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Language Acquisition through Integrative Computer Assisted Language Learning (CALL)

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Computer Is Indispensable!

In this era of information technology, computer has become indispensable in all fields, including Teaching of English as a Second Language. In India, the TESL has passed through various phases and methods involving technologies and there was always a constant search for a new method to realize the needs of the ESL learners.

Recently, the concept of Second Language Acquisition has gained significance and linguists try various techniques to minimize the difference between First Language Acquisition and Second Language Learning. One method which makes use of scientific advancements in TESL research is Computer Assisted Language Learning (CALL). By making use of computers, the CALL enables the learners to have interactive learning experience with the help of various kinds of software.

The current approach in CALL is to integrate the existing software like word processors, spelling and grammar checkers, speech recognition, multimedia, internet etc., to enhance the TESL and the SLA research. This paper describes how the Integrative CALL is different from other

methods and how teaching-learning/acquisition process involving the Integrative CALL becomes a pleasurable experience to learners as well as teachers.

History of CALL

More than four decades have passed since computers have been used in teaching a second language. The history of CALL can be roughly divided into three main stages: behavioristic CALL, communicative CALL, and integrative CALL, based on the technological development and the methods and approaches to language teaching.

Behaviorist CALL

Based on the behaviorist learning model, the Behaviorist CALL was popular during the 1960s and 1970s, concentrating on repetitive language drills and games. This type of drill-and-practice or "drill-and-kill" was practiced more effectively with the help of mainframe computer, a mechanical tutor who never grew tired and always was impartial in assessing the performance of the students. The best-known tutorial system, PLATO, ran on its own special hardware consisting of a central computer and terminals and featured extensive drills, grammatical explanations, and translation tests at various intervals (Ahmad, Corbett, Rogers, & Sussex, 1985).

Communicative CALL

The next stage, the Communicative CALL, emerged in the late 1970s and early 1980s, when new personal computers were creating greater possibilities for individualized work. Proponents of communicative CALL stressed the importance of using computer-based activities to teach grammar implicitly and facilitate the students to generate original utterances rather than affected speech or manipulated prefabricated pattern.

This Communicative CALL stage used the target language predominantly and explicitly, which corresponded to the cognitive theories which stressed that learning was a process of discovery, expression, and development. During this phase, a variety software was developed simulating real life situations and text reconstruction programs that allowed students to rearrange words and discover patterns of language and meaning either individually or in groups and simulations. For many proponents of communicative CALL, the focus was not so much on what students did with the machine, but rather what they did with each other while working at the computer.

Integrative CALL

Though communicative CALL was seen as an advance over behaviorist CALL, by 1990s it was viewed critically by linguists because computers are used for specific purpose that too disconnectedly. This corresponded to a broader reassessment of communicative language

teaching theory and practice. Hence attempts were made to integrate the second language learning skills and use them in authentic social contexts. This led to a new perspective on technology and language learning, which has been termed integrative CALL (Warschauer, 1996b), a perspective which seeks both to integrate various skills (e.g., listening, speaking, reading, and writing) and also integrate technology more fully into the language learning process.

Varying Technologies Used

Hence the first phase behaviorist CALL made use of mainframe technology, the next phase Communicative CALL relied on PC technology and the recent multimedia and network technology rules the Integrative CALL.

The number of teachers using CALL has to be increased markedly in order to equip the students to face the challenges and the growing demands in the educational scenario. Although the potential of the multimedia and networking system for educational use have not been fully explored yet and the computer access is limited to the students, it is obvious that we have entered a new information age in which the links between technology and TEFL have already been established.

The development of the Internet brought about a tremendous change in the TEFL and SLA research, because the increasing number of "netizens" and the gradual credibility in the teaching tools attest the reliability of integrative CALL.

The Components of Integrative CALL – Focus on Internet

The following are the components of the Integrative CALL, which in fact integrated the different facets of a computer such as internet, World Wide Web, word processor, speech recognition etc, in making the TEFL as pleasurable one.

It is the rise of computer-mediated communication and the Internet, more than anything else, which has reshaped the uses of computers for language learning at the end of the 20th century. With the advent of the Internet, the computer—both in society and in the classroom—has been transformed from a tool for information processing and display to a tool for information processing and communication.

For the first time, learners of a language can now communicate inexpensively and quickly with other learners or speakers of the target language all over the world. This communication can be either synchronous (with all users logged on and chatting at the same time) or asynchronous (with a delayed message system such as electronic mail). World Wide Web provides access to the learners of many languages an unprecedented amount of authentic target language information, as well as possibilities to publish and distribute their own multimedia information

for an international audience. Part library, part publishing house, part telephone, part interactive television, the Web represents one of the most diverse and revolutionary media in human history.

Word Processor and Other Facilities

Microsoft Word Processor has come out with various options which facilitate a second language learner. They help a learner to translate document into different languages, summarize a document according to user-defined length, suggests acceptable grammatical form with auto instructional examples, suggests correct form of a word from an inbuilt dictionary and above all do more efficient searches for information in stored documents.

Speech recognition has also made great advances in the last few years. Dragon System's *Naturally Speaking* and IBM's *Via Voice* convert clear but continuous speech to text with an 80-90% accuracy rate. The higher accuracy rate comes after the programs have been "trained" by listening to the used speak about 250 key words. Previous programs required users to pause after each word, making the speech highly unnatural. Several programs for language teaching now incorporate speech recognition, including The Learning Company's *Learn to Speak* series; *Triple Play Plus* from Syracuse Language Systems; Courseware Publishing International's *See It, Hear It, Say It*; *English Vocabulary*; and *Traci Talk*. These programs are not capable of dealing with freely generated speech, but rather recognize a correct multiple choice answer. By limiting the domain, the speech recognition program can work with a relatively broad range of accent and speech styles. By all indications, the use of speech recognition technology will improve and increase as time goes on and computers become faster and more able to do the complex calculations required of natural language processing.

Advantages of the Integrative CALL

The Integrative CALL has tremendous potential as a tool for TEFL. The following are the advantages of the Integrative CALL over the other types of language learning.

Flexibility in Time and Place

Integrative CALL, apart from making use of multimedia or intranet facility, provides access to the internet to the students. All that is required is a computer with a Web browser and an internet connection. Unlike the traditional classroom the students can work at their own convenience.

Easy and Affordable

Because of its utilities and convenience, computer has become an inevitable gadget in all the colleges. No one can deny the significant role to be played by a computer in a student's life. Though not for the students at least for the institutions the computer access is easily affordable when the students' future is considered.

Experiential Learning

Students get the chance of learning by doing things themselves. They become the creators not just the receivers of knowledge. Information is presented in a non-linear way and users develop more flexible thinking skills and choose what to explore.

Motivation

Students are motivated as computers associated with fun and game offer a variety of activities, which makes the students more independent.

Materials for Study

All students can use a wide variety of materials available either at their institution or from their home, in the form of CD-ROM. These materials can be accessed 24 hours a day at a relatively low cost. Also they can download these materials from internet.

Greater Interaction

Responding immediately to an e-mail or chatting with a heterogeneous group develops good interactive skill among the students like any spoken communication situation. Furthermore, some Internet activities give students positive and negative feedback by automatically correcting their on-line exercises.

Individualization

Internet access provides a good platform for the students to shed their inhibition. As network system and chatting provide a safe and secure feeling to the students, they feel free to express themselves. This system could be used to provide a remedial teaching based on the pitfalls of the students.

Global Understanding

A foreign language is studied in a cultural context. In a world where the use of the Internet becomes more and more widespread, an English Language teacher's duty is to facilitate students' access to the web and make them feel like citizens of a global classroom, practicing communication on a global level.

Tips for Better CALL

- Work with the school to make sure that computers are as accessible as possible. The most frequent access your students have to the computers, the more rewards they will get out of using internet.
- Choose the hardware and software that are most user-friendly. An easy-to-use system is usually preferable to a powerful but complicated one.
- Prepare a thorough and easy-to-read handout for the students that covers all the basic instructions.
- Arrange for a couple of assistants during the first class period.
- Send a message to the students before they log on the Internet. They will have something there waiting for them, which can really motivate them.
- Do a sample training session with one or two students first to see what types of problems may arise before attempting to train an entire class.

The Demands on Teachers

As facilitators, they must be aware of a variety of materials available for improving students' language skill, not just one or two texts. They also need to know how to teach learners to use the material effectively. Teachers as facilitators have to be able to respond to the needs that students have, not just what has been set up ahead of time based on a curriculum developer's idea of who will be in the classroom. Teacher training is a key element to success in this more flexible language classroom, so that teachers can use multimedia and other resources effectively.

The role of computers in language teaching has changed significantly in the last 30 years. Previously, computers were used principally for drills and exercises. Technological and pedagogical developments now allow us to better integrate computer technology into the language learning process. Multimedia programs incorporating speech-recognition software can immerse students into rich environments for language practice. Concordance software and large language corpora provide students' the means to investigate language use in authentic context. And the Internet allows for a myriad of opportunities to communicate in the target language, access textual and multimedia information, and publish for a global audience.

Future developments in networked communication, multimedia, and artificial intelligence will likely converge, creating a potentially more central role for the computer as a tool for authentic language exploration and use in the second language classroom. As our focus of attention gradually shifts from the computer itself to the natural integration of computers into the language learning process, we will know that computer technology has taken its rightful place as a important element of language learning and teaching.

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Works Referred

Athelstan, **Technology and Language Learning** Yearbook, Vol.8. Houston: Athelstan, 1997.

Boswood, T. **New Ways of Using Computers in Language Teaching**. Alexandria: TESOL Publications, 1997.

Bush, M. **Technology Enhanced Language Learning**. Lincolnwood: National Textbook Company, 1996.

Levy, M. **Computer Assisted Language Learning**: Context and Conceptualization. Oxford: OUP, 1997.

Pennington, M. **The Power of CALL**, Houston: Athelstan, 1996.

Sperling, D. **The Internet Guide for English Language Teachers**. Prentice Hall Regents, 1997.

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