The Use of Technology and Its Effects on Language Learning Motivation

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Abstract: This study aimed to find out the effects of technology use on the motivation level of foreign language students in the language classrooms. For this reason, an experiment was carried out in this study. There were two groups of students who were studying in Tourism and Hotel Management Program. 20 of them were in the control group while 25 of them were in the experimental group. The same questionnaire developed by the researcher was administered to both groups as a pre- test and a post-test. The results indicated that; while there were not any significant differences between two groups as a result of pre-test, students in the experimental group were highly motivated after a four-week treatment. On the other hand, there was not a significant difference in students' motivation level in the control group.

Keywords: *Motivation, Technology, English Language, Foreign Language Learning, Experiment, Pre-test, Post-test, Tekirdağ Namık Kemal University, Vocational School*

INTRODUCTION

Over the years, different approaches, methods and techniques have been used in order to teach a foreign language in a best way, increase motivation of the students and encourage students to learn a foreign language. One of the ways that will be effective in foreign language learning and teaching process is the use of technology. As Kang (1999) mentions, using computer and technology in language classrooms provides opportunities for learners to understand the real life and meaningful communication. Besides, using technology in foreign language teaching is not just a material but they are also tools to motivate students, promote their learning and reach all students in the classroom who have different types of language learning styles (Signes, 2001). Other advantages of using technology in the foreign language classrooms are listed as follows: "It provides opportunity for the learners to identify the real world in the classroom setting. It is helpful to motivate the learners for the course. Films, music and different materials help the students to improve psychologically and socially. It makes the learners to be active in the language classroom. Students can follow their own performance during the language learning process. It helps students to be free and courageous. It can develop students' each skill in the classroom through real communication provided by technology (Brinton, 2001; Genç İlter 2009; Rost, 2002; Wang 2006)

As it is stated above, the use of technology in the foreign language classrooms has a number of advantages that cannot be ignored and it motivates learners to learn a foreign language since it provides interesting and authentic materials for each skill in the language learning and teaching process.

LITERATURE REVIEW

Types of Motivation and Technology Usage

The notion of motivation which has attracted attention of many educators and researchers in recent years has a great deal of different interpretations and come to be used in different ways by

different people since theories of psychology have changed (Crookes & Schmidt, 1991; Dörnyei, 1998; Gardner & Lambert, 1972; Maslow, 1987; Williams & Burden, 2000). For example, Kleinginna and Kleinginna (1981) stated 102 definitions about the concept of motivation. Therefore, giving a simple definition of motivation is not possible. However, Gardner (2004) notes that the motivated learner has some remarkable characteristics such as " being goal directed, expending effort, being persistent, being attentive, having desires (wants), exhibiting positive effect, being aroused, having expectancies, demonstrating self-confidence (self-efficacy), and having reasons (motives)" (p. 2). Therefore, the components of motivation can be cognitive, affective or behavioural.

One of the dimensions of motivation has tended to be stated in dichotomy. That is, learners are driven to learn a language by either instrumental or integrative motivation (Gardner & Lambert, 1972). Instrumental motivation is defined as the desire to get something practical from studying the foreign language. It means learning language is for the sake of something (Gass & Selinker, 2008). It is typical in the foreign language learning environment where little or no social integration of the learner into a community using the target language takes place, such as the students in a foreign language classroom in Turkey. These learners' purposes in language learning are more practical, such as meeting a requirement for school or university graduation, having a good job. On the other hand, integrative motivation is defined by the learner's positive attitudes and perceptions on the target language group and this kind of learner wants to become a part of a target group and uses this language in this social group (Fei, 2005; Spolsky, 1969). Therefore, integrative motivation is a key component in assisting the learner to develop some level of proficiency in the language (Fei, 2005). However, there are not many opportunities for Turkish learners who learn English as foreign language to use it in daily life as Turkey is a monolingual and mono cultural country.

Brown (2007) suggests that both instrumental and integrative motivation are equally important for second language learners and he adds that some learners benefit from instrumental motivation in some contexts while others make use of integrative motivation when learning a second language, but generally they use both of them. He exemplifies this situation and states that international students in the United States learn English for their studies and want to be a part of this community and culture, as well. Similarly, another study was carried out with twenty Japanese students at the beginning level of intensive English language course at a UK university. They were asked to give four major motivations for learning English. The study result showed that two kinds of motivation for their learning English are equally important (Gardner & Lambert, 1972).

Additionally, Crookes and Schmidt (1991) discuss the concept of motivation under two sub-titles as *intrinsic* and *extrinsic* motivation. Intrinsic motivation is characterized as engaging in an activity for its own sake but not for a reward or a better position and intrinsically motivated individuals enjoy feeling competence and self-determination (Deci, 1975) whereas extrinsic motivation is directly related to "rewards such as money, prizes, grades, and even certain types of feedback" (Brown, 2007, p. 172). However, performing different actions in daily life such as going for school, reading book, watching the news or wearing uniform at schools as a student are not always done because of just motivated intrinsically or extrinsically (Williams & Burden, 2000).

As it is discussed above, motivation is an important point in the settings of language learning process. It is known that it will be difficult to teach foreign language in a learning environment where learners do not have any desire to learn (Gömleksiz, 2001). In language learning process, teachers also can make the learning environment more interesting and more relevant to students' age, interest and level of ability. They can overcome this problem with flexibility in materials design or variety in skills work or classroom interaction. Crookes and Schmidt (1991) also point out some areas which will increase the levels of motivation among the students. They include motivating students for the lesson, varying the activities, tasks, and materials and using co-operative rather than competitive goals in the language classrooms. Therefore, technology use in the language classrooms could provide various activities and authentic materials which would be useful for the students having different interests and different learning styles. Since technology is a part of our lives and it undoubtedly affects language learning and teaching as well, students expect their teachers to use technology in the language

classrooms. Lin (2010, p. 2) also stresses that "technological advancements have deeply affected the methodology of education in general and foreign or second language in particular in which computers are at the heart of this process".

Rost (2002, p. 1) states the importance of technology use in the language classroom with the following statements: "Using technology gives students real opportunities to learn more effectively and it increases the enjoyment of language learning, improves students' ability to become better language learners and makes our own teaching more enjoyable and rewarding". Technology use, which creates opportunities to learn and hear language from native speakers through authentic materials, is really precious for the countries where students can learn and talk the language in the classrooms. This is emphasized by Linse (2005, p. 199) who notes that students "are probably delighted at all of the resources that they can access via the internet".

Previous Studies on the Use of Technology and Language Learning Motivation

In the literature, a number of studies were carried out to reveal the importance and the effects of technology use on motivation and language learning (Akobirov, 2017; Barreto, 2018; Chen & Kent, 2020; Genç İlter, 2015; Gill, 2006; Göçerler, 2018; Fandino, Munoz & Velandia, 2019; Kalanzadeh, Soleimani & Bakhtiarvand, 2014; Sun & Gao, 2020; Tavakoli, Lotfi & Biria, 2019, Wong, Tan & Lin, 2019), which will be summarized below.

Kalanzadeh, Soleimani and Bakhtiarvand (2014) conducted a study in an Iranian EFL university with 60 participants in order to find out whether the use of technology affects students' motivation to learn English. A questionnaire was administered to participants who had studied English through technological equipment such as computer, mobile phone or power point. The results showed that Iranian EFL university students had positive attitudes towards the technology use in the classroom.

Genç İlter (2015) investigated perceptions of both language teacher candidates and young learners about the use of technology in the language teaching and learning process. 12 language teachers and 10 young learners took part in her study. Data were gathered through two structured questionnaires. Results revealed that according to the teachers, the use of technology increased students' both language and cultural awareness and affected them positively since English language classes were more enjoyable and took their interest easily. On the other hand, students preferred playing games and communication with their teachers in the classroom. In other words, they preferred using technology not in the classroom but outside in order to complete their homework. This study suggests that teachers should plan their classes and activities based on the students' needs, age and interests.

Barreto (2018) examined the effects of technology use on motivation of students' English use. In this project, there were 16 students who were studying at a private University in Tunja and they had English classes twice a week. Data were gathered through a field diary, an online forum, a survey and students' documents. The findings demonstrated that students were motivated to work collaboratively in order to use English and the use of technology also developed their language skills.

In the study conducted by Akobirov (2017), he investigated the language learning motivation level of students and the effects of technology use on their English language learning process. 129 EFL students from Bukhara State University (BSU) and 38 ESL students from Kansas City Kansas Community College (KCKCC) took part in the study and three instruments were utilized in order to collect data, which are Attitude-Motivation Test Battery, Motivation and Technology Questionnaire and the researcher's instrument on Social Media, Social networking, Instant messaging applications and Online Learning platform. The results demonstrated that ESL students were more motivated to learn English than EFL students. On the other hand, the use of technology affected language learning of EFL students more positively than ESL students.

In the study of Fandino, Munoz and Velandia (2019), undergraduate students' motivation to learn English in E-learning platform was investigated by means of interviews. 19 participants took part in the study and the analysis of the data was completed via semantic categorizations and NVivo 11 software program. Results demonstrated that some external factors such as a new method, course resources and relationship with the tutor affected motivation of participants.

Tavakoli, Lotfi and Biria (2019) investigated the effect of computer-assisted language learning (CALL)and task-based language teaching (TBLT) on the motivation level of EFL students. An experimental method and two instruments which are called as Oxford Placement Test and Attitude-Motivation Test Battery were used. In the experimental group there were 45 participants while in the control group there were 38 participants. The results demonstrated that CALL-mediated TBLT affected positively students' L2 reading motivation.

Sun and Gao (2020) carried out a study in which they investigated the effect of intrinsic motivation on using mobile devices while learning English. The research was conducted with 169 participants and the findings showed that intrinsic motivation did not affect students' behaviours to use mobile devices. However, it affected some variables such as perceived usefulness of mobile devices and task technology fit. Another variable, perceived ease of use did not affect students' intention.

Chen and Kent (2020) conducted a study with students learning English as a second language in an English Support Program of the public research university in Australia. They aimed to find out whether 3D virtual learning had an effect on students' productive skills and their language learning motivation. Findings demonstrated that this type of learning made the students more motivated and it provided much more opportunities to develop their written and spoken language skills.

There are also studies which investigate the impacts of technology use on motivation level of students learning German, Spanish and Chinese. Göçerler (2018) examined the effects of using smartphone applications on both students' vocabulary learning and their motivation. 42 students who were studying German Language and Literature at Tekirdağ Namık Kemal University took part in this study. Data were gathered through vocabulary tests, observation notes and interviews. Results showed that these educational games developed vocabulary learning strategies and promoted language learning motivation.

Gill (2006) investigated the use of technology in the foreign language classrooms and its impacts on second language learning (Spanish). In this study, a language attitude questionnaire was administered to two groups (Technology-Enhanced Syllabus class and Non-technology enhanced syllabus classes) as a pre-test and post-test before the term started and after the term ended in order to reveal students' language learning motivation and particularly their writing motivation in the second language. The results indicated that technology develops both receptive and productive language skills of learners and creates opportunity to think critically.

Wong, Tan and Lin (2019) investigated whether the use of interactive whiteboard affected achievement of students and their language learning motivation. The participants of this study were 46 primary school students who were learning Chinese as a second language and experimental study was employed. According to the results of the study, achievement and motivation among the students in the control group and the experimental group did not change while achievement of students in the experimental group changed significantly after the treatment.

In the literature, besides studies which examine the use of technology on motivation level of foreign or second language learners, there are studies which involve general education or different disciplines. Since this is not the concern of this study, two researches will be presented below in order to illustrate their findings. Granito and Chernobilsky (2012) carried out a study in order to examine the effects of technology on students' motivation to learn and retain information. In this study, there were three groups consisting of 102 students who had a World History course. One of the groups prepared conventional storybook projects (control group-paper), another group conducted computer-based

projects (Experiment Group A-computer) and the last group created a project what they wanted to prepare (Experiment Group B-option). Data were collected via pre-test, post-test, survey and interviews after the projects completed. Findings showed that students who had opportunity to choose which projects they wanted to complete scored better than the students who were in the group completing computer-based projects. Another interesting finding was that retention post-test scores for control group and experiment group B were higher than experiment group A. Researchers reached a conclusion that students who have interest to use technology and learn through it can benefit from the advantages of technology whereas students who do not have any interest can benefit from conventional classes and methods.

Baytak, Tarman and Ayas (2011) examined 6 students' experience in technology integration. Data were gathered through interviews, observations (classroom observations and home observations) and field notes. According to the findings of the study, students believe that technology was a useful tool to make the life and learning easier, students felt themselves independent while they were studying with a computer and parents' worries might hinder students' technology use.

As a conclusion, aforementioned studies show that motivation and technology are two important keys in education, particularly in the language teaching and learning process and teachers are other important factors in terms of increasing and maintaining motivation of students by using various activities and authentic materials, which could be provided by using technology in language classrooms. Although there are a number of studies in general education or in various disciplines with different level of learners, the effects of technology use on foreign language learners in a vocational school have not been explored. Consequently, this study aimed to find out the effects of technology use on the motivation level of foreign language students in a vocational school. Within this scope, the following research questions were investigated.

R.Q. 1: Is there a significant difference between the learners with whom technology is used and the learners instructed by traditional method regarding the effects of pre-test results on the motivation level of the students?

R.Q. 2: Is there a significant difference between the learners with whom technology is used and the learners instructed by traditional method concerning the effects of post-test results on the motivation level of the students?

METHOD

In this study it was aimed to investigate the effects of the technology use on the motivation level of students in the language classrooms. For this reason, experimental method was used for the study in which one class was taught using technology and technological equipment whereas other class was taught using conventional method in a traditional classroom setting. It also should be noted that all language materials activities used in the experimental group were given to control group as a self-study after the treatment in order to eliminate unfairness among both groups of students.

Before the experiment, a pre-test which is also called a motivation-attitude scale consisting of 45 items was administered to both groups in order to find out whether there were any differences between the groups in terms of their attitudes and motivation level. As a result of the pre-test, it was justified that the levels of these two classes were equal.

During the treatment in the experimental class CDs, DVDs, power point presentations, songs, internet based activities related to class syllabus were used while in the traditional class the course book was used as a teaching material. The experimental study was carried out for four weeks by the same instructor in each class. After four-week treatment, the same test which was used as a pre-test was administered to both experimental and control groups. Finally, the data gained in the study was fed into a computer through SPSS 18 and analysed by using an analysis of Descriptive Procedure in order to find out answers for the research questions.

Setting and Participants

This study was conducted in Tourism and Hotel Management Program of Şarköy Vocational School in Tekirdağ Namık Kemal University. The underlying reason why tourism students were selected for this study was that they need to know at least one foreign language in order to find a good job after graduation and they are more curious about language than other program students in the vocational school. Students were studying English as a compulsory course in their first year and had four-hour English class a week. 45 students participated in this study. 25 of them (13 males and 12 females) were in the experimental group and 20 of them (14 males and 6 females) were in the control group. That is, two intact classes were selected via convenience sampling and they were randomly assigned to the control and experimental groups.

Sample Classroom Activities

While the course book "Active English" and its activities were used with the students in control group during four weeks, the same subjects were studied using different kinds of technological equipment in the experimental group. In order to exemplify what kinds of activities and technological equipment were used in the experimental group (See Appendix 2), how grammar was taught will be stated here. Firstly, the grammar point of the first week "Present Continuous Tense" was explained by the teacher through power point presentation. It took learners interests since it was not explained on the board by a traditional way. They listened to their teacher and asked their questions when they did not understand. Following the presentation of "Present Continuous Tense", the internet-based activities were done. This provided immediate feedback for the students as soon as they completed answering the questions. Moreover, it attracted their attention since it was different from the activities on the course book in that they could not have such a material on the course book. They had more opportunities to practice form, meaning and use of "Present Continuous Tense" as they did not spend time writing all the answers on a notebook while in the control group each answer of each question in an activity was written on the book. The activities were introduced in the order of their level of difficulty. However, students in the control group were restricted to the activities on the course book and did not have opportunity to practice more. Finally, a video about "Present Continuous Tense" on the internet was watched to review the whole lesson. It was also enjoyable for the students as a summary of "Present Continuous Tense". As a follow-up activity, a song related to "present continuous tense" was listened, which is sung by Susanne Vega. While they were listening, teacher asked the learners to listen to it and fill in the blanks on the power point presentation. This activity was used to review "Present Continuous Tense" and teach some new words. During the whole lesson students in the experimental group were all active learners and highly motivated for the course to learn new things.

Development of Data Collection Instrument

The questionnaire administered in the study was Motivation-Attitudes Scale. It consists of 2 sections. The first section of the questionnaire is developed in the form of category questions. Second section is the motivation-attitude scale which is in the form of 5 point Likert scale, ranging from 'Totally Agree' to 'Totally Disagree' and they are coded as (Totally Agree=5, Agree=4, No idea=3, Disagree=2, Totally Disagree=1). There are 45 questions which were adapted from Demir's (2005) Motivation-Attitude Questionnaire, from Gardner's (2004) Attitude/Motivation Test Battery: International AMTB Research Project, from Genç İlter's (2009) article named Effect of Technology on Motivation in EFL Classroom and some of the questions were developed by the researcher. The Motivation- Attitude Scale had five subscales and 45 items. The first six items were used to find out students' attitudes towards English language. The next six items were used to understand students' attitudes towards learning English. The other seven items were adapted to investigate students' attitudes towards learning target culture. In order to investigate students' motivation before the experiment and after the experiment ten items were added to the questionnaire about motivation. The last sixteen items were about technology use and they were used to find out students' attitudes towards technology use in the language classroom.

The validity and reliability of the questionnaire were checked by the pilot study since the questionnaire was adapted by the researcher. There are a few ways to measure the reliability of a scale. But according to Field (2006), Cronbach's Alpha (a) is the most widely used in order to measure the reliability of the scale and 0.7-0.8 is enough value to accept and use a scale in the research. As the alpha value of the scale used in this study was 0.891, it can be said that it is reliable. Moreover, the alpha value of subscales had to be measured to find out "internal consistency reliability" which means "the homogeneity of the items making up the various multi-item scales within the questionnaire" (Dörnyei, 2003, p. 110). Therefore, it can be said that all of the subscales used in the research is acceptable for the study as their alpha value varies from 0.903 to 0.702, which is demonstrated in the following Table 1 below.

Table 1. Categorization and alpha values of each category

Item Numbers	Category	Alpha value
All items	Whole questionnaire	0.891
1, 2, 3, 4, 5, 6	Attitude towards English Language	0.702
7, 8, 9, 10, 11, 12	Attitude towards learning English	0.862
13, 14, 15, 16, 17, 18, 19	Attitude towards learning target culture	0.836
20, 21, 22, 23, 24, 25, 26, 27, 28, 29	Motivation	0.746
30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45	Attitude towards technology Use	0.903

Data Collection Process

In the first place, the necessary permission was taken. In the questionnaire administration process, the instructor explained the aim of the study and the content of the questionnaire to the students in both control group and experimental group. Prior to the experiment and after the experiment the same questionnaire which consisted of 45 items was administered to all participants and it was administered in the native language (Turkish) of the participants since they were all elementary students and would probably have problems to understand English items.

Data Analysis Process

Before the experiment, the questionnaire was administered to all participants as a pre-test to find out whether there were any differences between the groups and the same questionnaire was administered again as a post-test after the experiment. As a result of the pre-test, it was found out that there were not any significant differences between two groups. Then, the experimental study was carried out during four weeks. The same instructor taught English in both classes for four hours a week. Finally, the same questionnaire (Motivation-Attitude Scale) was administered to both groups of students as a post test. The obtained data both from the pre-test and post-test were fed into a computer through SPSS 18 and analysed by using Descriptive and Inferential Statistics.

RESULTS

After data analysis, findings of the study regarding two research questions will be summarized below. R.Q. 1: Is there a significant difference between the learners with whom technology is used and the learners instructed by traditional method regarding the effects of pre-test results on the motivation level of the students?

To find out an answer for the first research question independent samples t-test was used in order to examine the possible differences between the mean scores of the pre-test results of the experimental group and control group. According to Büyüköztürk (2010, p. 39), the researchers use

independent samples t-test to see whether the difference between the means of two unrelated samples is significant or not. As a result of the independent sample t-test, it is assumed that the variances of two groups are approximately equal. However, these variances need reliability which is controlled by "Levene's Test for Equality of Variances". "If the Levene's Test is significant (p < .05), the two variances are significantly different. If it is not significant (p > .05), the two variances are approximately equal" (Ghorbani, 2011, p. 24). According to independent samples t-test, the results of pre-test of experimental and control groups were presented below.

Table 2. Pre-test results of the experimental group and the control group

Groups	N	Mean	Std. Deviation	Std. Error Mean	Sig.
English Language of Pre Experimental	25	3,5200	,63158	,12632	,312
English Language of Pre Control	20	3,5917	,58808	,13150	
Learning English of Pre Experimental	25	3,1267	,99102	,19820	,634
Learning English of Pre Control	20	3,2583	,87438	,19552	
Culture of Pre Experimental	25	3,5100	,63770	,12754	,579
Culture of Pre Control	20	3,0429	,88197	,19721	
Motivation of Pre Experimental	25	2,9920	,71351	,14270	,228
Motivation of Pre Control	20	3,2050	,51959	,11618	
Technology of Pre Experimental	25	3,3025	,72146	,14429	,465
Technology of Pre Control	20	3,5031	,65503	,14647	

p<.05

Motivation-Attitude Scale which consisted of 45 items and had 5 categories was administered to the students in both experimental group and control group before the four-week treatment in order to find out whether both groups were homogeneous or not. Table 2 showed mean values, standard deviation, standard error mean and significance of five categories of the questionnaire.

According to Independent samples t-test results for 25 students, the mean score of the pre-test of experimental group for attitudes towards English language was M=3.52 while the mean score of the pre-test of control group for attitudes towards English language was M=3.59. The mean score of attitudes towards learning English was 3.12 in the experimental group' pre-test results and it was 3.25 in the control group's results.

The mean score of experimental group for attitudes towards culture learning was 3.51 while it was 3.04 in the control group. However, it was not significant (p = .57 > .05). In the experimental group the mean scores for motivation (M=2.99) and attitudes towards technology use (M=3.30) were not significantly different than motivation (M=3.20) and attitudes towards technology use (M=3.50) in the control group. Moreover, it can be stated that the mean scores of each part in the pre-test of the control group were higher than the mean scores of the pre-test results of experimental group except the part of attitudes towards learning target culture of the questionnaire. Therefore, the effect of treatment on the students of experimental group will be determined easily after four weeks.

In addition, it can be assumed that the variances of these two unrelated samples are equal since the Levene's test for Equality of Variances is not significant (p > .05) for each part of the questionnaire. The part of attitudes towards English language is not significant (p. = .31 > .05), the part of attitudes towards learning English is not significant (p = .63 > .05), the part of attitudes towards culture learning is not significant (p = .57 > .05), the part of motivation is not significant (p = .22 > .05) and the part of attitudes towards technology use is not significant (p = .31 > .46). Therefore, it can be assumed that both groups are not significantly different from each other and the variances are equal.

R.Q. 2: Is there a significant difference between the learners with whom technology is used and the learners instructed by traditional method concerning the effects of post-test results on the motivation level of the students?

After four- week treatment in the experimental group and the students in the control group taught in a conventional method, the questionnaire which is Motivation- Attitude Scale was administered to the both groups as a post- test According to Table 3 below, the mean scores of post-test of experimental group were significantly different from the mean scores of control group's post-test. In the experimental group the mean scores of the post- test were between the 4.10 and 4.33 whereas the mean scores of the post- test in the control group were between 3.21 and 3.41.

When the pre-test results of both groups are re-examined, it can be stated that the mean scores of experimental group were between 2.99 and 3.52 while the mean scores of the control group were between 3.04 and 3.59 in Table 2 above. Therefore, it can be concluded that motivation of learners in the control group and their attitudes towards English language, learning English, learning target culture and technology use did not change during four weeks since they were not instructed through technology in their classes. However, there was a significant gap between the pre-test results and post test results of the experimental group since using technology affected them in a positive way

Table 3. Post-test results of the experimental group and the control group

Groups	N	Mean	Std. Deviation	Std. Error Mean	Sig.
English Language of Post Experimental	25	4,2200	,46328	,09266	
English Language of Post Control	20	3,3250	1,14130	,25520	,005
Learning English of Post Experimental	25	4,3067	,41242	,08248	,038
Learning English of Post Control	20	3,2167	,93830	,20981	
Culture of Post Experimental	25	4,3371	,43542	,08708	,006
Culture of Post Control	20	3,4143	1,22531	,27399	
Motivation of Post Experimental	25	4,1000	,34157	,06831	,016
Motivation of Post Control	20	3,2300	,53123	,11879	
Technology of Post Experimental	25	4,1050	,26865	,05373	,001
Technology of Post Control					

p<.05

As Table 3 indicates, the post-test results of experimental group were significantly different from the post-test results of the control group since significance levels were not more than 0.05 (p <

.05) for each part of the questionnaire, which implies that using technology in the experimental group took students' interest and made them highly motivated to learn English and affected their attitudes and perceptions towards English, learning English, learning target culture and using technology positively.

DISCUSSION and CONCLUSION

The findings of this study demonstrated that students taught through technology have much more motivation than the students instructed by traditional method although both groups have more or less same motivation level in the beginning of the study. Regarding the studies carried out in various contexts (Akobirov, 2017; Barreto, 2018; Chen & Kent, 2020; Genç İlter, 2015; Gill, 2006; Göçerler, 2018; Fandino, Munoz & Velandia, 2019; Kalanzadeh, Soleimani & Bakhtiarvand, 2014; Sun & Gao, 2020; Tavakoli, Lotfi & Biria, 2019, Wong, Tan & Lin, 2019), it could be concluded that there is a positive relationship between the technology use and the students' language learning motivation. The results of this study are compatible with the studies stated above.

The students in the experimental group have more positive attitudes towards English language, learning English language, learning target culture and technology use than the students in the control group, which implies that using computer, CDs and DVDs and authentic materials downloaded from the internet makes the learners be aware of the opportunities for learning language and using that language in the target culture. Therefore, they are more active in the language learning process. They also believe that films, videos, CDs and internet can be helpful to develop their listening, reading, speaking and writing skills and their vocabulary in English. Similar to the results of Frigaard's (2002) study in which Spanish was taught to the high school students in the computer laboratory, in this study using technology in language classroom makes lessons more enjoyable and helps the students to develop their language skills. They benefit from it as audio visual materials to develop their listening skill in English. All these results are in line with the advantages of technology use in foreign language classrooms (Brinton, 2001; Genç İlter, 2009; Rost, 2002; Wang 2006).

It could be concluded that according to post test results, the students in the experimental group have integrative motivation rather than instrumental motivation. This shows that they learn language to be the part of the target language and culture but not for the sake of something (Gardner and Lambert, 1972; Fei, 2005; Spolsky, 1969). Finally, in the light of the data obtained from the study, some suggestions might be stated in relation to the use of technology in foreign language teaching. These are listed as follows:

1. In-service teachers particularly the teachers having worked for a long time should be encouraged in order to use technology in their foreign language classes by providing them with in-service training since they do not have enough knowledge about technology and its use in the language classroom.

2. In Faculty of Education of universities pre-service foreign language teachers should be trained for using technology in order to attract their future students interest, make them active in language learning process and make the lesson more enjoyable.

3. Computer labs as well as projectors, CD and DVD players in foreign language classrooms should be available at schools and foreign language teachers should be encouraged to exploit them.

4. While English is taught in a foreign language context, students should be encouraged to practice their English by means of technology since they do not have any opportunities to use the language.

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REFERENCES

Akobirov, F.R. (2017). *The influence of technology on language learning and motivation with Uzbek EFL and United States ESL students* (Unpublished doctoral dissertation). University of Kansas, United States of America.

Barreto, A.M.R. (2018). Motivating English language use by using the benefits of technology. *Gist Education and Learning Research Journal, 16,* 117-140.

Baytak, A., Tarman, B., & Ayas, C. (2011). Experiencing technology integration in education: children's perceptions. *International Electronic Journal of Elementary Education, 3(2),* 139-151.

Brinton, D.M. (2001). The use of media in language teaching. In M. Celce- Murcia(Ed.), *Teaching English as a Second or Foreign Language* (pp.459 -476). USA: Heinle&Heinle.

Brown, H.D. (2007). *Principles of language learning and teaching* (5th ed.). USA: Pearson.

Büyüköztürk, Ş. (2010). *Veri analizi el kitabı (11th ed.).* Ankara, Turkey: Pegem Akademi.

Chen, J.C., & Kent, S. (2020). Task engagement, learner motivation and avatar identities of struggling English language learners in the 3d virtual world. *System, 88 (102168), 1-14.*

Crookes, G., & Schmidt, R. (1991). Motivation: "Reopening the research agenda.". *Language Learning, 41(4),* 469- 512.

Deci, E. (1975). *Intrinsic motivation.* New York, USA: Plenum Press.

Demir, B. (2005). An *investigation into effects of motivational factors and attitudes of primary school students on learning English as a foreign language* (Unpublished MA Thesis). Çanakkale Onsekiz Mart University, Çanakkale.

Dörnyei, Z. (1998). Motivation in second and foreign language learning. *Language Teaching*, *31*, 117-135.

Dörnyei, Z. (2003). *Questionnaire in second language research. Construction, administration, and processing*. London, UK: Lawrence Erlbaum Associates.

Fandino, F.G.E., Munoz, L.D., & Velandia, A.J.S. (2019). Motivation and E-learning English as a foreign language: A qualitative study. *Heliyon, 5,* 1-7.

Fei, Q. (2005). *Motivation, an influential factor for L2 Acquisition?.* Retrieved December 13, 2010 from http://zxyy.xhedu.sh.cn/cms/data/html/doc/2005-10/28/24697/index.html

Field, A. (2006). *Reliability Analysis*. Retrieved January 4, 2011 from http://www.statisticshell.com/reliability.pdf

Frigaard, A. (2002). Does the computer lab improve student performance on vocabulary, grammar, and listening comprehension? *Eric Document Reproduction Service* No. ED476749.

Gass, M.S., & Selinker, L. (2008). *Second language acquisition* (3rd ed.). New York, USA: Lawrence Erlbaum Associates.

Gardner, R.C. (2004). *Attitude/Motivation Test Battery: International AMTB Research Project*. Retrieved January 6, 2011 from publish.uwo.ca/~gardner/docs/englishamtb.pdf.

Gardner, R.C., & Lambert, W.E. (1972). *Attitudes and motivation in second language learning*. Rowley, MA: Newbury House Publishers.

Genç İlter, B. (2009). Effect of technology on motivation in EFL classrooms. *Turkish Online Journal of Distance Education*, *10(4),*1-9.

Genç İlter, B. (2015). How does technology affect language learning process at an early age? *Procedia Social and Behavioral Sciences, 199,* 311-316.

Ghorbani, M.R. (2011). The impact of phonetic instruction on Iranian students' listening ability enhancement. *Asian ELT Journal*, *52*, 24-34.

Gill, D. (2006). Effects of technology on second language learning. *Journal of College Teaching and Learning, 3 (2),* 19-28.

Göçerler, H. (2018). *Die effektivitat der smartphone-applikationen auf die wortschatzverfesttigung und-erweiterung im fremdsprachenunterricht.* (Unpublished PhD Thesis). Trakya University, Edirne.

Gömleksiz, M.N. (2001). The effects of age and motivation factors on second language acquisition. *Fırat University Journal of Social Science, 11(2),* 217-224.

Granito, M. D., & Chernobilsky, E. (2012). The effect of technology on a student's motivation and knowledge retention. In*NERA Conference Proceedings* (10.19.2012). University of Connecticut.

Kang, S. (1999). Learning styles: Implications for ESL/EFL instruction. *English Teaching Forum*, 37-40.

Kalanzadeh, G.A., Soleimani, H., & Bakhtiarvand, M. (2014). Exploring the influence of using technology on Iranian EFL students' motivation. ? *Procedia Social and Behavioral Sciences,98,* 814-823.

Kleinginna, P.R., & Kleinginna, A.M. (1981). A categorized list of motivation definitions with a suggestion for a consensual definition. *Motivation and Emotion, 5,* 263-291.

Lin, F.L. (2010). English learners' incidental vocabulary acquisition in the video-based CALL program. *Asian EFL Journal*, *12 (4).* Retrieved July 20, 2011 from http://www.asian-efl-journal.com/PDF/Volume-12-Issue-4-Lin.pdf

Linse, C.T. (2005). *Practical English language teaching: young learners.* New York, USA: Mc Graw-Hill Companies.

Maslow, A.H. (1987). *Personality and motivation* (3rd.). Harlow, England: Longman.

Rost, M. (2002). *New technologies in language education: opportunities for Professional Growth.* Retrieved July 23, 2011 from http://www.longman.com/ae/multimedia/pdf/MikeRost_PDF.pdf

Signes, C.G. (2001). Language teaching and media literacy. In H. F. Mora, B. Pennock Speck, P. B. Franch, C. G. Signes & M. M. M. Viano (Eds.), *Teaching English in a Spanish Setting* (pp.123-136).València: Universitat de València.

Spolsky, B. (1969). Attitudinal aspects of second language learning. *Language Learning*, *19,* 271-283.

Sun, Y., & Gao, F. (2020). An investigation of the influence of intrinsic motivation on students' intention to use mobile devices in language learning. *Education Technology Research and Development, 68 (3),*1181-1198.

Tavakoli, H., Lotfi, A.R., & Biria, R. (2019). Effects of CALL-mediated TBLT on motivation for L2 reading. *Cogent Education, 6 (1580916),* 1-27. Doi: https://doi.org/10.1080/2331186X.2019.1580916.

Wang, X. (2006). The role of motivation in university learners' language acquisition in China. *Sino-US English Teaching*, *3(9),* 32-34.

Williams, M., & Burden, R. L. (2000). *Psychology for language teacher*. Cambridge, UK: Cambridge University Press.

Wong, K-T., Tan, K.N., & Lin, C.Y. (2019). Innovative improvised low-cost wiimote interactive whiteboard (ɪw-ɪwb) learning tool for teaching Chinese as a second language (tcsl). *International Journal of Innovative and Technology and Exploring Engineering (IJITEE), 9(1),* 2233-2237.

APPENDIX 1

Motivation- Attitude Questionnaire

Dear Participant,

This questionnaire has been designed to find out their motivation and perceptions and attitudes of students learning English as a foreign language in the first year of university, towards English language, learning English and target culture and technology usage. Please, do not forget that there is no right or wrong answer in this questionnaire. Therefore, it is important that your answers are sincere and honest.

Your proficiency in English: AA --------- BA ---------

BB --------- CB ---------

CC --------- DC ---------

DD --------- Please state if there is another. ---------

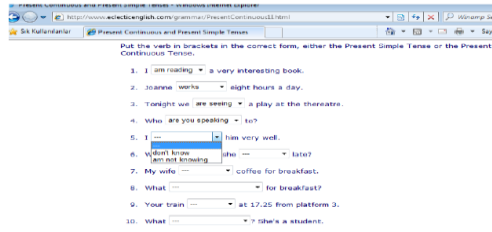|		Totally Agree	Agree	No Idea	Disagree	Totally Disagree
1	English is acceptable in every part of the world.	5	4	3	2	1
2	English is important.	5	4	3	2	1
3	English is enjoyable.	5	4	3	2	1
4	English is easy.	5	4	3	2	1
5	English is interesting.	5	4	3	2	1
6	English is a polite language.	5	4	3	2	1
7	I love learning English.	5	4	3	2	1
8	Learning English is very enjoyable.	5	4	3	2	1
9	Learning English is a waste of time.	5	4	3	2	1
10	Learning English is very interesting.	5	4	3	2	1
11	Learning English is very easy.	5	4	3	2	1
12	Learning English is fun.	5	4	3	2	1
13	While learning a foreign language, learning about the target culture is too important.	5	4	3	2	1
14	While learning a foreign language, learning about the target culture increases motivation of the learners.	5	4	3	2	1
15	While learning a foreign language, it is needed to learn about the target culture.	5	4	3	2	1
16	While learning a foreign language, learning about the target culture will contribute to the future profession.	5	4	3	2	1
17	That the foreign language learning includes learning the target culture will provide me the opportunity to use this information in many places.	5	4	3	2	1
18	While learning about a different culture, I read texts in the foreign language.	5	4	3	2	1
19	While learning about a different culture, I listen to songs in the foreign language.	5	4	3	2	1
20	I learn English because I like it.	5	4	3	2	1
21	I learn English because it is compulsory.	5	4	3	2	1
22	I learn English because I believe that it will be useful to me in the future to find a good job.	5	4	3	2	1
23	I learn English because speaking English makes me happy.	5	4	3	2	1

24	I learn English because without it one cannot be successful in his job.	5	4	3	2	1
25	I learn English in order to be similar to the British and Americans.	5	4	3	2	1
26	I learn English because I can be a more knowledgeable person.	5	4	3	2	1
27	I learn English because my parents want me to.	5	4	3	2	1
28	I learn English because I want to understand English speaking films and music.	5	4	3	2	1
29	I learn English in order to pass the class.	5	4	3	2	1
30	Use of technological equipment in language teaching increases my motivation.	5	4	3	2	1
31	Authentic materials downloaded from the internet make me active in the language learning process.	5	4	3	2	1
32	Computer-based teaching activities make the lessons more enjoyable.	5	4	3	2	1
33	When technology is used every time, it makes the lessons boring.	5	4	3	2	1
34	I can understand language better when my teacher uses technology in the class.	5	4	3	2	1
35	Different technological devices should be used in the class to increase my motivation for learning English.	5	4	3	2	1
36	If my teacher uses power point presentations, English lessons can be more enjoyable.	5	4	3	2	1
37	Films, videos, CDs and internet can be helpful to develop my speaking skill in English.	5	4	3	2	1
38	Films, videos, CDs and internet can be helpful to develop my writing skill in English.	5	4	3	2	1
39	Films, videos, CDs and internet can be helpful to develop my listening skill in English.	5	4	3	2	1
40	Films, videos, CDs and internet can be helpful to develop my reading skill in English.	5	4	3	2	1
41	Films, videos, CDs and internet can be helpful to develop my vocabulary in English.	5	4	3	2	1
42	Computer-based lessons are more enjoyable and effective than traditional lessons.	5	4	3	2	1
43	Technological devices are important sources to learn about culture of target language.	5	4	3	2	1
44	Technology facilitates effective communication with the people speaking target language.	5	4	3	2	1
45	Technological devices cause a waste of time in the class.	5	4	3	2	1

APPENDIX 2

Samples for language activities used in the experimental group

http://www.eclecticenglish.com/grammar/PresentContinuous11.html