CHAPTER V

TECHNOLOGY-ENHANCED LANGUAGE LEARNING AND ITS IMPACT
CHAPTER – V
TECHONOLOGY – ENHANCED LANGUAGE LEARNING
AND ITS IMPACT

Over the past several decades, technology has become a fixture in many homes around the world, and its influence has permeated into all facets of our lives, including educational settings. Such penetration has been hailed by many as the wave of the future in which language instruction will be driven by new advances in computers, the internet and mobile technologies. However, about integrating technology into our classroom can have a huge impact on whether a technologically driven classroom succeeds or fails, even with low tech solutions. Teaching a language without latest technology is as same as teaching swimming without a swimming pool. But it is always much easier to teach the same with a pool. In looking at some areas of language learning that are not addressed by book technology, the computers can play a useful role like

1. Acquisition of the sound system to enhance communicative competence and
2. To provide a chance for an easy comprehension of the native speakers.

Books are not good for learning the phonology of a language but computers are, since they can record and play sound. Learning phonology is difficult in a class because learner’s autonomy is lost and often the class becomes noisy without personal care.

A language laboratory is a language classroom in which each student is isolated from others by a soundproof wall. This wall prevents the sound made by anyone student from reaching his neighbours. This leaves him free to practice speaking without disturbing them and he, in his turn, can listen to speech undisturbed by them. In essence, a language lab is a special classroom where a large number of students can practice oral-aural language skills at the same time without disturbing one another.

Language laboratories have a purpose in future. Machine of any kind has an increasing role to play in education at all levels, but they are not going to take charge. They will upgrade the teacher, but not replace him. Language is more personal part of the human being. It is a most intimate expression of his inner being. The mere thought of a computer processing human language seems to threaten a violation of
privacy. The use of any technical aid requires planned utilization by specially trained teachers. The designing and provision of classroom teaching aids should be the responsibility of the teachers in accordance with the need of their learners. If the teacher finds it desirable, then the supplementary aids produced by private authorities can be used. The teacher should prepare and design the materials based on the syllabus – content and classroom needs of the learners.

Designed materials will definitely have a notable intensification of language learning process. A language laboratory is a language classroom in which the students are isolated from each other by soundproof walls. These walls prevent the sounds made by any one student from reaching his neighbors. This leaves him free to practice speaking without disturbing others. The result of this is that a whole class of students can practice speaking at the same time instead of one after another as in the conventional classroom. Instead of sitting quiet, while all the other members of the class practice an item of language one by one, the student can be busy practicing himself.

In essence, a language laboratory is no more than a special classroom where a large number of students can practice oral-aural language skills at the same time without disturbing one another. But
this alone will not magically speed the learning process. This language laboratory is a very powerful tool if properly used, a waste of time and money if improperly used.

Technology enhanced language teaching improves communication, Empowerment and learning skills. “In order to learn any language with any degree of success, a pupil must hear that language spoken often and will over a fairly lengthy period and that the learner in turn must understand and speak that language in situations within his personal experience” (Pit Corder 1965:342). When a learner is exposed to learning materials designed, based on his needs, he is to make a considerable effort needed to speak a language well.

If language is communication, then any technology, which links computers together, which learners can talk to each other, must be worth investigating. Internet allows not only communication but also provides a vast resource for teachers hunting for authentic and up to date material or for students engaged in project work. Internet has a great appeal because of its low cost. The net offers two board areas of communicative activity. First is communicating with individuals via e-mail and the second is communicating with groups. Advanced
language laboratory with internet facility can be an effective force in polishing the language skills of the learners.

The complicated patterns of sound system can be acquired much easily in a language laboratory. The potential of internet makes it much easier. Disk drives associated with mini-computers and workstation can store vast amount of data, which can be made accessible to large groups of users over the web. Words or text can be linked to sound recordings with hypertext links. One can click to hear the pronunciation of any work or text. Learner has a chance to repeat the activity until he becomes familiar with the sound. To repeat the audio, one goes through the same procedure, with the second time taking a couple of seconds for the system to set itself to play back the sound. Microsoft has forged ahead with strategic partnerships and a multi-thrust approach that includes new tools and capabilities such as Microsoft described for their Active X Technologies. The data is played as it is received making highly interactive web applications possible.

A wide variety of non-Internet software is available for language teachers. Comprehensive reference works such as lexitom provide access to dictionaries, encyclopaedias and atlases on a single CD-ROM.
Language labs

Communication and language use however is not a one way process. Multimedia additionally provides a further and more powerful dimension to communication when the control and manipulation of this meaningful information is passed into the hands of the learner. The ability to interact with these communication elements via interactive multimedia allows language learners to explore, discover, ponder, search question, answer and receive feedback.

The minimum technical requirements, for multimedia is a Pentium processor 1.5MHz, 512 MB Ram, Monitor 14” (Black & White) 20 GB hard disk. The total cost of the equipment will be around 10,000 Rs. to 12,000 Rs. These equipments and instruments become a vital part of language learning process as it is for learning any science subjects. There are many instruments in any science laboratory which are only used part of the time, for particular experiments, for students on a certain level, by the teachers who teach certain courses. The same is true of a language laboratory. It is impossible that all the equipments will be used all the time, but they must be there when they are needed.
This section of the thesis puts forward the reasons for and against the use of multimedia with language learners. Merits and demerits of Language learning via multimedia are listed. It is presented in the light of the following four general qualities of CD-ROM technology. The first is the ability to combine and to provide learners with integrated different source media. The second is about the interactivity of the software and links provided between the data. The third is the case and instant accessibility of the data in all the media. The last is about the vast amount of data that can be provided in the complete variety of media.

The benefits of multimedia in relation with the general features of CD-ROM are not necessarily unique to language learning. This becomes more or less true depending on factors such as reasons for the use of the multimedia, the particular software that is being used, the learning situation in which it is deployed and the characteristics of the learners.

All language learners are very different in terms of their needs, interests, strengths and weaknesses, motivations, learning styles etc. The ability of the CD-ROM to be used as a flexible self-study resource may be useful in accommodating these learner differences. Learners can focus on language areas that they decide they need help
and ignore others. They can take as much time as they like and exploit which ever of the variety of media on offer that they prefer to learn from. They can work at whatever pace they choose and use or not use any off-line media that they so wish.

**Autonomy/learner control**

As with all self-study resources, the responsibility for many of the learning decisions during the use of multimedia is able to be passed over to the learners. The decisions about what to study, when to study, how to study, how long to study are passed over to the learner who ideally controls them. Multimedia with its wealth of material in different media and its in-built feedback makes it suitable for autonomous learning likewise, the instant ability to access learning sequences or information should reduce learning time, rather than it being spent on finding the learning material.

Learning a language through multimedia is completely non-threatening and non-judgmental work completed individually in the computer environment which is essentially a private affair. Any error is usually known only to the learner. There is no public loss of face at errors on what teachers and classmates may presume to be elementary language or skills, which are, assumed to be mastered
early. The non-public domain of this form of learning may force learners to explore areas that they are unaware of and like to admit the same. Skills and language work can be repeated endlessly until the person who masters the language is satisfied with his own degree of performance and understanding.

Multimedia can be used in a variety of ways within different learning situations. This is a self-accessed resource. These materials can be linked into courses, syllabuses, assigned to learners for homework or as follow up activities to work in classroom sessions. Multimedia can help teachers in their lesson preparation by providing texts, sound, digital video, grammar or vocabulary exercises that can be used in class. The World Wide Web for example can also be used by learners as research materials for class room presentations. Learners working together around a multimedia PC in a language lab can use the tasks, inputs or information as a basis for group work, discussions and joint decisions, making as the laboratory as networking facility.

The use of multimedia in a teacher led situation can alter the teacher's role dramatically. The dimensions of learner control, pacing choice, learning style combined with the wealth of material allows learners to proceed at their own pace and in their own manner.
The teacher expertise and time can be focused on monitoring individuals, provision of learning advice and solving particulars and enquiries. There are efficiencies in range of audience, learners time and in quantity of data presented can be increased. Multimedia software is more efficient for learners to access than other media or combinations of traditional ESC media once the software’s contents, navigation is mastered. The large quantities of instantly accessible indexed data in real world CDs like encyclopaedia will provide time for learning rather than searching for information. There is also efficiency in features of individual pieces of software that combine learning materials and reference works.

The computer is now ubiquitous in all walks of life, business, home and education. It has proved its usefulness in all such areas. Its application for language learning carries with it this high face validity of a modern real work tool. Many young people in modern society are now very familiar with the computer for entertainment and in learning so the extension into language learning should have high face validity. For learners who are now already computer-literate, using them for language learning has the added advantage of providing an introduction to the world of computers.
The computer is a tireless workhouse and software of all description can be run endlessly. The interactive nature of multimedia software and its ability to provide tasks receive learner’s reaction to those tasks via keyboard or mouse and provide an evaluation to those responses can all be endlessly invoked.

Although the potential of the technology for educational use has not been fully explored yet and the average educational institution still makes limited use of computers and technology, it is obvious that we have entered a new information age in which the links between technology and language teaching has not been established because of certain barriers which make the learner and facilitator hesitant to use this technology.

The barriers inhibiting the practice of computer-associated language learning can be classified in the following categories: financial barriers, unavailability of computer hardware and software, lack of technical and theoretical knowledge and psychological barriers and acceptance of the technology.

Financial barriers are mentioned most frequently in the literature by language education practitioners in a developing country like
India. This factor becomes vital in exploring any technological aids. They include the cost of hardware, software maintenance and extend to some staff development concerning the money, the challenge was unique because of the nature of the technology. Existing education policies in India do not allot amount for language learning. The costs of media in the college level were accounted for in the university as a part of the cost of instruction.

Technology assisted learning costs the same as conventional instruction but ends up with producing higher achievement in the same amount of instructional time; it results in students achieving the same level but in lesser time.

**Availability of computer Hardware & Software**

The most significant aspects of computers are hardware and software. Availability of high quality software is the most pressing challenge in applying the new technologies in education. Underlying this problem is a lack of knowledge of what elements in software will promote different kinds of leaning. There are few educators skilled in designing it because software development is costly and time consuming.
Computer hardware and software compatibility goes on to be a significant problem. Choosing hardware is difficult because of the many choices of systems to be used in delivering education, the delivery of equipment and the rapid changes in technology.

A lack of technical and theoretical knowledge is another barrier to the use of technology-assisted language learning. Not only is there a shortage of knowledge about developing software to promote learning, but many instructors do not understand how to use the new technologies. Furthermore, little is known about integrating these new means of learning into an overall plan.

The more powerful technologies, such as artificial intelligence in computers, might promote learning of higher order cognitive skills that are difficult to access with today's evaluation procedures and, therefore, the resulting pedagogical gains may be under-valued. Improper use of technology can affect both the teachers and learner negatively (Office of Technical Assessment 1995:9).

Wrong conceptions about the use of technology limit innovation and threaten teachers' job and security. Instructors are not to use technologies that require substantially more preparation time.
Engaging in Technology for Language learning is a continuing challenge that requires time and commitment. As we approach the 21\textsuperscript{st} century, we realize that technology as such is not the answer to all our problems. What really matters is how we use technology. Computer can/will never substitute teachers but they offer new opportunities for better language practice. They may actually make process of language learning significantly richer and play a key role in the reform of a country’s educational system. The next generation of students will feel a lot more confident with information technology then we do. As a result, they will also be able to use the internet to communicate more effective practice language skills more thoroughly and solve language learning problems more easily.

\textbf{Application of Technology}

There is a wide range of on-line application which is already available for use in the foreign language class. These include dictionaries and encyclopedias, links for teachers, chat-rooms pronunciation tutors, grammar and vocabulary quizzes, games and puzzles and literary extracts. The most important newspapers and magazines in the world are available on-line and the same is the case with radio and TV channels.
The internet and the rise of computer-mediated communication in particular have reshaped the uses of computers for language learning. The recent shift to global information-based economics means that students will need to learn how to deal with large amounts of information and have to be able to communicate across languages and cultures. At the same time, the role of teacher has changed as well. Teachers are not the only source of information any more, but act as facilitators so those students can actively interpret and organize the information they are given, fitting it into prior knowledge. Students have become active participants in learning and are encouraged to be explorers and creators of language rather than passive recipients of it. Multimedia is useful to teachers who wish to bring sounds and sights into the class room. Technology provides some potential in terms of enhancing or simplifying a task.

**Language Learning Through Multimedia**

With the recent increase in the size and speed of personal computers, multimedia has been made possible at a reasonable cost. Communication and language use however is not a one way process. Multimedia additionally provides a further and more powerful dimension to communicate when the control manipulation of this meaningful information is passed into the hands of the learner. The
minimum Technical requirement for multimedia is a Pentium Pro Processor 1.5 MHz, 512 MB Ram, 14” Monitor (black & white), 20 GB Hard Disk, CD drive, Speakers and Microphone.

The ability to interact with these communication elements via interactive multimedia allows language learners to explore, discover, ponder, search question and answer and receive feedback. The following reasons encapsulate the potential of the technology

- Ability to combine learner differences
- Interactivity and links provided between data
- Instant ability to access learning sequence
- Non – Threatening/ non-judgmental
- Flexible variety of modes of use

**Multimedia- Plus and Minus**

This section discusses the reasons for and against the use of multimedia which should help to inform those who have to make decisions about whether or not to invest in this technology. It might also help to persuade those students who are less enthusiastic about the use of multimedia about the areas of language learning to which multimedia can make a positive contribution. An understanding of
some of the possible disadvantage of CD-ROMs may help to anticipate and to avert problems before they arise.

**Use of multimedia for language learning**

Before discussing the advantage of using technology for learning languages, it is important not to refer to technology as if we were dealing with a single homogeneous tool and all technology are the same. More specifically, there are three important technological platforms that provide tools to assist language learning in order of increasing interactivity. The web, CD-ROM applications and network based communications (i.e., e-mail, user groups and chat rooms). The reasons outlined below, are the significant advantages of multimedia for language learning over the other available technologies.

**Individual Learner Differences**

All language learners are very different in terms of their needs, interests, strengths and weaknesses, motivations, learning styles etc. The ability of the multimedia to be used as a flexible self study resource may be useful in accommodating these learner differences. Learners can focus on areas for which they need help and ignore others. They can take as much time as they like and exploit particular variety of media and work at whatever place they choose.
Autonomy in learning

As with all self-study resources the learning decisions during the use of multimedia can be passed over to the learners. The decisions about what to study, when to study, how to study, how long to study are all in the control of the learner.

Role of teachers

The use of multimedia in teacher led situation can dramatically alter the teacher’s role. Free from the need to provide input, switch on various videos and tapes and from orchestrating lock-step task sequences and from providing whole groups feedback, a teacher is free to work with individuals. The teachers’ expertise and time can be focused on monitoring individuals, provisions of learning advice and solving particular problems and enquiries.

Non-Judgmental

Work completed in the computer environment is essentially a private affair. Any error is usually known only to the teacher. There is no public loss of face at errors on what teachers and classmates may presume to be elementary language or skills and assumed as already have to be mastered skills and language work can be repeated
endlessly until the person who matters. The learner is satisfied with their own performance or degree of understanding.

**Economic Factors and Efficiency**

There are a variety of real world economic pressures which have to cope up with increased class sizes, reductions, in class contact hours etc. while multimedia can never ever replace teachers, and they may provide useful learning tools in institutions which are interested in maintaining a uniform quality. Multimedia software is more efficient for learners to access than other media or combination of traditional EFC media once the software’s contents is mastered.

**Motivation and Repeatability**

There is evidence (Watts 1989, Brett 1996) that the use of multimedia for self access work is more motivating and attractive than the traditional books. This is due to the very appealing features of multimedia. The computer is a tireless worker and software descriptions can be repeated endlessly until comprehension is complete.
Disadvantages

In a balanced consideration of the use of multimedia technology for language learning, mentions should be made of its possible disadvantages. The cost production of CD-ROM is higher than that of text books. A non computer literate teacher and students often worry about using the technology. Teachers and learners do not actually need to know what they often think they will have to know for example, complete computer codes. Good multimedia software that is transparent in its use should remove all such fears and some activities.

Future of Multimedia

In the present world where technology is more prevalent, decrease of production costs has made this technology possible for many of the educators and learners. Multimedia can make a significant contribution to the language learning process if proper concentration is given for developing learning materials which will suit the Indian learners.