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Research Article

COMPUTER TRAINING PROGRAMS AND ITS DEVELOPMENT

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ABSTRACT

In today's digital age, the use of computer training programs in education has become increasingly prevalent. Use of computer training programs in learning languages is one of the best recent and technological approaches in language learning and teaching, especially to strengthen the opportunities to achieve objectives of language pedagogy. Nowadays, many researchers and professionals get to know the significance of using various computer training programs in the procedure of language teaching and learning equally. These article aims to explore and analyze the theoretical background behind the methods of usage of computer training programs in language learning, especially in English lessons in the non-native speaking countries and to bring out the problems faced by both teachers and learners of English. In conclusion, the methods of usage of computer training programs in education are supported by several key theories in the field of educational.

KEYWORDS

CALL (Computer-assisted language learning), multimedia, tool, software application, video, audio, language learning, spell checkers, thesauri, dictionaries, style checkers, and grammar checkers.

INTRODUCTION

Educators are increasingly recognizing the growing importance of technology as a tool for teaching foreign language learners. They acknowledge that technology has the capability to create independent and collaborative learning environments, allowing students to acquire and practice a new language. In the 1980s, technology started making its way into language classrooms through the use of film, radio, television, language labs equipped with audio/video tapes, computers, and interactive video. Computer-assisted language learning (CALL) also became more common during this time. However, most CALL applications at that time were limited to drill and practice exercises, with a few innovative uses of software. As technology progressed, we began to witness more interactive applications of CALL and the integration of various media into computer systems. Computers became more accessible to individuals and schools, and our understanding of their potential grew, leading to a shift in focus from the technology itself to how it can be utilized to enhance teaching and learning. Consequently, research has placed greater emphasis on finding ways to leverage computers for educational purposes. Nowadays, the use of multimedia, the Internet (especially the World Wide Web), and various forms of distance learning are widely prevalent.

Interest in utilizing technology as a support tool for language learning is increasing among both language educators and learners. With the advent of the Internet, word processors, multimedia, hypermedia, and drill and practice programs, students now have the opportunity for personalized instruction tailored to their specific needs. They can also engage in collaborative projects that foster communication with peers in their classrooms and across the global community. This research focuses on exploring the potential of technology as a powerful tool for foreign language instruction and the challenge of training educators to effectively incorporate it into their teaching methods. This area of study falls within the domain of applied linguistics (Strevens, 1992) and represents a significant and current direction in foreign language teaching.

1. Computer Assisted Language Learning (CALL). It refers to the search for and study of computer applications in language teaching and learning. The introduction of computer-based instructional technologies aimed to achieve several objectives, including providing visually engaging course materials, catering to diverse learning styles, incorporating authentic materials from the World Wide Web, promoting online communication in the target language, facilitating cultural comparisons, and offering students more opportunities for success in reading, writing, listening, speaking, and developing second-culture competency.

CALL can be categorized into two types: Communicative CALL and Integrative CALL.

A) Communicative CALL. This type focuses on skill practice through language games, encouraging students to generate original utterances rather than simply manipulating pre-made language. Computers are used as a tool, and the target language is exclusively employed.

B) Integrative CALL. Integrative CALL utilizes multimedia computers and the internet. These advancements have made it possible to access text, graphics, sound, animation, and video on a single affordable computer. Integrative CALL can be further divided into two subtypes: Multimedia CALL (CD-ROMs) and Web-based CALL (on the Internet). Multimedia CALL creates a more authentic learning environment by incorporating various media. Language skills are easily integrated through multimedia, and students have a high level of control over their learning experience through hypermedia.

2. Software Tools. Recognizing the potential of computer technology, educators have shown increasing interest in utilizing it as a tool to enhance foreign language instruction. Most of the literature reviewed on software tools primarily consisted of descriptions of specific software applications, how they were integrated into the learning environment, their impact on students, and potential implications for further research (Alderson, 2000; Chavez, 1997; Greenia, 1992; Hellebrandt, 1999; Legenhausen & Wolff, 1990; Levin, Evans, & Gates, 1991; Nicholas & Toporski, 1993). Evaluative articles also discussed whether the software was robust enough for educational settings. The areas of reading and writing received the most attention in terms of skill development. Numerous software programs were developed for various foreign languages such as English, French, Spanish, Italian, German, Japanese, and Russian. However, English emerged as the most commonly discussed target second or foreign language. The literature suggests that there is a significant need for software development in the areas of listening and speaking, as these aspects were found to be underrepresented.

Many studies have focused on computer-mediated communication (CMC) in second language learning classrooms, specifically examining the use of "Inter Change" a synchronous discussion tool within the Daedalus software (1988-2002) (Beauvois, 1992; Chun, 1994; Kelm, 1992; Kern, 1995). Initially developed for teaching English composition and literature to native English speakers, Inter Change has been adapted for second language instruction. It has garnered attention from language teaching professionals due to its ability to facilitate meaningful and authentic conversations in the target language. This form of CMC promotes equal participation among students in the classroom and

allows for the saving and organizing of all language output, enabling learners to reflect on their own and others' contributions (Chun, 1994; Kern; Sullivan & Pratt, 1996).

Another topic that emerged in the literature is the use of multimedia authoring software. While commercial software like Daedalus was widely discussed, many articles explored tools developed by researchers themselves using authoring software programs. These authoring packages, as described by Motteram (1990), enable educators to create computer-based course materials without extensive programming knowledge. Among the authoring programs, HyperCard (1987-1998) for Macintosh was frequently cited by software researchers and developers (Borras, 1993; Donaldson & Morgan, 1994; Evans, 1993; Liu, 1994; Nagata, 1998). HyperCard was popular due to its affordability, accessibility, and user-friendly nature. It was considered easy to use and adaptable to various instructional aspects in the classroom (Padilla, 1990). Donaldson and Morgan noted that HyperCard was the most cost-effective authoring tool for educators, given its low price and ease of use. Researchers also appreciated the culture of sharing within the HyperCard community, which encouraged the exchange of program code and benefited novice users (Donaldson & Morgan).

Several articles discussed the importance of developing computer software based on effective pedagogy and language learning theories, as well as the application of design principles in creating computer-assisted language learning (CALL) programs (Allen & Periyasamy, 1997; Armstrong & Yetter-Vassot, 1994; Collentine, 1998; Masters-Vicks, Postlewate, & Lewental, 1996; Oller, 1996; Schwartz, 1995; Van Bussel, 1994). In addition to specific authoring software and commercial programs, the literature also addressed broader categories of software applications, including word processing software, the Internet, and speech recognition software. Among these, word processing software, considered the most basic tool, has gained wide acceptance and is widely used in education today (Hyland, 1993).

Typically, word processing software offers features such as spell checkers, thesauri, dictionaries, style checkers, and grammar checkers (Levy, 1990). Some researchers argued that word processing software can enhance student engagement and appreciation of routine assignments by transforming traditional learning tasks into novel ones (Greenia, 1992; Scott & New, 1994). Greenia (1992) described an early use of a computer-based writing program where students created, shared, and submitted electronic assignments on floppy disks. The author claimed that this type of composition process fostered the formation of communicative writing communities and shifted the instructor's role from a directive figure to a facilitator of class discourse. Scott and New (1994) proposed that

their word processing program, System D, helped enrich the curriculum by focusing on the writing process.

Regarding speech recognition software, Derwing et al. (2000) stated that its usefulness for language students depends on its ability to recognize nonnative speech and identify areas for improvement, providing corrective feedback. However, current research suggests that speech recognition technology is not yet reliable enough to be implemented in second and foreign language classrooms (Coniam, 1998; Derwing et al.).

Apart from the enthusiasm for computer use, there was a strong recognition in the 1990s that technology is only effective when creatively and imaginatively applied (Bailey, 1996). Hoven (1999) proposed an instructional design model based on sociocultural theory for multimedia listening and viewing comprehension. Watts (1997) suggested a learner-based design model that focuses on learners' goals and needs rather than solely on the technology itself. These discussions emphasized the importance of technology-enhanced, student-centered activities. Hemard (1997) addressed the lack of design guidelines for language educators and presented design principles for creating hypermedia authoring applications, including understanding and appreciating users' needs, matching tasks to users, and providing error-solving mechanisms. Chapelle (1998), based on second

language acquisition theory, suggested seven criteria for developing multimedia CALL programs, such as highlighting key linguistic features, offering modifications to input, providing opportunities for comprehensible output, allowing learners to notice and correct errors, and supporting modified interaction between learners and computers.

In traditional pedagogy, teachers typically impart factual information from books, assuming the role of knowledge providers to be transmitted to students. In contrast, the new pedagogy emphasizes student teaching strategies for determining the information they need. Teachers now serve as guides or facilitators, assisting learners in developing skills to select, access, evaluate, organize, and store information. These strategies are crucial for managing the abundance of information available. Teachers also need to manage time and courses effectively and participate in the construction of knowledge within virtual learning communities. In addition to this new role, teachers also serve as motivators in the learning process and can facilitate intellectual group discussions. They must critically reflect on the learning context (mediated by technology), methods (different from traditional classroom techniques), students, their own computer literacy (including hardware, software, and technical support), and other aspects related to digital literacy. Learning through technology offers numerous advantages. The internet provides access to current

and up-to-date data, storing vast amounts of information that can be retrieved quickly and easily. It also offers authentic language texts, as opposed to contrived language often found in traditional resources. Technology enables teachers to deliver more information to a larger number of students in a shorter time. However, it is essential to consider whether teachers are adequately skilled in utilizing technology to meet educational needs. Effective use of computer technology also necessitates a change in the school culture. This technology has prompted teachers to adapt their methods and strategies because the web, in particular, not only facilitates the dissemination of instructional materials but also provides a context for collaborative material development, enhancing knowledge transfer.

The history of Computer-Assisted Language Learning (CALL) demonstrates that computers can serve various purposes in language teaching. They can function as tutors, offering language drills and skill practice, as well as stimuli for discussion and interaction, or tools for writing and research. These emerging technologies provide learners with excellent opportunities to engage in authentic conversations and expand their exposure to the target language. The social and learning impacts of these applications warrant significant attention in the future.

Multimedia software and online materials delivered through different media formats cater to learners with diverse cognitive styles. Information technology benefits both students and teachers, allowing them to establish rapport and fostering a conducive learning environment. It enhances imaginative understanding by providing increased access to information and new ways of accessing that information. Furthermore, it enables the recording process to occur simultaneously with its use. With the advent of the internet, computer technology can also serve as a medium for global communication and a limitless source of authentic materials. Numerous studies indicate that the use of visual media supports vocabulary acquisition and reading comprehension, leading to improved achievement scores. Online communication tools have been shown to enhance writing skills in multiple studies. Specifically, studies on the use of Daedalus (1988-2002) demonstrated that it provided equal opportunities for all learners to participate.

CONCLUSION

It is crucial for students and teachers to constantly embrace and utilize the technological advancements in the field of education. Educators should strive to provide effective language education to children, utilizing these tools as facilitators. It is time to create a comprehensive and coherent language learning environment that incorporates our enhanced knowledge of language acquisition, education, child development, and technology. The integration of computer technology into the communication

environment has the potential to transform students from passive recipients of information into active participants. Therefore, technological advancements should be an integral part of any teaching program, offering teachers a clear challenge and a unique opportunity to enhance language education.

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