

The Advantages and Disadvantages of Computer Technology in Second Language Acquisition

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ABSTRACT

The purpose of this article is to discuss the advantages and disadvantages of computer technology for second language learning. Research findings indicate that the use of computer has a positive effect on the achievement levels of second language learners, but it still has its limitations and weaknesses, such as financial, isolated, and knowledge required issues. The authors emphasize that we must recognize both the advantages and disadvantages of using computers so we can get the maximum effectiveness of technology to enhance second language learning.

Inspired by the rapid development of technology from the 1980s, computer has now become an influential component of second language learning pedagogy. Educators recognize that utilizing computer technology and its attached language learning programs can be convenient to create both independent and collaborative learning environments and provide students with language experiences as they move through the various stages of second language acquisition (Kung, 2002).

The purpose of this article is to discuss the advantages and disadvantages of

computer technology applied in current second Language instruction. In second language acquisition domain, Perrett (1995) has mentioned that if students are provided with the opportunities to use language and learning strategies in the second language, and some training or explanation in their application, they can develop these strategies through exposure to and experience in the second language.” Therefore, explaining the advantages and disadvantages of computer technology to teachers and students seems to be necessary. Only after guiding, do teachers and students realize the benefits of computer technology for second language acquisition, then they can apply computer appropriately and join those computer assisted language learning programs by their own wills.

Advantages of CALL Programs

Educators (Jonassen, 1996; Salaberry, 1999; Rost, 2002) indicate that the current computer technology has many advantages for second language learning. Computer and its attached language learning programs could provide second language learners more independence from classrooms and allowing learners the option to work on their learning material at any time of the day. Once implemented, it can be expected that the cost for computer technology is considerably lower than for face-to-face classroom teaching, and when used in conjunction with traditional second language classroom study, students can study more independently, leaving the teacher more time to concentrate effort on those parts of second language teaching that are still hard or impossible by the computer, such as pronunciation, work on spoken dialogue, training for essay writing and presentation (Roger, 1996).

Lee (2000) further stated that the reasons why we should apply computer technology in second language instruction, include computer and its attached language learning programs can (a) prove practices for students through the experiential learning, (b) offer students more the learning motivation, (c) enhance student achievement, (d) increase authentic materials for study, (e) encourage greater interaction between teachers and students and students and peers, (f) emphasize the individual needs, (g) regard independence from a single source of information, and (h) enlarge global understanding. Taylor (1980) also expressed that computer assisted language learning programs can be wonderful stimuli for second language learning. 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. According to Robertson et al. observation (1987), the participants who joined computer-assisted language learning programs also had significantly higher self-esteem ratings than regular students.

Today, with the high development of computer technology, computers can capture, analyze, and present data on second language students’ performances during the learning

process. As we know, observing and checking students' learning progress are very important activities to help students achieve their second language acquisition. When teachers attempt to assess students' learning progress, they can get the essential information from a well-designed computer language learning programs and then offer feedback tailored to students' learning needs (Taylor & Gitsaki, 2003). 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. In a word, computer technology also provides the interdisciplinary and multicultural learning opportunities for students to carry out their independent studies.

For learning interaction, Warchauer (2004) indicated that the random access to Web pages would break the linear flow of instruction. By sending E-mail and joining newsgroups, second language learners can also communicate with people they never met before and interact with their own teachers or classmates. Shy or inhibited learners can be greatly benefited through the individualized technology-learning environment, and studious learners can also proceed at their own pace to achieve higher levels.

In particular, many concepts and cognitions are abstract and difficult to express through language the language teaching area. It seems that computers can make up for this shortage by using the image showing on the screen. Nunan (1999) reported that "interactive visual media which computers provided seem to have a unique instructional capability for topics that involve social situations or problem solving, such as interpersonal solving, foreign language or second language learning" (p.26).

Both cognitive theorists and humanists all pointed out that practice experience is a very important factor for people's learning. Experiential theory educators believe that learning is about making sense of information, extracting meaning and relating information to everyday life and that learning is about understanding the world through reinterpreting knowledge (Ormrod, 1999). When computer technology combines with Internet, it creates a channel for students to obtain a huge amount of human experience and guide students to enter the "Global Community". In this way, students not only can extend their personal view, thought, and experience, but also can learning to live in the real world. They become the creators not just the receivers of knowledge. And, "as the way information is presented is not linear, second language learners can still develop thinking skills and choose what to explore" (Lee, 2000).

Disadvantages of CALL Programs

First, although there are many advantages of computer, the application of current computer technology still has its limitations and disadvantages. Gips, DiMattia, & Gips (2004) indicated that the first disadvantage of computer and its attached language learning programs is that they will increase educational costs and harm the equity of education. When computers become a basic requirement for student to purchase, low budget schools and low-income students usually cannot afford a computer. It will cause unfair educational conditions for those poor schools and students. On the other hand, expensive hardware and software also becomes the big obligations for schools and

parents.

Second, it is necessary that both teachers and learners should have basic technology knowledge before they apply computer technology to assist second language teaching and learning. No student can utilize computer if he or she lacks training in the uses of computer technology. Unfortunately, most teachers today do not have sufficient technological training to guide their students exploring computer and its assisted language learning programs. Therefore, the benefits of computer technology for those students who are not familiar with computer are inexistent (Roblyer, 2003).

Third, the software of computer assisted language learning programs is still imperfect. Current computer technology mainly deals with reading, listening, and writing skills. Even though some speaking programs have been developed recently, their functions are still limited. Warschauer (2004) pointed out that a program should ideally be able to understand a user's "*spoken*" input and evaluate it not just for correctness but also or "*appropriateness*". It should be able to diagnose a student's problems with pronunciation, syntax, or usage and then intelligently decide among a range of options.

Fourth, computers cannot handle unexpected situations. Second language learners' learning situations are various and ever changing. Due to the limitations of computer's artificial intelligence, computer technology is unable to deal with learners' unexpected learning problems and response to learners' question immediately as teachers do. The reasons for the computer's inability to interact effectively can be traced back to a fundamental difference in the way humans and computers utilize information (Dent, 2001). Blin (1994) also expressed that computer technology with that degree of intelligence do not exist, and are not expected to exist for quite a long time. In a word, today's computer technology and its attached language learning programs are not yet intelligent enough to be truly interactive. People still need to put effort in developing and improving computer technology in order to assist second language learners.

Concluding Remarks

In conclusion, the purpose of this article was to discuss the advantages and disadvantages of CALL programs for applying in current ESL classrooms. With the modern technology development, although the application of CALL programs has become a new trend in recently global second language learning instructions, computer technology still has its limitations and weakness. Therefore, when we try to apply CALL programs to enhance their teaching or to help student learning, we should realize what the advantages and disadvantages are in current CALL programs in order to avoid for misemploying CALL programs and get its maximum benefits for our ESL teaching and learning.

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