EFFECTIVENESS OF MULTIMEDIA BACKED METHODS OF ENGLISH TEACHING FOR THE ENGINEERING STUDENTS: A STUDY OF ODISHA

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ABSTRACT

Today English is also considered to be the major language for international commerce and trade, tourism, international relations, science, technology, education, and research. Thus the Engineering students have to use English to deal broadly with the numerous lectures conducted in English to figure out innumerable sentences and paragraphs written in English in the engineering textbooks and reference books, projects, and dissertation papers. But in the same time frame, another upswing observed in which the technology was integrated into providing training in English. This is especially so in delivering of English language lessons where the use of computer technology has greatly enhanced the quality of the outcomes of the lessons taught. In this research, the simple chi-square test has been used to test the hypotheses that are more students centric and the outcome also describes the students' motivation towards the multimedia backed English language learning and the effectiveness of this method of teaching in the English language as well.
Keywords: Multimedia, Effectiveness, Motivation, Traditional, Engineering Students

INTRODUCTION:

Today in the modern globalized world English has been considered as the common medium of communication among the professionals. Proficiency in English is very important for students of Engineering and other professional courses because it is the medium of education in all higher academics and it is extensively used as the medium of communication in all offices in India. Today English is also considered to be the major language for international commerce and trade, tourism, international relations, science, technology, education, and research. Engineering students have to use English to deal broadly with the numerous lectures conducted in English, figure out innumerable sentences and paragraphs written in English in the engineering textbooks and reference books, projects, and dissertation papers. But in the same time frame, another upswing was observed in the role of computer technology as an aid in foreign language teaching and learning is increasing. Educators are recognizing its ability to create both independent and collaborative learning environments in which students can acquire and practice a new language. The rapid development of computer technology has changed the way lessons are being delivered. This is especially so in delivering of English language lessons where the use of computer technology has greatly enhanced the quality of the outcomes of the lessons taught. Although a large number of English language teachers around the world use a computer in teaching the English language, Sudanese English language teachers are still using traditional methods of teaching the English language. Teachers around the world use a computer in teaching the English language, Sudanese English language teachers are still using traditional methods of teaching the English language.

LITERATURE REVIEW:

Sparks in 1998 states that many English language teachers are inclined to use the more familiar methods of teaching they remember from their own experience as students (cited in Abdullah,

Barceló et. al. (2000), state the need to create centers developed in order to provide support to the new activities that arise as a consequence of the integration of new technologies into educational processes. According to Gisbert (2004), in the future, there will have to exist – not only in the academic field-centers from which all people will have access to information and training. In the same period, BECTA in 2004 pointed out that a virtual learning environment can be defined as a standardized, computer-based environment that supports the delivery of web-based on-line learning. It might support learners both within an institution and also distance learners, who remotely access course and assessment materials. Chapelle in 2005 pointed out that technology is changing the jobs of language teachers through the changes it prompts in the language itself, the opportunities for studying language, and the options available for teaching language. Current computer technology provides new opportunities to increase the effectiveness of language learning and teaching especially in the field of teaching and learning foreign languages. Abidin, Luan, Majid & Atan, in 2006 pointed out that the traditional conventional teaching techniques often conflict with new instructional strategies introduced in many educational developmental programmes such as using a computer in their teaching.

Taffe and Gwinn (2007), wrote: There are at least two important aspects of literacy-technology integration: (1) using technology to teach more effectively and enhance the learning of skills and strategies that currently make up a strong reading/language arts curriculum, and (2) effectively teaching and enhancing the learning skills and strategies that make up the strong reading / language arts curriculum of the future. Incorporating well-organized and effective computer technology into foreign language learning and teaching strategies for improving students' language proficiency has been refined by researchers and educators for many decades. There is enough evidence that the integration of ICT into the Curriculum in various ways can enhance pupil's learning (Leask and Pachler, 2001), however, teachers will need to work and learn together to establish new and high-quality professional practice. Teaching needs to find solution to issues related to a wider use of ICT such as resourcing, training and the development of new pedagogical skills: "the learning curve for many teachers is very steep, but the challenge of changing practice must be saved if children are to be properly prepared to face life in the

A xxist century and not ghettoized from an early age into the "information rich" and the "information poor" sections of society." The authors go on ..." networks of colleagues provide us with opportunities to extent our skills and knowledge in the area of ICT. Teachers need to be committed to the notion of life-long learning and continuing professional development." (Leask and Pachler, 2001)

RESEARCH GAP:

The literature survey has failed to find the effectiveness of multimedia backed methods of English teaching for the engineering students of Odisha. In this research paper, this research gap will be addressed and the findings will be put in the conclusion section.

RESEARCH QUESTIONS:

Based on the above research gap following research questions were come out. They are as follows:
1. Are the multimedia backed methods that are used today for English teaching is effective in BPUT colleges?
2. Is the utilization of the multimedia language courseware (MLC) is as good as compared to the traditional method on the students' motivation in learning English?

RESEARCH OBJECTIVES:

Following two research objectives are the outcomes of above research questions. The research objectives are:
- To study the effectiveness of multimedia backed methods for English teaching in BPUT colleges of Odisha.
- To study whether the utilization of multimedia language courseware (MLC) is as good as compared to the traditional method on the students' motivation in learning English.

RESEARCH HYPOTHESIS:

H_0:   The multimedia backed methods for English teaching is not effective in BPUT   colleges.
H_1:   The multimedia backed methods for English teaching is effective in BPUT   colleges.
H_0:   The utilization of Multimedia language courseware is not as good as compared to traditional method on the students' motivation in learning English.
H_1:   The utilization of Multimedia language courseware is as good as compared to traditional method on the students' motivation in learning English.

RESEARCH METHODOLOGY:

This research paper is the partial portion of a broad theme of a Ph.D. research. In this research paper, three engineering colleges were taken into account are CET, CV Raman, and the GIET college. The population size, in this case, is 3246. Since the time and resource constraint is always followed the sample size is considered taking into account the confidence level at 95% and the confidence interval at 5%. The sample size here is 344. In this research paper, the chi-square test is used and this is explained in the following section.

ANALYSIS AND INTERPRETATION:
Hypothesis Testing-1
Null hypothesis to be tested,
H_o: *The multimedia backed methods for English teaching is not effective in BPUT colleges.*
To test the goodness of fit there is the need to use the chi-square test, and so need to calculate the expected values that correspond to the observed values in the table-1.1 above. To accomplish this there is need to use the Basic Probability Concepts that if A and B are independent events then P $(A \cap B) = P(A) \cdot P(B)$. Here it is to assume that the proportions of the sample are good estimates for the probabilities of the expected values.
Here,
A= Effectiveness, **B =** Multimedia Backed Teaching Methodology

Table: 1.1: Effectiveness of Multimedia Backed Teaching Methodology

Category	CET	CV Raman	GIET	Total
ACTUAL				
EFFECTIVE	54	84	45	183
Not EFFECTIVE	47	56	58	161
TOTAL	101	140	103	344
EXPECTED				
EFFECTIVE	53.73	74.48	54.79	183
Not EFFECTIVE	47.27	65.52	48.21	161
TOTAL	101	140	103	344

Table: 1.2: Chi-square Test

Test	Calculated Value	df	Tabulated Value	Decision
Chi-Square(χ^2)	6.34	2	5.99	Rejected

From the table-1.1 it is observed that the samples collected show that the effectiveness of Multimedia Backed Teaching Methodology for English teaching. The importance of Chi-square method here arises as there are two undefined groups of responses are available and there is the requirement to test the null hypothesis. As per the information received it is observed that total 183 number of respondents who agreed about the effectiveness of Multimedia Backed Teaching Methodology for English teaching which says the frequency of the respondents i.e. CET, CV Raman and GIET students who accepted the effectiveness were 54, 84 and 45 respectively. Based on the observed data it is required to find the expected frequency, the table-1.1 now shows the expected values. It is observed that 183 of the 344 people in the sample are accepting 'effectiveness of Multimedia Backed Teaching Methodology for English teaching', and so the probability that someone in the sample is from 'effectiveness of Multimedia Backed Teaching Methodology for English teaching' is 183/344 = 53.19%.

The table-1.1 derives the degree of freedom (*df*) that is calculated as, *df* = (c-1) x (r-1) =2x1=2. Now the chi-square test is conducted taking observed frequency, expected frequency and degree of freedom. The table-1.2 depicts the chi-square test; the **calculated value is 6.34** is more than the **tabulated value for 5** degrees of freedom at 5% significance level i.e. 6.34 > 5.99. *Since the calculated value is higher than the tabulated value the null hypothesis is <u>Rejected</u>* i.e. '*The multimedia backed methods for English teaching is not effective in BPUT colleges*' is rejected. *In other words, the **multimedia backed methods for English teaching is effective in BPUT colleges.***

Hypothesis Testing-2
Null hypothesis to be tested,
H_o: **The utilization of multimedia language courseware is not as good as compared to traditional method on the students' motivation in learning English.**
To test the goodness of fit there is the need to use the chi-square test, and so need to calculate the expected values that correspond to the observed values in the table-1.1 above. To accomplish this there is need to use the Basic Probability Concepts that if A and B are independent events then P $(A \cap B) = P(A) \cdot P(B)$. Here it is to assume that the proportions of the sample are good estimates for the probabilities of the expected values.
Here,
A= motivation in learning English, **B = utilization of multimedia language course in colleges**

Table: 1.3: Utilization of Multimedia Language Course in Colleges

Actual			
	Multimedia language courseware (MLC)	**Traditional method**	**TOTAL**
Motivates	67	94	161
Do not motivate	95	88	183
TOTAL	162	182	344
Expected			
	Multimedia language courseware (MLC)	**Traditional method**	**TOTAL**
Motivates	75.82	85.18	161
Do not motivate	86.18	96.82	183
TOTAL	162	182	344

Table: 1.4: Chi-square Test

Test	Calculated Value	df	Tabulated Value	Decision
Chi-Square(χ^2)	3.65	1	3.84	Accepted

From the table-1.3 it is observed that the samples collected show that the Utilization of Multimedia Language Course in Colleges for English teaching motivates the students. The importance of Chi-square method here arises as there are two undefined groups of responses are available and there is the requirement to test the null hypothesis. As per the information received it is observed that total 161 number of respondents who agreed that the Utilization of Multimedia Language Course in Colleges for English teaching motivates the students which say the frequency of the respondents i.e. Multimedia language courseware (MLC) and Traditional
method following students who accepted the respective course motivates are 67 and 94 respectively. Based on the observed data it is required to find the expected frequency, the table-1.3 now shows the expected values. It is observed that 161 of the 344 people in the sample are accepting 'Utilization of Multimedia Language Course in Colleges for English teaching motivates the students', and so the probability that someone in the sample is from 'Utilization of Multimedia Language Course in Colleges for English teaching motivates the students' is 183/344 = 46.80%.

The table-1.3 derives the degree of freedom (*df*) that is calculated as, *df* = (c-1) x (r-1) =1x1=1. Now the chi-square test is conducted taking observed frequency, expected frequency and degree of freedom. The table-1.4 depicts the chi-square test; the **calculated value is 3.65** is smaller than the **tabulated value for 5** degrees of freedom at 5% significance level i.e. 3.65 < 3.84. *Since the calculated value is smaller than the tabulated value the null hypothesis is <u>Accepted</u> i.e. 'The utilization of multimedia language courseware is not as good as compared to traditional method on the students' motivation in learning English'* is accepted.

FINDINGS:
From the above analysis, it is observed that:
- The **hypothesis -1** is rejected i.e. *The multimedia backed methods for English teaching is not effective in BPUT colleges*' is rejected. And
- The **hypothesis -2** is accepted i.e. *The utilization of multimedia language courseware is not as good as compared to traditional method on the students' motivation in learning English*' is accepted.

CONCLUSION:
The results of this study revealed that the English language backed by the multimedia method of teaching is proved to be effective and the improvement is observed in the students. But the contradictory opinion was observed when the comparison took place between the traditional method and the modern computer-based method i.e. multimedia backed method. In the second case, the testing of hypothesis brought out that the utilization of multimedia language courseware is not as good as compared to traditional method on the students' motivation in learning English. Though the teachers who are involved in providing English language teaching are not the participants an informal method of communication shows the light that the teachers have positive attitudes towards the use of computer technology in teaching the English language. This point is discussed in the next research. The results clarified that English language teaching through multimedia can use computer technology which can be of greater impact on the learning curve. The majority of the respondents agreed that computer is an important teaching tool in an EFL classroom. The findings showed that English language teachers are not sufficiently trained to use a computer in teaching that leads to student's dissatisfaction in multimedia language courseware. This opened up another area of research which one can explore to find the correlation between student's

interests in multimedia backed English learning and teachers' sufficient training to use a computer in teaching. This research also found out that teachers were not prepared to use computers in their classrooms and they are short of support and educational guidance and English language teachers will require enduring in-service programmes as technology changes to make classroom learning more effective and motivating.

Therefore it is to conclude that;

> *"Looking into the fast-changing progress of computer technology, it is important for English language teachers to be aware of how effective the computer technology and they need to make sure how effective they can incorporate computer-based technology into their curriculum design so that it can help the students to acquire second language or foreign easily and to enhance their own teaching performance as well."*

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