Competence and confidence through technology enhanced language learning-The impact of technology among rural and semi-urban undergraduates of engineering in India: A study

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Abstract— **The present study is an assessment of the efficacy of technology enhanced language learning (TELL) in teaching English to undergraduates pursuing third year of Engineering program using specific modules based on 'Internet and Smart Phone' in the Advanced English Communication Skills Lab (AECS). After a pilot study, students were divided into two groups and a group of them were deliberately asked to use internet both in their computers and smart phones whereas others were exposed to designed software in the lab. They were given authentic tasks such as watching selected documentaries, presentations on selected CEOs of pioneering technical firms along with selected successful entrepreneurs of India. Consequently, students were asked to read and write case studies and assessed through presentations, group discussions and mock interviews. Remarkably, the outcomes revealed that TELL facilitated the target students of rural and semi urban areas significantly in enhancing their language competence, and, therefore, confidence more effectively than the other group of students who used designed software in the lab.**

Keywords- Technology enhanced learning, language competence, English language lab, rural and semi-rural students

I. INTRODUCTION

Of late, Technology-Enhanced Language Learning (TELL) approach in the process of learning English as a second language (L2) in India is significantly increasing among educational institutions. However, TELL is yet to become successful in terms of its usage and results in India, particularly in rural and semi urban learning environment. It is evident that technology using computers have been used in the last two decades to assist second language learning and succeeded in enhancing language skills to a significant extent [4]. To overcome various issues of learning language using technology, English for Specific Purposes with peer instruction and just-in-time teaching helps the students [2]. At this juncture, advancement of technologies and the changeability of communicative environments, adaptability will be a prime requirement for teachers [3]. Simply fixing technologies is not adequate to address the transforming nature of instruction. Although the field of TELL is undeniably effective, most technology-enhanced language tools are still relatively improvised [1]. Since technology is 'creating rich and productive environments' [5], it is time to explore various possibilities to make use of it, depending on the situations in the process of learning. Due to MTI (Mother Tongue Influence), and lack of facilities and exposure, the rural and semi urban students tend to avoid language learning in the class rooms. At this point, if the English teacher can train the target students using TELL approach creatively, it can engender productive learning environment.

II. METHODS

A. Participants

The participants were 60 engineering graduates of an engineering college in India. Target group of the study is the students of Advanced English Communication Skills (AECS) Lab course, which is part of their engineering program, from colleges affiliated to JNTU- Hyderabad. The present study was conducted for 45 hours of Lab instruction spread over a period of six months at JMIT Warangal, Telangana, India, during 2016-17, using 60 students of Bachelor of Technology (39 Boys and 21 Girls aged 19-22 yrs.) from Computers, Electrical&Electronics and Civil Engineering disciplines.

B. Design

After conducting and evaluating a pilot test on remedial grammar and basic spoken English, chiefly based on their performance, balancing both the groups equally, the students were divided into two groups i.e. 'Control and Experiment'. A quasi-experimental research approach was used to conduct the study in which two groups (30 students in each) were formed. The 'Control Group' (CG) was followed the traditional instruction method using '*Globarena Software,* which provides student modules on LSRW with reading material and prerecorded videos in student console (computer system) and master consoles (server system) through LAN. Experimental Group (EG) was tutored by the method that integrated the use of 'internet and smart phone technology oriented learning with specific tasks' further using student and master consoles in AECS Lab. The approach of the study aims on 'tracing the area of language in relation to technology and exploring the role of technology in assisting students further in learning' [6]. Both Experimental and Control Group students were made to take part in the lab instructions and practice activities

focusing on interpersonal skills, vocabulary building, writing skills, presentation and skills of coordinating in following four different stages. Stage 1&2 were different for each group whereas stage3&4 were common for the both.

1) Experiment Group:

In **Stage 1**, focusing on listening, reading and writing skills respectively, the students were asked to prepare case studies of (1) Phanindra Reddy of redBus, (2) Vijay Shekar Sharma of Paytm, (3) Sachin Bansal and Binny Bansal of Flipkart, (4) N. R. Narayana Murthy of Infosys, and (5) Satya Nadella, CEO of Microsoft. **Stage 2:** Emphasizing on presentation skills and communicating ideas suitably and coherently, both individually and in a group, students were asked to present (a) the case studies that they have prepared and (b) to practice internet based activities using social media and educational websites, both inside and outside the language lab. **Stage 3:** The students were asked to read and understand modules on building vocabulary, reading comprehension, writing skills, presentation skills and group discussion provided in the systems of AECS lab. **Stage 4:** Students from both the groups were assessed during their 'Progress Test' based on their performances out of their modalities of learning.

2) Control Group:

Stage 1: Exercise the activities on Conversation, Building Vocabulary, Reading Comprehension and Writing Skills. **Stage 2**: Exercising 'Presentation skills, Group Discussion (GD) and Interview Skills' using AECS lab models. Students were trained on the said topics based on the material provided in the AECS lab. Stage 3&4 were common for both the groups.

III. RESULTS

During the progress test at the end of the program, the efficacy of the students from EG and CG was evaluated by comparing the specific approach of TELL and the standard AECS lab where internet was limited and mobile phone was prohibited. It is clearly evident that the students of EG outperformed than the students of CG, chiefly because of the TELL approach. The following table lists the scores of progress test of the four stages of learning modalities.

Evaluation of PT
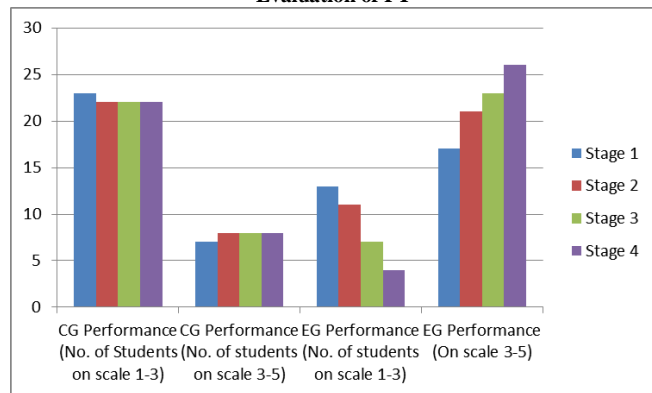
The table lists the performance on the scale of 1-3 which indicates 'average rate of performance' and the scale of 3-5, indicates 'excellent rate of performance' by the students of both EG and CG. The average rate of performance among the students of CG is evidently visible in all the modalities of learning whereas the students of EG were good in stage 1&2 and outstanding in stage 3&4. The data also indicates that the significant difference between EG and CG was increasing in each stage, proving that the students of EG were improving their competence and therefore confidence. Internet access and smart phone usage in the lab during preparation of activities helped the EG improving their skills rapidly.

IV. DISCUSSION AND CONCLUSION

The purposes of this study were to focus the significance of TELL using creative modules based on internet and smartphone in the language lab situation in rural and semi-urban learning environment. Four different stages of learning modalities were adopted for the study. It was found that there was substantial change among the students of EG compared to CG in both competence and confidence. According to the data listed in the table, the significant difference between EG and CG is caused because of the mode of instruction. The TELL approach using internet and smartphones enabled students to access many relevant videos, audio-visual aids, reading materials and instant self-correction. Conversely, it was noticed that the students of CG were not developed their competence and confidence due to less scope to explore and the limited material of fixed software. It was also noticed that the impact of EG was evident on some of the students of CG who worked together outside the lab using internet and smartphone. The study proposed an internet and smartphone oriented TELL approach which integrates the available sources of knowledge in the domain, and to gain the required skills, particularly for rural and semi-rural engineering undergraduates of India, which can be viewed as being in line with [6]. The effect of exposure and involvement in the learning activities is another issue concerned in the study. The proposed TELL approach using internet based learning is, therefore, advised to be employed in all the English labs of engineering colleges across rural and semi-urban areas of India.

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