

## STUDENTS' ATTITUDES TOWARDS CYBER-HOMEWORK

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### ABSTRACT

As in every field of education, in foreign language teaching, homework can be considered as an essential part of learning which provides learners various opportunities to practice and improve their language skills both within and out of the class time. With the improvement and rapid emergence of information and communication technologies (ICT) in the world of education, using web tools in the classroom and assigning students through web-sites and software programs have become popular and it is evidenced that both teachers and students make use of these new tools in many ways. Regarding this fact, the present study aims to explore the role of such tools, specifically cyber-homework, on students' success and outcomes in an EFL classroom. In order to find an answer to this question, total 201 students who enroll in 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> grades in a private college were assigned with web-based homework, i.e. cyber homework, to see whether the use of cyber homework has an effect on their success in language learning. Throughout the experimental process, any attempt of students were recorded and logged automatically which also served as statistical analysis of the data. Additionally, participants' exam results in their courses were compared with the use amount of the cyber homework of the students. Finally gathered data were analyzed through descriptive analysis. The analysis of the data revealed in general that roughly 39% of the participants showed interest to cyber homework and succeeded in the exams.

**Key Words:** Cyber homework, web-based homework, technology mediated learning environment.

### INTRODUCTION

Learning a language all around the world has become essential. For more than a century, specialists, such as, Diane Larsen Freeman, Jeremy Harmer, Jack C. Richards and Theodore S. Rogers have been working on the best model of teaching languages in foreign language classrooms. These models and many approaches and methods have been applied to those classrooms, such as, Communicative Approach, Humanistic Approach. On the other hand, beginning from the mid 20th century, the use of technology has increased and has been developing every second. Today, the use of computer has been an important component of education and they are utilized throughout the field of education and in language learning and teaching (Baturay, 2007; Koçak, 1997; Makaracı, 2004).

A wide range of electronic technologies have been developed to supplement second language teaching and learning (Baş & Kuzucu, 2009; Liang & Bonk, 2000; Warschauer, 1996). The most common ones of these supplements are CALL (Computer Assisted Language Learning) and DyNed (Dynamic Education) to assist English language teaching processes at schools. "The philosophy of CALL puts a strong emphasis on student-centered lessons that allows learners to learn on their own using structured and/or unstructured interactive lessons" (Ozgan & Yiğit, 2010, p.88). Review of available literature shows that the use of both CALL and Dyned help students to gain self-determination and autonomy (Murray, 1999) and these students who have computer assisted language classrooms are more successful than others who are instructed with other traditional methods (Baş & Kuzucu, 2009).

In Turkey, besides public schools there are many private primary, secondary and high schools. These private schools especially focus on language education, the success and satisfaction of the students and parents are important for these schools to keep up their continuity. Therefore, to attract the students and to have more enrollments each year they have to integrate new Technologies and innovations into their curricula each year. In previous years the success of the students did not satisfy the board of the school, therefore they decided to

use more professional materials and include web based technologies to their language classrooms. For that reason, the school management decorated each English class with smart boards and with Internet access to have students work on these boards and access all information they might need. The course books also have their own classwares that can be operated on smart boards, and those enable students to watch short video clips, listen to audios, play games and do the exercises on board. Moreover, students were asked to have Internet access at home as well, by this way, with the passcodes given by the teachers, they could continue their study at home. This web-based homework, which is called cyber homework, enables them to do more exercises about the topic, write short blogs, read peers' blogs and correct each other where necessary. In addition to that, teachers do not have to find more materials and photocopy and distribute them to make the students continue their study at home.

To find out the benefits of computer assisted language classrooms, researcher of this study conducted the research at a private college in Antalya with 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade students. Since the technology moves and develops rapidly and much technology is used in the classroom environment. Therefore, it is a scientific necessity to find out:

- Whether this cyber-homework increased students' success in English and this environment was beneficial for the students to improve their success in English.
- How much students participated cyber homework part of this software program.
- Whether this participation differentiated according to students' language level.

#### LITERATURE REVIEW

With the improvement of technology in education, publishers try to find many ways for students to practice and receive immediate feedback through Internet. They provide classwares for smartboards with many software programs that can increase the interest and the motivation of the students. In addition to these classwares, they provide CD's for students to revise what they have learned in class environment and Internet based softwares which are called cyber homework, where students can improve their learning autonomy and practice more about the topics. This web-based homework is easy to access from any standard browser, each user has a passcode given by the teacher, students are graded immediately and automatically, and teacher can access those recorded grade statistics whenever she wants. Furthermore, students are able to see how much they know, what their mistakes are and how to correct these mistakes. Addition to these, students also have the opportunity to correct their mistakes immediately through feedback given by the program. Once student gives wrong answer, he / she receives another chance to correct the answer. For the mistake which is performed for the second time, the system provides the correct answer, so that student has an opportunity to learn from his/her mistakes. Since these soft-ware programs reveal the success of the students through statistical data, it is worth noting that these applications are beneficial both for students and teachers. In other words, looking at these data, teachers can revise the topics which are not well understood in the classroom environment and plan the following lessons according to this information and learners can learn from their mistakes.

Review of available literature reveals that there have been many studies discussing the pros and cons of web-based homework. These studies provide a comparison with paper-pen homework and how beneficial these web-based homework are (Fyneweever, 2003; Richards-Babb, Drelick, Henry, Robertson-Honecker, 2011; Cutshall, Mollick and Bland, 2012; Leong & Alexander, 2013). These studies are mostly conducted in Chemistry, Biology, Physics and Algebra classes. In a General Chemistry class in West Michigan University, Fyneweever (2008) conducted a research to find out how students benefited from web-based homework. For eight weeks two groups, a paper-pen based and a web-based assigned group, were supposed to complete each task chosen from the end-of-chapter problems in their textbook. For web-based homework group, their homework was immediately and automatically graded and students had the chance to see where their mistakes were and how to correct them with additional comments given by the computer. On the other hand, paper-pen based group's homework was graded in a day, two days or more than that (Fyneweever, 2008). Therefore with the feedback given in time, the learning of the students was not as efficient as the one given immediately by the web-based programs.

Another study was conducted (Richards-Babb, Drelick, Henry, Robertson-Honecker, 2011) with undergraduate students for the General Chemistry course to find out the improvement and attitude of the students towards web-based homework with 333 students who responded the survey. When the results of the survey were observed, it was clear that the majority of the students (90%) completed all the on-line homework assignments. Although 63% of the students admitted that they had completed the homework for the grade reward, 34% students had completed it for no grade benefits (Richards-Babb, Drelick, Henry, Robertson-Honecker, 2011). Addition to that, it was found out that the students found online homework as a learning tool because they had an opportunity to go over the homework and see their mistakes and to learn from them, that means immediate feedback was given as they were working on it. After the web-based homework, students were given an exam, and the results revealed that students highly benefited from web-based homework as their exam results were higher than before. That means with the positive attitudes of these undergraduate students towards web-based homework, students' success rates improved.

There are some other studies, too, searching the attitudes and success of the students through web-based homework. Another study was conducted by Cutshall, Mollick and Bland (2012) and the study was aimed to bring the technology into Business Statistics classroom and to reduce students' anxiety of this course and to increase students' interpreting skills for larger and real data sets. An application called Aplia was used for this business statistics class. This application provided questions but also enabled teachers to add more questions and tasks and it also provided immediate feedback.

*"The results indicate that students, both those that preferred the Internet-based application and those that did not, saw value in the use of the web-based homework part of the application. The students thought that the web-based homework problems were useful and that the immediate feedback provided in the form of an explanation and a grade were useful in their understanding of the material"*(Cutshall, Mollick, Bland, 2012; p:8).

Researchers mostly agree with the benefits of web-based homework both for students and teachers that it improves the success and motivation of the students. Teachers prefer web-based homework to pen-paper homework since students are in to computers these days and receive immediate feedback. To find out how web-based homework is connected to the students' learning and success, a study was conducted in a community college Mathematics class especially on Algebra in the USA with 78 students (Leong & Alexander, 2013). The results showed that their attitudes were mostly positive; they liked the easy accessibility, immediate feedback was given and they found it beneficial, the solution of the question was given step by step which made the students find their mistakes and correct them easily. Students with lower grades and who are shy especially benefited from web-based homework and web-based homework played an essential role because of instant feedback (Leong& Alexander, 2013).

The use of technology for homework improved the performances of the students when it is compared to paper-pen homework. Another experimental study comparing these two types of homework was conducted by Mendicino and Heffernan with 92 5th grade students, with 54 students Internet access at home. All students had pre-and-post-tests and all students participated in web-based and paper-pen based conditions (Mendicino & Heffernan, 2009). The results of the study stated that the students would learn more through web-based homework when it is compared with paper and pencil homework, web-based homework is more beneficial for students because of immediate feedback. Additionally, through web-based homework teachers can identify the results of the students easily and focus on the difficulties that students experienced while working on the exercises (Mendicino & Heffernan, 2009).

In the light of the related literature it is clearly observed that the improvement of technology has benefits both for teachers and students in terms of web-based homework. Since learners receive immediate feedback, web-based activities enable and affect their learning positively. Students have a chance to study on their own speed which enables students to control and reduce their anxiety. For teachers, grading students' achievement becomes easier than paper-pen homework and that makes them gain more time for planning more activities to

perform in the classroom. As it was mentioned above, these studies were all conducted in Chemistry, Algebra and Physics classes. This study is aimed to find out the attitudes of the students towards cyber homework, in other words, web-based homework in EFL classroom. It is also aimed to find out whether the students are benefited from this web-based homework and to reveal whether their efforts affected their exam grades.

## METHODOLOGY

Present study is a quantitative study; quantitative methods of research are based on the collection analysis of numerical data and it also involves using large enough samples of participants to provide statistically meaningful data and employing data analyses that rely on statistical procedures (Gay & Airasian, 2000). The data of quantitative study were collected from software programs of the books that were studied in the classroom. The system automatically saves all the information about the students' performance, such as, when they access the system and how much they achieve. These statistics are accessible for teachers of those classes. The gathered data were statistically analyzed via SPSS in order to clarify the attitudes of the students.

### Participants

To answer the questions, the research was carried out at a private college in Antalya, Turkey with 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> (secondary level) grade students, in total 201 students. For each grade there were four classes, and these were named as 5A/B/C/D, 6A/B/C/D and 7A/B/C/D. At the beginning of the first semester, students were given a proficiency level test in English. After the assessment of this test, students were placed into different classes. The students with higher grades were defined as above-average, and they were divided into two groups to adjust the number of the students in a classroom, that is maximum 20 students for each class. These above-average students were placed into A or B classes according to their grades. Students with lower grades were placed into C classes and defined as average group. Finally, students with the lowest grades were placed into D classes and defined as below-average. At the end of each semester, these students were given another proficiency level test in English and this enabled teachers to see how much progress these students had during a semester in English.

Table 1: The Number of The Students According To Their Levels of English

		Frequency	Percent
Valid	5A	21	10,4
	5B	17	8,5
	5C	14	7,0
	5D	12	6,0
	6A	20	10,0
	6B	14	7,0
	6C	14	7,0
	6D	10	5,0
	7A	22	10,9
	7B	22	10,9
	7C	19	9,5
	7D	16	8,0
	Total	201	100,0

Table 2: Success Levels of The Students According to the Proficiency Test They Took At the Beginning of the Term

		Frequency	Percent
Valid	Below average	86	42,8
	Above average	115	57,2
	Total	201	100,0

### Process

At the beginning of the term the publisher of the books that were used in the English language classrooms introduced how the web-based homework was performed. Teachers logged in the web page and listed the names of the students. For each student, the system gave a passcode and these passcodes were given to the students and the process how to log into the system was described. When the passcode was logged in on the related web page, the system directed the students to the web-based homework page and the students were able to see which test to be completed. As the teachers set a deadline, students were able to complete the tests that were unlocked by the teacher. Students could not access the tests those were unlocked by the teacher because of the deadline for completing them and/ or the topics that were not studied in the classroom environment.

Following the completion of each unit in the classroom, students were asked to complete their cyber homework page. The questions were similar to the ones that they had practiced at school. Each unit consisted of grammar, listening and reading comprehension questions according to their level. For this study, data were collected from the completed parts of the book, that is, the Starter Test/ Entry Test / Unit 1A-B / Unit 2A-B / 3 A-B.

### Data Analysis

The results below show the results of 201 students who accessed the system. At the beginning of the study there were 213 students, who logged in the system, but twelve of the students did not take the first exam for some reasons and their scores are not added to the analysis. Therefore, in order to get reliable results for this study, the statistical results of those students are excluded from the analysis. All results were graded in percent scores and average scores were calculated. Cyber homework results were listed according to the completion of the students and these results were entered into the SPSS programme for statistical analyses. While the results were being entered into the system, students who completed the exercises were introduced the SPSS system as 3, partially completed were as 2 and who did nothing were as 1. Addition to that, a t-test was performed to explore the benefits of web-based homework.

## FINDINGS AND DISCUSSION

The results of the study are given according to the research questions to provide an insight. The first research question intends to inquire the rate of participation of these students cyber homework by using this software program. At the beginning all students had an Entry Test to warm up and remember what they had learned before. Following this, 5<sup>th</sup> grades had a Starter Test but the other grades did not have a Starter Test and continued to their study with the first unit. Except for the Entry Test, all other tests were divided into two parts, A and B. In the statistical data the results are given in detail and it is clear to see which student completed the test or partially completed or did not complete at all. To answer this question, the data were printed out and analysed below. These results show the attitudes of the students towards cyber-homework in general and test by test.

Table 3: Achievements of the Students of the Entry Test

		F	%
Valid	Not done	68	33,8
	Partially done	21	10,4
	Done	112	55,7
	Total	201	100,0

This table shows the achievements of the students for Entry Test in total. As it is a new implementation to their studies, Entry Test was completed by more than half of the group. Addition to that, this study was given at the beginning of the first term and therefore students did not have much homework to complete other than this. The higher participation rates may be assessed as an indication of the enthusiasm of the students and provided a signal that they might continue that way.

Table 4: The Achievements of the Students of Unit 1 A and B

UNIT 1 A					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	94	46,8	46,8	46,8
	2,00	10	5,0	5,0	51,7
	3,00	97	48,3	48,3	100,0
	Total	201	100,0	100,0	
UNIT 1 B					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	112	55,7	55,7	55,7
	2,00	13	6,5	6,5	62,2
	3,00	76	37,8	37,8	100,0
	Total	201	100,0	100,0	

When the results of Unit 1 A/B are examined, it is obvious that the number of the students who completed the tests decreased gradually. The reason for that decrease might stem from either students lost their enthusiasm when compared to the Entry Test or they had much homework to do that they did not show interest to the following tests. In contrast, some of the students completed the cyber-homework regularly.

Table 5: Achievements of the Students of Unit 2 A and B

UNIT 2 A					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	112	55,7	55,7	55,7
	2,00	8	4,0	4,0	59,7
	3,00	81	40,3	40,3	100,0
	Total	201	100,0	100,0	
UNIT 2 B					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	115	57,2	57,2	57,2
	2,00	10	5,0	5,0	62,2
	3,00	76	37,8	37,8	100,0
	Total	201	100,0	100,0	

Similar results are observed for Unit 2 A and B. The number of the students who did not complete the tests increased, but less than half of the group still continued to work on the cyber-homework. After the results of unit 2 A and B were received, the opinions of the teachers were gathered about the results which were decreasing. They stated that the students had to focus on some central tests and had a heavy load in terms of homework which retained them to complete these tests.

Table 6: Achievements of the Students for Unit 3 A and B

UNIT 3 A		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	108	53,7	53,7	53,7
	2,00	25	12,4	12,4	66,2
	3,00	68	33,8	33,8	100,0
	Total	201	100,0	100,0	
UNIT 3 B		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	116	57,7	61,4	61,4
	2,00	18	9,0	9,5	70,9
	3,00	55	27,4	29,1	100,0
	Total	189	94,0	100,0	
Missing	System	12	6,0		
Total		201	100,0		

As the process continued as it is shown in Table 5 that only some (for Unit 3 A, 33.8% and for Unit 3 B, 27%) of the students showed interest to cyber-homework. Majority (57.7%) of the students did not even log into the system. In the table Unit 3 B there are some missing students. These students were not obliged to complete this test at the time that data were gathered. The class was just a little behind the program. When the statistical data were collected, the teacher had not moved onto that topic, therefore the information of this group is shown as missing here.

Another research question is to find out whether this cyber-homework increased students' success in English and this environment was beneficial for the students to improve their success in English.

Table 7: Comparison of Proficiency Test Scores and First Exam Scores

Class_Y	PT_Level	N	Mean	Std. Deviation	Df	t	P
5,00	Below average	26	74,69	17,49690	62	-4,734	,000*
	Above average	38	89,81	7,56184			
6,00	Below average	24	77,83	11,75351	56	-1,802	,077
	Above average	34	83,35	11,29999			
7,00	Below average	36	60,55	16,22598	77	-9,193	,000*
	Above average	43	87,16	9,02887			

\*P<0.05

After completing the first three units in the classroom and assigning students with cybe-homework after each unit, a test was carried out. This test had already been planned for the annual school year program. Before the test, for a week students had an opportunity to revise all the topics that they had studied until then with their teachers in the classroom. After the test, the exam results are logged into the system and a t-test was conducted to compare the proficieny test levels (Table 2.) of the students. The aim was to find out to examine the process whether there was a significant progress on the students' level of English and whether the cyber-homework contributed to their success in English. According to the results of t-tes,t there was a significant difference between their proficiency test levels and first annual test especially for the 5th and 7th grade students. Addition to that, the students who were above average in proficiency test in the beginning of the term continued their success.

Table 8: Total Achievements of the Students According to Their Accesses to the System

LEVELS	5TH GRADES				6TH GRADES				7TH GRADES			
	A	B	C	D	A	B	C	D	A	B	C	D
<b>DONE</b>	73	72	45	30	87	52	39	40	51	72	39	22
<b>PARTIALLY DONE</b>	8	14	7	8	23	7	7	3	6	14	17	9
<b>NOT DONE</b>	87	69	82	56	37	59	52	27	104	67	88	88

Final research question of this study is to explore whether this participation differentiated according to students' language level. Although the students were reminded several times a week about their web-based homework and the necessity of completing it, only some of them completed the cyber-homework. Unfortunately, the results were below the expectation. When the classes are analyzed one by one, it is obvious that students mostly in A B level classes had more attempts to log in and do the tests as they were assigned. As in table 8 all tests, that is, Entry test, Starter A&B, Unit 1 A&B, Unit 2 A&B and Unit 3 A&B were completed by the students especially in As and Bs of all grades. These results might indicate that higher English level of the students made them more enthusiastic about studying that foreign language and therefore they had more attempts than the students with lower level of English.

## RESULTS AND SUGGESTIONS

The use of technology in classroom environment has been popular and when the related literature is researched, it is obvious that the implementation of technology is beneficial for students. The results of this study show that only 39% of the students showed interest to cyber-homework while 52% did not. On the other hand, looking at the first annual test results, it is clear that students who completed their homework on web continued their success in English. Furthermore, when the English levels of the students are taken into consideration, it is apparent that the students in above average classes (A&B) showed more interest to cyber-homework than the students in below average classes (C&D).

Researchers who are interested in web-based homework can conduct their studies with a larger population and can analyse the statistical data related to whole school year unlike this study which focused only the first three units of the book and the first annual test in the school year. Moreover, as in the literature review, researchers also may conduct update studies on comparing web-based homework and paper-pen homework and analyse the perceptions of the students.

In this study students were not graded for their performance on cyber-homework. To increase the participation of the students to cyber-homework, teachers may grade the performances and this may stimulate the students towards cyber-homework.

Use of technology in the classroom motivates students and contributes to their learning. Policy makers and school administrators should integrate the use of technology in the classroom and improve the conditions for better learning. These kinds of softwares should be adapted to each school for the students to catch up with the era and to make better learning environments to increase the motivation of the students.

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