Article

Effectiveness of CALL in Teaching Modern Greek as a Second or Foreign Language in Higher Education

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Abstract

The need for teaching foreign languages has led to the emergence of a new interdisciplinary field named CALL (Computer-Assisted Language Learning) in the 1980s. In the 1990s teaching the Modern Greek language as a second or foreign language (L2) has followed the wide-spread use of Information and Communication Technologies. CALL courseware started to play a significant role in the Modern Greek teaching university environment of the last decade, and especially in the effectiveness of learning processes and the increasing interest of the learners. The effectiveness of this software in the learning environment is difficult to measure because there are concerns about the technical support and the training of the language instructors in computer use and the CALL courseware implementation. Nevertheless the progress of the learners can be estimated although it is difficult to conclude if this progress is due to a good teaching method or a good CALL courseware or is a measure of both.

Key words: teaching Modern Greek language, Computer-Assisted-Language-Learning development, effectiveness, technology, higher education.

1. Introduction

Since the 1980s the integration of technologies in second language learning (L2) has led to the emergence of a new interdisciplinary field named Computer-Assisted Language Learning (CALL). In this field, Second Language Acquisition, Pedagogy, Computer Science and Human-Computer Interaction coexist and cooperate. CALL software consists of programs designed for Computer Assisted Language Learning. The rapid evolution of this field is interlinked with important advances in Information and Communication Technologies (ICT) because these technologies can provide the tools and assistance of teaching a second or foreign language. Such CALL software is useful especially when this language is Modern Greek which belongs to the category of languages that are less often spoken and taught. Since the 1990s in Greece the advantages of using ICT have increasingly been recognized and CALL been applied in the educational environment.

In the early 1990s, the establishment of the first Software Institute production of educational software for Modern Greek language teaching/learning led to the reality. Some Greek universities as well as universities in North America and Europe started to produce educational software for assisting in teaching Modern Greek as second or foreign language in the last decade. Some of the Greek universities contributed particularly to the secondary education level. Despite the novelty of the field, an array of Greek language learning applications is now available and they are designed mostly by companies. Teaching Greek as a second language means teaching those people who
are of Greek origin but were born and raised in other countries and want to learn the language of their parents or ancestors to preserve their Greek identity and heritage. Teaching Modern Greek as a foreign language means teaching those who are foreigners, live in Greece or outside the country and want to learn the Modern Greek language.

In recent years, studies have not been published on topics such as the integration and the effectiveness of CALL Greek material for the higher levels of education because they are still at the beginning of using it. What is missing are studies and research on the evaluation and the effectiveness of the implementation of Information and Communication Technologies for teaching Modern Greek as a foreign language in higher education. Before examining the effectiveness of CALL courseware in learning Modern Greek, it is necessary to define what effectiveness means in this context. According to the definition provided by the Webster Dictionary, effectiveness is the power to produce effects or intended results. This suggests a strong relationship between the use of a particular technology in a learning situation and a discernible change in the learning process, the learning environment or the learning achievement (Felix 2008:143). The change of the learning process primarily depends on the language instructors and their computer skills as well as their training in CALL courseware. The instructors play an important role to the learning process and their awareness is necessary because they have applied their knowledge of using computers and CALL material to their students. The instructors' awareness has made a significant contribution to the (L2) Modern Greek language learning environment.

2. Instructor's awareness

Teaching foreign languages in the classroom has raised some arguments about the limitation of the development of communication skills. Applied linguists have found that foreign language learning is promoted effectively in a non-naturalistic environment like the classroom (Lightbown & Spada 1989). Other linguists point out that classroom language learning cannot easily overcome limitations such as the lack of authenticity that affects learners' motivation to interact and practice language in the same environment as in natural settings (Krashen 1982 & Charalambopoulos 1997). Some learners meet many difficulties when they have to produce written speech or learn the vocabulary or interact in the classroom.

Applied linguists argue that the description of the (L2) learner's profile should be taken into account because the syllabus design and the development will be better tailored to the needs identified (Yalden 1987). In addition, there is an argument based on the point that the design and development of CALL courseware has to meet the needs of the (L2) language learner's profile (Hubbard 1992). According to the above arguments, this research focuses on the instructor awareness about the advantages of CALL courseware, the (L2) Modern Greek language learner's needs and profile as well as the effectiveness of CALL in the classroom or lab environment. On the basis of the instructor's performance in the classroom, this research aims to identify the needs of the learners and evaluate the effectiveness of CALL courseware. The objectives of this research are the following:

- To introduce the advantages of CALL courseware when it is applied in the classroom environment;
- To describe the (L2) Modern Greek learner's profile
- To present the level of effectiveness of CALL courseware when teaching Modern Greek to foreigners.

The traditional teaching method, which includes presentation, practice and production, may need to be modified to develop greater awareness of the nature spoken and written discourse (Tsombani & Hamel 2003:97). Some linguists propose the following sequence: illustration, interaction and induction (McCarthy & Carter 1995:207-218).

The definitions of the above terms are determined as follow:
Illustration in the classroom means the use of real data wherever is possible to provide the learners with different choices of language context and use.

Interaction in the learning environment means group of activities focused on the use of language and negotiation of meanings, designed to raise learners' conscious awareness of critical language features through observation and class discussion.

Induction in the classroom means the cultivation of the ability of learners to notice critical form features and to draw conclusions about their functions in different lexico-grammatical contexts.

Language researchers (Hyland 2002) and Systemic Functional linguists (Halliday 1994; Martin 1987; Cope & Calantzis 1993) argue that learners often fail to produce effective writing mainly because they do not know or do not consider the demands and constraints of the contexts. The learners need to be familiar with the different genres and text types in order to structure their writing experience. The instructors need to be aware of the individual differences that learners face, and provide them with the appropriate assistance and learning strategies that help them to use the language efficiently.

The instructors also need to learn more about the use of new technologies in teaching foreign languages and recognize the benefits of CALL courseware. Some of the most important benefits that instructors have learned when starting to use technology or before using it in their classrooms are the following:

- CALL courseware is motivating for learners and instructors because it makes the teaching method more enjoyable for both.
- It also offers a wide range of multimedia resources enabling text, images, audio and video that can stimulate the teaching and learning process.
- CALL material also offers access to a rich resource of authentic materials on the Internet.
- Finally, it provides students with access to a wide range of authentic materials on CD-ROM and DVD.

With the appropriate training the instructor will find that CALL courseware offers a new approach of teaching and learning strategies.

3. CALL and its advantages

In the last years CALL has played a significant role in the teaching environment at all levels of education. The main objectives for introducing a CALL system in teaching the Modern Greek language in higher education institutes are as follows:

- To develop new tools in teaching process based on technology and recognized it as a tool that can enrich the existing practices and present a new step in linguistic information.
- To promote a self-determined learning tool that can be used by groups of learners or individuals.
- To increase the motivation of the learners by supporting a problem solving procedure.
- To promote an intercultural dimension in education.
- To have an effect on the cognitive level through a multi-task learning and practicing environment.
- To assist the learners and provide them with information on basic features of information technology.
- To provide learners with a new holistic approach of learning Modern Greek through the use of new technologies such as power point presentations, DVD and CD use, presentation of images, on line classrooms for assisting the
language environment, e-games, e-exercises on grammar and syntax, and many more applications.

The use of technology in the classroom is a pleasant activity for the learners. Teaching process becomes more attractive and increases their interest. Technology creates a fertile learning environment especially for the mastering of reading and writing skills (Paleologou 2003:4).

The main idea of integrating CALL courseware in the classrooms of the higher education institutes was developed because of the needs of the learners in today high developed technological world. (L2) Learners who have achieved higher scores on tasks have strong second language aptitude skills. Females have performed better than males in syntax and semantics (G. Andreou; Vlachos & E. Andreou 2005:429).

In addition, the design, development, implementation, evaluation and effectiveness of a CALL courseware are necessary to meet the needs of today’s Modern Greek language (L2) learners. The aim of the development of a CALL Greek courseware is teaching Modern Greek to university students and adults as a foreign language in an appropriate and effective way. In the international literature there is a variety of studies on the principles of teaching foreign languages and particularly the evaluation and effectiveness of CALL courseware in teaching a great number of foreign languages except Modern Greek in high education. According to these principles, a framework for teaching the Modern Greek language was created (Paleologou 2003:4). The principles are based on the development of software, e-dictionaries, appropriate for teaching Modern Greek, selected textbooks, and a methodology of teaching Greek through online courses.

The evaluation of CALL Greek courseware and its effectiveness have been based on the implementation of the above principles. These principles are as follows (Tzevelekou; Chondroyanni & Paschalis 2001:5):

- Greek should be taught as a foreign language without prerequisite of previous knowledge.
- Language literacy should be viewed within the technological environment provided by the computer.
- The CALL system should be autonomous and contain the required information for dealing with the linguistic material.
- It should provide evaluation procedures such as feedback and tools showing the level of coverage and the performance of the learners (Stubbs 1992:203-222).
- It should be pleasant and rewarding.
- It should avoid cultural stereotypes, often observed in methods of foreign language teaching.

All these principles play an important role in the development of the CALL courseware. The effectiveness of this courseware depends partially on the awareness of the instructors. Language instructors need training in developing a positive attitude towards technology and the use of CALL courseware in an effective way assisting the teaching environment and the learning process of their students.

CALL material should be a pleasant process for the learners because the course becomes more attractive and attendance is increased. It also has positive results in the promotion of cooperative learning and plays a significant role in combating racism in education. Finally, it opens the class to issues of the society (Cummins 1998:1-13 and Paleologou 2003:4).

The use of CALL courseware has raised objections and acceptance, both by a large number of language researchers and instructors. Some of those who do not support this teaching method have viewed it as a threat to the relationship between the instructor
and the learners. Although, this argument points to a number of possible negative aspects concerning computer use, the instructors should be aware of the advantages of the use of CALL courseware in their class. According to the supporters, educational point of view, it is clear that computers promote a student-centered way of learning (Drenoyianni & Selwood 1998: 87-99 and Tzevelekou; Chondroyanni & Paschalis 2001:7).

Overall, the advantages of computers for learners exceed the disadvantages, and can be summarized as follows:

- “The computer is capable of greater communicative interchange than is possible with any other educational medium” (Stevens 1992:32).
- “The new technology (micro-computing in foreign language learning) offers unprecedented exposure to authentic samples of other cultures, integrating sound, symbol and image in ways that appeal to a broad range of learners” (Stevens 1992:15).
- The technology also offers access to natural language resources by taking account of the learner’s needs, interests, etc. “The potential for personalized instruction” (Ahmad 1985:6) promotes individualization in language learning.
- Computers create a learning environment where social conflicts are neutralized or they are temporarily suspended (Tzevelekou; Chondroyanni & Paschalis 2001:7).
- Through CALL courseware learner’s energy is focused on learning process.
- Technology also provides learners with the option of working in their own pace; organize their learning approach in order to meet their needs and interests.
- An additional advantage of the use of CALL courseware is the evaluation procedure such as the feedback which assists the learner’s access to their performance. It also assists the instructors to improve their performance in the teaching process.

Moreover, the use of computers offers advantages to language instructors because they allow them to process and present authentic materials with high flexibility (Tsompani & Hamel 2003:98). Instructors can store large databases containing natural language documents on computers. CALL courseware can remedy the learner’s lack of motivation to produce communicative speech. The main reason is the implementation of different methods, media and tools used in teaching foreign languages. “Diversity is an important teaching prerequisite which affects the learner’s motivation” (Hamel 2001). This motivation is increased through CALL because “learning with computers is highly rated by students” (Ahmad 1985:6).

Particularly, CALL material is a program designed to educate effectively. This kind of software should function as a mind tool for assisting learners to think, interpret, organize and construct their knowledge. It should also provide the students with support and guidance they need (Kavathatzopoulos 2004:73-76). As a mind tool, CALL software should engage learners in critical thinking. In addition, a mind tool requires students to activate previous knowledge and construct any new project and extend their intellectual horizons (Kalimikeraki & Kavathatzo-poulos 2005:74-95).

The use of CALL courseware in teaching Modern Greek as a foreign language is more effective when an appropriate educational courseware is developed (Paleologou 2003:11). Also, the mother tongue of the learners should be used as a medium of communication. The appropriate courseware consists of an integrated language learning system. That means autonomous use of the system and a set of linguistic information (Tzevelekou; Chondroyanni & Paschalis 2001:8).
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4. L2 Learner's modern Greek profile

There is quite a large number of people in all over the world today who are interested in learning Modern Greek language. The universities are a good learning source for those who would like to learn a foreign language less spoken than other languages. In the following, the (L2) learner's Modern Greek profile is described in detail.

The learner group consists of young students who are between 18 and 22 years old or adults, male and female, in a university environment. They typically do not have any knowledge of Modern Greek language and no childhood experience with Greek culture. Their motivation is the willingness of learning a foreign language different from any other language as well as a language recognized through its history. These students like the challenges and the language learning experience. They have selected to study Modern Greek as a foreign language for a variety of academic, professional or personal reasons. The learners use the same textbook and CALL courseware recommended by the university instructors.

They have started to learn the language through a diverse teaching environment which uses different techniques in approaching a foreign language. CALL courseware should be designed in an appropriate way to meet the needs of today's people of any age or social background. Some of these learners have a strong knowledge in using computers, exploring the software and improving their foreign language skills through a specific CALL material. This material has provided the students with the opportunity to practice through different types of exercises and cultural activities. The exercises are based on comprehension, exploitation, manipulation and creation activities. They offer a variety of teaching-learning processes with a rewarding system, and the students can learn to produce spoken or written speech in a positive and rewarding environment. CALL courseware is the main source of learning in a free-time environment where the students can be provided with self-paced instructions.

The (L2) Modern Greek learner's profile presents a person with the willingness or ability to learn through technology. This person is also trained to interact and complete the feedback at the end of a task, and he/she has learned to absorb the knowledge through an enjoyable way of approaching a foreign language.

This learner does not always produce effective and appropriate oral or written speech. One of the reasons is that the types of exercises provided by the CALL material do not always cover all the grammar, syntax and vocabulary information and activities.

5. Effectiveness of CALL courseware in learning modern Greek in higher education

Since the 1990s, progress has occurred in the (L2) Greek language learning environment through technology. Principally, what has changed is the general point of view in approaching knowledge. According to the new approach, learners are guided to explore and integrate by themselves newly acquired facts with the knowledge they possess. The new approach has sometimes been called "education" while the previous approach has been called "instruction" in the sense that learners were given massive amounts of data (Kahn, 1991:1144).

The new approach is based on the CALL lessons because of the high impact of technologies on the students' life today. There is a number of CALL courseware in learning (L2) Modern Greek language designed and applied by universities in North America and Europe. In the last years some universities have developed projects for designing and implementing new Greek material for CALL providing the university students and the adults. The main goal is the achievement of a high level of learning environment provided to the students in higher education institutes. The effectiveness of CALL material is defined through technology as a medium, the previous experience of
learners in computer-assisted learning environment, the methodology of teaching-learning style, the types of exercises, the main goal, the (L2) learners profile and the level of achievement.

The effectiveness of CALL courseware in the Modern Greek learning environment of higher education, has not discussed extensively through today because it is still a new field for research. This effectiveness is described better through a holistic approach which is reported above. The holistic approach of CALL evaluation and its level of effectiveness are based on facts described as follows:

- Medium used to enrich the (L2) Modern Greek learning environment. This medium is the computer and its assistance to the learners.
- The previous experience of (L2) Modern Greek learners in Computer-assisted learning environment plays a significant role in the effectiveness of the CALL courseware.
- The variety of methodology applied by the language instructors to improve the learning process (Kahn, 1991:1147).
- The variety of language exercises has determined the level of effectiveness of CALL material. The language learning is more productive when material is presented in context and attention is focused on meaning and solution of problems. It’s also more effective when the courseware is amusing or emotionally stimulating.
- The main goals of the language instructors in teaching process play an important role in the effectiveness of CALL software. The first goal is to guide learners in order to learn how to use the computer support -including complex help/information files such as electronic dictionaries, linguistic explanations and exercises, links to relevant web pages and feedback. The second goal is to offer an insight view of the real language based on contemporary and historical variety of contexts. The third goal is to offer an autonomous learning environment combined with the classroom teaching process.
- The (L2) Modern Greek learner’s profile is defined by his/her ability and capacity to determine the objectives of the learning process, to define the contents, select the methods and the resources, monitor the progress and evaluate the outcomes (Dickinson; 1987 & Esch1994).
- The level of achievement is based on the feedback and the evaluation of CALL courseware. The evaluation suggests that the provided exercises are effective when they have achieved two main pedagogical objectives. The first objective is to provide learners with a self-access listening, reading and writing practice. The second objective is to provide students with on line choices that allow learners the flexibility to decide by themselves in working through CALL material (Harben 1999:32).

The computer-assisted language learning environment has advantages compared to a textbook- based learning environment (Kahn 1991:1145). The main advantages are the following:

- CALL material can be integrated with class work.
- Computers provide language instructors with the option of revising the material rapidly and extensively.
- Because of the type of CALL courseware, the learners can work through the exercises by themselves.
- Through CALL material the students can be provided with explanations and help-screens.
- Technologies can accept more than one correct answer for a question.
- The learners' work can be highly interactive and guided.
- CALL courseware provides the students with self-paced instruction.
- Computers can enrich the classroom activities.
• Through computers the learners can use of the Web as a resource of online interactive quizzes, encyclopedias, grammar materials as well as search engines for finding information on specific grammar rules or exercises.
• Finally, CALL material offer learners the engagement in high level of cognitive processes such as analysis, synthesis and evaluation and the main result is the expansion of learning process (Cummins 2000).

According to the above facts that play a significant role in the evaluation and effectiveness of CALL material, there are also major linguistic areas that contribute to the evaluation and the improvement of the computer-assisted Modern Greek learning environment. These areas are the linguistic infrastructure, the syllabus structure, the grammar and the vocabulary provided by CALL material (Tzevelekou; Chondroyanni & Paschalis 2001:8). This material is effective when it is well designed and includes feedback that guides learners to the correct answers. It is also effective when it is based on methodologies appropriate to improve specific language skills such as listening, speaking, reading and writing.

Particularly, the linguistic infrastructure consists of a syllabus that establishes a sequential learning of linguistic phenomena. Every linguistic item is defined by means of the support language or a statement of its meaning or essential properties. The syllabus structure also plays a role in the effectiveness of CALL material and especially the structure of the native language that interferes with learning Modern Greek as a foreign language. The main reasons are as follows: the idiosyncratic features of Greek grammar, the linguistic deviations (phonetic, grammatical, syntactic or lexical) and the established syllabus (Tzevelekou; Chondroyanni & Paschalis 2001:9). The results of the exercises provided by the syllabus and the feedback can lead to the evaluation of CALL courseware which consists of the measurement of the technical and linguistic support. This CALL material is also measured through the CALL software evaluation form. The effectiveness cannot be easily quantified because it is based on diverse factors including ranging from the technical infrastructure as well as to the awareness and continuing education-training of the Modern Greek language instructors.

6. Conclusions

In the decade of the 2000s, some project proposals of CALL courseware were designed by Greek universities to assist the (L2) Modern Greek language learning environment especially in Greek middle and high schools. This courseware includes a variety of practical activities such as phonetic, lexical, grammatical, semantic, and word formation exercises. On the other hand, there is a lack of a large number of CALL lessons designed and provided by these institutes to assist university students and adults who want to learn Modern Greek as a foreign language.

In North America in the decade of 2000s, there have been universities that have already designed and implemented CALL material to address their students as well as students of other universities in all over the world and adults. The design of this courseware aims at the improvement of very specific skills of the (L2) learners such as reading, writing and communication skills and the enrichment of their vocabulary. Some of this CALL material consists of electronic dictionaries, electronic pictionary, electronic vocabulary lists of the most frequently used words in Modern Greek and multimedia courseware for learning Modern Greek as a foreign language.

The use of CALL courseware in (L2) Modern Greek university learner's environment is still at the beginning of its implementation, and the effectiveness of this use is difficult to be determined. There are strong indications of a positive association between learning Modern Greek through CALL material and the effectiveness of this courseware. There is also a substantial body of data that indicates that the student perception of CALL is positive and the provided technologies are stable and well supported (Felix 2008:156).
The effectiveness of the CALL material in learning Modern Greek as a foreign language at the universities should be based on adequate educational software, and the mother tongue of the learners should be used by means of a dictionary. The training of the instructors on the use of CALL courseware is an essential pedagogical tool (Paleologou 2003:9). When a CALL courseware is being implemented, it is followed by an evaluation. This evaluation indicates the technical and linguistic assessment and it is not an indication of the effectiveness of the CALL material. There are still concerns about the technical difficulties that interfere with the learning process (Felix 2008:156).

One more concern is the computer literacy and computer use by older learners who are not comfortable with these technologies. In addition, young learners do not possess the appropriate skills for coping effectively with this challenging environment.

Finally, the effectiveness can be estimated through two preliminary conditions that need to be established: a) a stable technical support for computer hardware and software and b) the education and training of the instructors in computer use and the CALL courseware implementation (Tzevelekit; Chondroyanni & Paschalis 2001:17). Integration and implementation of any CALL material as an educational innovation depend mostly on the instructors (Fullan & Stiegelbauer 1991 and Tzevelekit; Chondroyanni & Paschalis 2001:17).

Many more studies and research need to take place in universities and other higher education institutes where young learners and adults are learning Modern Greek as a foreign language through CALL courseware, and a large number of subjects will be needed for future research.

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