About Us: http://www.the-criterion.com/about/

Archive: http://www.the-criterion.com/archive/

Contact Us: http://www.the-criterion.com/contact/

Editorial Board: http://www.the-criterion.com/editorial-board/

Submission: http://www.the-criterion.com/submission/

FAQ: http://www.the-criterion.com/fa/

Autonomous Learning through Language Laboratory (CALL): A Digital Revolution

Dr. Archana Parashar
Assistant Professor (Business Communication)
Indian Institute of Management, Raipur,INDIA.
&
Dr. Vineeta Kaursaluja
Visiting Professor (HSS)
Indian Institute of Information Technology, Design and Manufacturing.
Jabalpur, India

Due to the impact and influence of information technology on society and education, computer-assisted language learning (CALL) is becoming the trend in foreign language teaching. Interactive computer network allows students to test the result of learning without the risk of being punished for any mistake. Learning does not have to be a pressure. Computer-assisted language learning can reduce the anxiety of students and turns out to be a positive side of learning (Gattengo: 1972)

The language laboratory plays an important role in the language learning process. This article discusses the various features of the language laboratory. As it is a technological aid for learning, it has a number of advanced facilities that can help a student to learn a language with proficiency to communicate. It has become inevitable in today's context but, at the same time, it poses certain challenges. This article attempts to highlight the significance of the language laboratory and its challenges imposed on the learner and the teacher.

Language labs are chiefly used in schools, colleges and universities. They are sometimes also referred to as language resource centers, multimedia labs, centers for language study, language learning centers, interactive media centers, open learning centers, open access multimedia centers, self-access centers, individualized language learning centers, independent learning centers, CALL centers/labs, world media and cultural centers, language acquisition centers, and language and computer laboratories. The US army used the audio-lingual method as early as 1942. By the 1950s language labs began to emerge from the chrysalis of this war-driven language-learning development momentum. Progressive universities spearheaded this metamorphosis by developing impressive inventories of mostly tape recorded language-learning materials and increasingly inviting infrastructures in which to utilize these materials.

 Language labs established themselves as centers of language learning contemporaneously during the *rock* and *roll* years of the 1950s and 1960s; technological breakthroughs during this period were catalyzed by the enticing rewards of musical entertainment and language labs were on the whole fortuitous beneficiaries of these market-oriented advancements. Key achievements during period seem analogous in merit with recent 2001-2007 developments in portable music

players. They included the transistor portable radio (1954), the stereo LP (1958), the compact audiocassette, the first home Sony video tape recorder (1963), and Dolby noise reduction (1968). The international association for language learning technology (IALLT) was established in 1965; it is a professional organization that attempts to provide leadership in the development, integration, evaluation and management of instructional technology for the teaching and learning of language, literature and culture.

Even though behaviorist theory with its asserted" filling- the blank- slate" (Beatty 2003: 94) rote –learning and repetitive drilling came under a cognitive attack from Chomsky in 164, strangely it is still discussed and compared to the now trendy and dominant constructivist model in modern CALL literature. (Beatty: 91), for instance attempts to elucidate how constructivism differs radically from behaviorism suggesting that learning is a process. Good communication skills are indispensable for the success of any professional. If one wants to reach out to people, he or she has to speak their language. The English language, in particular, has become essential in the lives of young people who aspire to advance their careers anywhere in the world. English language learning has therefore become a must for any Indian student today.

Language learning is not the same as learning any other subject. It is not confined to writing an examination and getting a degree or award. The four skills of reading, writing, listening and speaking have to be practiced. Being able to communicate well is the most important factor when seeking a placement in a company or institution. Communication involves one's ability to listen carefully so as to grasp the meaning and to respond in turn with apt words and clarity of pronunciation.

The Need for a Language Laboratory

It is required of any learner to have a good command of the language for communication purposes, with clarity and accuracy being vital for effective and efficient communication. What helps one to acquire such proficiency in a language is the process and the method of learning that language.The curriculum of the present educational system in India does not have a laboratory session for arts subjects. Only those who study science subjects have practical work, which is undertaken in a laboratory. Hence, a laboratory for language learning is something new to Indian students, whereas it is very common in Western countries to train children in the laboratory to enrich their language learning experiences.Scientific advancements have produced a number of innovative products to assist the learning process. Innovative products such as digital multimedia control, wireless headsets and microphones, the interactive response pad, etc. are very useful for students learning languages for communication. These interactive tools are designed to enhance not only language teaching but also class room grading and distance learning.

The language laboratory is very useful for assessing students' speech. It provides students with the technical tools to get the best samples of pronunciation of the language. The electronic

devices used in the laboratory will stimulate the eyes and ears of the learner to acquire the language quickly and easily. The laboratory's collection is designed to assist learners in the acquisition and maintenance of aural comprehension, oral and written proficiency, and cultural awareness. The language laboratory offers broadcasting, television programmes, web-assisted materials and videotaped off-air recordings in the target language. In short, a learner can get the experience of having interaction with native speakers through the laboratory. Hence, the language laboratory has become the need of the hour in any language learning process for communication.

Kinds of Language Laboratory

The language laboratory assists educators in delivering foreign language instruction, and has been through many developmental stages over the years.

Four kinds of laboratories are being focused on here:

Conventional Laboratory

This is the primitive form of the language laboratory. The conventional lab has a tape recorder and a few audiocassettes of the target language to teach the learners. The teacher plays the tape and the learners listen to it and learn the pronunciation. As it is used in a normal classroom setup, it is prone to distractions and this type of laboratory is no longer common.

Lingua Phone Laboratory

This is again a conventional type of lab, with a little modernization. Learners are given a headset to listen to the audiocassettes being played. Here distractions are minimized and a certain amount of clarity in listening is possible.

There is also a modernized lingua phone laboratory available today, which uses an electronic device that has two functions. It works as a cassette player with all the features of a normal cassette player on the left side and as a repeater on the right side that helps one to record one's voice and play it back for comparison.

Computer Assisted Language Laboratory (CALL)

CALL uses the computer to teach language. The language course materials are already fed into the computer and are displayed according to the features available in the system. Nowadays, there are also laboratories with computers with a connection to the Internet. These are called Web Assisted Language Laboratories (WALL). The development of CALL has been gradual, and this development has been categorized into three distinct phases: Behavioristic CALL, Communicative CALL and Integrative CALL (Barson&Debski, 1996). Though the development of CALL has been gradual, its acceptance has come slowly and unevenly.

Multimedia Hi-Tech Language Laboratory

There is a lot of software available on the market that can be used in the multimedia language laboratory, for example:

Aristoclass

Hiclass

Globarina

Console OCL-908W

HistudioMHi Tech

Online Software

The Significance and Relevance of the Language Laboratory

The significance of the language laboratory has been much felt in the domain of communication. We live in a multilingual and multicultural world, which is being shrunk to the size of a village by the advancement of science and technology. The language laboratory exists to help one to use technology effectively to communicate. It is not merely for learning a single language, but can be used for teaching a number of languages efficiently. To acquire a sensibility for the sounds and rhythm of a language, one has to hear the best samples of a spoken language (Richards, 2001). This is precisely the function of the language laboratory. Some highlights of the language laboratory are given below:

1.   It is a tool designed for teaching any language.

2.   It helps one to learn pronunciation, accent, stress and all other aspects of the phonetics of a language.

3.   Effective communicative training programmes for the general public, private and corporate sectors, junior and senior level officers can be given through the lab.

4.   Web-content creation, the setting up of in-house news magazines, corporate publicity and identity, and teaching materials can be generated through the language laboratory.

5.   General documentation, software documentation and all forms of technical documentation can be done.

6.   Experts can utilize the laboratory for creating and editing scientific and technical materials for teaching language.

7.   The language laboratory enables one to conduct courses for various groups of people like students, faculties, businesspeople, etc.

8.   Short-term and long-term coaching classes for international examinations like IELTS, TOEFL and other competitive examinations can be organized.

9.   Online courses and paperless examinations can be conducted through the language laboratory.

As the ability to communicate effectively has become the prerequisite for anyone who ventures into a new profession, the need for developing such a skill is a much-felt phenomenon today. Both governmental and private institutions focus their attention on students developing their communicative skills. As technology has entered into every aspect of human life, it has extended its advanced products into the field of communication. So everyone strives to get the best on the market.

It is a fact that most students who do not find a placement after completion of their technical studies are very much dependent on their ability to express themselves and their knowledge efficiently.   While emphasizing the importance of employment-oriented education, Dr. Thiruvasagam, the Vice-Chancellor of Bharathiar University, Coimbatore, explained that "personality development and communication skills are equally important for students in finding respectable jobs in addition to their academic records" (The Hindu, 25/09/06). He also urged all the principals of affiliated colleges to have a language laboratory on the campus and to motivate management to appoint a trained instructor specifically for the laboratories.

Why use Lab-Based Learning?

Since late in the 19th century, science educators have believed that the laboratory is an important means of instruction in science. Laboratory instruction was considered essential because it provided training in observation, supplied detailed information, and aroused pupils' interest. Science labs can be among the richest experiences students have at the university. It is one of the few opportunities students will have to practice science in a similar way that professionals do. In order for labs to be effective, students need to understand not only how to do the experiment, but why the experiment is worth doing, and what purpose it serves for improving students' understanding a concept, relationship, or process.

Shulman and Tamir, in the Second Handbook of Research on Teaching (Travers, ed., 1973), listed five types of objectives that may be achieved through the use of the laboratory in science classes:

Skills - manipulative, inquiry, investigative, organizational, communicative

Concepts - for example, hypothesis, theoretical model, taxonomic category

Cognitive abilities - critical thinking, problem solving, application, analysis, synthesis

Understanding of the nature of science- scientific enterprise, scientists and how they work, existence of a multiplicity of scientific methods, interrelationships between science and technology and among the various disciplines of science

Attitudes - for example, curiosity, interest, risk taking, objectivity, precision, confidence, perseverance, satisfaction, responsibility, consensus, collaboration, and liking science (1973, p.1119).

Lab-Based Teaching Strategies Developing and teaching an effective laboratory requires as much skill, creativity, and hard work as proposing and executing a first-rate research project.

Think About the Goals.

Before you begin to develop a laboratory program, it is important to think about its goals. Here are a number of possibilities:

Develop intuition and deepen understanding of concepts.

Apply concepts learned in class to new situations.

Experience basic phenomena.

Develop critical, quantitative thinking.

Develop experimental and data analysis skills.

Learn to use scientific apparatus.

Learn to estimate statistical errors and recognize systematic errors.

Develop reporting skills (written and oral).

Preparing Lab Sections

The most important thing you can do to ensure that your lab sections run smoothly is to be well prepared. Your preparation, prior to the start of the semester, should include being acquainted with the storeroom of the lab so that time won't be lost during a lab looking for necessary equipment or materials, and if applicable, knowing the location of the first aid kit, basic first aid rules, and procedures for getting emergency assistance.

What Makes for Great Lab Instructor?

Not only an awareness of the basics of presenting, but also a greater understanding of how group work fits within a larger context. Good lab instructors are both great teachers and great managers. They get their students to understand the importance of the day's activities by first clearly explaining the significance of the activity.

Good Lab instructors are always seeking to make experiments and practical problems relevant. In fact some of the best lab instructors turn their experiments into practical problem solving exercises.

Good lab instructors spend time early in the semester preparing their students to work in groups. They assign them to work within specified roles, to use one another to reach solutions, to in effect "jigsaw" results by using different lab groups to provide different pieces of the solution "puzzle."

Good instructors offer just enough help, forcing students to solve problems on their own. Finally, great lab instructors have eyes in the back of their head and are always alert for potential problems .They always address safety issues before turning students loose on experiments.Good lab instructors provide specific clear instructions are more useful than vague "remember what I said last week".

Establishing contact with students as they work involves learn names and using them in conversations with students. Asking questions means you can watch out for students who look like they're coping well but are really putting on a show.

Managing Laboratory Sections

Labs are sometimes offered in conjunction with large lecture courses so that students may acquire technical skills and apply concepts and theories presented in lecture. Labs, however, are often "stand-alone" classes with no connection to a parent course. Even where they are related to another course, they often have their own agenda that may not be related to the lecture. This hands-on experience encourages students to develop a spirit of inquiry and allows them to live for a semester as practicing scientists. It may sound trite, but you really do have an opportunity to help students develop some appreciation of the mysterious scientific method.

Conclusion

The language laboratory is a very helpful tool for practicing and assessing one's speech in any language. It provides a facility which allows the student to listen to model pronunciation, repeat and record the same, listen to their performance and compare with the model, and do self-assessment. Since the language laboratory gives every learner of any language freedom to learn at their own pace, it is flexible and does not necessarily require a teacher all the time. At the same time, it is possible for teachers to provide assistance individually and collectively. The language laboratory allows every participant his or her privacy to speak and listen.

Works Cited:

Gattengo, C. (1972). Teaching Foreign Languages in School: The Silent Way. New York: Educational Solutions.

Beatty, K. (2003). Teaching and Rsearching Computer-Assisted Language Learning. Harlow: Pearson Education.

Barson, J. &Debski, R. (1996), Calling Back CALL. Honolulu: University of Hawaii.

Richards, J. (2001), Approaches and Methods in Language Teaching. Cambridge:

"Colleges should have Language Laboratory on Campus", The Hindu. Coimbatore: p.4., 25/9/06. Alesssi, S. M. & Trollip S. R. (1985). Computer-based instruction: methods and development. New Jersey: Prentice Hall.

Brown, H. D. (1987) Principles of Language Learning and Teaching. MA: Addison-Wesley Publishing Company.

Brumfit, C. and Johnson, K. (1979) (ed.) The Communicative Approach to Language Teaching. New York: Oxford University Press

Huang, S. J. (1997). The Preliminary Study of the Indirect Use of Computer Simulation in EFL Teaching. Paper presented at the First International Conference of CALL, Naval Academy, Taiwan.

Hymes, D. (1972) on Communicative Competence. In J. B. Pride and J. Holmes (eds.), Sociolinguistics, p.269-93.Harmondswortth: Penguin.

Levy, Michael (1997). Computer-assisted Language Learning. Oxford: Clarendon Paperbacks.

Littlewood, W. (1981) Communicative Language Teaching. New York: Cambridge University Press.

Articles and Reports:

Gopal, T., Herron, S. S., Mohn, R. S., Hartsell, T., Jawor, J. M., &Blickenstaff, J. S. (2010).Effect of an interactive web-based instruction in the performance of undergraduate anatomy and physiology lab students. Computers & Education, 55, 500 - 512. http://dx.doi.org/10.1016/j.compedu.2010.02.013

Henige, K (2011) Undergraduate student attitudes and perceptions toward low- and high-level inquiry exercise physiology teaching laboratory experiences. Advances in Physiology Education http://advan.physiology.org/content/35/2/197.short

Schaefer, D., Scott, D.W., Molina, G. J., Al-Kalaani, Y., Murphy, T., Johnson, W., &ThamburajGoeser, P. (2008). Integration of Distance Learning Technology into Traditional Engineering Physical Laboratory Exercises. ASEE Southeast Section Conference.http://www.srl.gatech.edu/Members/dschaefer/Publications/Final.RP2008044SCH.pdf