EFFECTIVENESS OF THE BLENDED METHOD OF TEACHING ENGLISH AND VIRTUAL LEARNING KNOWLEDGE OF THE ENGINEERING STUDENTS IN CHENNAI

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ABSTRACT

Educators are becoming aware that open, unguided asynchronous online discussion forums can be very ineffective. Students will not give open-ended discussions their time and attention if they are not directed at specific learning or assessment activities. Most online learning management systems support collaborative learning and small group work, which are widely recognized as desirable educational practices. Since college students are such a wide users of the technology, it is important to examine the Virtual Learning Knowledge of college students. In this view point the researchers have undertaken this study. The present study was conducted in a private Engineering College, Chennai, Tamilnadu, India, and 60 students from department of electronics and communication engineering were selected as sample. Experimental method and normative survey method was adopted purposive sampling technique was used in selecting the samples. Experimental method has been used in the present study which consists of (a) Control Group (Traditional method of teaching), (b) Experimental Group I (self learning by the students using ICT) and (c) Experimental Group II (Teaching by using traditional method and ICT). The result revealed that virtual learning knowledge among the students differ significantly according to their sex in experimental group II.

Key Words: *Effectiveness, Blended Method, Teaching English, virtual learning knowledge.*

INTRODUCTION

The rapid and constant pace of change in technology is creating both opportunities and challenges for the education field. The opportunities include greater access to rich, multimedia content, the increasing use of

online course taking to offer classes not otherwise available, the widespread availability of mobile computing devices that can access the Internet, the expanding role of social networking tools for learning and professional development, and the growing interest in the power of digital games for more personalized learning. At the same time, the pace of change creates significant challenges for the education field. To begin with, colleges' are forever playing technological catch up as digital innovations emerge that require upgrading colleges' technological infrastructure and building new professional development programs. Some colleges have been adept at keeping up with those changes, while many others are falling far behind, creating a digital divide based largely on the quality of educational technology, rather than just simple access to the Internet. The rapid evolution of educational technologies also makes it increasingly challenging to determine what works best. Longitudinal research that takes years to do risks being irrelevant by the time it is completed because of shifts in the technological landscape. The iPad, for instance, became popular in colleges soon after it was released and well before any research could be conducted about its educational effectiveness.

NEED AND IMPORTANCE OF THE STUDY

At its heart virtual learning is about the learning that takes place outside of the college, or bringing what is outside of the college into the college. So, we are thinking about the online environment as a way of connecting students who may be located physically in a college with their learning that is somewhere else. So the investigator was interested in knowing the effectiveness of the blended method of teaching English in relation to virtual learning knowledge of electronics and communication engineering students. Hence, the present study has a high need and importance at the present time.

RELATED LITERATURE

Among the identified related studies two were quoted by the investigators which are related to their investigation are as follows.

Ochoa Alpala, CA., and Roberto Flórez, EE., (2011) conducted a study on blended learning in the teaching of English as a foreign language. The blended learning has become one of the most common ways to teach EFL (English as a Foreign Language) due to its double component, which integrates Face-to-Face classes with virtual learning in order to offer students a wide range of materials and resources organized in a methodological way. Over the years, teachers and students have changed the way this educational process is

seen because new technologies have been implemented and teachers have to propose new ways of working to display materials that complement EFL Face-to-Face classes. However, the implementation of a Blended Course must have a pedagogical foundation for each setting where it is planned in order to be developed.

Sarka Hubackova, et.al., (2011) conducted a study on blended learning in a foreign language teaching Blended learning enables to use many different forms and methods in foreign language teaching. On-line courses leave room for any inclusion of many listening texts and video files. In order to facilitate the language study to our students we have prepared on-line courses of professional English, courses of area studies of English speaking countries, courses of professional German, a course for translators, written business English course and others. These courses are based on tutors' and students' needs, students' knowledge, on teachers' long term experience, and of course on the positive attitude of ICT students (and not only of them) to modern technologies.

Senthil Kumar, M., and Vaiyapupri raja, P., (2015), conducted a study on virtual learning knowledge of the college students in relation to their e-library attitude in salem district. Normative survey method has been used in the present investigation. The following tools have been used in the present investigation. Virtual Learning Knowledge Test (VLKT) constructed and validated by Senthil kumar, M., and Vaiyapuriraja, P., (2015) and e-Library Attitude Scale (e-LAS) constructed and validated by Senthil kumar, M., and Vaiyapuriraja, P., (2015). Random sampling technique has been used in the present investigation. As many as 1000 college students studying in the colleges situated in the Salem district of Tamilnadu, India. The following statistical technique has been employed in the present investigation (a) Percentage analysis, (b) Descriptive analysis, (c) Differential analysis and (d) Correlational analysis. Also the study has revealed that majority of college students were having an average level of virtual learning knowledge and a neutral e - Library attitude. Thus these college students can be given the aspects in the recommendations with the facilities available to enhance the virtual learning knowledge and e- Library attitude which helps them to equip themselves to face globalization of world.

Diego Díaz, et al., (2016) done an analysis of knowledge building in a virtual learning community from the pedagogical use of the visibility and found that the teaching management improved the level of comments and knowledge building, but still is necessary to strengthen the teaching management strategies to

motivate all students to participate actively and constructively. In fact, the visibility of the academic production students enables the collaboration, generating greater interest and significantly developing of the levels of knowledge building.

STATEMENT OF THE PROBLEM

The problem selected for the present study has been stated as, **"EFFECTIVENESS OF THE BLENDED METHOD OF TEACHING ENGLISH AND VIRTUAL LEARNING KNOWLEDGE OF THE ENGINEERING STUDENTS IN CHENNAI"**.

OBJECTIVES

1. To study if there is any significance difference between the male and female electronics and communication engineering students in respect of their pre test scores in the achievement test in English for the control group.
2. To study if there is any significance difference between the male and female electronics and communication engineering students in respect of their pre test scores in the achievement test in English for the experimental group I.
3. To study if there is any significance difference between the male and female electronics and communication engineering students in respect of their pre test scores in the achievement test in English for the experimental group II.
4. To study if there is any significance difference between the male and female electronics and communication engineering students in respect of their post test scores in the achievement test in English for the control group.
5. To study if there is any significance difference between the male and female electronics and communication engineering students in respect of their post test scores in the achievement test in English for the experimental group I.
6. To study if there is any significance difference between the male and female electronics and communication engineering students in respect of their post test scores in the achievement test in English for the experimental group II.

7. To study if there is any significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their pre test scores in the achievement test in English for the control group.
8. To study if there is any significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their pre test scores in the achievement test in English for the experimental group I.
9. To study if there is any significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their pre test scores in the achievement test in English for the experimental group II.
10. To study if there is any significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their post test scores in the achievement test in English for the control group.
11. To study if there is any significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their post test scores in the achievement test in English for the experimental group I.
12. To study if there is any significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their post test scores in the achievement test in English for the experimental group II.
13. To study if there is any significance difference between the male and female electronics and communication engineering students in respect of their virtual learning knowledge for the control group.
14. To study if there is any significance difference between the male and female electronics and communication engineering students in respect of their virtual learning knowledge for the experimental group I.
15. To study if there is any significance difference between the male and female electronics and communication engineering students in respect of their virtual learning knowledge for the experimental group II.

16. To study if there is any significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their virtual learning knowledge for the control group.
17. To study if there is any significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their virtual learning knowledge for the experimental group I.
18. To study if there is any significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their virtual learning knowledge for the experimental group II.

HYPOTHESIS:

1. There is no significant difference between the male and female electronics and communication engineering students in respect of their pre test scores in the achievement test in English for the control group.
2. There is no significant difference between the male and female electronics and communication engineering students in respect of their pre test scores in the achievement test in English for the experimental group I.
3. There is no significant difference between the male and female electronics and communication engineering students in respect of their pre test scores in the achievement test in English for the experimental group II.
4. There is no significant difference between the male and female electronics and communication engineering students in respect of their post test scores in the achievement test in English for the control group.
5. There is no significant difference between the male and female electronics and communication engineering students in respect of their post test scores in the achievement test in English for the experimental group I.

6. There is no significant difference between the male and female electronics and communication engineering students in respect of their post test scores in the achievement test in English for the experimental group II.
7. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their pre test scores in the achievement test in English for the control group.
8. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their pre test scores in the achievement test in English for the experimental group I.
9. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their pre test scores in the achievement test in English for the experimental group II.
10. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their post test scores in the achievement test in English for the control group.
11. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their post test scores in the achievement test in English for the experimental group I.
12. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their post test scores in the achievement test in English for the experimental group II.
13. There is no significance difference between the male and female electronics and communication engineering students in respect of their virtual learning knowledge for the control group.
14. There is no significance difference between the male and female electronics and communication engineering students in respect of their virtual learning knowledge for the experimental group I.
15. There is no significance difference between the male and female electronics and communication engineering students in respect of their virtual learning knowledge for the experimental group II.

16. There is no significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their virtual learning knowledge for the control group.
17. There is no significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their virtual learning for the experimental group I.
18. There is no significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their virtual learning for the experimental group II.

METHODOLOGY

Experimental method has been used in the present investigation. Three groups were formed i.e., control group, Experimental group I and Experimental group II. Here in the control group constitutes 20 computer science engineering students and they were taught the English using the traditional method i.e., the investigator teach them by utilizing the black board. In the experimental group I another 20 students from the computer science engineering department learn the English, only by the use of the ICT. The three group, viz., experimental group II constitute another 20 students from the same department were taught English by utilizing the ICT and supported with the traditional method.

TOOLS USED

Achievement Test in English constructed and validated by the investigator has been used in the present study. The achievement test in English of 40 multiple choice questions. The correct answer will be scored as 1 and the using answer as 0. Here the minimum score one can get is 0 and the maximum is 40. The reliability and validity of the achievement test in English has been found to be 0.71 and 0.84 by the investigators.

Also, Virtual learning knowledge test (VLKT) constructed and validated by Senthilkumar, M., and Vaiyapuriraja, P., (2016) has been used in the present study. This scale as many as 22 multiple choice items. An individual score ranges from 0 to 22 the maximum score that one can get in this is 22. The virtual learning knowledge test has construct validity and its intrinsic validity was found to be 0.90. The reliability of the test

by split-half technique (consistency) followed by the use of Spearman-Brown prophecy formula is found to be 0.81. Thus the virtual learning knowledge test has validity and reliability.

SAMPLE

Purposive sampling technique has been used to select the sample of 60 students from the electronics and communication engineering department of the a private engineering college, Chennai, Tamilnadu, India chosen for the study.

STATISTICAL TECHNIQUES USED

- Descriptive analysis and
- Differential analysis (t – test).

TABLE 1 to 3 : SHOWING 't' VALUE OF ELECTRONICS AND COMMUNICATION ENGINEERING STUDENTS ACHIEVEMENT TEST IN ENGLISH FOR THE PRE TEST SCORES

Table - 1

SUB SAMPLES	CONTROL GROUP			
	N	MEAN	SD	't' VALUE
MALE	12	12.5833	2.50303	2.51 (S)
FEMALE	8	10.3750	1.40789	
URBAN	7	11.0000	2.00000	1.04 (NS)
RURAL	13	12.0769	2.53185	

Table - 2

SUB SAMPLES	EXPERIMENTAL GROUP I			
	N	MEAN	SD	't' VALUE
MALE	13	13.4615	1.56074	0.05 (NS)
FEMALE	7	13.4286	1.13389	
URBAN	8	13.7500	1.83225	0.69 (NS)
RURAL	12	13.2500	1.05529	

Table - 3

SUB SAMPLES	EXPERIMENTAL GROUP II			
	N	MEAN	SD	't' VALUE
MALE	10	24.3000	2.90784	0.26 (NS)
FEMALE	10	24.5000	3.17105	
URBAN	12	24.2500	2.92715	0.89 (NS)
RURAL	8	24.6250	3.20435	

TABLE 4 to 6: SHOWING 't' VALUE OF ELECTRONICS AND COMMUNICATION ENGINEERING STUDENTS ACHIEVEMENT TEST IN ENGLISH FOR THE POST TEST SCORES

Table - 4

SUB SAMPLES	CONTROL GROUP			
	N	MEAN	SD	't' VALUE
MALE	12	20.0833	2.53909	0.95 (NS)
FEMALE	8	21.5000	3.66450	
URBAN	7	21.1429	2.79455	0.54 (NS)
RURAL	13	20.3846	3.22848	

Table - 5

SUB SAMPLES	EXPERIMENTAL GROUP I			
	N	MEAN	SD	't' VALUE
MALE	13	25.3077	2.81024	1.36 (NS)
FEMALE	7	23.4286	2.99205	
URBAN	8	25.0000	2.97610	0.42 (NS)
RURAL	12	24.4167	3.02890	

Table - 6

SUB SAMPLES	EXPERIMENTAL GROUP II			
	N	MEAN	SD	't' VALUE
MALE	10	33.4000	3.94968	0.79 (NS)
FEMALE	10	32.2000	2.69979	
URBAN	12	34.0000	3.49025	2.33 (S)
RURAL	8	31.0000	2.26779	

TABLE 7 to 9 : SHOWING 't' VALUE OF ELECTRONICS AND COMMUNICATION ENGINEERING STUDENTS VIRTUAL LEARNING KNOWLEDGE SCORES

Table - 7

SUB SAMPLES	CONTROL GROUP			
	N	MEAN	SD	't' VALUE
MALE	12	17.0833	3.08835	0.80 (NS)
FEMALE	8	18.1250	2.64237	
URBAN	7	16.4286	2.63674	1.27 (NS)
RURAL	13	18.0769	2.95696	

Table - 8

SUB SAMPLES	EXPERIMENTAL GROUP I			
	N	MEAN	SD	't' VALUE
MALE	13	16.3846	2.36426	0.55 (NS)
FEMALE	7	17.0000	2.38048	
URBAN	8	16.7500	2.60494	0.22 (NS)
RURAL	12	16.5000	2.23607	

Table - 9

SUB SAMPLES	EXPERIMENTAL GROUP II			
	N	MEAN	SD	't' VALUE
MALE	10	15.9000	1.52388	2.45 (S)
FEMALE	10	17.9000	2.07900	
URBAN	12	16.5000	1.78377	1.01 (NS)
RURAL	8	17.5000	2.39046	

FINDINGS

1. There is a significant difference between the male and female electronics and communication engineering students in respect of their pre test scores in the achievement test in English for the control group.
2. There is no significant difference between the male and female electronics and communication engineering students in respect of their pre test scores in the achievement test in English for the experimental group I.
3. There is no significant difference between the male and female electronics and communication engineering students in respect of their pre test scores in the achievement test in English for the experimental group II.
4. There is no significant difference between the male and female electronics and communication engineering students in respect of their post test scores in the achievement test in English for the control group.
5. There is no significant difference between the male and female electronics and communication engineering students in respect of their post test scores in the achievement test in English for the experimental group I.
6. There is no significant difference between the male and female electronics and communication engineering students in respect of their post test scores in the achievement test in English for the experimental group II.

7. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their pre test scores in the achievement test in English for the control group.
8. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their pre test scores in the achievement test in English for the experimental group I.
9. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their pre test scores in the achievement test in English for the experimental group II.
10. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their post test scores in the achievement test in English for the control group.
11. There is no significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their post test scores in the achievement test in English for the experimental group I.
12. There is a significant difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their post test scores in the achievement test in English for the experimental group II.
13. There is no significance difference between the male and female electronics and communication engineering students in respect of their virtual learning for the control group.
14. There is no significance difference between the male and female electronics and communication engineering students in respect of their virtual learning for the experimental group I.
15. There is a significance difference between the male and female electronics and communication engineering students in respect of their virtual learning for the experimental group II.
16. There is no significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their virtual learning for the control group.

17. There is no significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their virtual learning for the experimental group I.
18. There is no significance difference between the electronics and communication engineering students residing in the urban area and in the rural area in respect of their virtual learning for the experimental group II.

CONCLUSION

The present investigation is a unique study conducted in a private engineering College, Chennai, Tamilnadu, India, one of the pioneering states in the information technology field, to study the electronics and communication engineering students' effectiveness in blended method of teaching English virtual learning knowledge Hence this study has contributed to the field of computer education. Also the study has revealed that majority of college students were having an high level of virtual learning knowledge. Blended method of teaching English is found to have the high level of effectiveness an virtual learning knowledge of the students differ significantly according to their sex in experimental group II. Thus these college students can be given the aspects in the recommendations with the facilities available to enhance the virtual learning knowledge which helps them to equip themselves to face globalization of world. In this view point the researchers have undertaken this study.

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