Students' Attitudes and Perceptions towards Computer-Assisted Language Learning

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Abstract

Research in the field of CALL has provided evidence for the benefits of using computer-based learning activities in the language classroom (Selfe & Hilligoss, 1994; Pennington, 1996; Beauvois, 1997). Furthermore other researchers assert that computers create a better learning environment (Frisch, 1995), can help students improve their skills (Joiner, 1997 and Martinez-Lage, 1997) and learn foreign languages easier (Bush, 1997) and can make students like their lessons more and take less time to learn something (Bush, 2000). Therefore studying students' attitudes and perceptions towards computers in the classroom can help us see if there are positive perspectives on implementing and using this promising medium in the classroom. A total of 90 high school students (*N=90*), 48 boys and 42 girls, 13-15 years old (*M=14.00, SD=0.821*) participated in the study. All students were asked to complete a questionnaire. By analyzing the data it is evident that students enjoy using such a medium as a part of their lesson and as they state computers offer them more motivation to learn English. All in all, the study generally reveals positive views on behalf of the students and lets us conclude that there are positive prospects for using computers in the classroom in the future.

Keywords: computer-assisted language learning, students' attitudes, technology

INTRODUCTION

Computers have been used for language learning purposes since the 1960s. This more than 50-year history can be mainly categorized into three main phases, namely behavioristic CALL, communicative CALL and integrative CALL. As Warschauer and Healey (1998, p. 57) suggest 'each stage corresponds to a certain level of technology, as well as a certain pedagogical approach'. The first phase of CALL, conceived in the 1950s and implemented in the 1960s and 1970s was primarily based on the dominant behaviorist theories of learning of that period. Programs in this phase entailed repetitive language drills and can be referred to as drill-and-practice. Drill and practice courseware is based on the model of computer as a mechanical tutor, which serves as a 'vehicle for delivering instructional materials to the students' (Warschauer, 1996, p. 3). The rationale behind drill and practice is as follows: repeated exposure to the same

material is beneficial and somehow essential to learning, the computer as a machine which doesn't get bored with presenting the same material and can offer immediate and non-judgmental feedback is ideal for use in repeated drills and finally the computer can offer material on an individualized basis, giving the students the chance to work at their own pace (Warschauer, 1996). Based on these notions, a number of tutoring systems were developed at that time among which was the PLATO system, which ran on its own special hardware consisting of a central computer and terminals. The PLATO system included vocabulary drills, grammatical explanations and translation tests (Ahmad et al, 1985). In the late 1970s and the early 1980s the particular phase of CALL was undermined by two factors. Firstly, behaviorist approaches to language learning were being rejected at both theoretical and pedagogical levels and secondly, the microcomputer which was just introduced offered a wide range of new possibilities. As a result, the stage was set for CALL to enter a new phase.

The second phase of CALL, namely communicative CALL was based on the communicative approach to learning and teaching which emerged in the 1970s and 1980s. Proponents of communicative CALL supported that computer-based activities should focus more on using forms than on the forms themselves, teach grammar implicitly rather than explicitly, allow and encourage students to generate original utterances rather than manipulate prefabricated language and avoid telling students that they wrong. Moreover it should be flexible to a variety of students responses, use the target language predominantly or even exclusively and never try to do anything that the book can do as well (Jones & Fortescue, 1987; Phillips, 1987; Underwood, 1984). Furthermore, Stevens (1989) suggested that all CALL courseware and activities should build on motivation and should foster learner-learner and learner-computer interactivity. The specific period of CALL relies on cognitive theories which concluded that learning is a process of discovery, expression and development (Warschauer & Healey, 1998). Software developed during this stage included text reconstruction programs, which were giving students the opportunity to work alone or in groups and rearrange words and texts, and discover patterns of language and meaning as well as simulation programs, which were stimulating discussion and discovery among the students. For its proponents, communicative CALL was focusing on what students were doing with each other while working at the computer rather that on what the students were doing with the computer. Despite the fact the communicative CALL seemed like a significant advance over its predecessor, it still started to come under criticism by a number of educators (Kenning & Kenning,1990; Pusack & Otto, 1990; Ruschoff, 1993) as it was failing, according to them, to live up to its potential (Warschauer, 1996).Critics pointed out that the computer was still being used in 'an ad hoc and disconnected fashion' (Warschauer & Healey, 1998, p. 58) and thus 'finds itself making a greater contribution to marginal rather than central elements of the language learning process'(Kenning and Kenning, 1990, p. 90). Many teachers at this stage started moving away from this cognitive view of communicative teaching to a new approach which stressed a more social and socio-cognitive view of language teaching, placing great emphasis on using language in authentic social contexts. This new perspective was termed integrative CALL and was primarily interested in integrating various skills, such

as listening, speaking, reading and writing but also in integrating technology into the language learning process more.

Integrative approaches to CALL are primarily based on two technological developments of the last decade, multimedia computers and the Internet (Warschauer, 1996). Both technological developments are going to be discussed further in the next sections. In integrative approaches, the student learns to make use of different technological tools 'as an ongoing process of language learning and use' (Warschauer & Healey, 1998, p. 58), rather than to visit a computer lab once a week for isolated exercises. As Warschauer and Healey (1998) conclude if the technology of behavioristic CALL is the mainframe, and the technology of communicative CALL is the PC, then the multimedia networked computer can be said to be the technology of integrative CALL. The multimedia networked computer not only offers possibilities for integrated use of technology, but also the imperative for such a use, as learning to write, read and communicate through the computer has nowadays become a distinct feature of life in the modern world (Warschauer & Healey, 1998). It should also be mentioned, that the role of the teacher inevitably changes with the times, as to meet the needs and follow the changes of the specific era. Various theorists (Van Dijk & Kintsch, 1983; Dole et al., 1991) underline that cognitive theories assume that students interpret and organize the information provided by their teachers, combining it with prior knowledge. Consequently, the teacher has the role of the facilitator of learning, who is responsible to find, select and provide information to the students, based on their individual needs. The teacher, as a facilitator should be able to use a wide variety of materials, so as to improve the students' language skills. It is essential for them to teach learners how to use materials effectively and to able to meet the needs that the students have. Therefore teacher training is an essential process for teachers, so as to be able to use multimedia and other resources in this new type of language classroom, which is the flexible language classroom.

RESEARCH INTO THE BENEFITS OF CALL

A number of studies (Selfe & Hilligoss, 1994; Pennington, 1996; Beauvois, 1997) provide evidence for the benefits of using computer- based learning activities in the language classroom. More specifically, Selfe & Hilligoss (1994) and Pennington (1996) conducted studies to measure the potential benefits of computer-assisted writing. They argued that students could express themselves more freely and effectively when using a computer program for writing, rather than writing with pen in paper. Beauvois (1997) provides evidence for the benefits of teaching English using technology- enhanced communication, in addition to the traditional instruction. Frisch (1995) asserts that computers create a better learning environment for the ESL classroom. He concludes that when computer- based instruction is incorporated in the ESL classroom a number of changes, such as improved communication between students, who can overcome comprehension and pronunciation difficulties and a more cooperative atmosphere among them is evident. Joiner (1997) and Martinez- Lage (1997) very aptly show how interactive hypermedia technology can improve the reading and listening skills of

students. They provide 'an excellent theoretical basis for teaching receptive skills using technology' (Richmond, 2001, p. 21), which appears to be useful to them. Bush (2000) explains how researchers conducting meta-analyses of computer-aided instruction (CAI) concluded that students like their lessons more and take less time to learn something, when they are learning with CAI. In his previous study (1997) in the United States he had concluded that technology can help students learn a foreign language and students like using technology in English for Specific Purposes (ESP) courses. He asserts that it is 'possible to resolve technical and practical issues related to implementing technology' (299). In his study students don't only appear to like using technology for language learning, but also appear to benefit from such integration in their classroom. Various researchers (Cononelos & Oliva, 1993; Kern, 1995; Beauvois & Elledge; 1996) acknowledge the benefits for students using computer- mediated communication (CMC) in classroom contexts. In their studies, they conclude that students like to work in computer- network environments and that student-to-student interaction is also increased when working in such environments. The above mentioned researchers argue that computer networks provide a rich communicative environment.

RESEARCH IN STUDENTS' ATTITUDES TOWARDS CALL

Pratt et al (2002) presented a study on secondary students' attitudes towards using computers as learning tools. The study took place in a secondary school in Otago, New Zealand. Responses from 235 students were gathered regarding their perceptions about the role computers play in learning, as well as the students' preferred medium of learning. The method used for data collection was that of questionnaires. The students' answers were categorized into three subgroups: perceived levels of enjoyment, importance and anxiety levels when using computers. The researchers asserted that students generally expressed very positive attitudes regarding the enjoyment factor of computers. More specifically, students indicated a high level of enjoyment, as well as high levels of comfort, when working on a computer. Regarding the importance of computers to learning and their future lives, students expressed neutral to very positive attitudes. Students appeared not to be scared at all by using computers and on the contrary appeared to feel comfortable when using them. The specific study reveals generally positive attitudes on behalf of the students questioned, regarding use of computers. They stated overall that they enjoy using them; they feel they are important tools and that they don't feel anxious about them. Other findings of the particular study reveal that students enjoy learning by using computers and that they feel they learn more when using them (Pratt et al, 2002).

A study on the impact of the use of the World Wide Web as a news information source on EFL (English as a Foreign Language) College learners in Taiwan was conducted by Liou (1997). The study used a comparison method as to investigate the use of the web texts in a college writing class. In addition, observations on some students were conducted and questionnaires were given to investigate students' perceptions towards using the web in their EFL classroom. The results of the study revealed that almost all of the students questioned agree that Web use 'increased their knowledge of global issues

and expanded their horizon of knowledge acquisition' (Liou, 1997, p. 47) and argue that they would use the World Wide Web as a source of information in the future. They also firmly asserted that to be aware of global issues prepared themselves better for the world in the future. Students held in this study generally positive attitudes towards the use and potential of the Web. They regarded the application of the Web in their classroom as fruitful and useful for foreign language learning.

Hong et al (2003) conducted another study at a university in Malaysia regarding students' attitudes toward the use of the Internet for learning. The study investigated the 'success of a technology and Internet-enriched teaching and learning environment in molding positive attitudes' (Hong et al 2003, p. 45) among students toward using the Internet for learning. The sample of this study consisted of 88 second-year undergraduate students from the Faculties of Cognitive Sciences and Development, Medicine and Health Sciences, Resource Sciences and Technology, Engineering and Information Technology. Results from the study indicated generally positive attitudes toward using the Internet as a learning tool. More specifically, 77 students expressed positive attitudes toward using computers and the Internet for learning, whereas 7 expressed negative attitudes towards it and 4 were neutral. The findings of the study also revealed that the specific students had the basic skills for using the Internet and perceived the learning environment of the university as supportive to using the Internet as a tool for learning. The students' skills and their perceptions of the learning environment were also related to their use of Internet to supplement their requirements of learning. Students with better skills had better attitudes toward using the Internet to improve their studies. These findings were in agreement with the findings reported in Mitra and Steffensmeier's (2000) and Liu et al (1998) studies.

Mitra and Steffenmeier (2000) had concluded that a networked learning environment where students have access to computers easily can foster positive attitudes towards them in teaching and learning. They suggest that a computer-enriched learning environment is positively correlated with the students' attitudes and perceptions, as well as with the role of computers in the learning process. Liu et al (1998) perceived integrating computers into a learning system as a complex instructional system in which student learning is affected by lecturers, computer hardware and software resources and the computer- laboratory and classroom setting. They asserted that students with positive attitudes towards computers also have positive attitudes when using them for learning. In the summer of 1999, faculty members of the Department of Instructional technology at the University of Georgia were appointed by technology leaders at Athens Academy, as to conduct a long-term evaluation of the use of portable technology in their school. The evaluation lasted four years and the report of the forth year revealed the following in regard with students' attitudes to portable technologies used for teaching and learning. Middle school learners indicated a generally positive attitude towards computers and more specifically laptops for learning. Students of the 7th grade perceived in a percentage of 63% that laptops improve the quality of their work, whereas students of the 8th grade supported the above in a percentage of 64%. Moreover 83% of the 7th grade students and 82% of the 8th grade students stated that

they *agree* or *strongly agree* that laptops make the schoolwork easier. In interviews conducted, students reported accessing Internet resources, writing easier and more convenient and being able to organize their document were the ways that they believed laptops were helping them more with their work. The majority of the Middle class students (81% and 75% respectively) also stated that they prefer using computers rather than pen and paper, mainly because in this way their work is more interesting and fun (Hill et al, 2003). Upper school students indicated in a percentage of 57% (9th grade) and 46% (10th grade) that they believe that laptops improve the quality of their work. They also *agree* or *strongly agree* that laptops make the schoolwork easier, with 71% and 55% reporting this result. They stated that editing and revising documents, locating resources and creating presentations were the most important ways in which computers were helpful. The majority stated again here that they prefer using computers than pen and paper (Hill et al, 2003). As shown above research regarding students' attitudes towards computers in their classrooms has been conducted worldwide. Nevertheless the specific topic has not been under investigation in Greece. This study aims to fill this gap.

RATIONALE FOR THE STUDY

The field of CALL has attracted a lot of attention in the last years worldwide and more and more schools are trying to incorporate computers and technology in general in their programs. Similarly, in Greece there has been growing interest regarding uses of CALL, so as to enrich language learning settings. More specifically the numerous possibilities that the Internet is offering nowadays, as well as the multiple capabilities of multimedia applications have increased the teachers' and the headmasters' interest regarding the potential of using computers to teach languages .By looking at what research in the field of CALL conducted so far has indicated, I became interested in looking at attitudes towards the integration of technology in language classrooms. Students' attitudes and perceptions towards computers in their classroom was the primary interest in my case, basically because their beliefs will certainly affect whether or not integration in the classroom will be successfully accomplished. By examining other studies regarding students' perceptions, I reached the conclusion that in the majority of cases students are generally positive towards such integration. In the specific study, I will attempt to answer the following question: 'What are the attitudes and perceptions of Greek high school students towards computers in general and computers as part of their English language class?'

RESEARCH METHOD

The current study was conducted in a private school in Greece. The school was selected as being one which has already incorporated computers in the English language classroom and also based on feasibility and willingness of the staff to allow the particular study to be carried out. The majority of the students have access to computers at home as well. The school is a Greek-American school and English is taught as a near-native language, from the first year of primary school on a daily basis. The

study took place in three high school classes. All three classes had computers as part of their English language lesson.

A total of 90 high school students (*N=90*), 48 boys and 42 girls, 13-15 years old (*M=14.00, SD=0.821*) participated in the study. All students were asked to complete a questionnaire. The survey method by means of questionnaires was my chosen method of collecting data from the students. The questionnaire was designed so as to obtain information regarding the frequency and purposes of using computers, as well as their views and attitudes towards computers in the English language classroom.

RESULTS

Students (N=90)

Age	
N Valid	90
Missing	0
Mean	14,00
Median	14,00
Std. Deviation	,821
Variance	,674
Skewness	,000
Std. Error of Skewness	,254
Kurtosis	-1,517
Std. Error of Kurtosis	,503
Minimum	13
Maximum	15

gender * age Crosstabulation				
Count				
	age			Total
	13	14	15	
male	20	17	11	48
female	10	13	19	42
Total	30	30	30	90
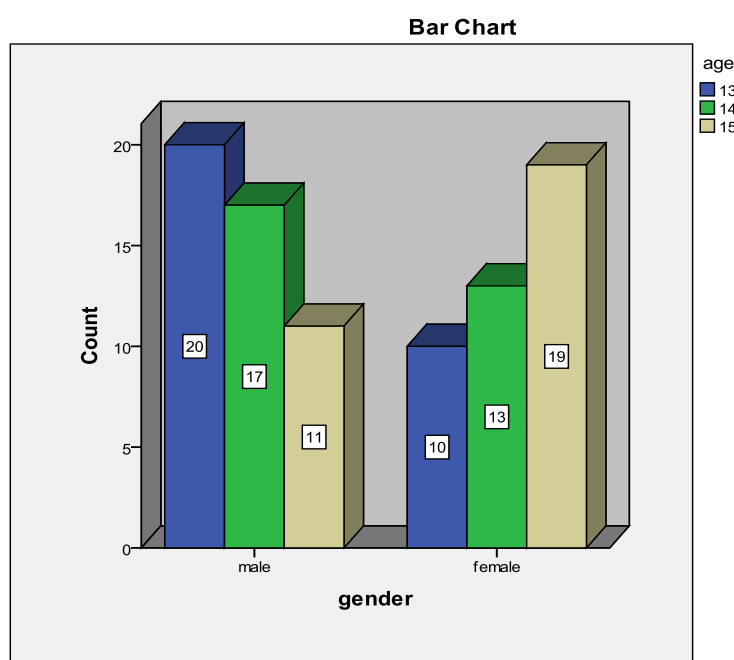
Figure1. gender and age Crosstabulation

Question 1:

1. How often do you usually use computers?

	question1			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More than 3 hours/day	2	2,2	2,2	2,2
	Every day 1-3 hours	47	52,2	52,2	54,4
	2-3 times/week	29	32,2	32,2	86,7
	Less than 2-3 times/week	12	13,3	13,3	100,0
	Total	90	100,0	100,0	

As we observe 2 of the students questioned (2.2%) use computers more than 3 hours a day, while 47 (52.2%) use them every day for 1-3 hours. Also, 29 students (32.2%) use them 2-3 times a week and 12 students (13.3%) less than 2-3 times a week. The graph of the answers follows.
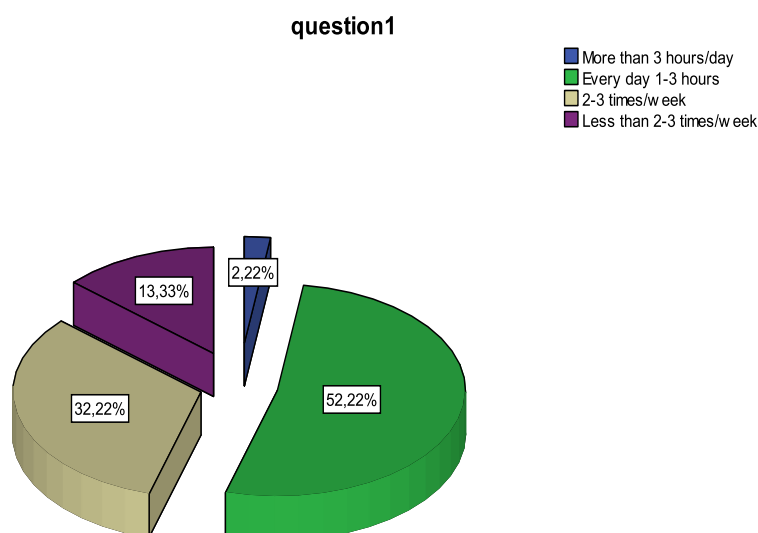

question1

- More than 3 hours/day
- Every day 1-3 hours
- 2-3 times/week
- Less than 2-3 times/week

Figure 2. The amount of time students usually use computers

Question 2:

2. What do you usually use a computer for?

	question2			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Send emails	29	32,2	32,2	32,2
	Talk through chat groups	19	21,1	21,1	53,3
	Search information on the Internet	40	44,4	44,4	97,8
	Play games	2	2,2	2,2	100,0
	Total	90	100,0	100,0	

As we observe 29 students (32.2%) use computers to send e-mails, 19 students (21.1%) use them to talk through chat groups, 40 (44.4%) to search information on the Internet and 2 of them (2.2%) to play games. The graph of the answers follows.
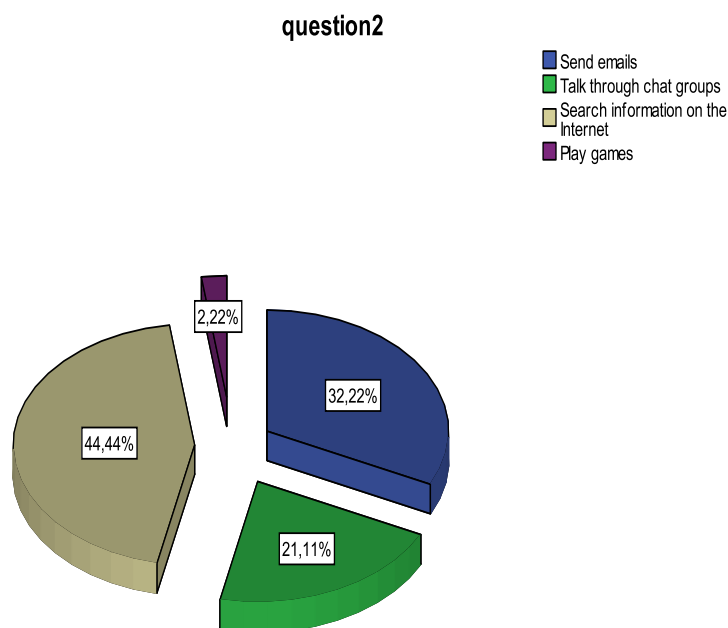
question2

- Send emails
- Talk through chat groups
- Search information on the Internet
- Play games

Figure 3. Reasons students use a computer for.

Question 3:

3. Do you use the Internet in general?

		Frequency	Percent	Valid Percent	Cumulative Percent
				question3	
Valid	Yes	88	97,8	98,9	98,9
	No	1	1,1	1,1	100,0
	Total	89	98,9	100,0	
Missing	System	1	1,1		
	Total	90	100,0		

Regarding the Internet use, 88 students (98.9%) use the Internet, whereas 1 student (1.1%) doesn't use it.

Question 4:

4. Do you feel that there is an advantage in searching for information on the Internet than in books?

		Frequency	Percent	Valid Percent	Cumulative Percent
				question4	
Valid	Yes	79	87,8	87,8	87,8
	No	11	12,2	12,2	100,0
	Total	90	100,0	100,0	

As we can observe, 79 students (87.8%) feel that there is an advantage in searching for information on the Internet than in books, while 11 students (12.2%) don't feel there is an advantage. The graph of the answers follows.
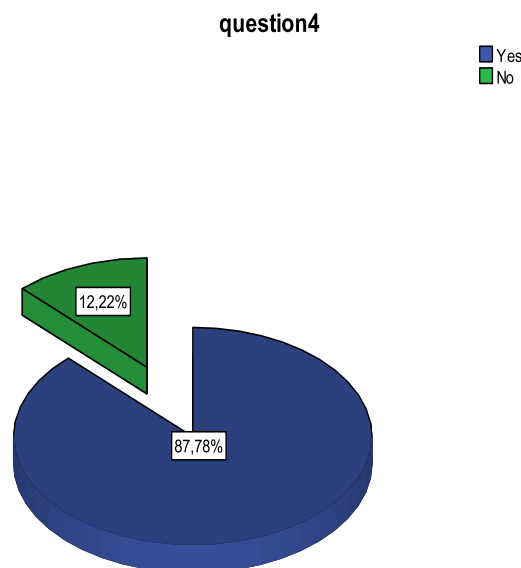

Figure 4. Students opinions on advantage in searching for information on the Internet than in books

Question 5:

5. Do you prefer using online dictionaries and encyclopedias rather than using dictionaries and encyclopedias in the library?

		Frequency	Percent	Valid Percent	Cumulative Percent
			question5		
Valid	Online	58	64,4	65,2	65,2
	In the library	31	34,4	34,8	100,0
	Total	89	98,9	100,0	
Missing	System	1	1,1		
	Total	90	100,0		

Regarding the use of on-line dictionaries and encyclopedias rather than dictionaries and encyclopedias in the library, 58 students (65.2%) prefer searching on-line, while 31 (34.8%) prefer using library books and encyclopedias. The graph of the answers follows.
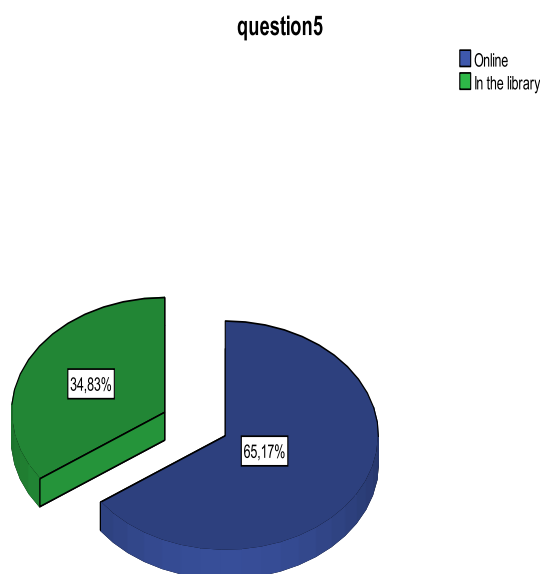
question5

Online
In the library

Figure 5. Preference toward finding sources online or in library

Question 6:

6. How do you feel about computers being part of your English language lesson?

question6		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Like	87	96,7	97,8	97,8
	Don't like	2	2,2	2,2	100,0
	Total	89	98,9	100,0	
Missing	System	1	1,1		
Total		90	100,0		

As we observe, 87 students (97.8%) like computers to be part of their English language lesson, while 2 (2.2%) don't like it.

Question 7:

7. Do you feel that the use of the computer motivates you more to learn English than the traditional lesson?

question7		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	65	72,2	72,2	72,2
	No	25	27,8	27,8	100,0
	Total	90	100,0	100,0	

According to the table, 65 students (72.2%) believe that the use of the computer motivates them more to learn English than the traditional lesson, while 25 (27.8%) don't believe so. The graph of the answers follows.
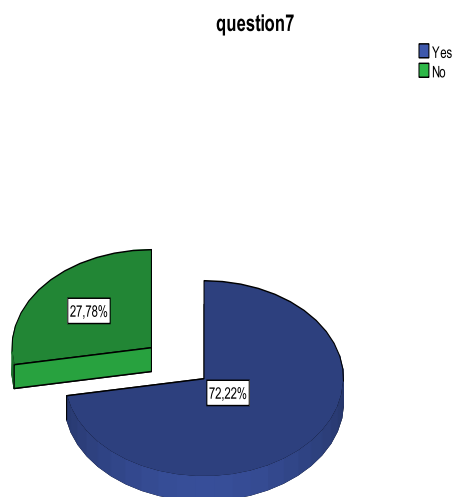
question7

☐ Yes
☐ No

Figure 6. Motivation to use computer to learn English

Question 8:

8. Would you prefer doing the computer activities at school or at home?

		Frequency	Percent	Valid Percent	Cumulative Percent
			question8a		
Valid	At school	65	72,2	72,2	72,2
	At home	25	27,8	27,8	100,0
	Total	90	100,0	100,0	

As we observe, 65 students (72.2%) prefer doing the computer activities at school, while 25 students (27.8%) prefer doing them at home. The graph of the answers follows.
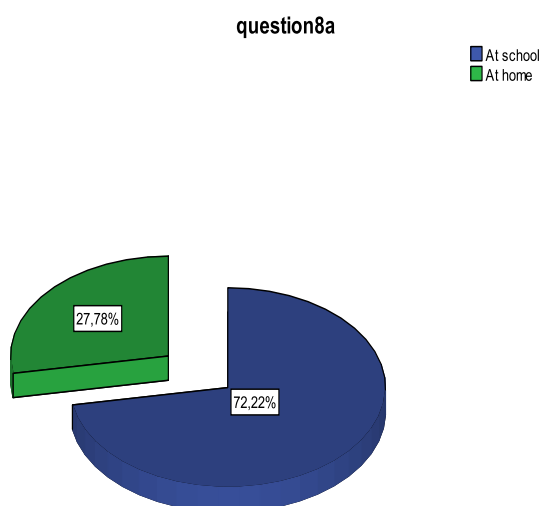
question8a

☐ At school
☐ At home

Figure 7. Preference toward doing the computer activities at school and home

If you prefer doing them at school, what do you feel is the most important advantage?

	question8b			
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Interaction/cooperation	28	43,3	43,3	43,3
Teacher's help	25	38,9	38,9	82,2
Better equipment	12	17,8	17,8	100,0
Total	65	100,0	100,0	

Among the 65 students who prefer doing the activities at school, 28 of them(43.3%) feel that the interaction and cooperation with their classmates is the most important advantage, while 25 (38.9%) the fact that the teacher can help them and 12 students(17.8%) claim that the school equipment is better. The graph follows.
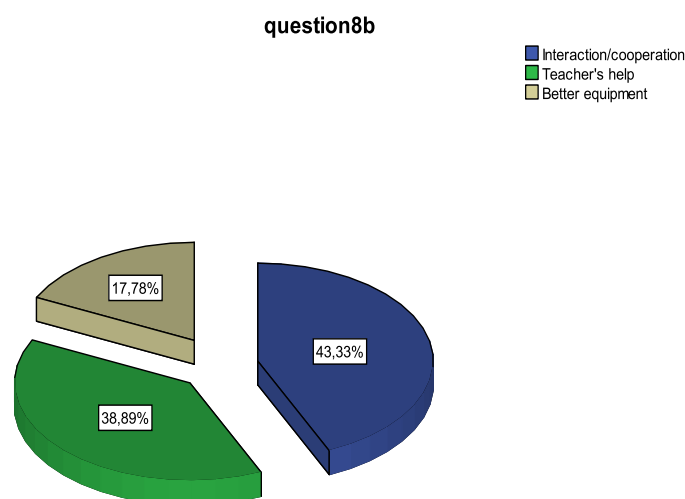

Figure 8. the most important advantage of doing the computer activities at school

Question 9:

9. Would you like to have computers incorporated in other classes as well (e.g. History, biology class)?

		question9			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	85	94,4	94,4	94,4
	No	5	5,6	5,6	100,0
	Total	90	100,0	100,0	

As we can see, 85 students (94.4%) would you like to have computers incorporated in other classes as well, while 5 (5.6%) wouldn't like that.

Question 10:

10. What do you enjoy most and what least when using computers in your English language lesson?

   a. I enjoy most:

question10a				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Interaction with classmates	63	70,0	70,0	70,0
Lesson becomes fun	7	7,8	7,8	77,8
Preparing projects	20	22,2	22,2	100,0
Total	90	100,0	100,0	

Regarding what the students enjoy most, 63 of them (70.0%) enjoy the interaction they have with their classmates, while 7 (7.8%) believe that the lesson becomes more fun this way and 20 (22.2%) enjoy preparing projects in the computer. The graph of the answers follows.
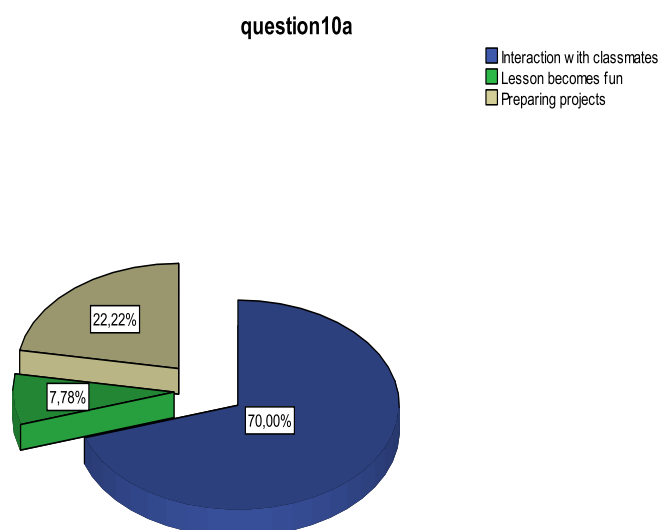

question10a

■ Interaction with classmates
■ Lesson becomes fun
■ Preparing projects

22,22%

7,78%

70,00%

Figure 9. Activities that cause more enjoyment when using computers in your English language lesson

b. I enjoy least:

question10b				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Pressure of time	48	53,3	53,3	53,3
Sessions sometimes cancelled	3	3,3	3,3	56,7
There is nothing I don't like	39	43,3	43,3	100,0
Total	90	100,0	100,0	

They enjoy least that there is pressure of time (53.3%) and that computer sessions are sometimes cancelled (3.3%). Also, 39 students (43.3%) feel there is nothing they don't like.
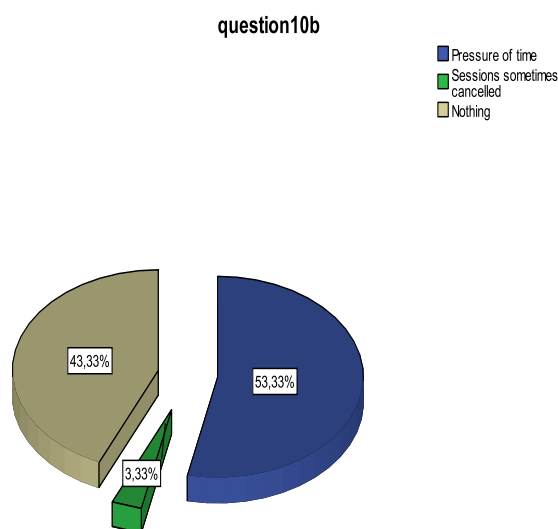
question10b

- ■ Pressure of time
- ■ Sessions sometimes cancelled
- ■ Nothing

Figure 10. Activities that cause less enjoyment when using computers in your English language lesson

Gender differences in the students' answers

Question 1:

gender * question1 Crosstabulation						
Count						
		question1				Total
		More than 3 hours/day	Every day 1-3 hours	2-3 times/week	Less than 2-3 times/week	
gender	male	2	41	5	0	48
	female	0	6	24	12	42
Total		2	47	29	12	90

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	52,345[a]	3	,000
Likelihood Ratio	61,804	3	,000
Linear-by-Linear Association	46,445	1	,000
N of Valid Cases	90		
a. 2 cells (25,0%) have expected count less than 5. The minimum expected count is ,93.			

The differences between the two sexes as far as the hours of computer usage is concerned, were found to be statistically significant (p-value=0.000 < 0.01, CI 99%). The bar chart of the sex differences follows.
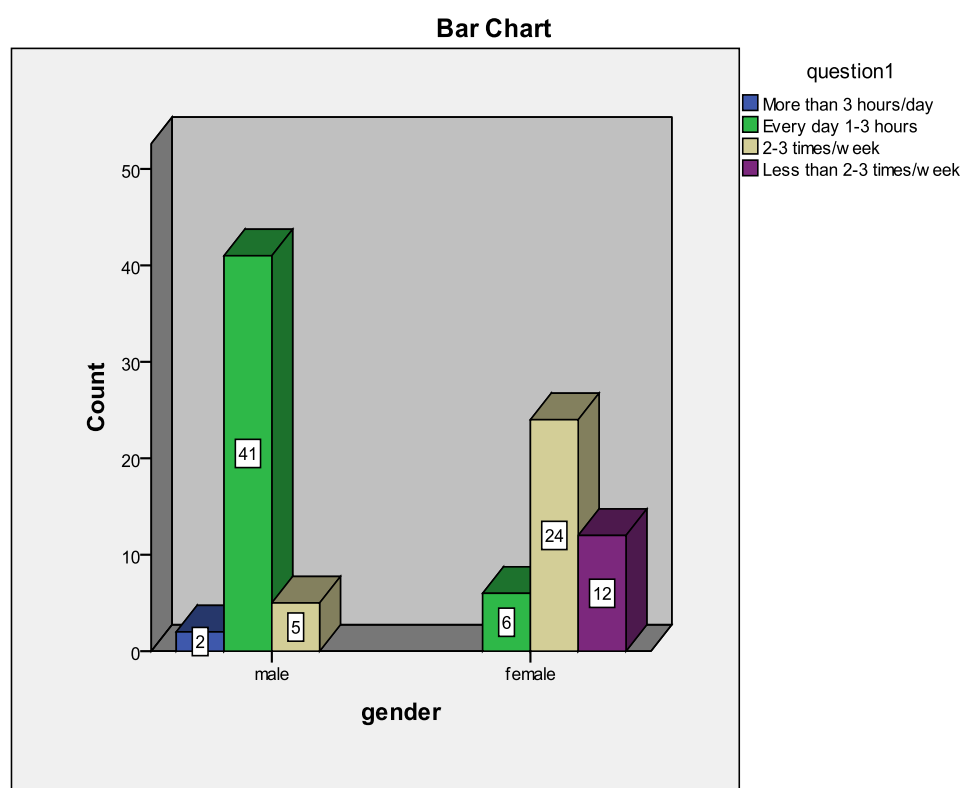

Figure 11. The differences between the two sexes regarding the hours of computer usage

Question 5:

gender * question5 Crosstabulation			
Count			
		question5		Total
		Online	In the library	
gender	male	20	28	48
	female	38	3	41
Total		58	31	89

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	25,354a	1	,000		
Continuity Correctionb	23,156	1	,000		
Likelihood Ratio	28,391	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear Association	25,069	1	,000		
N of Valid Cases	89				

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 14,28.	
b. Computed only for a 2x2 table	

The differences between the two sexes as far as searching for information online or in the library concerned, were found to be statistically significant (p-value=0.000 < 0.01, CI 99%).The bar chart of the sex differences follows.
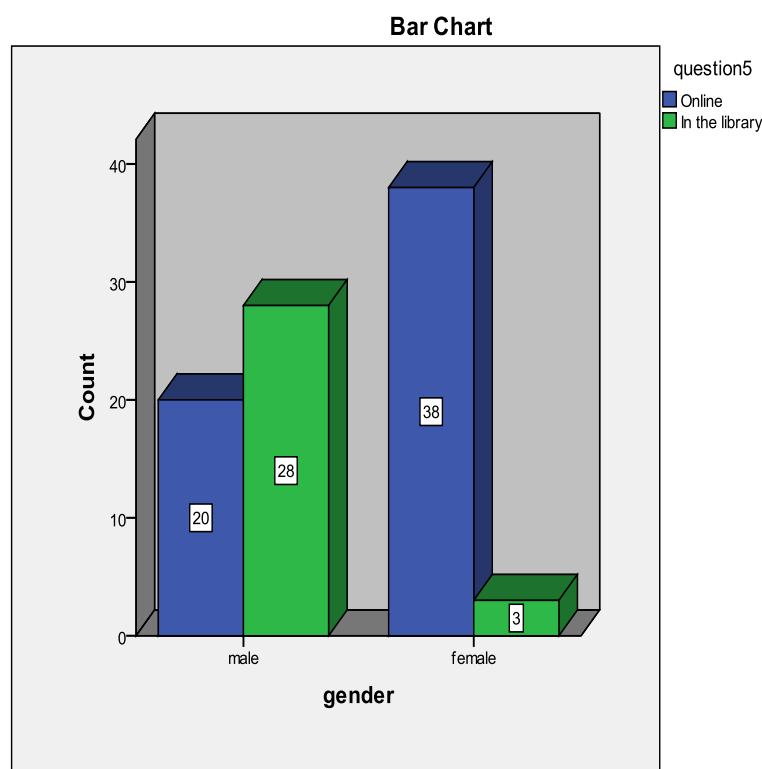

Figure 12. The differences between the two sexes regarding searching for information online or in the library

Question 6:

gender * question6 Crosstabulation				
Count				
		question6		Total
		Like	Don't like	
gender	male	46	2	48
	female	41	0	41
Total		87	2	89

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	25,354[a]	1	,000		
Continuity Correction[b]	23,156	1	,000		
Likelihood Ratio	28,391	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear	25,069	1	,000		

Association	
N of Valid Cases	89
a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 14,28.	
b. Computed only for a 2x2 table	

The differences between the two sexes on whether they like computers to be part of their lesson, were found to be statistically significant (p-value=0.000 < 0.01, CI 99%). The bar chart of the sex differences follows.
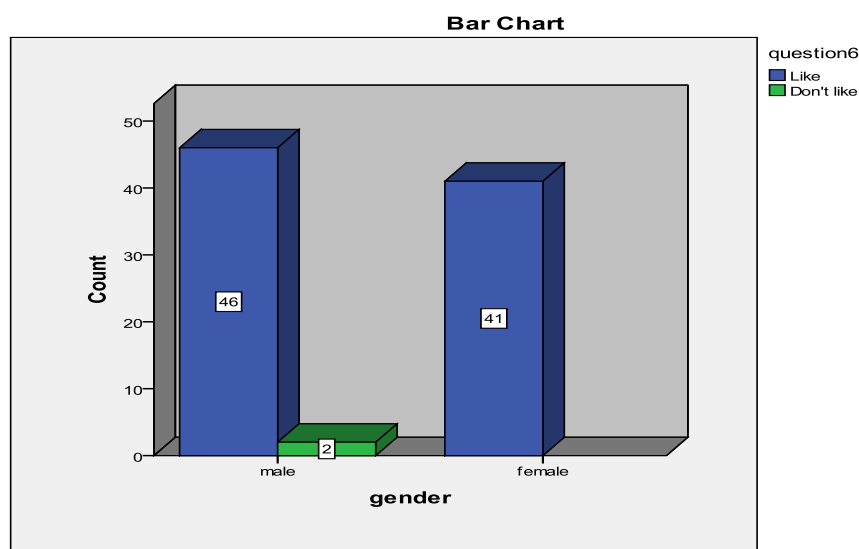

Figure 13. The differences between the two sexes on whether they like computers to be part of their lesson

Question 7:

gender * question7 Crosstabulation				
Count				
		question7		Total
		Yes	No	
gender	male	25	23	48
	female	40	2	42
Total		65	25	90

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	20,794[a]	1	,000		
Continuity Correction[b]	18,698	1	,000		
Likelihood Ratio	23,812	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear Association	20,563	1	,000		
N of Valid Cases	90				
a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 11,67.					
b. Computed only for a 2x2 table					

The differences between the two sexes regarding motivation to learn English, were found to be statistically significant (p-value=0.000 < 0.01, CI 99%). The bar chart of the sex differences follows.
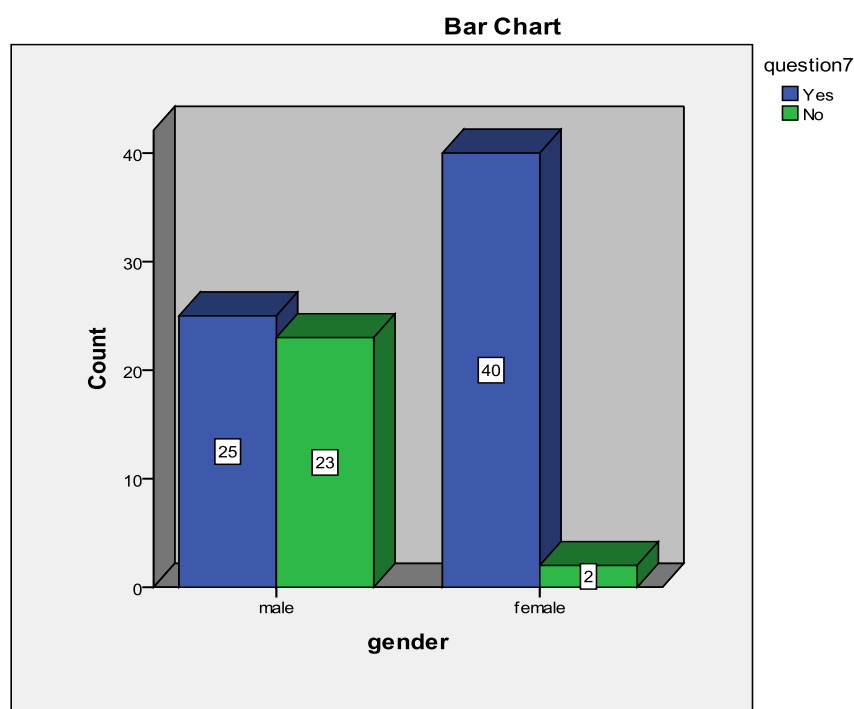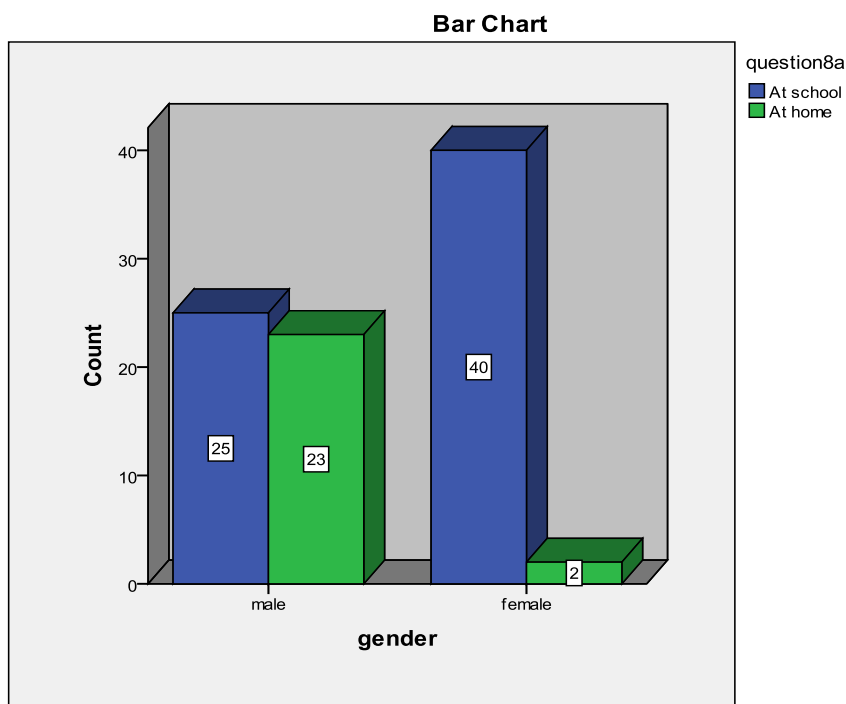

Figure 14. The differences between the two sexes regarding motivation to learn English

Question 8:

gender * question8a Crosstabulation			
Count			
		question8a		Total
		At school	At home	Total
gender	male	25	23	48
	female	40	2	42
Total		65	25	90

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	20,794[a]	1	,000		
Continuity Correction[b]	18,698	1	,000		
Likelihood Ratio	23,812	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear Association	20,563	1	,000		
N of Valid Cases	90				
a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 11,67.					
b. Computed only for a 2x2 table					

The differences between the two sexes on whether they prefer doing the activities at school or at home, were found to be statistically significant (p-value=0.000 < 0.01, CI 99%). The bar chart of the sex differences follows.
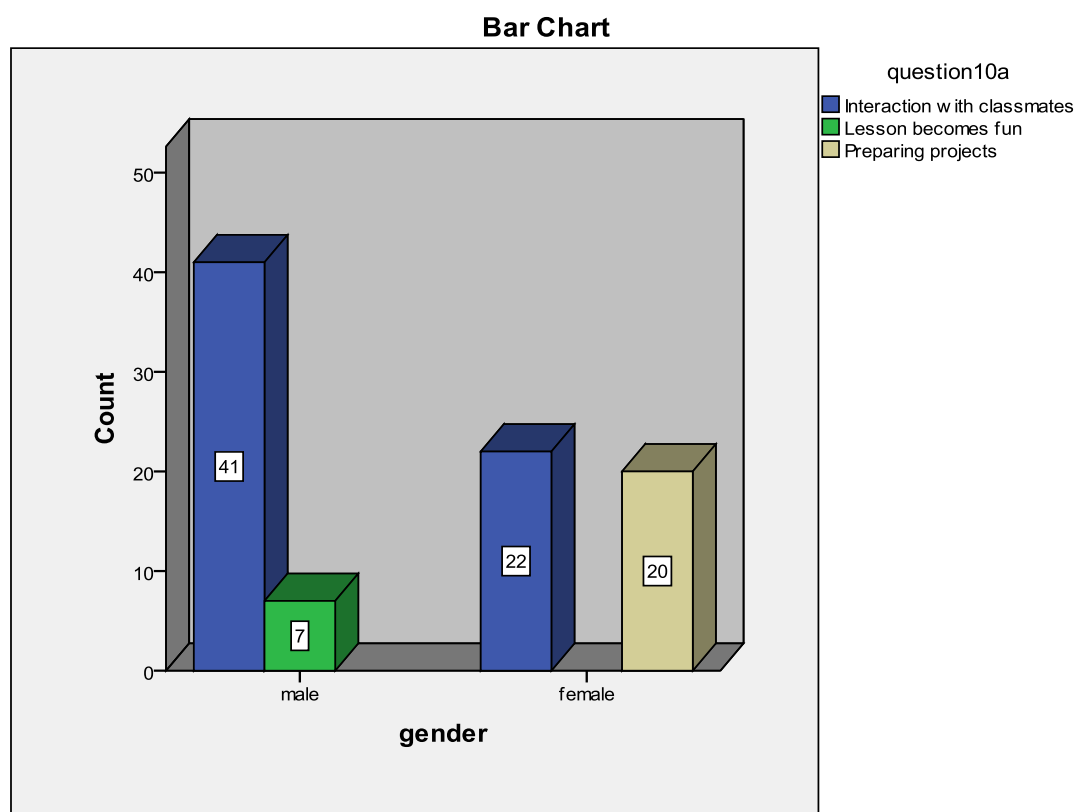

Figure 15. The differences between the two sexes on whether they prefer doing the activities at school or at home

Question 10:

gender * question10a Crosstabulation				
Count				
		question10a		
		Interaction with classmates	Lesson becomes fun	Preparing projects	Total
gender	male	41	7	0	48
	female	22	0	20	42
Total		63	7	20	90

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32,474[a]	2	,000
Likelihood Ratio	42,850	2	,000
Linear-by-Linear Association	20,765	1	,000
N of Valid Cases	90		
a. 2 cells (33,3%) have expected count less than 5. The minimum expected count is 3,27.			

The differences between the two sexes on what they enjoy most, were found to be statistically significant (p-value=0.000 < 0.01, CI 99%). The bar chart of the sex differences follows.

Fig

ure 16. The differences between the two sexes on what they enjoy most

gender * question10b Crosstabulation				
Count				
	question10b			
	Pressure of time	Sessions sometimes cancelled	Nothing	Total
gender male	40	3	5	48
gender female	8	0	34	42
Total	48	3	39	90

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	45,701[a]	2	,000
Likelihood Ratio	51,241	2	,000
Linear-by-Linear Association	42,087	1	,000
N of Valid Cases	90		
a. 2 cells (33,3%) have expected count less than 5. The minimum expected count is 1,40.			

The differences between the two sexes on what they enjoy least, were found to be statistically significant (p-value=0.000 < 0.01, CI 99%). The bar chart of the sex differences follows.
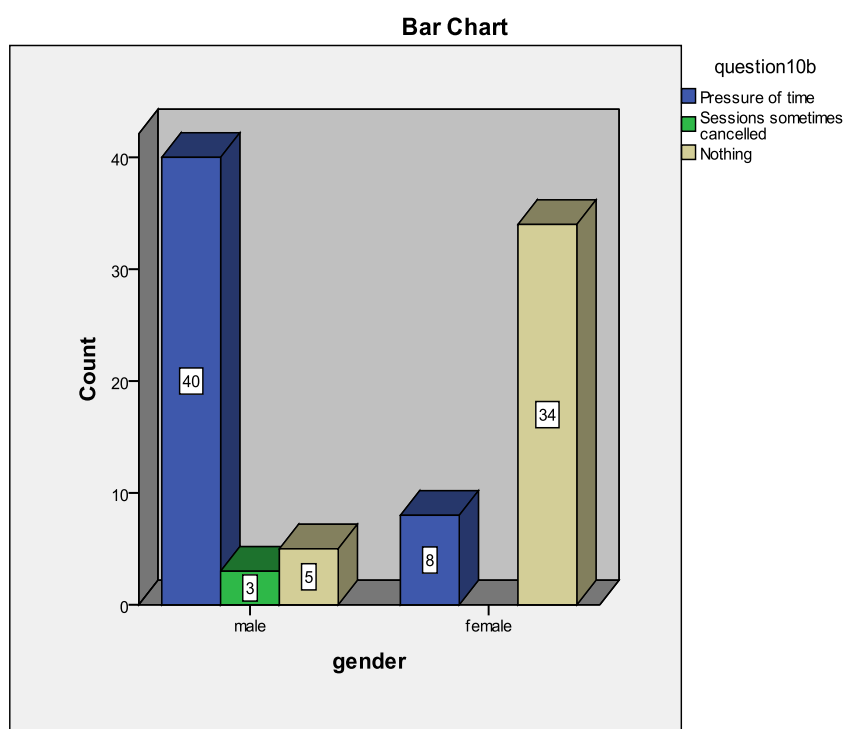

Figure 17. The differences between the two sexes on what they enjoy least

DISCUSSION

By examining the students' responses I observe that the vast majority of the students surveyed are using computers relatively frequently. Computers have indeed brought a very 'profound and pervasive change in our society' as Maddison (1983, p. 14) had very aptly outlined. Interesting enough is the fact that among the students surveyed no one stated that he /she never use computers. Computers are proven to be in this case an important aspect of the students' lives. As far as the purposes of using a computer is concerned the students' responses come in agreement with Warschauer and Healey's (1998) view that the World Wide Web has a profound impact on several domains of our lives. Students give particular value to the usefulness of the World Wide Web as an information resource and to the entertainment possibilities that a computer can offer. The use of the World Wide Web as an information resource was also investigated in Liou's study (1997), where students had also stated that they would use this resource in the future as well, as they perceived the Web as an opportunity to expand their horizons of language acquisition. Moreover playing games was selected by a relatively high percentage of the respondents as a significant purpose for using a computer. Games not only offer opportunities for entertainment to the students, but can be used for educational purposes as well. Rolf Palmberg (1988) for example conducted an experiment on the of computer games for enriching a student's vocabulary and promote

learning. He concluded that 'computer games constitute a good example of material that satisfies the criterion of language needs relevant to learners of that language, and, at the same time, promotes vocabulary learning' (Palmberg, 1988, p. 251) Therefore the evidence of enjoying using the computer for such a purpose that the students' provide can be exploited by language teachers to assist vocabulary learning in a second or foreign language context. Sending e-mails is reported from many students as a feature that they particularly like doing when using a computer. This fact can be further exploited by the language teacher as this form of asynchronous communication can enrich language learning when used in a meaningful context. Students can therefore be asked to use e-mails, which they particularly enjoy using and communicate with other native or non-native speakers of English in the school and perhaps in other schools abroad. The Internet overall plays without any doubt a significant role in computer usage. Almost all the students questioned stated that they are using the Internet in general. As far as possible advantages of searching for information on the Internet rather than in books in the library, the students surveyed basically reported the advantages of finding information quickly and easily which support the view that the Internet seen as a flexible medium (Warschauer et al, 2000).

Similarly, students seem to prefer using on-line dictionaries and encyclopedias for information and word definitions. Some students though very aptly note that books and encyclopedias in the library may sometimes have more precise information than the on-line sources. The responsibility of selecting and evaluating the on-line sources that the students are going to use falls primarily in the hands of the teachers, who have to provide to the students the opportunity to work through well-designed websites, which are providing correct and precise information. When designing the students' questionnaires my principal aim was to examine their views and attitudes towards this technological development used within their classroom context. Previous research conducted in the field (Pratt et al, 2002; Hong et al, 2003) has revealed positive attitudes on behalf of the students. This study comes to agree with the finding of the studies reported as all the students surveyed stated that they enjoy the fact that the computers are incorporated in their classroom setting. Warschauer et al (2000) have already supported the view that the computer can add extra motivation to the student and facilitate the learning process. In the specific study, the vast majority of the students state that the computer sessions motivate them more to learn English. The majority of the students state as well that they prefer doing the computer activities at school. Interaction and cooperation with their classmates, which are recognized by the learners, as the most important advantages in this case, are recognized by related research (Warschauer et al, 2000) as well as being crucial elements of working in the computer. Also the fact that the teacher can at any time provide help is recognized by the learners as being important, as well as the fact that the computer at school is better. Computer equipment and its related cost is another issue under discussion when dealing with schools. Not every school can possess the most modern and expensive equipment. This fact may well sometimes affect learners' attitudes towards technology. Liou (1997, p. 473) concluded in his study that 'technological support plays a role in sustaining the students' intention to continue its use'. Slow speed at the Internet was

reported for example by some of the learners of his study as the major reason why they didn't want to use it more often. In addition to the fact that the learners surveyed state that they like using computers in their English language lesson and that computers motivate them to learn English they state that they would like to have computers incorporated in some other classes as well. This statement reinforces the view that the specific learners hold very positive attitudes towards the implementation of computers in their classes. Interaction and cooperation with their classmates are again reported by the vast majority of the learners in their answers of the last question as the feature that they enjoy most when working on the computer and the computer activities. The enjoyment factor underlined in the study of Pratt et al (2002) is here seen as important as well; as many students respond that the lesson becomes more fun this way. Time pressure is reported as the fact that the students don't like that much.

All in all, students indicate very positive attitudes towards computers used in their classroom context. They overall perceive the computer to be a tool that through quick and easy access and use provides opportunities for flexible and pleasant language learning, as well as additional motivation to learn English. The fun element, basically accomplished through playing games on the computer and sending e-mails is of importance to the students, as well as the fact that through the computer activities they are able to interact and co-operate with their classmate. As Crompton (1989, p. 18) argues, the introduction of a computer in a classroom can overall 'enhance the education process for both teachers and children'. The main responsibility of what is happening in a classroom falls of course in the hands of the teachers. They need to become familiar with the various and multiple uses of computers, as well as to carefully select and design the material to be used each time. Students' and teachers' attitudes and perceptions towards computers and technological developments in general, used for teaching and learning purposes seem to open the road for further and fruitful exploration and exploitation of the potentials of technology.

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APPENDIX

QUESTIONNAIRE FOR THE STUDENTS

This questionnaire has been designed, in order to investigate students' attitudes and perceptions towards the use of computers as part of the English Language lesson. Your cooperation will be greatly appreciated.

By completing and returning this questionnaire I understand that I am giving consent for my responses to be used for the purposes of this research.

Gender M/F   Age………

Please tick:

1. How often do you usually use computers?

More than 3 hours a day…

Every day 1-3 hours….

2-3 times a week…

Less than 2-3 times a week…

I never use computers…

2.   What do you usually use a computer for?

To send emails…

To talk through chat groups…

To search for information on the Internet…

To play games…

Other… (please name…………………)

3. Do you use the Internet in general?

 Yes…   No…

4. Do you feel that there is an advantage in searching for information on the Internet than in books?

 Yes…   No…

5. Do you prefer using online dictionaries and encyclopedias rather than using dictionaries and encyclopedias in the library?

I prefer online dictionaries/ encyclopedias…

I prefer dictionaries/ encyclopedias in the library…

6. How do you feel about computers being part of your English language lesson?

I like the computer to be part of the lesson…

I don't like the computer to be part of the lesson..

Other… (please name….)

7. Do you feel that the use of the computer motivates you more to learn English than the traditional lesson?

Yes…   No…

8. Would you prefer doing the computer activities at school or at home?

At school…

At home…

8b. If you prefer doing them at school, what do you feel is the most important advantage?

Interaction/ cooperation with classmates…

The teacher can help me if I need something…

The equipment is better at school…

Other… (please name….)

9. Would you like to have computers incorporated in other classes as well (e.g. History, biology class)?

Yes…   No…

10.What do you enjoy most and what least when using computers in your English language lesson?

10a. I enjoy most:

Interaction with classmates…

The lesson becomes more fun…

Preparing projects in the computer…

10b. I enjoy least:

There is pressure of time to complete handouts…

The computer sessions are sometimes cancelled …

There is nothing I don't like…