

APPLYING COMPUTER ASSISTED LANGUAGE LEARNING (CALL) FOR ENGLISH STUDENTS IN INDONESIA

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Abstract

As technology has been found to be increasingly contributing to language classroom, computer assisted language learning (CALL) has received respectable amount of attention as one of the approaches in teaching and learning foreign language. Computers would never substitute teachers but they offer new opportunities for a better language practice. This paper is aimed to explore what actually the computer language learning (CALL) is and how to apply it in English language classroom. The discussions covered CALL's definition, history, trend, design, types, and the relation of CALL to language skills and components. All in all, the paper presents the advantages and disadvantages of CALL followed by recommendations for teachers/lecturers on the applying of computer assisted language learning in their language classroom.

Keywords: Computer Assisted Language Learning (CALL)

Introduction

Technology is now prevalent.¹ It is utilized in every aspect of our life. Computer that represents the technology can facilitate different learning tasks and have enormous potency as teaching aids. The computer, having various pedagogical characteristics, has

¹Abdul Gafur Marzuki., Utilizing Cooperative Learning in Islamic College Students' Classroom, *IJEE (Indonesian Journal of English Education)*, Vol. 3 No. 2 (2016), p. 123-139.

been utilized in teaching languages around the world. They can assist both students and teachers because of their special characteristics. This led to the prominence of the Computer-Assisted Language Learning (henceforth CALL). According to Fachrurrazy, when it is well programmed, computer can be an effective aid for teaching language skills (listening, speaking, reading, writing) and language components (pronunciation, grammar, vocabulary), and for remedial and enrichment purposes.²

Computer Assisted Language Learning (CALL) is an approach to language teaching and learning in which the computer is used as an aid to the presentation, reinforcement and assessment of material to be learned, usually including a substantial interactive element. Hubbard states the nature of CALL is any process in which a learner uses a computer and, as a result, improves his or her language.³ Then Hubbard asserts that CALL encompasses any use of computer technology in the domain of language learning.⁴

Brief History of CALL

- *Behavioristic CALL*

CALL's origins can be traced back to the 1960s. Up until the late 1970s CALL projects are confined mainly to universities. This is based on concepts from behavioural psychology of repeating exposure to material is essential for learning. The PLATO (Programmed Logic for Automated Teaching Operations) project is a landmark in the early development of CALL. This uses a programmed-instruction approach that provides students with practice material targeted at their presumed level along with feedback and remediation as needed.

- *Communicative CALL*

In the late 1970s, the arrival of the personal computer (PC) brought computing within the range of a wider audience, resulting in the development of CALL programs. Communicative CALL is related to the direct method which is focusing on L2 exclusively. This

²Fachrurrazy, *Teaching English as a Foreign Language for Teachers in Indonesia*. (Malang: UM Press, 2014) p. 114

³Hubbard, *Computer Assisted Language Learning: Critical Concepts in Linguistics*, (London: Routledge, 2009) p.1

⁴*Ibid.* p. 3

approach draw heavily on practices associated with programmed instruction focusing on “Computer as tutor” and “computer as stimulus” models. This is reflected in the term Computer Assisted Language Instruction (CALI), which originated in the USA and was in common use until the early 1980s.

- *Integrative CALL*

Integrative CALL started to take hold in 1990s and onwards. This CALL approach focuses on use of multimedia and internet. It combines text, sound, video, images, etc. in presentation. Then it allows interaction between individual language learners. Here means the program make “Computer as facilitator” in language learning.

CALL Research Trends and Issues

CALL has now established itself as an important area of research in higher education. Early CALL research often focuses on attempting to demonstrate the superiority of using computers over traditional language teaching. Most studies now compare one version of a CALL activity with another, for example using captions versus transcripts with online video.

CALL Design and Evaluation

The most elaborate design framework to date is that of Kilickaya 2009, which creatively blends engineering principles and pedagogical approaches and is specifically oriented towards the creation of language courseware.⁵ Another important work in this area is by Levy, who categorized the uses of the term *design*, not only design of artifacts (e.g. software), online courses and materials, but design as a principled approach to CALL, including approaches to the design of CALL tasks’ (Levy, 2002, in Hubbard 2009:5).⁶ Closely tied to design is evaluation. There are three general approaches here: checklists, methodological frameworks and applications of SLA principles. Checklists used to determine whether or not to use a given program in their classes. Methodological frameworks attempt to describe the key elements

⁵Kilickaya, 2009, Book review: Tips for Teaching with CALL: Practical Approaches to Computer-assisted Language Learning, *Educational Technology & Society*, 12 (2): 337-338

⁶*Ibid.*

involved in making selection decisions in. The SLA-based approach identifies six research-based criteria for the evaluation of CALL tasks that can be used for both judgmental and empirical evaluation.

Types of CALL

- *Traditional CALL*

Traditional CALL programs presented a stimulus to which the learner had to provide a response. In early CALL programs the stimulus was in the form of text presented on screen, and the only way in which the learner could respond was by entering an answer at the keyboard. The more sophisticated programs would attempt to analyse the learner's response, pinpoint errors, and branch to help and remedial activities. A typical example of this approach is the *CLEF* package, which was developed in the late 1970s and early 1980s by a consortium of Canadian universities.

- *Explorative CALL*

More recent approaches is explorative CALL approach. The explorative approach is characterised by the use of concordance programs in the languages classroom - an approach described as Data-Driven Learning (DLL). There are a number of concordance programs on the market, e.g. *Mono Conc*, *Concordance*, *Wordsmith* and *SCP* - all of which are described in ICT4LT Module 2.4, *Using concordance programs in the modern foreign languages classroom*.⁷

- *Multimedia CALL*

Multimedia CALL can combine sound, photographic-quality still images and video recordings in imaginative presentations. The techniques learned in the 1980s which incorporated CD-ROM drives and were in widespread use by the early 1990s. Then, the Digital Video Disc (DVD) appears to offer much higher quality video recordings. Another multimedia program is Automatic Speech Recognition (ASR) software to diagnose learners' errors, e.g. *Tell Me More Pro* by Auralog.⁸

⁷<http://www.ict4lt.org/>.

⁸<http://www.auralog.com/english.html>

- *Web-Based CALL*

The Web offers enormous potential in language learning and teaching. This integrates CD-ROMs and the Web and running audio and video conferencing with Web activities. The Web Enhanced Language Learning (WELL) project is the example of to promote wider awareness and more effective use of the Web for teaching modern languages. The WELL website provides access to high-quality Web resources, selected and described by subject experts, plus information and examples on how to use them for teaching and learning.⁹

CALL, Language Skills, and Components

- *Listening, Speaking, and Pronunciation*

The addition of sound to computers in the 1980s brought listening to the blending of onscreen graphics and text. Digitized speech and video offer greater control for the listener to improve both immediate comprehension and acquisition (Kilickaya, 2009:6).¹⁰ Speaking practice in a CALL setting has largely been of two types: pairs or groups of students speaking to one another as they sit in front of a computer engaged in a task, or individual students using the computer to record their voice. Automatic speech recognition (ASR) such allows learners to select which lines to speak in a branching dialogue. More natural speaking practice is now use online audio discussion boards (e.g. Wimba) and podcasting. Skype and other VOIP (Voice Over Internet Protocol) applications allow audio and video connecting computer to computer at little or no cost.

In the area of pronunciation, there are three major types of applications. First is the digital version of the tape recorder, where learners use the computer to listen to native speakers' models, and then record and compare their own voices to match that model. Second area is speech visualization. Here, learners attempt to match a model, but instead of just hearing it, they view a graphic representation of it. Last application is using ASR to judge roughly

⁹<http://www.well.ac.uk/>

¹⁰Kilickaya, 2009, Book review: Tips for Teaching with CALL: Practical Approaches to Computer-assisted Language Learning. *Educational Technology & Society*, 12 (2): 337-338

how close a learner's speech is to norm formative speakers. Feedback to the learner can be presented in the form of numerical score.

- *Reading and Writing*

Computer programs can assist reading development in at least three ways: by controlling what the readers saw and how long they saw it in order to promote reading strategies and automaticity; by providing comprehension and other exercises; and by presenting glosses and other comprehension aids. The implication of reading through CALL is not only emphasized on learning the vocabulary, more than that it is also emphasized on promoting extensive reading; building reading fluency and rate; and developing intrinsic motivation for reading. Next, writing in CALL is focused on two areas: developing word processing skills in learners and the use of text-based and later graphic organizers to support the writing process. Spell grammar checkers are brought in the development of accuracy. Applications have been developed to promote collaborative writing and the web: most recently the free online site of Google Docs.¹¹

- *Grammar, Vocabulary and Data-driven Learning*

Authoring systems such as *Hot Potatoes* have made it easy for language teachers to construct their own grammar exercises using multiple choices, gapped sentences and matching formats (Hubbard, 2009:9).¹²ICALL (Intelligent CALL) programs have been shown to be effective in assisting grammar learning when used with particular structures so that the range of errors can be anticipated and the feedback appropriately targeted.¹³Next, vocabulary is still one of the most common applications, partly because it holds such high face value for language learners and partly because it is easy to program and manage. One of the useful sets is Tom Cobb's Lex tutor site, which includes vocabulary level tests, frequency analyzers, etc. Further, the area of data-driven learning aims to support students' exploratory learning of grammar

¹¹<http://docs.google.com>

¹²Hubbard, *Computer Assisted Language Learning: Critical Concepts in Linguistics*, (London: Routledge, 2009)

¹³*Ibid.* p.9

and vocabulary using computer applications to help them notice patterns in the target language. The most widely used type of program is the *Concordance Web*, which allows the user to select an item, such as a word, phrase or in some cases even a stem, and search for examples of it within a particular corpus.

Advantages of CALL

There are some reasons indicate that the current computer technology has many advantages for second language learning. CALL can provide L2 learners more independence from classrooms and allowing learners the option to work on their learning material at any time of the day. Students can study more independently, leaving the teacher more time to concentrate effort on those parts that are still hard or impossible by the computer, such as, training for essay writing and presentation.

Cheng (2006:2) proposes 8 advantages of using CALL.¹⁴ Those are (a) prove practices for students through the experiential learning, (b) offer students more learning motivation, (c) enhance student achievement, (d) increase authentic materials for study, (e) emphasize the individual needs, (f) regard independence from a single source of information, and (g) enlarge global understanding. Currently, computer technology can provide a lot of fun games and communicative activities, reduce the learning stresses and anxieties, and provide repeated lessons as often as necessary. Those abilities will promote second language learners' learning motivation.

Through various communicative and interactive activities, computer technology can help second language learners strengthen their linguistic skills, affect their learning attitude, and build their self-instruction strategies and self-confidence. In addition, Students can get various authentic reading materials either at school or from home by connecting to the Internet. And, those materials can be accessed 24 hours a day. For learning interaction, by sending E-mail and joining newsgroups, second language learners can also communicate with people they never met before and interact with

¹⁴Cheng, 2006, The Advantages and Disadvantages of Computer Technology in Second Language Acquisition. *National Journal for Publishing and Mentoring Doctoral Student Research*, 3 (1),

their own teachers or classmates. Shy or inhibited learners can be greatly benefited through the individualized technology-learning environment.

Disadvantages of CALL

First, although there are many advantages of computer, the application of current computer technology still has its limitations and disadvantages. First, CALL will increase educational costs and harm the equity of education. It will cause unfair educational conditions for those poor schools and students. Second, it is necessary that both teachers and learners should have basic technology knowledge before they apply

1. Teachers select CALL materials that teach appropriate language skills and components. Related to the type of CALL, any types can be applied to the classroom depending on the available facility at each school.
2. Teachers let the language skills or components of the tasks spark in the interaction among students.
3. Teachers must include regular evaluations of answers and summaries of performance.
4. Teachers help students develop strategies for online vocabulary learning through the use of online dictionaries.
5. Teachers could use a *concordance* program that is free on the web to introduce learners to the idea of using Internet resources for English language learning related to the type of explorative CALL.
6. The teacher can also show students how to analyze the levels of sentences they wrote or read on the web.

Solutions for the Disadvantages of CALL

Regarding to the disadvantages, we prepare the following solutions.

1. Related to the first disadvantage, government needs to provide a set of computer for all the schools all over Indonesia especially for the schools which still have limited computers. In addition, waiting for the government's act, teacher can be creative by using the available laptop that teachers have. He can borrow other teachers' laptop and use it when he wants to apply CALL to English language classroom.

2. Related to the second disadvantage, schools can hold a training for both teachers and learners in order to enhance their knowledge about the technology that will be very useful for them before applying CALL at the school. The headmaster can invite some experts of technology to train them.
3. Related to the third disadvantage, eventhough the software of computer assisted language learning programs is still imperfect, however teacher still can maximize the available software of CALL program in their teaching. It is important to know that teacher has also the role in guiding the class using CALL. So, it is very iimportant for ELT teachers to be creative to think the best strategies in order to apply CALL in the classroom using the available software. Adding more addtional materials is also good in order to suit the software with the objective of the lesson of teaching.
4. Related to the last disadvantage of CALL, the role of teacher is very important in here. For example, when the program of CALL can not answer all the students'questions, then the teacher can answer them directly. Another situation, if the electricity is off then CALL is impossible to be applied, then the teacher can prepare the software related to the CALL program of that day lesson in teacher's mobile phone and send it to the students' smart phone then they can continue the teaching learning process using each smart phone.

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