MULTIMEDIA INFRASTRUCTURE AND PRACTICAL APPLICATION: IS THERE A CORRELATION?

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ABSTRACT

With the ever increasing demand from the policy makers the institutions of higher education have heavily invested in technological infrastructure at engineering institutions. The application of ICT has become all the more pervasive In an ELT Scenario after the investment made in the name of multimedia language labs. The management has driven the language teachers either to apply technology or abscond. Government universities and private universities have made a huge investment in this direction, but the language labs are not optimally utilized in language teaching. There are two major objectives of this study. i) It makes an effort to find the technological infrastructure available at institutions of higher education in Tamilnadu at Chennai. ii) Are the instructors maximizing the potential of multimedia applications? To address these two issues a survey was conducted at 38 engineering institutions in and around Chennai. The results revealed that most of the institutions had access to technology but the application of technology for classroom practice was mediocre. The final part of the study deals with some suggestions to harness technology for enhanced learning outcomes.

KEYWORDS: Technology, Pedagogy, Survey, Implications

INTRODUCTION

Is there a correlation between the existing infrastructure and classroom practice? Policy makers have strong visions on technology use. What is required is not an overhaul in technological infrastructure, but instructional practices. Maximizing the existing potential should be the slogan. According to Peggy Ertmer, despite access to technology, increased training, and favorable policy environment the technology use is surprisingly low (25). The same view is echoed by other researchers. Deniz and Walls state that, there is a lot of research on technology, but research in classroom application is rare. Teachers' use of technology to support student-centered practice is rare even among those who work in technology-rich schools (417). Professional development activities should emphasize the potential impact of specific technology uses on student learning. (Leftwich, Anne T., et al 1321-25) Fethi & Lowther observe that there is insufficient empirical support to claim that access to technology has increased test scores. (P. 137.) Yet, its potential for classroom application cannot be ignored. Dudeney, and Hockly made a comprehensive and interesting study on "ICT in ELT. Their study focusses on the role of teachers and the challenges of technology implementation. Despite the challenges they foresee a bright future for technology in ELT. Research suggests that teacher's unwillingness to embrace technology leads to poor learning outcomes. (Baylor & Ritchie 2002; Eteokleous 2008). Based on the previous research it is clear that teachers' apprehension in using technology is the major issue. Despite the plethora of recent research there is a lack of empirical evidence to support this claim. Hence, this research was carried out to address this research gap.

METHOD

Data Collection Instrument

A survey questionnaire was personally administered to 56 instructors from 56 engineering institutions in and around Chennai. The approval was obtained from the institution heads and informed consent was obtained from the participants. 38 instructors returned the questionnaire. The response rate was 67 percent. The questionnaire had two parts. The first part of the questionnaire was intended to know the multimedia infrastructure in engineering institutions. It is based on yes or no questions. The second part of the questionnaire intends to find how often the instructors apply technology in their classrooms. The questions are based on a three point scale, namely frequently, occasionally and never. The data were coded using SPSS version 14 and Excel spreadsheet. They are analyzed below.
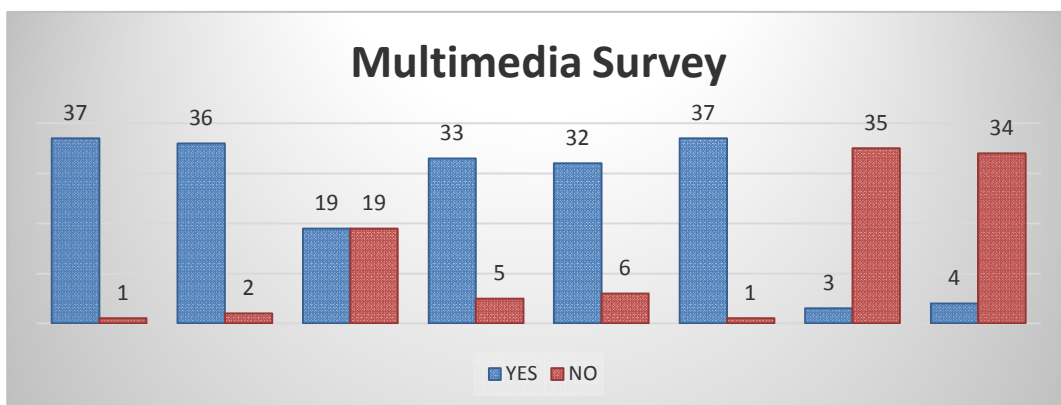
RESULTS

Questionnaire Part-1

A Survey of Multimedia Infrastructure

The nature of the questions is described in column two. The third column refers to the candidates who have answered positively and the fourth column refers to the candidates who have answered negatively.

Table-1

S.No	Questions	Yes	No
1	Do you have language labs in your institution?	37	1
2	Is there multimedia facilities in Your language lab	36	2
3	Are the classrooms equipped with LCD projector?	19	19
4	Are language learning softwares installed in the lab?	33	5
5	Do you have access to the internet in your labs?	32	6
6	Is there facilities for playing audio and video?	37	1
7	Do you have interactive whiteboards?	3	35
8	Is your campus WI-FI enabled?	4	34

Figure 1: Graphical Representation of Multimedia Survey

The first question was related to the availability of language labs in their respective institutions. An overwhelming 97.4 percentage of the faculties of engineering colleges have stated that their institutions are equipped with language labs. The second question was related to their level of satisfaction. 94.7 percent of the faculty were happy with the multimedia facilities in their institutions. The next question was related to the availability of LCD projectors in the language resource centers. 50% of the teachers have answered in the affirmative. Question number four aims to find if language learning softwares are installed in the language labs. It was found that 86% of the language labs had language learning softwares.
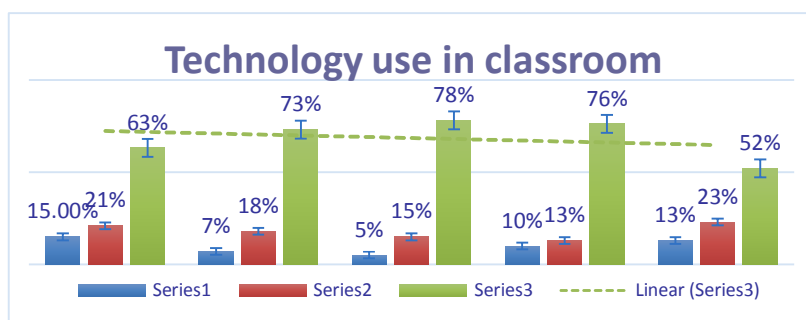
The next question was asked to find if they had access to internet in their labs.84.2 % have answered that they have access to internet facilities. For the question on facilities related to playing audio and video clippings 94.7 % have stated that there is feasibility to play audio and video clippings. The objective of the next question was to find if their institutions are equipped with interactive white boards. According to the teachers only 2.63 % of the institutions are equipped with interactive white boards. The final question is asked to find if the campus is WI-FI enabled. A relatively small percentage of teachers, 10.2% of them have stated that they have WI-FI facilities. It is evident from the multimedia survey that there is there is necessary multimedia infrastructure in most of the institutions. One cannot deny the fact that the technological infrastructure has improved considerably over the years. Hence, it is feasible to incorporate multimedia tools for language teaching. The finding of the multimedia survey is that, despite adequate multimedia infrastructure in engineering colleges it not used optimally.

QUESTIONNAIRE PART-2

Technology Usage in Classroom

Table 2

S.No	Materials	Frequently	Occasionally	Never
1	I have participated training programmes on the use of technology.	6	8	24
2	During teacher training I had sessions on application of technology	3	7	28
3	I used to have on line discussions with other teachers who use technology	2	6	30
4	I take online courses to enhance my pedagogy.	4	5	29
5	I use web based resources in my classrooms	5	9	20

Figure 2

For the first question around 15% of the instructors have stated that they have participated in training programmes related to technology whereas 21% of teachers have stated that they have participated ocassionally.69 % of them have stated that they have never attended training programmes related to the use of technology. The second question was related to the use of multimedia during teaching process. Only 7% of them have stated that they frequently used multimedia resources. Around 18% of them have stated that they sometimes use it. An overwhelming 73% of them have stated that they never use multimedia resources. For the third question only 5% of the instructors have stated that they had discussions on technological usage frequently whereas 15% of them have stated that they had discussions occasionally. An overwhelming 78% of them have stated that they never had any discussions on technology usage with their colleagues. The

fourth question was intended to find if any of the instructors had enrolled for online courses to enhance their pedagogy. Only 10% of them have stated that they frequently enroll for such programmes and 13% of them have stated that they occasionally enroll for such courses. Apparently, 76% of them have stated that they never enroll for such courses. The last question was intended to find if the teachers used authentic materials from the web for classroom instruction. Surprisingly, only 13% of the teachers use authentic resources frequently and 23% of them use occasionally.52% of them have stated that they do not use internet resources. From the questionnaire on technological use it is clear that they are apprehensive to use technology in the classrooms.

FINDINGS AND CONCLUSIONS

As an infrastructural requirement all engineering colleges in Tamilnadu state in India have multimedia language labs .Almost all labs have internet facilities and softwares on learning language. Although the labs do not have advanced facilities the existing facilities can be optimally used. Unfortunately, the multimedia resources are not exploited properly as instructors even at the university level are apprehensive in using technology. The reason for their trepidation is that they are not professionally equipped. It is understood from the analysis of part two that only very few teacher embrace ICT. To help them effectively apply technology in the classrooms the institutions should organize hands on training programmes on a periodic basis. They should be instructed to use authentic materials in the classrooms and it should be properly monitored. They should be encouraged to enroll for online courses on technology. Efficiency in classroom application technology could be considered as a prerequisite for promotion.

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