

## Impact of E-Learning Module in Learning English Language Skills during Covid - 19 Pandemic: An Experimental Study

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### Abstract

This study was conducted to investigate the impact of e-learning module in learning English language skills - listening, speaking, reading, writing. 50 secondary student teachers were selected by the investigator as the sample of the study. The investigator has adopted the experimental method with Pre-test Post-test Equivalent Group Design. E-learning module to teach the four skills – Listening, Speaking, Reading and Writing in English was developed by the investigator and then analysis of data was done using mean and ‘t’-test. The result of the study reveals that there is significant difference between the scores obtained by the control group in pre-test and post-test. Also there is significant difference between the scores obtained by the experimental group in pre-test and post-test. And also effect size analysis was carried out to find the effectiveness of e-learning module over the conventional teaching method. Cohen’s d for effect size for the control group and experimental group to the mean scores for pretest is Cohen’s  $d=0.02488$ ,  $r=0.003$  and for posttest Cohen’s  $d=0.7073$ ,  $r=0.3$ . Hence it is concluded that the large effect size is due to the implementation of e-learning module to the experimental group.

### Introduction

ICT is playing its major role in the field of education. Today many higher education institutions have given much importance to integrate technology with learning. As a result for the past few decades technology is used as an aid to supplement the traditional classrooms. Educational technology a part of ICT is influencing every aspects of human life. It may be defined as “the development, application and evaluation of systems, techniques and instructional aides to improve the process of human learning”. (Sivarajan. K, 2018). ICT applications are used effectively in the process of learning. “E-learning is instruction delivered on a computer through a internet or intranet with the following features: It includes content relevant to the learning objectives, it uses instructional methods, such as examples and practice to help learning, it uses media elements such as words and pictures to deliver the content and methods, it may be instructor-led or designed for self – paced individual study and it builds new knowledge and skills linked to individual learning goals or to improved organizational performance (Clark and Mayer, 2003). This definition portrays the ‘how’, ‘what’ and ‘why’ aspects of e-learning. E-learning is also defined as the systematic process of design, development and delivery of learning interventions, using various information and communication technologies (Dubey Madhuri, 2011). E-learning is available at anytime, anywhere, for anyone at their own convenience. This e-learning module has brought an impact in learning English language skills - Listening, Speaking, Reading and

Writing. This paper discusses the impact of e-learning modules in learning English language skills - Listening, Speaking, Reading and Writing during Covid – 19 pandemic.

### ***Statement of the Problem***

E-learning is followed very effectively in the traditional academic institutions, hybrid educational organizations and newly established online organizations for teaching English language. The present study investigates the impact of using e-learning platform in learning the English language skills among the secondary student-teachers. It is believed that e-learning platform is an appropriate and better means for acquiring vocabulary, developing speaking skills, reading skills, writing skills, listening skills, English language grammar and as a better mode of enhancing performance in English as the e-learning platform can bring a variety of learning experiences inside the class than the traditional classroom mode. The investigator has chosen the topic “Impact of e-learning module in learning English language skills during Covid – 19 pandemic: An Experimental Study”.

The paper studies the impact of e-learning module in learning English among the secondary student teachers. To achieve the objectives of the study the experiment is conducted in the English classroom. Hence the problem for the present study is to assess “To what extent e-learning module can bring impact in learning English among secondary student teachers during Covid – 19 pandemic”.

### ***Objectives***

The objectives of the study are:

- To find out the significant difference between the scores obtained by the control group in pre-test and post-test.
- To find out the significant difference between the scores obtained by the experimental group in pre-test and post-test.
- To find out the impact of e-Learning module over the conventional teaching method during the Covid – 19 pandemic.

### ***Hypotheses***

The hypotheses of the study are:

- There is no significant difference between the scores obtained by the control group in pre-test and post-test.
- There is no significant difference between the scores obtained by the experimental group in pre-test and post-test.

### ***Review of Related Studies***

The results of the studies conducted by BoutkhalGuemide&ChellaliBenachaiba (2012), ChoosriBanditvilai (2015), JasminE (2017), Saeheng, P. (2017), Pio Albina A(2018) has revealed that e-

learning has a great impact on the achievement of its stakeholders. The result of this study also coincides with the same.

### **Method Used**

The investigator has adopted the experimental method with Pre-test Post-test Equivalent Group Design. According to Best and Kahn (2005) “Experimental design is the blueprint of the procedure that enables the investigator to test the hypothesis by reaching valid conclusions about relationship between independent and dependent variable”. The investigator has selected pretest posttest design which is an experiment where measurements are taken both before and after a treatment. The design means that there is a provision to see the effects of treatment on a group. Pretest posttest designs may be quasi-experimental, which means that participants are not assigned randomly.

### **Population and Sample**

All the secondary student teachers who are pursuing B.Ed.programme in Colleges of Education in Kanyakumari District during the academic year 2019-20 is the population of the study. The investigator has selected two Colleges of Education from Kanyakumari district to conduct the experiment. The student teachers who had opted English education as their subject of study were chosen as the sample for the study. Sample sizes of 25 secondary student teachers were selected as control group and 25 secondary student teachers as experimental group. The secondary student teachers of one college is treated as control group and secondary student teacher of another college is treated as experimental group after conducting the pre-test. Post- test was conducted after the treatment with the 15 modules created by the investigator on listening, speaking, reading and writing skills.

### **Research Tools Used**

E- learning module prepared by the investigator to teach the theoretical perspectives of the four skills – listening, speaking, reading and writing in English as prescribed in the course – Pedagogy of teaching English of Tamilnadu Teachers Education University syllabus and an achievement test on LSRW Skills.

### **Statistical Techniques Used**

The statistical techniques Mean and t-test (Small group independent) are used for this study.

### **Analysis of Data**

**H<sub>0</sub>:** There is no significant difference between the scores obtained by the control group in pre-test and post-test.

**Table-1**  
**Correlated t-test for the pre-test and post-test scores of control group**

| Control Group | N  | Mean    | SD       | r-Value | t-value | p-value            |
|---------------|----|---------|----------|---------|---------|--------------------|
| Pre-test      | 25 | 22.1600 | 6.34219  | 0.712   | 2.683   | 0.013 <sup>S</sup> |
| Post-test     | 25 | 25.9600 | 10.01865 |         |         |                    |

S - Significant at 5% level of significance

In the above table, since the p-value is less than 0.05, the null hypothesis is rejected at 0.05 level of significance. Hence, it is concluded that there is significant difference between the scores obtained by the control group in pre-test and post-test.

**H<sub>0</sub>:2** There is no significant difference between the scores obtained by the experimental group in pre-test and post-test.

**Table-2**  
**Correlated t-test for the pre-test and post-test scores of experimental group**

| Experimental Group | N  | Mean    | SD      | r-Value | t-value | p-value            |
|--------------------|----|---------|---------|---------|---------|--------------------|
| Pre-test           | 25 | 22.0000 | 6.48717 | 0.351   | 7.227   | 0.000 <sup>S</sup> |
| Post-test          | 25 | 31.4800 | 4.62889 |         |         |                    |

*S - Significant at 5% level of significance*

In the above table, since the p-value is less than 0.05, the null hypothesis is rejected at 0.05 level of significance. Hence, it is concluded that there is significant difference between the scores obtained by the experimental group in pre-test and post-test.

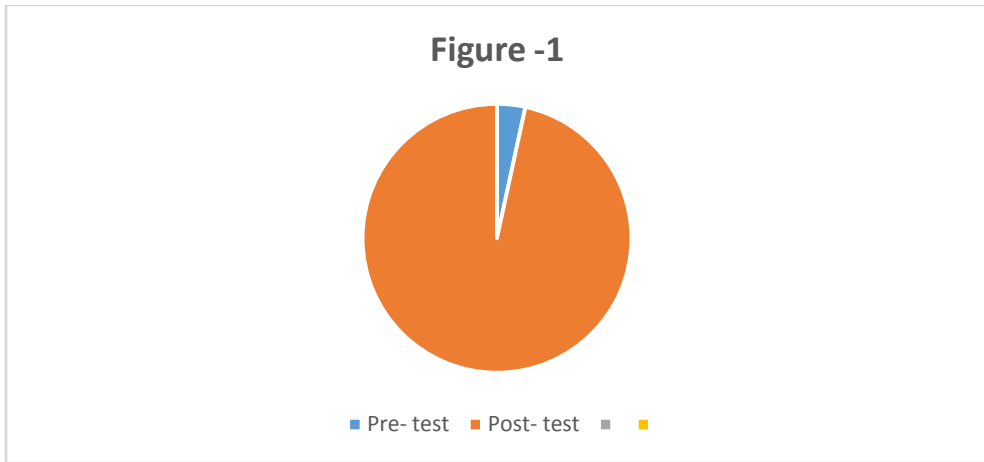
### Effect Size Analysis

**Table – 3**  
**Effect Size Analysis**

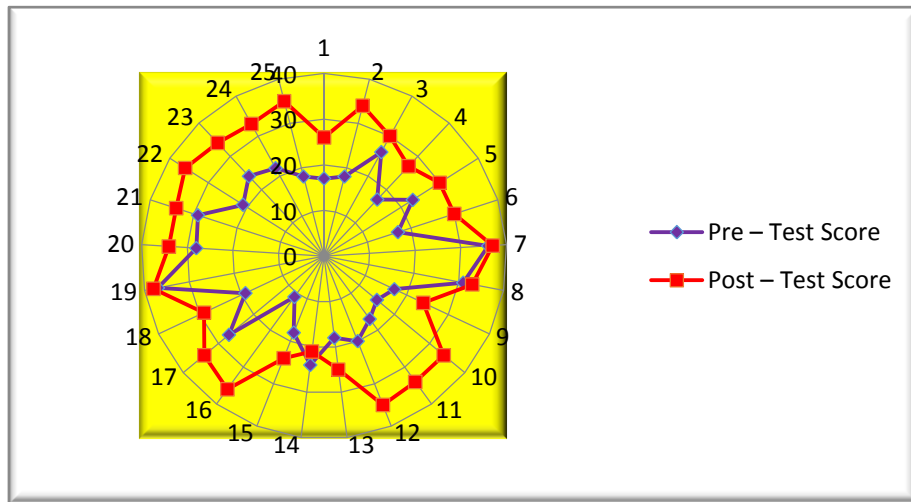
| Test      | t-value | N <sub>1</sub> | N <sub>2</sub> | Cohen's d-value | r     |
|-----------|---------|----------------|----------------|-----------------|-------|
| Pretest   | 0.088   | 25             | 25             | 0.02488         | 0.003 |
| Post-test | 2.501   | 25             | 25             | 0.7073          | 0.3   |

Effect size analysis was carried out to find the effectiveness of e-Learning module over the conventional teaching method. Cohen's d for effect size for the control group and experimental group to the mean scores for pretest is Cohen's d=0.02488, r=0.003 and for posttest is Cohen's d=0.7073, r= 0.3. Hence it is concluded that the large effect size is due to the implementation of e-learning module to the experimental group.

**Effect size analysis**



**Figure - 2**  
**Radar chart representing pretest and posttest scores obtained by the experimental group**



The scores of pretest and posttest of control group are shown diagrammatically in radar chart. The scores are marked from 0 to 45 starting from the central point to outer line of the web. The number of students are distributed from 1 to 25 around the circle. From the graphical representation it is found that posttest scores are high when compared to pretest scores.

**Result and Discussion**

The result of the study revealed that

- Significant difference was found between the scores obtained by the control group in pre-test and post-test. Based on the mean scores, the control group student- teachers have more scores in their post-test than the pre-test.
- Significant difference was found between the scores obtained by the experimental group in pre-test and post-test. The mean scores reveal that the post-test scores of experimental group is more than their pre – test scores.
- Effect size analysis was carried out to find the effectiveness of e-learning module over the conventional teaching method. Large effect was found due to the implementation of e-Learning module to the experimental group.

### ***Educational implications***

The following are the educational implications made based on the study.

- The present study proposes and recommends the Government to motivate the teacher educators to give more importance to prepare and disseminate the usage of e-learning modules in their regular teaching so that it will be helping them during drastic situations like Covid -19 pandemic.
- NCTE can look into the provision of infrastructure available for module creation while providing approval to teacher education institutions.
- The study also recommends to include e-learning module preparation by the student teachers as a part of the practicum component.
- The teacher educators should use e-learning modules in their regular language classroom teaching replacing the traditional Chalk and talk method.
- The student teachers should give more importance to learning through online platforms.

### ***Conclusion***

This study concludes that e-learning has a great impact on learning of any subjects and student's achievement through e-learning is high when compared to the traditional mode. Using e-learning modules create interest, and make the learning process easy. It also makes the learner to actively participate in classroom interaction. Hence the student – teachers can use e-learning modules in the process of teaching and learning during the unavoidable situations like Covid – 19 pandemic.

### ***References***

- Clark R C and R E Mayer. (2003). E-learning and the science of Instruction: *Proven Guidelines for Consumers and Designers of Multimedia Learning*, San Francisco: Pfeiffer Best, & Kahn (2005). *Experimental psychology*. New Delhi: Oxford & IBH Publications.
- Dubey Madhuri (2011) *Effective e-learning Design, Development and Delivery*, University Press (India) Private Limited, Hyderabad.
- Guemide, B., & Benachaiba, C. (2012). Exploiting Ict and E-learning in Teacher's Professional Development in Algeria: the Case of English Secondary School Teachers. *Turkish Online Journal of Distance Education*. 13(3).

- Banditvilai, C. (2015). Using E-Learning to Develop Students' English Skills. *International Journal of Languages, Literature and Linguistics, IACSIT Press, 1*(4).
- Jasmin, E. (2017). A study of effect of an e-content in teaching Tamil language learning to 9<sup>th</sup> standard English medium students. *International Education and Research Journal, 3*(11).
- Saeheng, P. (2017). A Study of E-Learning, Blended Learning, and Traditional Teaching Methods to Motivate Autonomous Learning in English Reading Comprehension of Thais Learners. *Indonesian Journal of English Language Teaching and Applied Linguistics, State Islamic Institute of Samarinda, 2*(1).
- Pio Albina A(2018), Effectiveness of e-Content in Teaching of Mathematics Education among B.Ed. Student-teachers, *American Journal of Educational Research, Vol. 6, No.7*
- .Sivarajan, K. (2018). *Educational Technology*. Laxmi Publications (P) Ltd. New Delhi. p. 93.

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