

# Effectiveness Of Learning Management System In Learning Educational Psychology Using Moodle

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## ABSTRACT

The aim of the study was to examine the Effectiveness of the learning Management System(LMS) according to views of lectures with different levels of activity in LMS. The LMS is widely used in online Teaching and Learning, especially in Education. The use of Moodle is developing rapidly to address academic integrity, ethics and security issues to enhance speed and navigation and incorporate artificial intelligence. It is currently successfully integrated into the Educational activities of higher education. Traditional teaching and learning methods have undergone a reform shift with the integration of ICT Tools, especially Learning Management System (LMS). They are emphasized as essential tools in the Educational system. Moodle is one of the most popular LMS applications and is very appropriate for online learning study. Moodle has various features that are able to support activities through online. Some learning activities supported by Moodle are 1)Videos 2) Discussion Forums 3)Chart 4) Materials 5)Quiz. Education and Psychology are interdependent psychology had changed the spirit of Education and it gives Education theory of individual differences that every child has different pace. Today is modern era, Education Psychology is the foundation of Education. Its effect is reflected in every field of Teaching Learning process.

**Keywords:** Educational Psychology, Learning, LMS, ICT, Instruction.

## INTRODUCTION

Educational Psychology is a combination of two words, “Education” and “Psychology”. Education may be seen as the attempt in shape or modify behavior of an individual with a view of equipping him or her with desirable skills, habits and attitudes to adequately adjust to the communal life and contribute effectively to its growth and preservation.(Upadhya & singh. 2008).

Teacher Education refers to the policies and procedures designed to equip teachers with the knowledge, attitudes, behaviors and skills they require to perform their tasks effectively in the school and classroom.

Moodle based learning is one of the popular e – learning among educators. Moodle is a program that can develop Learning Media into a form of web media that is directly connected to the network that provides easy access for its users, (Khanal et al.2014 Mtche & Kondoro, 2016)

Learning Management system (LMS) is an application software used to assist in the Learning process in E- Learning.

LMS has two main objectives that is to make learning more independent and make it possible for LMS users to register, save, manage, publish learning via the web and print documents available through the LMS.

Moodle is a one type of LMS and it is an open source LMS that can be customized for any course or Teaching method you choose, It is used to improve your Teaching and student outcomes with our feature-rich learning platform that saves you time and provides more active learning experiences for your students.

## REVIEW OF RELATED STUDIES

LMS is at the forefront of the online technologies making a serious impression on patterns of learning and teaching in higher education (Coates, 2006). In a relatively short time they have become perhaps the most widely used educational technology in higher education, only ranking behind the Internet and common office applications (West, Waddoups, & Graham, 2006). They are being used for presenting online or technology-enhanced classes and it has been said that they influence pedagogy and therefore engagement by presenting default formats that are designed to guide instructors toward creating courses in certain ways (Lane, 2009). If LMS are affecting pedagogy, then they are likely to be affecting student study habits, learning and engagement (Coates et al., 2005).

Learning Management System (LMS) is one of the popular technological methods in teaching and learning process. Using technology for learning and communicating provides solutions for higher education institutions. The study investigated the effectiveness and efficiency of the system towards student's satisfaction. A survey method was used to evaluate the LMS among students from higher educational institutes of Malaysia. The questionnaire used in this study was adapted from the Computer System Usability Questionnaire (CSUQ). The questionnaire consists of 24 questions which are divided into 3 sections. The first section was to evaluate the LMS for effectiveness with 7 questions, the second section for efficiency with 10 questions and third section for satisfaction with 10 questions. The analysis to identify the effectiveness, efficiencies and

satisfaction was carried by using mean, median, mode and standard deviation. The result showed that for the usage of LMS effectiveness and efficiency the mean value was more than 3. The findings concluded that LMS in Malaysia have been used effectively and efficiently by the students of higher educational institutes. In order to identify the relationship of the variable, linear regression analysis was used with efficiency and effectiveness as an independent variable and satisfaction as the dependent variable. The regression result of R square was found to be 0.612 and this showed that students found LMS as efficient and effective (Aini Zuriyati Abdul Kadir, et al, 2016).

## SIGNIFICANCE OF THE STUDY

The investigator is the Part - time Research scholar in the Department of Educational Psychology in Tamil Nadu Teachers Education University. She studied Educational Psychology in both B.Ed and in M.Ed. The concepts studied in Educational Psychology which have a great correlation with our normal life. Although there is a correlation between Educational Psychological concepts and the normal life, but she could not applying this in learning Educational Psychology.

The investigator has given more emphasize to B.Ed Educational Psychology, the reason is that, B.Ed students are the one who take the classes for School students so they should know about the mentality of students studying through psychology and the second reason is also that Psychology is very important for handling school students. Hence is this study was integrated with Educational Psychology.

## OBJECTIVES

- 1) To find the difference between the Control group Tamil Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology.
- 2) To find the difference between the

Control group English Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

3) To find the difference between the Experimental group Tamil Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology.

4) To find the difference between the Experimental group English Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

5) To find the difference between the Control group (Global) Student Teachers in the Pre test performance on Achievement in Educational Psychology.

6) To find the difference between the Experimental group (Global) English Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

### **HYPOTHESES**

1) There is no significant difference between the Control group Tamil Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology.

2) There is no significant difference between the Control group English Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

3) There is no significant difference between the Experimental group Tamil Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology.

4) There is no significant difference between the Experimental group English Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

5) There is no significant difference between the Control group (Global) Student Teachers in the Pre test performance on Achievement in

Educational Psychology.

6) There is no significant difference between the Experimental group (Global) English Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

### **METHODOLOGY OF THE STUDY**

An e-content module on Motivation, Personality which is included in B.Ed First year syllabus of Educational Psychology of Tamil Nadu Teachers Educational University, Chennai. The e-content module includes text, images, animations, audios, and videos. A Pre-test and Post test equivalent group design was adopted. The Investigator taught two units through Traditional Teaching for the Control Group Tamil and English Medium Student Teachers and distributed e-content Module through Moodle for Tamil and English Medium Student Teachers to Experimental Group.

### **SAMPLE OF THE STUDY**

A sample of 65 Student Teachers was selected for Traditional Teaching and 65 Student Teachers for the Experimental Group by applying Simple Random sampling technique.

### **DESCRIPTION OF THE ACHIEVEMENT TEST ON ADVANCED EDUCATIONAL PSYCHOLOGY**

#### **Pilot study**

The investigator constructed and validated the Achievement test in Advanced Educational Psychology. A validated questionnaire consist of 120 multiple choice questions. An item answered correctly is scored 1; an item answered incorrectly is scored 0. Based on the values of discrimination indices above 0.20 and difficulty indices between 25% to 75% the items were selected. The reliability of the

present Pre/Post-test as measured by Rationale equivalence method is 0.87. This shows that the test scores are reliable for all practical purposes. After the treatment, a post-test was given to the sample.

### STATISTICAL TECHNIQUES

The statistical technique used in this study is “t” test.

### ANALYSIS OF DATA

**Table 1**

#### Pre – test Vs Post Test

##### Tamil Medium

##### Control Group

U.NO	Group	Mean	S.D	‘t’	L.S
1	Pre test	17.41	2.49	60.33	S
	Post test	64.16	5.63		
2	Pre test	16.92	2.91	103.63	S
	Post test	73.60	3.32		

From the table 1, it is inferred that there is significant difference between the Pre – test and Post – test in the control Group Tamil Medium Student Teachers performance of Unit I and Unit II at 0.05 level of significance in favour of the Post – test. It is due to the Effectiveness of Teaching through Traditional method.

Hence, Hypothesis 01 Research Hypothesis is rejected and Null hypothesis is accepted

**Table 2**

#### Pre – test Vs Post Test

##### English Medium

##### Control Group

U.NO	Group	Mean	S.D	‘t’	L.S
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**Hypothesis 01** There is no significant difference between the Control group Tamil Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

#### Pre Test Vs Post Test Control Group - Tamil Medium

The table 1 furnishes the scores of the pre-test and Post test performance of the Control Group Tamil Medium Student Teachers.

**Hypothesis 02** There is no significant difference between the Control group English Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

#### Pre Test Vs Post Test Control Group - English Medium

The table 2 furnishes the scores of the pre – test and post – test performance of the Control group English Medium Student Teachers.

1	Pre test	17.87	3.29	54.59	S
	Post test	68.32	5.38		
2	Pre test	17.32	2.15	109.61	S
	Post test	67.09	3.65		

From the table 2 it is inferred that there is significant difference between the Pre – test and Post – test in the control Group English Medium Student Teachers performance of Unit I and Unit II at 0.05 level of significance in favour of the Post – test. It is due to the Effectiveness of Teaching through Traditional method.

hence Hypothesis 02 Research Hypothesis is rejected and Null hypothesis is Accepted.

### Table 3

#### Pre Test Vs Post Test

#### Tamil Medium

#### Experimental Group

U.NO	Group	Mean	S.D	't'	L.S
1	Pre Test	18.21	2.87	139.96	S
	Post Test	87.24	2.50		
2	Pre Test	17.75	2.19	155.02	S
	Post Test	86.87	3.07		

From the table 3, it is inferred that there is significant difference between the Pre – test and the Post – test in the Experimental Group Tamil Medium Student Teachers performance of Unit I and Unit II at 0.05 level of significance in favour of the Post – test. It is due to the Effectiveness of e – content Module in Learning Educational Psychology through online Moodle.

Hence hypothesis 03 Research Hypothesis is rejected and Null hypothesis is Accepted.

### Table 4

#### Pre Test Vs Post Test

**Hypothesis 03** There is no significant difference between the Experimental group Tamil Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

#### Pre Test Vs Post – test Experimental Group - Tamil Medium

The table 3 furnishes the scores of the Pre-test and Post performance of the Experimental Group Tamil Medium Student teachers.

**Hypothesis 04** There is no significant difference between the Experimental group English Medium Student Teachers in the Pre test performance on Achievement in Educational Psychology

#### Pre Test Vs Post – test Experimental Group - English Medium

The table 4 furnishes the scores of the Pre-test and Post performance of the Experimental Group English Medium Student teachers.

## English Medium

### Experimental Group

U.NO	Group	Mean	S.D	't'	L.S
1	Pre Test	18.40	1.97	133.43	S
	Post Test	85.27	3.29		
2	Pre Test	17.41	1.48	169.13	S
	Post Test	87.24	2.81		

From the table 4, it is inferred that there is significant difference between the Pre – test and the Post – test in the Experimental Group English Medium Student Teachers performance of Unit I and Unit II at 0.05 level of significance in favour of the Post – test. It is due to the Effective of e – content Module in Learning Educational Psychology through online Moodle.

Hence Hypothesis 04, Research Hypothesis is rejected and Null hypothesis is Accepted.

### Table 5

#### Pre Test Vs Post Test

#### Control Group - Global

U.NO	Group	Mean	S.D	't'	L.S
1	Pre Test	17.64	2.91	78.10	S
	Post Test	66.24	5.87		
2	Pre Test	17.12	2.56	114.04	S
	Post Test	70.34	4.77		

From the table 5, it is inferred that there is significant difference between the pre- test and Post test in the Control Group (Global) Student Teachers performance of Unit I and Unit II at 0.05 level of significance in favour of the Post – test. It is due to the Effectiveness of Teaching through Traditional Method.

hence Hypothesis 05 Research Hypothesis is rejected and Null hypothesis is Accepted.

### Table 6

#### Pre Test Vs Post Test

**Hypothesis 05** There is no significant difference between the Control group(Global) Student Teachers in the Pre test performance on Achievement in Educational Psychology

#### Pre – Test Vs Post – Test Control Group - Global

The table 5, furnishes the scores of the Pre- Test and Post – Test performance of the Control Group (Global) Student Teachers.

**Hypothesis 06** There is no significant difference between the Experimental group(Global) Student Teachers in the Pre test performance on Achievement in Educational Psychology.

#### Pre – Test Vs Post – Test Experimental Group -Global

The table 6 furnishes the scores of the Pre- Test and Post – Test performance of the Control Group (Global) Student Teachers.

### Experimental Group - Global

U.NO	Group	Mean	S.D	't'	L.S
1	Pre Test	18.30	2.45	187.28	S
	Post Test	86.26	3.07		
2	Pre Test	17.58	1.87	228.35	S
	Post Test	87.06	2.94		

From the table 6, it is inferred that there is significant difference between the pre- test and Post test in the Experimental Group (Global) Student Teachers performance of Unit I and Unit II at 0.05 level of significance in favour of the Post – test. It is due to the Effectiveness of e – content module in learning Educational Psychology through online Moodle Method.

Hence Hypothesis 06, the Research Hypothesis is rejected and Null hypothesis is Accepted.

### MAJOR FINDINGS OF THE STUDY

- 1) There is significance difference between the pre test and Post test performance of control group and Experimental group Student Teachers. The mean scores of Post Test [performance for control group and experimental Group Student Teachers is greater than the mean scores of Pre – Test
- 2) There is significant difference between the Post test control group and experimental Group student teachers. The mean scores of Experimental group is greater than the mean scores of Control Group.

### EDUCATIONAL IMPLICATIONS

Teaching is the art of exhibiting one's competencies in a desired way. It is acquired through continuous practice. Teaching is to make the learning Environment more interesting and joyful. The first principle of true teaching is that nothing can be taught. Teacher is a helper and a guide for the students. The aim of Education is harmonious, Natural

and Progressive , Natural and Progressive development of the pupil. To fulfil this aim the teacher must have an insight into the working of the child's mind. He / she must know his needs, desires and capacities.

Today we are in technology world. So every student work hard to achieve high economical status. Globalization of technology is need for quality Education. The quality of Education can be measured by Teaching methods and students performance as well as organized planning. By means of it student's technological skill is developed. These methods give a chance to the investigator to encourage students while still providing required content in order to enhance learning outcomes.

### CONCLUSION

The Post – test mean scores of Experimental Group in unit one and two is greater than the mean scores of Control Group. Since the interest of e-content Module in Learning Educational Psychology through Online Teaching is high in Experimental group, hence they have shown higher score the control Group.

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