# EFFECTIVENESS OF BLENDED LEARNING IN TEACHING PSYCHOLOGY AMONG B.ED TRAINEES

**K. Manikandan, Ph. D.**

*Principal, Sri Thangam Periyasamy College of Education, Vriddhachalam*

**Abstract**

*This study examined the effectiveness of blended learning in teaching psychology among B.Ed. trainees. It also examined the differential effect in achievement among B.Ed. students. The study used* two groups pretest-posttest equivalent-groups design, *60 students for adopting for the present research. Psychology Achievement Test (PAT) developed by the researcher and validated by experts was used for the present study. Students taught using Blended learning strategy achieved higher scores and significantly better than those taught using conventional (lecture) method. The study recommended among other things that since Blended learning package is found to be an effective strategy and enhanced achievement among B.Ed. students, teachers of this subject should accept it as one of the strategies they can use in B.Ed. classroom.*

*Key Term: Blended learning, Psychology, B.Ed. trainees and conventional method*

## INTRODUCTION

ICT has open up new horizons for progress together with challenges and opportunities in higher educational deliveries. This emerging ICT have increasingly diversified the instructional pedagogy and curriculum design models of tertiary education in India. Blended learning is a combination of multiple approaches to learning. Blended Learning (BL) or Hybrid learning describes a learning environment that either combines teaching methods, delivery methods, media formats or a mixture of all these. It also refers to the integrated learning activities such as a mixture of online and face - to - face learning. In other words, BL is a mixture of e-learning and traditional types of learning.

Blended learning is a formal education program in which a student learns at least in part through delivery of content and instruction via digital and online media with some element of student control over time, place, path, or pace. While still attending a "brick-and-mortar" school structure, face-to-face classroom methods are combined with computer mediated activities. It is also used in professional development and training settings, as it can be used to translate knowledge into a particular skill that is useful and practical for a specific job. Blended learning is the concept that includes framing teaching learning process that incorporates both face to face teaching and teaching supported by ICT. Blended learning

incorporates direct instruction, indirect instruction, collaborative teaching, individualized computer assisted learning.

## NEED FOR THE STUDY

Most of the educators followed traditional methods in Psychology subject. The present learners are adult future citizen of our nation. If they are well equipped with this approach of learning they can imply it in life-long learning process which is a better way of knowledge construction in the era of Globalization. Education is the way to progress. It develops our mind and convert inquisitive mind into intellectual one. It is a high time to provide right content in the right format to the right people at right time. So the need of hour is of modified learning environment which incorporates the benefits of traditional as well as modern learning. The researchers observed that in many institutions still followed tradition lecture or lecture - cum - discussion method for teaching in higher education. Therefore, in present study an attempt is made by investigator to study effectiveness of blended learning in teaching psychology among B.Ed. trainees.

## STATEMENT OF THE PROBLEM

In the teaching and learning of psychology we have difficult to understanding the concept for the beginners. They may lack the interest, motivation and positive attitude, some are not intended to specialize in it, and thus, they pay little or no attention to understanding basic psychology concepts. Therefore, utilizing blended learning approach could improves learners interest and gives learner control of their learning task. Blended learning facilitates active learning and interactivity between learners and the mediator in the learning environment. Therefore, investigator to study effectiveness of blended learning in teaching psychology among B.Ed. trainees.

## OPERATIONAL DEFINITIONS OF THE KEY TERMS

### Effectiveness

According to oxford Advanced Learner's Dictionary (1999), Effectiveness defines having the desired effect and producing the intended result. This study measures the effectiveness in terms of the achievement scores of the students using Blended learning package in *teaching psychology*.

**Psychology**

Psychology is best defined as the "scientific study of behavior in humans and animals." Behavior is what people and animals do: e.g., what a person says about last night's dream, and how long it takes a rat to run a maze.

**Achievement**

Student's achievement refers to the level of schooling you have successfully completed and the ability to attain success in your studies.

**Objectives**

The following are the objectives of the study.

1. To find out the effectiveness of Blended learning in teaching Psychology.
2. To find out the achievement mean scores of the pre-test and post test scores of control group student.
3. To find out the achievement mean scores of the pre – test and post – test scores of experimental group students.
4. To find out and compare the mean scores of the control and experimental group students in their gain scores.

**Hypotheses**

The following are the hypothesis of the study:

1. There is no significant difference between the achievement mean scores of the pre-test and post – test scores of control group students.
2. There is no significant difference between the achievement mean scores of the pre-test and post-test scores of experimental group students.
3. There is no significant difference between the mean scores of the control and experimental group students in their gain scores.

**RESEARCH DESIGN**

Experimental design is the blue print of the procedures that enable the researcher to test hypotheses by reaching vivid conclusions about relationships between independent and dependent variables. In this experimental research, the investigator has chosen the two groups pretest-posttest equivalent-groups design for her study.

The pretest-posttest equivalent groups design is

$$R\ O_1\ X\ O_2 \qquad X\ gain = O_2 - O_1 \qquad O_1\ O_3 - \text{Pre tests}$$
$$R\ O_3\ C\ O_4 \qquad C\ gain = O_4 - O_3 \qquad O_2\ O_4 - \text{Posttests}$$

In this experimental method two groups of subjects are selected. One of the equivalent groups serves as the control group in which the subjects are taught by traditional method. The other group serves as the experimental group in which the subjects are taught using Blended learning package. Both the groups had same number of students and they were given equal time for each session. The treatment was given for 20 days with a schedule of one hour per day for each group and no students were absent on those days. The treatment was given without any disturbances. SPSS was use to analyzed data gathered and "t" was used to test the null hypotheses at 0.05 level of significant.

**Population and Sampling**

The accessible population was all B.Ed students who offered in Tamilnadu Teachers Education University. A completely randomized design was adopted to select a sample of 60 BE.d trainees with a group of 30 students for 2 units.

**Instrumentation**

The experimenter adopted Psychology Achievement Test (PAT) in 40-item multiple choice questions. The instrument was face-content validated by Psychology expert and trial tested on a sample of undergraduate students from the population excluded from the research sample. A reliability coefficient of 0.80 was established using cronbach's alpha technique, which ensures internal consistency of the items in the instrument
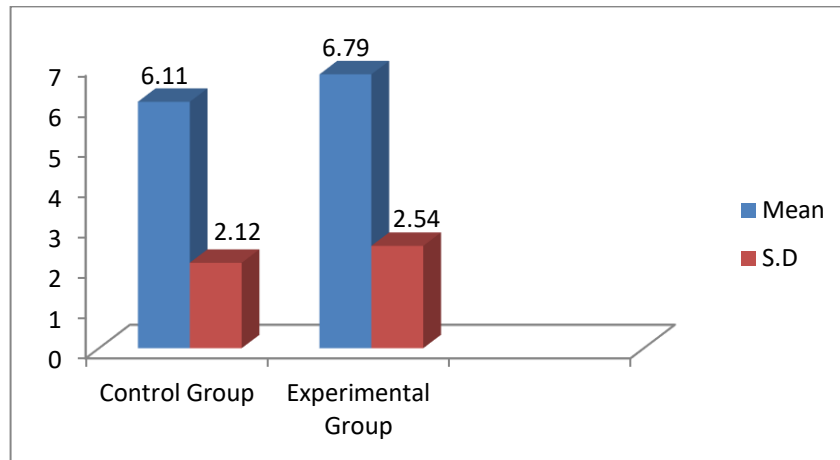
**ANNALYSIS OF DATA**

**Hypothesis: 1**

There is no significance difference between the control group and experimental group students in their mean scores of pre test.

**Table .1. Difference between the Mean Scores of Pre Test of Control Group and Experimental Group**

| Group | Number | Mean | SD | 't' Value Calc. | Table | Remarks at 0.01 level |
|-------|--------|------|-----|------|-------|---------|
| Control | 30 | 6.11 | 2.12 | 0.65 | 1.96 | N.S. |
| Experimental | 30 | 6.79 | 2.54 | | | |

The above table shows that the computed t value 0.65 is less than table value 1.96 at 0.05 level and hence it is not significant. Consequently, the null hypothesis is to be accepted. So there is no significance difference between the control group and experimental group students in their mean scores of pre test.

**Figure.1 Mean Scores of Pre Test of Control Group and Experimental Group**
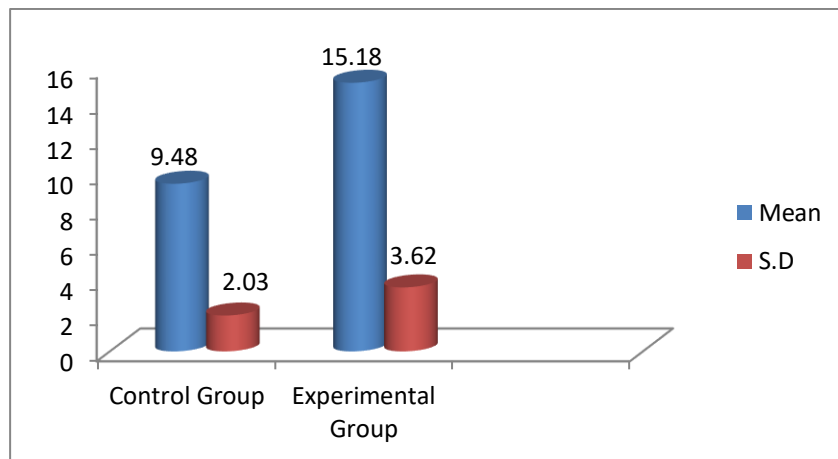


**Hypothesis: 2**

There is no significance difference between the control group and experimental group students in their mean scores of post test.

**Table.2. Difference between the Mean Scores of Post Test of Control Group and Experimental Group**

| Group | Number | Mean | SD | 't' Value Calc. | Table | Remarks at 0.01 level |
|---|---|---|---|---|---|---|
| Control | 30 | 9.48 | 2.03 | 2.35 | 1.96 | S |
| Experimental | 30 | 15.18 | 3.62 | | | |

The above table shows that the computed 't' value 2.35 is greater than the table value 1.96 at 0.05 level and hence it is significant. Consequently, the null hypothesis is to be rejected. So there is significance difference between control group and experimental group students in their mean scores of post test.

**Figure.2 Mean Scores of Post Test of Control Group and Experimental Group**
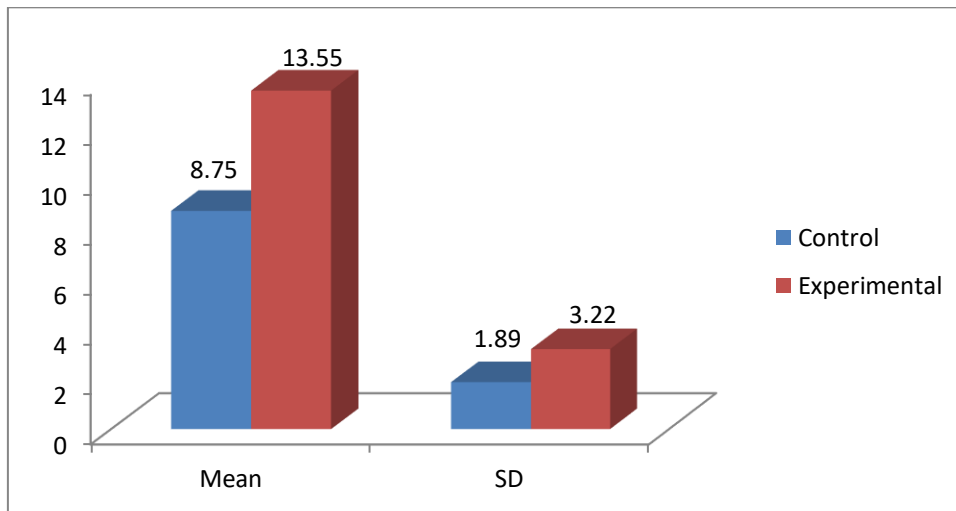
**Hypothesis: 3**

There is no significance difference between the mean scores of gain scores of control group and experimental group students

**Table .3. Difference between the Mean Scores of Gain Scores of Control Group and Experimental Group**

| Group | Number | Mean | SD | 't' Value | | Remarks at 0.01 level |
|-------|--------|------|-----|-----------|-------|-----------------------|
| | | | | Calc. | Table | |
| Control | 30 | 8.75 | 1.89 | 3.35 | 1.96 | S |
| Experimental | 30 | 13.55 | 3.22 | | | |

The above table shows that the computed 't' values 3.35 is greater than the table value 1.96 at 0.05 level and hence it is significant. Consequently, the null hypothesis is to be rejected. So there is significance difference between the mean scores of gain scores of control group and experimental group.

**Figure.3. Gain Scores of Control Group and Experimental Group**



**Discussion**

This study investigated the effect of blended learning approach on students' achievement as compared to purely in Teaching Psychology. The study revealed that using blended learning approach improves students' achievement scores in psychology as compared to traditional method. So blended learning approach might have benefited from the mediator as more time was spent on learning the task at their own pace. Albano, G. (2012) Reported that blended learning can support students learning more effectively than e-learning or face-to-

face learning alone. In line with the findings of this study researchers envisaged that new technology and software such as computer- assisted instruction should be used in the teaching of abstract concept in Psychology.

## Recommendations

The institution could foster international collaboration/consortium toward developing a robust virtual learning environment (VLE) to suit the institutions' conventional curriculum design. such as, learning theory and motivational theory that are being offered be large groups of students across the faculties of Science, Education and Engineering should be link to VLE. The ICT centre and internet facilities should have a direct link and networked to the Mathematics, and Science Education Department, to enable technical supports within the institution. Also, further study adopting blended learning in difference faculties should be done, so as to develop e-learning in the institution

## Conclusion

This study realized in the development of ICT which facilitate and promote active learning, interactivity and collaborative learning styles through open application and services. It is an imperative for the instructional approaches in teaching psychology through blended learning approach. It is no doubt saying that students' interest and motivation are lower on pursuing career in psychology courses, and the only way to bring a significant new group of learners to the fold is through the use of blended learning. Blended learning could potentially increase institutional reputation, improve the quality of teaching, and provides flexibility in students' life-long learning. It could contribute towards enhancing the institutions' e-preparedness, and as a proactive prospect of blended learning course in psychology. The research is likely to be of immense benefit to students, lecturers, learning technologist, and other stakeholders involved in curriculum design such as, programme managers, heads of departments and e-learning coordinators in the institution.

## References

*Albano, G. (2012). Mathematics education: Teaching and learning opportunities in blended learning. Retrieved on 06/07/13 from www.igi- global.com/chapter/mathematics-education-teaching-learning-opportunities/57934*

*Albano, G.,& Ferrari, P. L. (2008). Integrating teaching and research in mathematics education. Retrieved on 06/02/13 from www.igi- global.com/chapter/integrating-technology-research-mathematics-education/1473*

Al-quhtani, A. W.,& Higgins, S. E (2012). *Effect of traditional blended learning and e-learning on students' achievement in higher education. Journal of Computer Assisted Learning. DOI: 10.1111/j.1365- 2729.2012.00490.x*

Bellas, F., Romero, O. F., Marono, N. S., & Becerra,

J. A. (2010). *Web-based multimedia tools for monitoring e-learning. Retrieved on 02/03/13 form www.igi-global.com/chapter/web-based-multimedia- tools/36840*

Bringslid, O. (2002). *Mathematics e-learning using interactive mathematics on the web. European Journal of Engineering Education, 27(3), (pp.249- 255). DOI: http//dx.doi.org/10.1080/0304370210141564*

Downes, S. (2010). *Learning networks and connective knowledge. In H. H. Yang & S. C. Yuen, Collective intelligence and e-learning 2.0: Implication.*

Dzakaria, H., Mustafa, C. S., & Bakar, H. A. (2006). *Moving forward with blended learning as a pedagogical alternative to traditional classroom learning. Malaysian Online Journal of Instructional Technology (MOJIT), 3(2), (pp.11-18).*

Groen, L., & Carmody, G (2005). *Blended learning in a first year mathematics subject. Proceedings of uniserve science blended learning symposium, (pp.50-55). Retrieved on24/09/14 from www.uniserve.edu.au/pubs/procs/wshop10/2005Groe n.pdf*

Iozzi, F., & Osimio, G. (2012). *The virtual learning classroom in blended learning mathematics undergraduate course. Presented at ICME 10. Available online at http://www.icme-organiser.dk/tsg15/Iozzi&osimio.pdf*

Kulik, J. A. (2003). *Effect of using instructional technology in elementary school: What control evaluation studies. Retrieved on 13/03/13 from http://www.sri.com/educational/ctl*

Siemens, G. (2013). *Connectivism: A learning theory for digital age. International Journal of Instructional Technology and Distance Learning. Retrieved on 12/04/2013 from www.connectivism.ca*

Singh, H. (2003). *Building effective blended learning program. Educational Technology, 43(6), (pp.51-54)*

Tawil, O., Ismail, N., Izamarlina, A., Othman, H., Zaharim, A., & Bahaludin, H. (2003). *Preference learning style in engineering Mathematics: Students perspective of e-learning. Retrieved from http://dx.doi.org/10.5539/ies.v6n6n6p61*

UNESCO (2002). *Open and distance learning: Trends, policy, and strategy consideration. Paris: UNESCO.*