



# A Comparative Study on Student Teachers Achievement in Educational Psychology through Traditional Mode and Lms- Moodle

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## ABSTRACT

A study was undertaken to develop e content module on Motivation and Personality, which is included in B.Ed First year syllabus of Educational Psychology, TamilNadu Teachers Education University, Chennai. The primary objective of this module is to build a flexible learning environment that combined the learning effectiveness of classroom teaching with various modes of learning material like text, images, animations, audios and videos. A growing number of students are now opting for online classes. They find the traditional classroom modality restrictive, inflexible and impractical. In this age of technological advancement, colleges of Education can now provide effective classroom teaching via the web. This shift in colleges of Education is forcing Academic Institutions to rethink how they want to deliver their course content. A pretest and post test equivalent group design was adopted in this study. The investigator distributed two units through e-content module. Samples of 65 Student Teachers were selected for control group by applying Simple Random sampling technique and 65 Student Teachers were selected for Experimental Group. The statistical technique used in the study is 't' test.

**Keywords:** LMS, Educational Psychology, Effective Classroom, Moodle

**DOI Number:** 10.4704/nq.2022.20.14. NQ880181

**Neuroquantology 2022; 20(14):1364-1370**

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## INTRODUCTION

Education is one of the most important building blocks for a nation, serving as an instrument of Economic and social development, with in this context, the all-important role of the teacher is well recognized, as imparter of knowledge and information to students who are the future citizens of tomorrow. In India, the role of the teacher as not only an educator but also a guide, has been emphasized through the centuries, In the present context too, the role remains as critical as ever.

This study compared the effectiveness of LMS – Moodle VS Traditional in an Achievement in Educational Psychology. We attempted to see if student Teachers performance was effected by instructional Medium. This study sought to compare online Moodle and traditional Method.

(Mozes – Carmel and Gold. 2009). The Teacher Centered or Traditional Mode, the instructor usually controls classroom dynamics who establish and enforce their own rules. Teachers respond to student assignments and encourage them to provide alternative/ additional responses.

In Online Learning there is a considerable development in Education, where the made of instruction has been changed from Teacher – centered Education to student – centered Education. In teacher – centered education, the teacher plays a role as the source of education and students are recipients of his / her knowledge.

Moodle is electronic based learning has more roles and benefits compared to traditional learning. Moodle which means dynamic

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**Relevant conflicts of interest/financial disclosures:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.



learning place by using an object oriented model or a dynamic web based Educational package.

Moodle functions as an effective tool in providing learning facilities because it is equipped with important Learning support features such as assignments, quizzes, chat, collaboration and main features that can upload various formats of learning material and are earlier to understand because the information presented is not only the form of writing but also image.

### REVIEW OF RELATED LITERATURE

**Po -Jui et al., (2017)** conducted a study on "The Effect of Blended Learning in Mathematics Course". With the advent of the digital age, traditional didactic teaching and online learning have been modified and gradually replaced by "Blended Learning." The purpose of this study was to explore the influences of blended learning pedagogy on 120 junior high school student learning achievement and the students' attitudes toward mathematics. Preliminary results indicated that male students and high-ability students were more motivated in the blended learning environment. Students gave positive feedback on the use of the Moodle learning platform for mathematics after experiencing blended learning.

**Joan .D & R. Robert (2013)** conducted a study on Effect on E-Content Learning Package in Mathematics Education for the Prospective Teachers. E-content learning package will progress the learning process of students in formal or informal setting. It allows us to sort out the information to analyse and make meaning for conceptualization and applications which is suitable for individual learners. The objectives of the study was to measure the effectiveness of the E-content learning package in learning Mathematics for prospective teachers and the experimental research is essential for finding out the effective from the population of prospective teachers. The investigator selected 30 students from a college of education in Tamil Nadu. Tools used were E-content learning package for Mathematics prospective teachers developed by the investigator and pre-test in Mathematics developed by the investigator. In the experimental group, students learn the subject Mathematics

by using this E-content learning package for Mathematics. The control group student teachers were taught using conventional method. Findings of the study showed that there was significant difference between pre-test and post-test scores for the experimental group in learning Mathematics. That is experimental group Prospective Teachers have achieved high in post-test than the pre-test. And also there was significant difference in the post-test scores of the experimental and control group. That is experimental group Prospective Teachers have achieved high in post-test than the control group Prospective Teachers. The investigator concludes that the experimental group is more effective than the control group. Thus E-content learning package in Mathematics Education for the prospective teachers is more effective.

### 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.

### OBJECTIVES

1. To find the difference between Control and Experimental Group Tamil Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.
2. To find the difference between Control and Experimental Group English Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.
3. To find the difference between Control group Tamil Medium and English Medium Student Teachers in the Post Test performance



- on Achievement in Educational Psychology.
4. To find the difference between Experimental group Tamil Medium and English Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.
  5. To find the difference between Control Group Tamil Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.
  6. To find the difference between Control Group English Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.
  7. To find the difference between Experimental Group Tamil Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.
  8. To find the difference between Experimental Group English Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.
  9. To find the difference between Control Group and Experimental Group Global Student Teachers in the Post Test performance on Achievement in Educational Psychology.

#### **HYPOTHESES**

- 1) There is no significant difference between Control and Experimental Group Tamil Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.
- 2) There is no significant difference between Control and Experimental Group English Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.
- 3) There is no significant difference between Control group Tamil Medium and English Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.
- 4) There is no significant difference between Experimental group Tamil Medium and English Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.
- 5) There is no significant difference between Control Group Tamil Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.
- 6) There is no significant difference between

Control Group English Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.

- 7) There is no significant difference between Experimental Group Tamil Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.
- 8) There is no significant difference between Experimental Group English Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.
- 9) There is no significant difference between Control Group and Experimental Group Global Student Teachers in the Post 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 of English Medium and Tamil Medium for student Teachers through Traditional Teaching for the Control Group and distributed e-content Module through Moodle 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 Tamil and English Medium students 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

**Hypothesis 01** There is no significant difference between Control and Experimental Group Tamil Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.

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

The table 1 furnishes the score of the post test performance of the Control Group Vs Experimental Group Tamil Medium.

**Table 1:** Control Group Vs Experimental Group Tamil Medium Post – test

U.NO	Group	Mean	S.D	't'	L.S
1	Control	64.16	5.63	34.28	S
	Experimental	87.24	2.64		
2	Control	73.60	3.32	22.76	S
	Experimental	86.87	3.07		

From the table 1, it is inferred that there is significant difference between the Control group and Experimental Group Tamil Medium Student Teachers in the post test performance of Unit I and Unit II at 0.05 level of significance in favour of Experimental Group Student Teachers.

Based on the analysis of the data concerned (with reference to the table 1 it is evident that the Research hypothesis is accepted and the Null hypothesis is rejected.

**Hypothesis 02** There is no significant difference between Control and Experimental Group English Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.

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

The table 2 furnishes the score of the post test performance of the Control Group Vs Experimental Group - English Medium.

**Table 2:** Control Group Vs Experimental Group - English Medium Post – test

U.NO	Group	Mean	S.D	't'	L.S
1	Control	70.89	3.33	21.49	S
	Experimental	84.49	3.22		
2	Control	67.90	3.56	40.78	S
	Experimental	88.29	1.87		

From the table 2, it is inferred that there is significant difference between the Control group and Experimental Group English Medium Student Teachers in the post test performance of Unit I and Unit II at 0.05 level of significance in favour of Experimental Group Student Teachers.

Based on the analysis of the data concerned (with reference to the table 2) it is evident that the Research hypothesis is accepted and the Null hypothesis is rejected.

**Hypothesis 03** There is no significant difference between Control group Tamil Medium and English Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.

#### Control Group Tamil Medium Vs English Medium Post Test

The table 3 furnishes the score of the Post test performance of the Control Group Tamil Medium Vs English Medium Student Teachers.

**Table 3:** Control Group Tamil Medium Vs English Medium Post – test

U.NO	Group	Mean	S.D	't'	L.S
I	Control (T)	66.64	3.58	7.01	S
	Control (E)	70.89	3.29		
II	Control (T)	73.75	3.29	9.25	S
	Control (E)	67.90	3.56		

From the table 3, it is inferred that there is significant difference between the Control Tamil Medium and English Medium Student Teachers in the post test performance of Unit I in favour of English Medium and Unit II in favour of Tamil Medium Student Teachers.

Based on the analysis of the data concerned (with reference to the table 3) it is evident that





the Research hypothesis is accepted and the Null hypothesis is rejected.

**Hypothesis 04** There is no significant difference between Experimental group Tamil Medium and English Medium Student Teachers in the Post Test performance on Achievement in Educational Psychology.

**Experimental Group Tamil Medium Vs English Medium Post Test**

The table 4 furnishes the score of the post test performance of the Experimental Group Tamil Medium Vs English Medium Student Teachers.

**Table 4:** Tamil Medium Vs English Medium Experimental Group Post - test

U.NO	Group	Mean	S.D	't'	L.S
I	Experimental (T)	87.01	2.64	5.23	S
	Experimental (E)	84.49	3.22		
II	Experimental(T)	84.76	2.94	8.09	S
	Experimental(E)	88.29	1.87		

From the table 4, it is inferred that there is significant difference between the Experimental Group Tamil Medium and English Medium Student Teachers in the post test performance of Unit I in favour of Tamil Medium and Unit II in favour of English Medium Student Teachers. Based on the analysis of the data concerned (with reference to the table. 4) it is evident that the Research hypothesis is accepted and the Null hypothesis is rejected.

**Hypothesis 05** There is no significant difference between Control Group Tamil Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.

**Control Group Tamil Medium- Men Vs Women Post Test**

The table 5 furnishes the score of the post test performance of the Control Group Tamil Medium Men Vs Women

**Table 5:** Tamil Medium- Men Vs Women Control Group Post - test

U.NO	Men		Women		't'	L.S
	MEAN	S.D	MEAN	S.D		
I	60.33	5.34	67.20	3.45	6.24	S
II	72.60	3.71	74.36	2.87	2.25	S

From the table 5, it is inferred that there is significant difference between the Men and

Women in the control group (Tamil Medium) Student Teachers performance of Unit I and Unit II at 0.05 level of significance in favour of Women Student Teachers.

Based on the analysis of the data concerned (with reference to the table 5) it is evident that the Research hypothesis is accepted and the Null hypothesis is rejected.

**Hypothesis 06** There is no significant difference between Control Group English Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.

**Control Group English Medium- Men Vs Women Post Test**

The table 6, furnishes the score of the post test performance of the Control Group English Medium Men Vs Women

**Table 6:** Control Group English Medium- Men Vs Women Post - test

U.NO	Men		Women		't'	L.S
	MEAN	S.D	MEAN	S.D		
UI	68.33	5.38	70.93	3.64	2.27	S
UII	66.10	4.14	68.23	2.75	2.167	S

From the table 6, it is inferred that there is significant difference between the Men and Women in the control group (English Medium) Student Teachers performance of Unit I and Unit II at 0.05 level of significance in favour of Women Student Teachers.

Based on the analysis of the data concerned (with reference to the table 6) it is evident that the Research hypothesis is accepted and the Null hypothesis is rejected.

**Hypothesis07** There is no significant difference between Experimental Group Tamil Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.

**Experimental Group (Tamil Medium) Men Vs Women Post Test**

The table 7 furnishes the score of the post test performance of the Experimental Group Tamil Medium Men Vs Women



**Table 7:** Tamil Medium Men Vs Women Experimental Group Post – test

U.NO	Men		Women		't'	L.S
	MEAN	S.D	MEAN	S.D		
UI	85.96	1.95	88.13	2.47	3.61	S
UII	85.36	3.01	88.03	2.57	3.53	S

From the table 7, it is inferred that there is significant difference between the Men and Women in the Experimental group (Tamil Medium) Student Teachers performance of Unit I and Unit II at 0.05 level of significance in favour of Women Student Teachers.

There is significant difference between the Post–test performance of the Experimental Group (Tamil Medium) Men vs Women Student Teachers.

Based on the analysis of the data concerned (with reference to the table 7) it is evident that the Research hypothesis is accepted and the Null hypothesis is rejected.

**Hypothesis 08** There is no significant difference between Experimental Group English Medium Men vs Women Student Teachers in the Post test performance on Achievement in Educational Psychology.

### Experimental Group English Medium- Men Vs Women Post Test

The table 8 furnishes the score of the post test performance of the Experimental Group English Medium Men Vs Women

**Table 8:** English Medium- Men Vs Women Experimental Group Post – test

U.NO	Men		Women		't'	L.S
	MEAN	S.D	MEAN	S.D		
UI	84.03	3.48	86.23	2.77	2.60	S
I	88.06	1.91	86.50	3.51	2.26	S

From the table 8, it is inferred that there is significant difference between the Men and Women in the Experimental group (English Medium) Student Teachers performance of Unit I at 0.05 level of significance in favour of Women Student Teachers and Unit II at 0.05 level of significance in favour of Men student Teachers. Based on the analysis of the data concerned (with reference to the table 8) it is evident that the Research hypothesis is accepted and the Null hypothesis is rejected.

**Hypothesis 09** There is no significant difference between Control Group and Experimental

Group Global Student Teachers in the Post Test performance on Achievement in Educational Psychology.

### Control Group Vs Experimental Group (Global) Post Test

The table 9 furnishes the score of the post test performance of the Control Group and Experimental Group (Global).

**Table 9:** Control Group Vs Experimental Group –Global Post – test

U.NO	Group	Mean	S.D	't'	L.S
UI	Control	66.24	5.87	36.71	S
	Experimental	86.26	3.07		
UII	Control	70.34	4.77	32.68	S
	Experimental	87.06	2.94		

From the table 9, it is inferred that there is significant difference between the Control Group and Experimental group (Global) Student Teachers in the post test performance of Unit I and Unit II at 0, 05 level of significance in favour of Experimental Group Student Teachers.

Based on the analysis of the data concerned (with reference to the table 9) it is evident that the Research hypothesis is accepted and the Null hypothesis is rejected.

### MAJOR FINDINGS OF THE STUDY

- 1) There is significance difference between the 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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