

# Comparison of Computer Assisted Language Learning Software before Investment

Dinçer Biçer [1], Ramazan Şükrü Parmaksız[2]

[1] Bülent Ecevit University  
Email:  
dincer.bicer@gmail.com

[2] Bülent Ecevit University  
Email:  
rsparmaksiz@gmail.com

## ABSTRACT

Decreasing cost and increasing multimedia functions have made computers popular tool in education in the last decade. CALL refers to the Computer-Assisted Language Learning. Using CALL, students can individualize their studies and study at the pace they desire (Raschio, 1990). Also, advanced tracing and recording capability of CALL permit instructors to monitor their students' progress (Bland et al. 1990). However, availability of such features shows differences among CALLs. Not many comparative studies have been conducted to compare the CALL Software. The purpose of this study is to compare the features of two Computer-Assisted Language Learning software using qualitative research methodology. Students and instructors having experience in using CALL software at the Foreign Languages Compulsory Preparatory Program of a university participated in the study. Categories are used for the comparison based on the content analysis of data. Recommendations are made to the administrators of education institutions considering making such investment..

Keywords: *instructional technology, computer-assisted instruction, second language.*

## INTRODUCTION

CALL refers to the Computer-Assisted Language Learning. It is a general term which covers computer applications used in second language acquisition (Chapelle, 1998). CALL provides numerous benefits for language acquisition process. Using CALL, students can individualize their studies and study at the pace they desire (Raschio, 1990). Also, advanced tracing and recording capability of CALL permits instructors to monitor their students' progress (Bland et al. 1990). However availability of such features shows differences among CALLs.

There have been a lot of improvements in CALL environments ever since they were first introduced. Besides, they are being used more widely than ever before as factors that inhibit their widespread use disappear. Dunkel (1987) points out that the start-up cost of the hardware, the skepticism concerning the effectiveness of computer assisted instruction and educational systems could prevent CALL software from being widely used. However, decreasing costs of software and hardware, new attitudes towards computer-assisted instruction and educational systems have recently boosted the use of such software. Yi-dong (2007) supports the same opinion and points out that CALL has become an effective tool to aid teaching and learning by constant advancements in hardware and software and an increase among both teachers and learners.

Besides, with the improvement of technology, the number of CALL environments available is increasing rapidly. Especially during recent years, there have been considerable improvements in the design and structure of CALL software. Coughlin (1990) states that the use of hypermedia systems which allow access to audio and video media controlled by a computer program has allowed CALL to become highly interactive.

The increase in the number of software available can bring about problems, too. Recently, it has become more difficult to decide on which CALL environment to use for specific groups of learners than it was a decade ago.

Identifying the effects of CALL activities on specific learners requires precise description of the interaction (or discourse) that occurs between learner and computer (Chapelle, 1990). Not many comparative studies have focused on this interaction to compare the CALL software. Besides, little about learner engagement in Web Based Language Learning has been known and documented yet (Son, 2007).

The purpose of this study is to compare the features of two Computer-Assisted Language Learning software using the qualitative research methodology. (Screenshots are provided in Appendix I) The secondary purpose of this study is to help universities and other education institutions decide which computer-assisted learning environment they should prefer. The study seeks answers to the following research questions:

1. What are the properties of the CALL environments Quartet Online (QO) and Longman English Interactive (LEI)?
2. What are the advantages and disadvantages of Quartet Online (QO) and Longman English Interactive (LEI) from the perspective of students and teachers?

## METHOD

### a) Participants

The participants were from the language school of a state university in the Black Sea region of Turkey. All the participants were chosen from those who had experience of using both software (QO and LEI) to obtain extensive information about the structure and efficiency of both CALL systems. The study has four participants, two of them are students and the others are instructors. The student participants were chosen among the ones who studied at the preparatory school for two years consecutively. They studied and had had experience with two different online learning environments. Their previous experience about learning English is presented in Table 1.

Table 1: The summary of the previous experience of the participants

Instructors' Experience	Students' Experience
Teaching experience between 6-10 years	There is foreknowledge
The instructors have had training	Prep school education for 2 years The students have no training on the software

### b) Data Collection Process

The data collection process involved interviews with the participants, observation and document analysis on the software. The interviews with the students were carried out in the school library. They were asked to make comments on the interview questions. Similarly, the instructors were interviewed in their offices. All the interviews were recorded in sound files and then these sound files were transcribed for data analysis.

### c) Data Analysis

After the interviews were transcribed, a descriptive qualitative analysis of the semi-structured interviews was carried out to identify the research questions. The most frequently repeated issues were chosen and these formed the categories. During the coding process, 11 categories were formed. The codes obtained from participants and their categories were written down in charts and presented in tables. Using the data obtained from the interviews, two CALL software were compared.

## RESULTS

### a) Structural Properties

#### i) Access and Fee

#### QO

Although QO can be distributed on World Wide Web, QO used in the school where the study was carried out was running on a local server only. Thus, the access was restricted within the local network. For this reason, the access was limited within only class hours. However, it should be kept in mind that the software can be used online. To gain access, school has to pay for a license annually, which varied according the number of students to use it.

**LEI**

On the other hand, LEI has internet based online access. The software is composed of four levels and the institution buys the required number of levels students are going to work on. A separate fee has to be paid for each level. The levels are loaded into students' accounts by entering the access key by their instructors. The institution pays the amount of money required for the access codes.

**ii) Course Content and Exercises****QO**

QO works with web browsers such as Internet Explorer and has a standard page style which doesn't change through all levels and units exercises. There are 9 units, from Q1 to Q9, which accompany the coursebook used. Instructors can lock or unlock the units as they proceed in their courses. Every unit is composed of grammar, vocabulary, reading, listening and video exercises. At the end of each unit, an achievement test is provided for the revision of the subjects covered. The data obtained from the interviews about the content of QO is presented in Table 2.

Table 2: Content summary of QO

Grammar Exercises	Listening Exercises	Vocabulary Exercises	Reading Exercises
The subjects aren't parallel to the coursebook	The content is not rich	The levels are separated	Subjects do not draw attention
Focuses on memorising	Doesn't draw attention	There is a Turkish dictionary	Subjects are boring
There are exercises with mistakes	Not very satisfactory	The dictionary is not complete	Texts are long
Hard to understand	Not various	The words are difficult	Do not arouse interest to read
	Hard to understand	Not parallel to the coursebook	Same with Longman in quality
	Not very different from Longman	There are a lot of unknown words	The texts aren't up-to-date

**LEI**

LEI offers the students various exercises in web browser environment. The learning environment is composed of 4 levels. Levels are loaded into students accounts by entering their access codes by their instructors. Each level is composed of modules A, B and C. These modules can be shown or hidden by instructors as they proceed in their courses. These modules consist of exercises whose content is directly parallel to the coursebook. In each module, students can find grammar, vocabulary, reading, listening, speaking and writing exercises. Every level has three achievement tests and one level test which provide revision for the subjects covered. The writing exercises are sent to the instructors' accounts. Then, the instructor can check and grade students' writing. The data obtained from the interviews about the content of LEI is presented in Table 3.

Table 3: Content summary of LEI

Grammar Exercises	Listening Exercises	Vocabulary Exercises	Reading Exercises	Speaking Exercises	Writing Exercises
Satisfactory	There are many listening exercises	No Turkish dictionary	There are up-to-date subjects	Can't be tested in the lab	Activities are not efficient
Subjects are parallel to the coursebook	Exercises appeal to their aims well	Definitions are sometimes not understandable	Draws attention	There are technical problems	Example exercises are copied
There is enough revision	Parallel to the subjects	Teaches quite a lot of words	Advantageous	Could be beneficial	There is no chance to make use of creativity
Proceeds from simple to difficult	Draws attention	Teaches useful words	Subjects are enjoyable	The exercises must be improved	Written tasks can be assigned
Exercises are active	Very efficient	Uses vocabulary suitable for the subject	There is not much difference	There must be speaking exercises	
There are many types of questions	Beneficial	Proceeds from simple to complicated	Resembles to those in Quartet	The infrastructure must be improved	
	More enjoyable	Parallel to the course content	Of higher quality	No harm if it doesn't exist	
	Easy to understand	Beneficial		May not be efficient in the school lab	
	Subjects are linked to one another	Frequently-used vocabulary is taught			

### iii) Communicative Features

QO has an efficient messaging feature. This system resembles to an e-mailing system. Instructors can send messages to students, or the entire class. With this feature, active communication can take place between students and instructors or among students. Homework and any kind of text can be posted with the messaging feature.

LEI has no messaging system, however, it is possible to communicate within the class and with the instructor. This can be possible by posting notes on the main page of each level. But the instructors can't send individual messages. On the other hand, instructors can post files on the main page of each level. These files can be downloaded and accessed by students. Besides, in writing exercises, teachers can correct students' mistakes and give feedback.

### b) Advantages and Disadvantages of Quartet Online and Longman English Interactive

The data obtained from the interviews with the participants related with the advantages and disadvantages of QO and LEI were summarized in four categories and summarized in Tables 4 and 5.

Table 4: Opinions of the participants about QO

General Properties	Effect on Learning	Visual Content	Easiness of Use
The content of the program can be sabotaged by students	Exercises are insufficient	The content is not rich	The examples are very long
There are security flaws	Makes learning harder	There are a lot of videos	Very complicated
Exercises are very mechanical	Mechanical exercises	Boring	Not understandable
Exercises repeat themselves	Not very supportive	More difficult to understand	No access outside the lab
Very difficult	Not very effective	Not up-to-date	Not parallel to the coursebook
Less repetition of subjects			There is a messaging system
			More difficult
			Answers can be found out easily
			Can be learned in one week
			Simpler

Table 5: Opinions of the participants about LEI

General Properties	Effect on Learning	Visual Content	Easiness of Use
The program is secure	Satisfactory	More advantageous	Easy to use
The content is of high quality	Intensifier	Draws attention	Possible to access via internet
More advantageous	More instructive	More enjoyable	Easy to understand
The content is richer	Makes learning enjoyable	Aims to make the students enjoy the lesson	No messaging system
More attractive	More effective	More fluent	Can be learned in one or two lessons
There are many kinds of exercises	One-to-one revision	Richer and more realistic	Parallel to the coursebook
A very effective software	Easy to understand	There are enough exercises	Consists of different levels
Easy to understand	Very efficient		Can be learned within a week
More efficient	Able to teach well		Enjoyable
More enjoyable			Appeals to the level of students
More beneficial			It's easy to supervise the students
			Students can see their scores
			It's possible to write exercises
			It's easy to see student performance
			The order of course content can be changed

**i) Advantages for Students****QO**

Though students didn't mention many advantages of QO, the fact that the page style is original and simple can be considered as an advantage. Once students learn how to use it, they can proceed easily. The software is not directly parallel to the course book. Though this was mentioned as a disadvantage by students, it can give them the opportunity to build up on what they learn within lessons where they use the course book.

QO provides a dictionary with Turkish definitions, which is useful for especially beginner students. One instructor's comment about this software is as follows: *"They could understand the words more easily as they could see the Turkish equivalents."*

**LEI**

The software has a web browser based interface which is very easy to use. The appearance and organization of pages attract the attention of students, thus it is enjoyable for them to study. The content is of high quality and directly parallel to the course book. It offers a rich content of exercises which proceed from simple to more challenging ones.

As the software is accessed via the internet, learning is not restricted within class hours. Students can access the courses from everywhere and continue studying. The instructors mentioned that *"thanks to internet access, students spent more time on the software, that they learned how to use it within very short time, in two or three days, since they had access at home"*. This can be considered as an important advantage for not only access from anywhere and anytime but also for the time spent on learning the program. As can be understood from the instructors' statement *"The students have purchased the license of the software and they can access it anywhere if they have internet access"*, the students will be able to learn English for two years whenever and wherever they want.

In terms of exercises, LEI has been found to be superior. It provides students with sufficient revision. As we can understand from the students' sentences *"It was definitely more efficient for me. I learned a lot of things about English"* On the other hand, it is quite easy to understand the exercises. This is understood from the sentence *"They focus on directly our understanding and are much better."*

**ii) Advantages for Teachers****QO**

QO has a messaging system and this enables instructors to send instant messages to students and classes. It also has a dictionary with Turkish definitions. For this reason, instructors don't need to provide a lot of help about vocabulary. The software enables the instructors to monitor students' performance on exercises and see their scores.

On the other hand, it is possible to setup the software on a local server, and this makes the system more secure and makes it easier for instructors to watch what they are doing on computers in the lab. This feature also makes the software more economical because the institution pays a yearly fee to use the software, no additional access codes or fees are required.

**LEI**

Thanks to internet access, it is very easy to supervise the students, to see how much of the exercises they covered, how much time they spent on them and monitor their scores. Instructors can change the order of the modules if they want. This can enable them to customize their lessons according to what they teach in class. They can also hide or show modules when they want.

It was found out that LEI helps learning and makes teaching easier as it provides a lot of supplementary materials for lessons. The grammar exercises in LEI are designed in a high-quality and easy-to-understand way. On the other hand, when the exercises are observed closely, all participants pointed out that the course content were parallel to those in the course book, they are satisfactory and there is a sufficient amount of revision.

**iii) Disadvantages for Students****QO**

It was emphasized by the students that QO could be boring since the appearance and page style were always the same. In addition, the content is quite repetitive and mechanical, which makes it difficult for students to keep attention on the exercises. The content is sometimes above the level of the students because it is not directly parallel to the course book. The texts in the software expose the students with totally new material with which they are not familiar. In the study, the software was being run on a local server, so studies were restricted within class hours.

It was emphasized that there weren't enough exercises in QO and they are mechanical and insufficient. Thus, it was claimed that the software doesn't have the expected effect on learning. The students summarise the situation as follows: *"...I don't think it has a very big effect on our learning."* *"It is not very effective."*

Also, it was found out that it is difficult for the students to understand the exercises since they are not clear enough. One of the participants stated that *"Yes, we didn't understand anything."* The instructors share the same opinion *"...no questions that aim at deep understanding had been designed."*

The participant students emphasized that *"the pictures and videos are boring"* Pictures, videos and page styles resemble to one another so QO does not seem to be drawing the students' attention, which makes students bored. Besides, it was observed that visual content was not up-to-date. One instructor stated that *"Visual content (pictures and videos) in QO is quite old-fashioned."*

#### LEI

Since there is no messaging system, students can't get in touch with their teachers or each other. The dictionary in the software provides only English definitions, so they can be difficult to understand. Besides, some instructions in exercises are complicated.

The writing exercises on LEI were found to be simple and not very useful because students could copy the example paragraphs. The exercises do not boost creativity because the subjects were a bit dull and limited.

#### iv) Disadvantages for Teachers

#### QO

Since the students think the content is mechanical and repetitious, they find it boring. For this reason, it can be difficult for teachers to keep the students' attention on the course. Teachers may need to provide students with a lot of help in the computer lab, because the exercises can be difficult for low-level learners. The content is not parallel to the course book, so students don't have the chance to practice the subjects they learn immediately in the lab after lessons. This means that more exercises may need to be done in class. Since the software was being run on a local server, the teachers didn't have the chance to follow the students' progress outside the school lab.

In terms of exercises, QO is not parallel to the coursebook. They are usually mechanical, so can be answered without much challenge. The sentence *"In Quartet, there was more memorisation"* summarizes the situation. The exercises could be done by memorising and the answers could easily be seen. For this reason, some students answered the questions after looking up the answers from other sources.

#### LEI

In order to use the program efficiently, a fast internet connection must be provided in laboratories, which requires sufficient infrastructure, meaning extra expenditure for institutions.

LEI has no messaging system, so it is impossible to get in touch with the students or the entire class. There is a note section on the main page in every level, but it is not being used effectively. The instructions in some exercises are difficult to understand, so teachers may need to provide help frequently.

Besides, there is no criteria for grading writing exercises, which can lead to differences in marking of the instructors.

### CONCLUSION

As understood from the results of the qualitative data analysis and the comparative reviews of the two online learning environments, LEI has been found to be notably superior to QO in terms of quality of content, exercises and design. Both students and teachers supported that LEI is much more efficient and enjoyable.

The participants claim that LEI is superior to QO in terms of content. The student's sentence *"Those in Longman are better, how should I say?, clearer and more fluent."* summarizes the situation. Thus, it draws attention and is enjoyable to use. The students mention about the situation: *"I can definitely say it is more enjoyable."* It was also emphasized that it focuses on enabling the students to appreciate the lesson and do more exercises. Because the content is rich and the appearance is appealing in LEI, the students could find different things to do, so they didn't get bored. On the other hand, as can be understood from the statement *"Actually LEI is more up-to-date"*, the usage of materials that appeal to daily life draws the attention of students.

It was emphasized that LEI provides a wide range of reading, listening and vocabulary exercises all of which are effective and enjoyable. On the other hand, the exercises on QO were found to be mechanical and repetitive.



The participants also emphasized that the content of LEI is quite rich and up-to-date. Besides, it is supported very well with visual content. This clearly makes students more enthusiastic to study. Also, it was agreed by all participants that the exercises and content on this learning environment is directly parallel to the content of the coursebook. This means that computer lab studies conducted after grammar lessons can consolidate what the students have just learned. On the other hand, QO was found to be irrelevant to the content of its coursebook, and it was agreed that the visual content in this software was quite poor, which means that students may get bored because of lack of visual material and they have to adapt themselves to the content before beginning to learn, because it is different from their coursebook.

It was agreed by all participants that it is much easier to use LEI than to use QO. It takes very little time to learn it and use it effectively. So, it could be a good decision for students groups with little experience with computers.

Another important point is that LEI can be accessed via the Internet while QO is restricted within a local network. Thus, the duration during which students can study on LEI seems to be unlimited. Lessons don't have to be limited within class hours.

It is also clear that LEI is easier to use and access than QO. It has a much wider range of exercises than QO and it is directly parallel to the coursebook. The online lessons and exercises in LEI are visually well-supported, and up-to-date. Taking all these into consideration, administrators of education institutions trying to decide between these two environments can be advised to use LEI.

However, this doesn't mean that it is the best online learning environment. It should be kept in mind that the study is about only two language learning environments, so a more detailed analysis of the software should be made and other possible alternatives should be compared to it. In addition, the needs and language skills, as well as the purpose of English instruction should be considered before taking the final decision of investment.

## DISCUSSION

As can be concluded from the opinions of both students and teachers, arousing interest and motivating students is one of the required qualities of computer assisted language learning software. Also, repetitions and old fashioned content in both the components and page formats must be avoided. As stated by Vinther (2005), software and hardware producers focus on human-computer interaction (HCI) in order to create better and more user-friendly products. By means of analysis of the learners, better software appealing to all varieties of learners should be produced.

Both students and teachers in the study support that online access to the software is necessary to facilitate more effective learning and learner monitoring. Online access has always been a vast field in CALL. This is because means of incorporating internet technologies into language teaching and learning will be quite challenging since the Internet is so vast and complex (Ying Ping, 2008). It has the greatest advantage of providing access unlimited by place and time. On the other hand, it can bring about security issues, such as students copying their work from certain sources or each other at home.

Another important aspect mentioned by the participants was that the material needed to be clear enough for the levels of the students to be understood. The content and instructions must be easy to understand since students may not be able to get help from instructors as they study at home on online software. If possible, correction and feedback strategies should be put in practice in CALL software (Wei, 2008).

In the light of all findings obtained from this study, it can clearly be understood that the decision making process for computer assisted language learning software is not one-sided. That is, it would be inappropriate for instructors to make decisions without knowing the needs of their students. It is necessary to understand our students and know their learning strategies before we can reach them better (Raschio, 1990). In order to know our students well, careful observation is necessary, thus, progress can be made toward successful matching of students and lessons (Dunkel, 1987). Also, it is necessary to know CALL software well in order to choose the appropriate software for a certain student group. This study aims to help decision makers about CALL software about their comparison and decision making process.

## References:



Bland, S., Noblitt, J., Armington, S., Gay, G. (1990). The Naïve Lexical Hypothesis: Evidence from Computer-Assisted Language Learning, *The Modern Language Journal*, 74 (4), 440-450.

Chapelle, Carol (1990); The Discourse of Computer-Assisted Language Learning: Toward a Context for Descriptive Research, *TESOL Quarterly*, 24 (2), 199-225.

Chapelle, Carol A. (1998). Analysis of Interaction Sequences in Computer-Assisted Language Learning, *Teachers of English to Speakers of Other Languages, Inc. (TESOL)*, 32 (4), 753-757.

Coughlin, Rosette M. (1990). Artificial Intelligence and Computer Assisted Language Learning: Present Developments and Future Prospects, *American Association of Teachers of French*, 63 (3), 560-565.

Dunkel, Patricia A. (1987). Computer Assisted Instruction (CAI) and Computer Assisted Language Learning (CALL): Past Dilemmas and Future Prospects for Audible CALL, *The Modern Language Journal*, 71 (3), 250-260.

Raschio, Richard A. (1990). The Role of Cognitive Style in Improving Computer Assisted Language Learning, *American Association of Teachers of Spanish and Portuguese*, 73 (2), 535-541.

Son, Jeong-Bae (2007). Learner Experiences in Web-based Language Learning, *Computer Assisted Language Learning*, 20 (1), 21-36.

Vinther, Jane (2005). Cognitive Processes at Work in CALL, *Computer Assisted Language Learning*, 18 (4), 251-271.

Wei, Li Qiu (2008). To Correct or to Ignore, *US-China Foreign Language*, 6 (5), 25-30.

Yi-dong, Jia (2007). Multiple Roles of the Teacher in CALL, *US-China Foreign Language* 5 (8), 60-63.

Ying Ping, Chen (2008). Foreign language learning based on Knowledge Building Pedagogy and web-resources, *US-China Foreign Language*, 6 (3), 22-32.