
≤20yrs.	52	24.8
21-25yrs.	92	43.8
>25yrs	66	31.4
<b>Gender</b>		
Male	88	41.9
Female	122	58.1
<b>College</b>		
College of Science	68	32.4
College of Management ad social sciences	73	34.8
College of education	69	32.9
<b>Level</b>		
100 Level	66	31.4
200 Level	81	38.6
300 Level	63	30.0
<b>Total</b>	<b>210</b>	<b>100</b>

Source: Authors, 2003

Above table indicates the distribution of respondents according to their gender, campus, level, age, and faculty. The table revealed that male participants constitute 41.9% of the sample whilst females are 58.1%. Above one third 38.6% of the participants were in 200 level; 30.0% in 300 level; and 31.4% were in 100 level. Equally, the age distribution of the respondent's shows that, (24.8%) of the respondents were between the ages of 15-20years; (43.8%) were between 21-25years; and (31.4%) falls between 25years and above.

Table 2: Showing the influence of Learning Management System (LMS) usage on students attitude to learning

Items	Total % response		Chi square	Mean	Rank
	A	D			
It improves students understanding	66.6	33.4	0.393	2.83	1
It promotes individual learning	57.6	42.4	3.393	2.62	2



LMS usage make student to learn on their own without attending lecture	53.8	46.2	0.805	2.59	3
It provides students with time and place flexibility	51.0	49.0	7.594	2.49	4
It improves quality education	48.5	51.5	1.948	2.41	5

Source: Authors, 2003;

\*Significant at 5%; p-Value is 0.000; df = 3; n = 210

Above table reflects chi square test of independence and ranking of the highest mean values. Only the first-five items with the highest mean values were selected and used for discussion (Nwaka, 2010). The first ranked item showed that 66.6% (=2.83) of the undergraduates stated that LMS improves their understanding. The second ranked item showed that 57.6% (=2.62) of the respondents asserted that LMS promotes individual learning. The third ranked item revealed that 53.8% (=2.59) of the participants believed that LMS usage make student to learn on their own without attending lecture. In addition, 51.0% (=2.49) of the undergraduates had the opinion that LMS provides students with time and place flexibility. The fifth ranked item revealed that 48.5% (=2.41) of the respondents admitted that LMS improves quality education. The result in Table 2 revealed that LMS improves their understanding, promotes individual learning, make student to learn on their own without attending lecture and LMS provides students with time and place flexibility.

Table 3: Showing the extent at which LMS usage adequate for effective learning in Osun State University

Items	Total % response		Chi square	Mean	Rank
	A	D			
LMS is too expensive and cumbersome for learning	68.1	31.9	3.385	2.85	1
I used LMS frequently	56.2	43.8	9.770	2.71	2
Availability of ICT make students have access to LMS	53.8	46.2	0.869	2.53	3
Speedy network make student has access to LMS	52.4	47.6	3.176	2.52	4

Source: Authors, 2003

\*Significant at 5%; p-Value is 0.000; df = 3, n=210

Above table 3 reflects chi square test of independence and ranking of the highest mean values. Only the first-five items with the highest mean values were selected and used for discussion. The first ranked item showed that 68.1% ( $\bar{x} \bar{x}=2.85$ ) of the undergraduates agreed that LMS is too expensive and cumbersome for learning. The second ranked item showed that 56.2% ( $\bar{x} \bar{x}=2.71$ ) of the participants asserted that they use LMS frequently. In addition, 53.8% ( $\bar{x} \bar{x}=2.53$ ) of the students had the opinion that availability of ICT make students have access to LMS. Furthermore, the fourth ranked item revealed that 52.4% ( $\bar{x} \bar{x}=2.52$ ) of the students opined that speedy network make student has access to LMS. The study concluded that there LMS is too expensive and cumbersome for learning, students use LMS frequently and availability of ICT make students have access to LMS. In addition opined that speedy network make student has access to LMS.

Table 4: Showing how proficient are students in the use LMS to enhance learning in Osun State University

Items	Total % response		Chi square	Mean	Rank
	A	D			
Student prefer LMS to book when sourcing for academic information	66.7	33.3	0.428*	2.80	1

I solve assignments through the use of LMS	60.0	40.0	1.524*	2.71	2
Student-teachers can use the LMS efficiently	58.1	41.9	2.043*	2.60	3
I use LMS to store, send, manipulate and read information	51.0	49.0	2.715*	2.54	4
LMS encourage student to learn more	48.1	51.9	3.448*	2.45	5

Source: Authors, 2003

\*Significant at 5%; p-Value is 0.000; df = 3; n = 210

Above table reflects chi square test of independence and ranking of the highest mean values. Only the first-five items with the highest mean values were selected and used for discussion. The first ranked item showed that 66.7% ( $\bar{x} \bar{x} = 2.80$ ) of the undergraduates strongly believed that they prefer LMS to book when sourcing for academic information. The second ranked item showed that 60.0% ( $\bar{x} \bar{x} = 2.71$ ) of the respondents alleged that they solve assignments through the use of LMS.

The third ranked item in Table 3 showed that 58.1% ( $\bar{x} \bar{x} = 2.60$ ) of the respondents vehemently alleged that student-teachers can use the LMS efficiently. The fourth ranked item showed that 51.0% ( $\bar{x} \bar{x} = 2.54$ ) of the participants believed that they use LMS to store, send, manipulate and read information. In addition, the fifth ranked item also showed that 48.1% ( $\bar{x} \bar{x} = 2.45$ ) of the undergraduates strongly believed that LMS encourage student to learn more. This simply revealed that a good number of the undergraduates of higher institution opined that they prefer LMS to book when sourcing for academic information because they solve assignments through the use of LMS. Also, they use LMS to store, send, manipulate and read information and LMS encourage student to learn more.

Table 5: Showing the factors that inhibit the use of LMS in Osun State University

Items	Total % response		Chi square	Mean	Rank
	A	D			
Cost of data	69.5	30.5	0.365*	2.92	1
Inadequate of ICT facilities	60.0	40.0	5.475*	2.71	2
Insufficient internet bandwidth	55.3	44.7	3.162*	2.66	3
Technical know how	59.1	40.9	4.330*	2.61	4
Fear of making mistakes.	42.4	57.6	4.077*	2.41	5

Source: Authors, 2003

\*Significant at 5%; p-Value is 0.000; df = 3 n; 210

Above Chi Square test of independence and mean was used to select items with the highest mean values. Results obtained as shown in table 5 revealed that 69.5% ( $\bar{x} \bar{x} = 0.365$ ) of the respondents stated that cost of data is one of the factor that inhibit the use of LMS in Osun State. Another challenges of using LMS in Osun State University is inadequate of ICT facilities which is believed by 60.0% ( $\bar{x} \bar{x} = 2.71$ ) of the respondents. Insufficient internet bandwidth is also believed by 55.3% ( $\bar{x} \bar{x} = 2.66$ ) of the undergraduates to be one of the challenges of using LMS in Osun State University. It also showed that 59.1% ( $\bar{x} \bar{x} = 2.61$ ) of the undergraduates believed that lack technical knowhow is one of the factors that inhibit the use of LMS in

Osun State University. Lastly, 42.4% ( $\bar{x} = 2.41$ ) of the undergraduates believed that fear of making mistakes. The study revealed there are lots of challenges affecting learning in Nigerian universities. From the outcome of the findings; the perceived challenges that could hinder online learning were identified as cost of data, inadequate of ICT facilities, insufficient internet bandwidth, lack of technical know-how and fear of making mistakes.

Table 6: Independent samples test of difference in the use of LMS in Osun State university base on gender

Gender	N	Mean	SD	t-cal	Sig (2-tailed)
Male student	88	3.54	.6812	0.049*	.786
Female student	122	3.56	.5532		

Source: Authors, 2003

\*Difference between means is insignificant at 5% alpha level; df =208; Critical t-value = 3.049

Above table shows the independent Samples Test (t-test) was used to provide answer to the first research question. The result obtained as shown in Table 6 confirmed that the computed mean and standard deviation values of male and female were (3.54, 3.56) and (.6812, .5532) respectively. The result further showed that the calculated t-value of 0.049 was lower than the critical t-value of 3.049 at 5% level of significance or that the probability value of .786 is being greater than 5% (0.05) significance level. Since the calculated t-value is lower than the critical t-value, it therefore means that there is no significant difference in the use of LMS in Osun State university base on gender ( $t = 0.049, p > 0.05$ ). This implied that the difference between male and female in the use of LMS in Osun State university did not significantly differ based on gender. This means that both male and female undergraduates opined that learning management system (LMS) useful in their academic activities such as assignments, tests, and quizzes.

## DISCUSSION OF FINDINGS

### Research Question One

Results on research question one revealed that LMS improves their understanding, promotes individual learning, make student to learn on their own without attending lecture and LMS provides students with time and place flexibility. This confirmed to previous studies of Shetty et al., which reported that students perceived online learning as very useful as most of them highly agreed to the effectiveness of online learning.<sup>9</sup> The result also supported Tamta et al, where it was confirmed that online learning provides distance learning that is capable of creating new learning environments to achieve prosperous academic program as well as provides tools for students to be in contact with peers and teachers inside and outside the classroom.<sup>10,11</sup>

### Research Question Two

The results revealed that LMS is too expensive, cumbersome for learning and speedy network make student has access to LMS. It gave credence to the findings of Chung, Subramaniam and Dass which also found that students' readiness to participate in online learning was relatively moderate.<sup>12</sup> In support of these result a study by Ali suggested the need to consider staff' and students' readiness towards online learning implementation as well provision of necessary equipment and technical supports that will facilitate active participation.<sup>13</sup>



### Research Question Three

The study concluded that a good number of the undergraduates of higher institution opined that they prefer LMS to book when sourcing for academic information because they solve assignments through the use of LMS. Also, they use LMS to store, send, manipulate and read information and LMS encourage student to learn more. The assertion is also supported by Ankita et al, which found that students and lecturers have the flexibility to collaborate through learning management system, allowing better collaboration and interaction.<sup>14</sup>

### Research Question Four

The study also revealed that there lots of challenges affecting learning in Nigerian universities. From the outcome of the findings; the perceived factors that could hinder online learning were identified as cost of data, inadequate of ICT facilities, insufficient internet bandwidth, lack of technical know-how and fear of making mistakes. This is consistent with a similar study by Dube, who found that most students do not have laptops or money to buy internet bundles. It also aligns with World Bank regarding information Technology, who aptly pointed out that most students will have great difficulty accessing online learning especially those staying in rural areas, having poor internet access and are subject to other disadvantages.<sup>16</sup> These prevailing factors have not only reduced the chances of the effective use of online learning but have also succeeded in frustrating the effort of those with strong passion to use the online method for general learning and academic activities.

### Hypothesis One

The result further shows that there is no significant difference in the use of LMS in Osun State university base on gender. This implied that the difference between male and female in the use of LMS in Osun State university did not significantly differ based on gender. This means that both male and female undergraduates opined that learning management system (LMS) useful in their academic activities such as assignments, tests, and quizzes. Similar result was reported by Ali found no statistically significant differences in students' perception on the attitude towards using the Learning Management System in learning due to their gender.<sup>16</sup>

## CONCLUSION & RECOMMENDATIONS

The study which investigated the relative influence of Learning Management System on undergraduates learning attitude in Osun State University has found that LMS improves their understanding, promotes individual learning, make student to learn on their own without attending lecture and LMS provides students with time and place flexibility. The study also revealed that LMS is too expensive, cumbersome for learning and speedy network make student has access to LMS. The study also shows that they prefer LMS to book when sourcing for academic information because they solve assignments through the use of LMS. Furthermore, the study also indicated that cost of data, inadequate of ICT facilities, insufficient internet bandwidth, lack of technical know-how and fear of making mistakes are the perceived factors that could hinder online learning during teaching process. Finally, the result further shows that there is no significant difference in the use of LMS in Osun State university base on gender.

### Recommendations

In view of the findings of this study, the following recommendations were made;

1. Efforts should be made to humanize the learning process to the best extent possible.
2. Online programs should be designed in such a way that they are creative, interactive, relevant, student-centered, and group-based.

3. Higher institutions of learning must as a matter of necessity improvise means through which knowledge delivery and general learning activities can be achieved seamlessly and at the lowest cost to the students even while they are at home
4. The Government needs to invest more in the area of communication infrastructural facilities as well as partnering with telecommunication companies for free internet service to university servers and students during online learning classes.
5. Nigerian universities and other higher institutions of learning should endeavor to inculcate online learning into their teaching practices as this will further accelerate the pursuit of aspects of technology based learning that would be found most useful.

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