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An Investigation into the Impact of Digital Storytelling On The Motivation Level of Students

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Özet

Dijital Öykücülüğün Öğrencilerin Motivasyon Düzeyleri Üzerine Etkisine Dair Bir Araştırma

Motivasyonun dil öğrenme sürecinde en önemli faktörlerden biri olduğu geniş ölçüde kabul edilmektedir ve etkisi farklı araştırmacılar tarafından farklı bağlamlarda yıllardır araştırma konusu olmuştur. Özellikle ikinci/yabancı dil öğreniminde öğrencilerin motivasyon düzeylerini etkileyen çeşitli faktörler tartışılmaktadır. Bunlar arasında dil öğrenim ve öğretim sürecinde öğrencilerin daha motive ve aktif olmaları için materyal kullanımının büyük önem taşıdığı ifade edilmektedir.

Bilgisayarların takdimiyle birlikte öğrencilerin içinde yaşadıkları çevre gibi pedagojik açıdan da dijital ortamlara entegre edildiği yeni bir çağ başlamıştır. Bu nedenle öğrencilerin motivasyon düzeyleri ve dijital araçların dil öğrenim sürecine entegre edilmesi arasındaki ilişki yıllardır araştırma konusu olmuştur.

Çağın gerekleri ve eğitim ortamlarında öğrencilerin ikinci/yabancı dil motivasyon düzeylerine dayanarak, bu çalışma dijital öykü oluşturmanın öğrencilerin İngilizce öğrenme motivasyon düzeyleri üzerindeki etkisini cinsiyet, bilgisayar kullanım sıklıkları, bilgisayarı İngilizce öğrenme amaçlı kullanma sıklıkları ve bilgisayar yeterlilik algıları gibi çeşitli değişkenler açısından incelemiştir.

Çalışma Çanakkale Onsekiz Mart Üniversitesi, Yabancı Diller Yüksekokulu, zorunlu ve isteğe bağlı hazırlık programında okuyan 63 öğrenciyle gerçekleştirilmiştir. Araştırma, karmaşık yöntem aracılığıyla uygulanmış ve nicel açıdan öğrencilerin rastgele seçilmediği ancak araştırmacıya ön-test ve son-test puanları aracılığıyla toplanan veri arasında karşılaştırma yapma olanağı sunması açısından önemli bir yere sahip "eşitlenmemiş karşılaştırmalı kontrol gruplu model" e göre tasarlanmıştır. Gruplar deney (33) ve kontrol

(30) grubu olarak belirlenmiştir ve deney grubunun dijital hikayeler oluşturmasına yönelik eğitim aldıkları kontrol grubunun ise almadığı iki aylık bir çalışmaya dahil edilmişlerdir. Veriler, Gardner'ın (2004) Tutum/Motivasyon Test Ölçeği'nden direkt alınan ya da adapte edilen iki anket ve bir görüşmenin dahil olduğu hem nitel hem nicel yöntemlerle toplanmıştır. Uygulamanın tamamlanmasının ardından iki gruba da anketler son-test olarak verilmiştir ve deney grubu katılımcılarıyla ayrıca görüşmeler yapılmıştır.

Anketler aracılığıyla toplanan veriler, uygulamanın yapıldığı deney grubu katılımcıları ile geleneksel yöntemlerle eğitim alan kontrol grubu öğrencilerinin motivasyon düzeyleri arasında istatistiki olarak önemli bir farklılık olduğunu ortaya çıkaran SPSS 20.0 programı ile analiz edilmiştir. Bulgulara bağlı olarak, deney grubu katılımcılarının motivasyon seviyelerinde bir artış, kontrol grubu katılımcılarında ise son-test puanlarında bir düşüş olduğu ortaya çıkarılmıştır. Veriler, katılımcıların cinsiyet, bilgisayar kullanım sıklığı ve bilgisayar yeterlilik algıları açısından analiz edilmiş ve öğrencilerin ikinci/yabancı dil öğrenme motivasyon düzeylerinde istatistiki olarak önemli etkilerinin olmadığı ortaya konmuştur. Katılımcıların görüşme sorularına verdikleri yanıtlar betimsel analiz yöntemiyle gerçekleştirilmiş ve nicel verilerle benzer sonuçlar ortaya çıktığı görülmüştür.

Hem nicel hem nitel verilerle toplanan bulgulara bağlı olarak, dijital hikaye oluşturmanın İngilizce öğrenimi açısından öğrencilerin motivasyon düzeylerinde önemli bir etkiye sahip olduğu ortaya konmuştur. Sonuç olarak, dijital hikaye oluşturmanın dil öğrenme ve öğretme sürecine entegre edilmesinin öğrencilerin daha motive olmalarına olanak sağlaması açısından etkili olduğu düşünülmektedir.

Abstract

An Investigation into the Impact of Digital Storytelling on the Motivation Level of Students

Motivation is widely accepted as one of the most important factors in terms of language learning process and has been a matter of research for many years in different contexts by different researchers. Several factors are discussed that affect the motivation level of learners specifically in terms of second/foreign language learning. Among those are it could be suggested that the use of materials are of great importance in terms of language teaching and learning process to get learners more motivated and involved.

With the introduction of computers, a new era in terms of pedagogical aspects came into the prominence through which learners have been integrated into digital environments like the setting they live in. Therefore, the relationship between the motivation level of learners and the integration of digital tools into language teaching and learning process has been a matter of research for many years.

Drawing on the requirements of the era and learners' L2 motivation level in educational settings, the present study investigated the impact of the construction of digital storytelling on the motivation level of learners regarding English language learning in terms of several variables such as gender, frequency of computer use, the use of computers to learn English and computer self-efficacy perceptions.

The study was conducted with 63 prep school students studying at Çanakkale Onsekiz Mart University, School of Foreign Languages, optional and compulsory preparatory classes that are students of different departments. The present study was conducted through *mixed method research design* and from quantitative aspect, was designed as "the nonequivalent control (comparison) groups design" in which learners are not selected randomly, however, is

crucial due to the possibility of the data collected through pre-test that enable researchers to make a comparison between pre-test and post-test scores. The groups were designed as experimental (N=33) and control (N=30) and were involved in two-month study in which while the experimental group was instructed in terms of the construction of digital stories the control group was not given the treatment. The data were collected through both quantitative and qualitative methods as two questionnaires that were directly taken or adapted from Gardner (2004)'s Attitude/Motivation Test Battery (*AMTB*) and an interview. After the completion of the treatment, both groups were given questionnaires as post-test and the interview was also applied to the participants of the experimental group.

The quantitative data collected through questionnaires, were analyzed through SPSS 20.0 that revealed a statistically significant difference between the motivation level of the experimental group that was given the treatment regarding the construction of digital stories and control group that was instructed by traditional methods. Based on the findings, it was also indicated that while there was an increase in L2 motivation level of the experimental group, a decrease was revealed in the post test scores of the control group. The data were also analyzed in terms of several variables such as gender, frequency of computer use and computer-self efficacy beliefs that were revealed to have no statistically significant impact on learners' L2 motivation level. Participants' responses to the interview questions were also analyzed through descriptive analysis and were indicated to be similar to the findings based on the quantitative data.

Drawing on the findings collected through both qualitative and quantitative data, it was revealed that the construction of digital stories had a positive impact on the motivation level of learners in terms English language learning. Consequently, the integration of the construction of digital stories in language teaching and learning process is considered to be effective in that it enables learners to be more motivated.

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List of Abbreviations

ESL : English as a Second Language

EFL : English as a Foreign Language

L2 : Second/Foreign Language

DST: Digital Storytelling

CALL : Computer Assisted Language Learning

AMTB : Attitude and Motivation Test Battery

PLATO: Programmed Logic for Automatic Teaching Operations

CD : Compact Disc

ELL : English Language Learners

Chapter I

Introduction

The aim of this chapter is to indicate and suggest an introduction for the current research study entitled as *An Investigation into the Impact of Digital Storytelling on the Motivation Level of Students*. Firstly, the background of the study that was grounded on and the hypotheses that were formed for the purpose of the study are revealed and significance of the study for the literature and the field and limitations related to it are also presented.

Background of the Study

Motivation which is one of the affective factors and addresses to the idea of one's adjustment to learn a second/ foreign language (Holt, 2001) is widely accepted to have an essential role. Thus, motivation has been held by different schools of thought in terms of different perspectives such as behaviorist, cognitive and constructivist throughout the time which is suggested by a brief introduction as in the following:

Behaviorist Perspective: The theory of motivation is suggested from behavioral perspective within the idea of an anticipation of reward. It is regarded to play a central role in order to explain human behavior that addresses to the idea that through the drive to be able to get positive reinforcement and the previous experiences regarding it, one behaves to be able to get further reinforcement as well. It is also suggested that motivation is closely related to several external forces such as family, instructors, friends, educational qualifications and occupational specifications (Brown, 2007). In other words, extrinsic rewards such as pursuit of goals are given more importance in terms of motivation when compared to intrinsic ones (Deubel, 2003).

Cognitive Perspective: In another period that is referred to as cognitivist, a new interest took place through which "linguists acknowledged that a theory of language must address the fundamental issue of the learnability of language" (Hulstijn, 2007, p.192). Through cognitivist perspective, motivation is regarded as a much more effective factor on individuals' decisions and also addresses to some needs or impulses that lay behind our decisions for which Ausubel (1968 as cited in Brown, 2007) also refers to as "exploration, manipulation, activity, stimulation, knowledge and ego enhancement" (p.169). It is also suggested that cognitivists give much emphasis on the motivating factor in terms of learners that are regarded as problem solvers and information seekers (Deubel, 2003).

Constructivist Perspective: The concept of motivation is discussed by constructivists not only in terms of personal choices or self-determination but also within the idea of social interaction with other people as well (Brown, 2007). Within constructivist perspective, meaningful learning regarding both learning of language and understanding of the content, occurs in terms of learning by doing and the possibility of collaboration with others (Morchio & Munoz, 2013).

Taking the concept of motivation from all of these three perspectives, it is suggested that the term has been discussed in several different ways in terms of needs such as anticipation of reward, choices that are made personally and in many cases within social contexts. Due to the fact that motivation plays a central role in many ways, it has also been discussed in terms of language learning for which Brown (2007) suggests that all of those three levels of motivation are required.

The concept of motivation has not only been discussed by schools of thought in terms of their theories that the term is related to, but also in terms of some other variables that also affect it which is referred to as intrinsic/extrinsic and integrative/ instrumental motivation.

Robert Gardner and Wallace Lambert (1972, as cited in Brown, 2007) are among those are

who carried out many crucial studies regarding the relationship between the concept of motivation and language learning. They examined the impact of motivation in terms of two different factors as instrumental and integrative. The instrumental orientation of motivation is referred to the idea of learning a language for the purpose of pursuing a career, some technical materials and being able to translate. On the other hand, the integrative way of the term addresses to one's learning a second language to be able to integrate him/herself into its culture and participate in social interchange within the group of people of the target language as well (Brown, 2007) that will be discussed in the following sections in details.

Motivational factors: In search of integrative motivation.

The concept of *integrative motivation* was defined by Gardner and Lambert (1972, as cited in Ghanea et.al, 2011) as being willing to learn a foreign/second language to be able to be integrated into the culture of the society that the language is spoken drawing on the idea that if learners want to be a part of the society where the language is spoken as the native one, they are observed to be better at learning it (Falk 1987, as cited in Holt, 2001). The idea was based on several research studies that could be illustrated by that of Spolsky (1969) through which it was revealed that learners who were integratively motivated, were observed to be more proficient in second or foreign language learning process. In other words, the concept of integrative motivation plays a crucial role in terms of one's second language learning process and being a proficient speaker of the language when settled in a country whose citizens are native speakers of it (Holt, 2001) which was also discussed in the following statements by Gardner (2001, p.1) as "some individuals decide, for any number of reasons, to emigrate to another country and are faced with the need to develop proficiency in a new language".

Motivational factors: In search of instrumental motivation.

Unlike the characteristics of the goals regarding integrative motivation, another type of motivation that is called as instrumental motivation is also defined by Gardner (1960) in terms of learning a second/ foreign language to be able to fulfill several utilitarian purposes that could be exemplified as pursuing a goal such as getting a good job or having some qualifications regarding the ability of reading and translating the materials in L2. It is also addressed to the idea that differently from integrative motivation; instrumental motivation refers to those people that have little or no social interaction with other people that are native speakers of the language (Holt, 2001).

Comparing integrative to instrumental orientation.

Comparing integrative to instrumental motivation, which addresses to different purposes in terms of second language learning process, it is widely suggested that integrative motivation has a greater impact on learners' language learning achievement in long-term and is also discussed that has an important impact on being successful in terms of L2 proficiency (Taylor, Meynard and Rheault 1977; Ellis 1997; Crookes et. al 1991, as cited in Holt, 2001).

Analyzing historical accounts regarding the concept of motivation, integrative motivation was observed to be given more emphasis on several research studies that have been conducted. Among those are, Gardner and Lambert's (1972, as cited in Ghanea et. al, 2011, p.459) studies could be suggested addressing to the idea that "integrative orientation generally accompanied higher scores on proficiency tests in a foreign language". However, drawing on several earlier research studies that could be exemplified by that of Lukmani (1972, as cited in Brown, 2007), it was concluded that Marathi-speaking Indian learners of

English that were instrumentally motivated, had higher mean scores in terms of English proficiency and by other researchers such as Warden and Lin (2000) whose research findings are in line with that of Lukmani by revealing that Taiwan learners of English were highly motivated in terms of learning English for instrumental goals rather than those of learners who were integratively motivated. Due to such contrasting findings, researchers tended to think on different aspects of motivation between late 1980s and early 1990s in terms of the goals that learners have towards learning a foreign or second language by referring to ESL learners that are residents of an English-speaking country and EFL learners who are learning English in their own countries that is also discussed by Dörnyei (1990, cited in Ghanea et al, 2011, p.460) as "in EFL context, where learners have not had sufficient experience of the target language community, motivational factors such as instrumental motivation should receive special attention" that addresses to the idea that motivational goals need to be analyzed in different contexts. It is also suggested that differences between ESL and EFL settings should be taken into consideration when one analyzes the goals regarding learners' motivation level and if it is related to the later one, then instrumental goals should be in the center. Nevertheless, a new way of thinking also came into the prominence in that learners do not differentiate between integrative or instrumental goals, but rather they are interested in goals regarding both types by referring to international students who travel to an Englishspeaking country to develop his/her linguistic skills in order to be successful and achieve his/her goals in academic contexts and to be integrated into the society as well (Brown, 2000, as cited in Holt, 2001).

Since the concept of motivation is regarded as one of the most important factor in terms of second/foreign language, it has been discussed in two other terms as well: intrinsic and extrinsic motivation. Intrinsic motivation is defined by Dörnyei (1998, p. 121) as "a behavior performed for its own sake, in order to experience pleasure and satisfaction such as

the joy of doing a particular activity or satisfying one's curiosity" and explains extrinsic motivation in terms of a behavior to be able to get an extrinsic reward such as having good grades in the exam or as an escape from punishment. According to Deci and Ryan (1985, as cited in Dörnyei, 1998) that developed the theory of self-determination to evaluate the intrinsic/extrinsic paradigm, in order to be intrinsically motivated, a full sense of personal choice, willingness and approval are required.

In the light of the theories and research studies regarding motivation, it is possible to suggest that motivation is so much associated with second/foreign language learning process which is affected by different factors. Among those are the choice of materials to be used are also regarded to be much important that Schmidt (1996, p.18) also suggests as "interest can be enhanced by using varied materials, by starting lessons with questions that put the learner into a problem-solving mode, by relating instructional material to topics already of interest to learners, and by the use of paradoxes and puzzles".

With the introduction of computers and related materials into our daily lives in 1960s, they have replaced the traditional teaching methods in educational settings in terms of different facilitating elements that they have served from the earlier periods as behaviorism to the present under the name of computer assisted language learning (CALL) whose impact has been a matter of research for many years. It could be illustrated by a research study whose aim was to analyze the impact of CALL-based instruction on students' achievement and it was revealed that learners that were instructed through computers had higher level of positive attitude in terms of English language learning when compared to those that were guided through traditional methods (Lim & Shen, 2006). Based on this perspective, the current study aimed to analyze the construction of digital storytelling (DST) on learners' English language learning motivation level.

Purpose and Significance of the Study

Taking all the considerations related to the use of computers and students' language learning motivation, the main purpose of this study is to investigate the impact of digital storytelling, which is among the applications of the computers that helps students to create their own digital stories, on students' language learning motivation level. Many studies have been carried out by different researchers since the introduction of computers in educational settings and specifically in second/ foreign language learning classrooms in different contexts and settings. Besides, several research studies were also conducted to analyze the impact of digital storytelling on students' language learning performance. Those studies could be illustrated by the following:

Yang (2011, p. 339) aimed to investigate whether digital storytelling had an impact on senior students' level of learning motivation, critical way of thinking and academic achievement in terms of learning English as a foreign language and concluded that DST had a positive impact on participants' comprehension of course content, being eager in order to explore and think critically that are thought to be very crucial in preparation of learners for changing 21st century. Through another research study Condy, Chipona, Gachago and Ivala (2012) aimed to analyze the impact of using digital stories for the purpose of reflecting on pre-service student teachers' experiences in terms of the concept of diversity in their classroom settings. Based on the findings, it was revealed that digital storytelling provided learners with new media tools that enabled them to have rich and diverse sources that they could also use in their language teaching process. Tecnam (2012) also carried out a research study to investigate the impact of digital storytelling on Korean English Language Learning students' attitudes and perceptions in terms of English language learning in after school English classroom setting and concluded that DST had a positive impact.

Taking all of these research studies into consideration, it is suggested that the construction of digital stories have been conducted in terms of its impact on learners' second/foreign language learning abilities or performance in different ways. However, many of these studies were carried out for different purposes in different settings such as pre-service students and their experience for young learners of English or the concept of diversity in their classes, its impact on their attitudes or perceptions, and critical way of thinking or academic achievement. Within this regard, this present study makes a contribution to the literature in terms of the construction of digital short stories on young adult learners' English language learning motivation in a different context.

The findings that were revealed through this study will assist researchers and instructors to be able to comprehend the relationship between the integration of computers in language learning process through the construction of digital storytelling and learners' L2 motivation level. Furthermore, taking the variables into consideration, the study will also contribute researchers for further research studies and instructors to have an understanding in that to what extent learners' L2 motivation level, based on the construction of digital stories, changes in terms of their gender, frequency of computer use, frequency of the use of the internet to learn English and computer self-efficacy perceptions.

This quasi-experimental research study will help researchers in terms of shedding light on the impact of digital storytelling on students' language learning motivation level through both quantitative and qualitative research methods unlike most of the studies related to the field that have been carried out to analyze the effects of the digital stories of the participants through descriptive analysis and classroom observation. The current study is also crucial in that it helps instructors how to benefit from the construction of digital storytelling by giving specific examples obtained from learners' digital story projects and tutorials regarding how to use the program entitled as *Photo Story 3* to be able to create digital stories.

Hypotheses to Be Searched

The present study was formed under several hypotheses that were indicated as the following:

 $H0_1$: There is no statistically significant difference between the pre-test scores of experimental and control groups regarding English language learning motivation level.

H1₁: There is statistically significant difference between the pre-test scores of experimental and control groups regarding English language learning motivation level.

H0₂: There is no statistically significant difference between the pre-test and post-test scores of the experimental group regarding English language learning motivation level.

H1₂: There is statistically significant difference between the pre-test and post-test scores of the experimental group regarding English language learning motivation level.

H0₃: There is no statistically significant difference between the pre-test and post-test mean scores of the control group regarding English language learning motivation level.

H1₃: There is statistically significant difference between the pre-test and post-test mean scores of the control group regarding English language learning motivation level.

H0₄: There is no statistically significant difference between the pre-test mean scores of female and male learners in the experimental group.

H14: There is statistically significant difference between the pre-test mean scores of female and male learners in the experimental group.

H05: There is no statistically significant difference between the post-test mean scores of female and male learners in the experimental group.

H15: There is statistically significant difference between the post-test mean scores of female and male learners in the experimental group.

H0₆: There is no statistically significant difference between the pre-test mean scores of female and male learners in the control group.

H16: There is statistically significant difference between the pre-test mean scores of female and male learners in the control group.

H07: There is no statistically significant difference between the post-test mean scores of female and male learners in the control group.

H17: There is statistically significant difference between the post-test mean scores of female and male learners in the control group.

Assumptions of the Study

The present research study had some assumptions before being conducted. Among those are, it could be suggested that the participants of the study that consisted of 63 young adult learners of English, have positive perceptions of learning a foreign language and there is not a statistically significant difference between them that are intended to be designed as experimental and control groups. Besides, it was also assumed within the scope of the study that individual differences among learners that could be referred to as variables such as their gender, age, accessibility to computers and the frequency percentages related to the use of computers would not interfere with the results of the study regarding their L2 motivation level.

Two different types of data collection tools as interviews and questionnaires were used for the purpose of the study that would present the findings through both qualitative and quantitative data due to the fact that different instruments would provide the study with more reliable findings. It was also assumed that the participants of the study would answer the questions both on the semi-structured interview and questionnaires in an honest and sincere way.

Since the participants are prep school students that are learning English for a year, it was also assumed that the study is consistent with its purpose that aimed to analyze English language learning motivation level of learners, who have online classes in computer labs each week which enable them to benefit from online activities, and the integration of the construction of digital short stories in language learning process.

Limitations of the Study

Several limitations are discussed within the scope of this quasi-experimental research study. Firstly, as the participants are composed of 63 learners, of which 33 were in the experimental group and 30 of them were in the control group, the findings of the study may not be referred or generalize to all students studying at prep schools and learning English.

Secondly, due to the fact that learners' pre-test perceptions regarding their English language learning motivation level were analyzed based on a data collection instrument, it serves as a limitation that addresses to the idea that several other instruments may also be used.

As another limitation for the study, it could be suggested that participants' L2 proficiency level and their previous experiences regarding the use of computers or their tendency to use digital technologies may influence the results of the study.

Chapter Summary

In this chapter, the concept of motivation was introduced with its definitions and different types whose impact has been searched by many. Additionally, background of the study was suggested giving reference to the literature. Following the background, purpose and significance of the study and the hypotheses that were formed in accordance with the aim were presented. The chapter ended with assumptions and limitations of the study as well.

Chapter II

Literature Review

Examining the History of Computer Assisted Language Learning (CALL)

Thanks to the introduction of computers in educational settings that backs to 1960s, language learning has turned into a new context that referred to the term as computer assisted language learning (CALL) and also was discussed in different perspectives such as behavioristic CALL, communicative CALL and integrative CALL.

Among the types of the theories of computer assisted language learning, behavioristic perspective was the initial one that suggested the idea of using computers as a kind of medium to be able to repeat language drills. Within behavioristic perspective, computers were used as a way of mechanical tutor and with the introduction of a well-known tutorial program that was called as *Programmed Logic for Automatic Teaching Operations* (PLATO), language practices were started to be done through extensive drill exercises, tests regarding translation and structures of grammar (Ahmad, Corbett, Rogers& Sussex, 1985 as cited in Warschauer& Healey, 1998). Additionally, through the PLATO system, teaching methods were combined with technology (Alexander, 2011).

Following the period which referred to late 1970s and 1980s where personal computers were introduced and through which a new way of language teaching and learning emerged, a new era also appeared that was called as communicative CALL that rejected the idea suggested by behavioristic CALL by giving emphasis more on benefiting from computer-directed activities using the forms rather than just focusing on the forms themselves and encouraging learners not just using language structures that are prefabricated but to be able to create original utterances by stimulating critical thinking (Bax, 2003). Comparing the

two perspectives regarding CALL, computers are also thought to be used as tutors like in the behaviorist perspective but from communicative perspective learners are able to make choices among many and have control of their own learning (Seljan, Berger & Dovedan, 2004). However, unlike the cognitive perspective of communicative CALL, teachers gained an insight related to the importance of the practice trough social aspects that encouraged them to benefit from new ways of approaches for the purpose of integrating various elements such as authentic materials and social skills into the educational contexts through which a new period was also introduced into language teaching and learning process that was called as integrative CALL (Lee, 2000).

Through integrative perspectives, learners are encouraged to benefit from technological tools in language learning process unlike the classes on language laboratories that are run once a week to practice language drills and various communicative exercises (Wraschauer& Healey, 1998). From integrative perspective, computers are thought to be multimedia tools that with the help of the internet provides various types of materials such as animations, video records, graphics and sound systems (Seljan, Berger& Dovedan, 2004).

CALL and Language Learning Process

Thanks to the developments in technology and its reflections on education, computers have turned into a crucial part of educational contexts as well. Unlike the earlier methods in which teachers benefited from chalks and blackboards in terms of teaching process, they currently prefer and utilize computers for their effective and interactive ways of teaching and learning process. Comparing computers to the earlier ways of teaching such as textbooks and tape recordings, which provide learners with rules and some solutions but not with a kind of feedback regarding their mistakes that are specific to some problems, computers have an

important role in terms of being in interaction with learners to be able to help them deal with the mistakes via presenting immediate feedback (Nabah, Hussain, Al-Omari & Shdeifat, 2009) and through several types of communicative and interactive activities, they could be able to improve their linguistic skills (Lai & Kritsonis, 2006).

Thanks to the integration of computers into educational settings and more specifically through its reflections on language classrooms, language teaching and learning process has turned into be more practical and enjoyable one, relying on several research studies that indicate learners as more motivated. Additionally, through the effective functions of the technology, instructors could be able to observe their students' weak and strong traits and could design course activities in accordance with them. It is suggested that technology helps learners improve their motivation level, engage more actively into the courses and raise interest towards learning when they are given the opportunity of using various multimedia programs or software versions that have been designed for them to improve their skills as they serve as a great stimuli for language learners (Nobar & Ahangari, 2012; Lai & Kritsonis, 2006).

Due to the fact that through computers learners have been equipped with several digital tools, they have turned into digital natives through which another important concept that was titled as *media literacy* has also come into the prominence as regarded to be indispensable in the information age and is also suggested that "media literacy in all its facets has to be integrated into all subjects, as well into EFL classes" (Maglić, 2007, p.7).

Previous Studies Regarding the Impact of CALL

Thanks to the introduction of computers in daily lives and specifically in educational contexts, many researchers have conducted several studies to analyze the impact of computers

on the development of language skills. Among those are Nutta (1998)'s research study could be suggested that aimed to reveal whether computer-assisted instruction had a statistically significant difference on ESL students' L2 grammar skills compared to teacher-directed instruction. Based on the analysis of the collected data, it was suggested that learners of computer-assisted instruction had higher levels of proficiency in open-ended tests than those that were instructed by teacher-directed way of L2 grammar. Besides, it was revealed that L2 grammar instruction through computers had a greater impact on learners' English language learning achievement rather than the teacher-directed L2 grammar instruction.

Among the studies regarding the difference between computer-assisted and traditional language teaching and learning settings could also be illustrated by several research studies such as that of Roed (2003), whose purpose was to investigate the impact of classroom atmosphere on learner anxiety and it was suggested that learners were more comfortable and relaxed in a CALL-based classroom thanks to the visual materials rather than a traditional classroom environment.

Several other research studies in different contexts with different participants have also been conducted by different researchers regarding the assistance of computers in language teaching and learning settings that could be illustrated by a research study conducted by Barani (2013) with 40 Iranian EFL learners and it was revealed that the experimental group that was instructed through computers outperformed the control group that was instructed through traditional methods on the post-test scores.

CALL and Language Skills

The impact of CALL on the improvement of listening skills.

Since the introduction of computers in educational settings, they have been widely used in improving learners' linguistic skills. To be able to guide learners to develop listening skills, computers have been used in terms of providing them with the opportunity of having access to authentic materials through the internet in order to practice them (Mosquera, 2001).

Podcasts could be exemplified as materials that are widely used to facilitate the development of learners' L2 listening skills and also regarded as sources that enrich L2 listening input and provide learners with authentic listening materials. Additionally, they are thought to be beneficial tools for educators to create affective classroom settings via online audio and video files (O'Bryan & Hegelheimer, 2007).

Through another research study, Kılıçkaya (2007) intended to investigate the impact of computer assisted language learning on the improvement of Turkish learners' language achievement in terms of TOEFL exams. The results collected from pre-test and post-test mean scores of the participants of experimental and control groups indicated that the participants of the experimental group had higher scores in terms of listening than those of the control group through a statistically significant difference.

Analyzing whether CALL has an impact on Iranian EFL learners' task-based listening abilities and the improvement of a positive attitude towards learning English, Nobar and Ahangari (2012) concluded that the experimental group outperformed the control group with a statistically significant difference on post-test mean scores.

The impact of CALL on the improvement of reading skills.

Many other research studies have been conducted to analyze the effects of CALL on learners' reading skills as well. Among the benefits of using computers in terms of improving learners' reading skills, it could be suggested that due to the fact that each learner has a specific learning pace, computers could be used to help them to study at their own pace through the possibility of saving their own learning activities that could be used to recall later. Thanks to the computers, it is possible for learners to be able to improve their L2 reading skills at their own learning pace and to differentiate and choose the best one among many types of reading tests for their own learning process. Furthermore, computers are also benefited from to provide learners with more challenging and appealing activities that turn the reading process into a more interesting and motivating one for learners (Nadera, 2001).

Through another research study investigating whether CALL has any effects on learners' reading comprehension compared to the use of traditional L1 glosses, Taylor (2006) concluded that the participants of the experimental group were more proficient than those of the control group that were guided through traditional way of L1 glosses instruction.

The impact of CALL on the improvement of speaking skills.

Anxiety is a widely accepted issue in terms of the performance of L2 speaking skills and it is also addressed to the idea that classroom environment plays an important role for learners to have a decrease or an increase in their anxiety level. Therefore, many researchers have tried to analyze the impact of CALL on learners' anxiety level through many research studies that could be illustrated by that of Kessler (2010) who indicated that creating a CALL-

based language learning environment could be a facilitating atmosphere surrounded by multimedia materials for learners to be able to reduce their speaking anxiety.

To investigate the impact of a CALL application on Chinese foreign language learners' improvement of speaking and listening skills through a pre-test/post-test experimental/control group design, Chang (2007) revealed the idea that the results gained from the participants of the experimental group were higher than the ones obtained by the post-test scores of the participants of the control group and also addressed to the idea that learners' attitude towards leaning and their self-efficacy in terms of L2 fluency improved in a positive way.

Through another research study Lee (2002) aimed to analyze whether the use of synchronous electronic chats integrated with task-based instruction had an effect on the improvement of learners' communication skills. Based on the findings, it was suggested that computer-assisted communication through more open-ended and less structure-based activities had a statistically significant impact on learners' language learning process.

The impact of CALL on the improvement of writing skills.

Many research studies have been conducted in order to investigate the impact of CALL on learners' writing skills as well. Through a research study, Shang (2007) whose aim was to analyze whether benefiting from e-mails had any effects on writing performance of 40 intermediate university students of English in Thailand based on syntactic complexity, grammatical accuracy and lexical density, it was revealed that the results obtained from the experimental group through post-tests, were statistically significant on syntactic complexity and grammatical accuracy than those of the control group. Drawing on the findings, it was also suggested that sending e-mails for their message transfer for at least four times affected

learners' writing performance in a positive way. Furthermore, the findings regarding learners' self-reports indicated that through benefiting from e-mail approach, learners were observed to be able to enhance their language learning skills and develop a positive attitude towards L2.

Through another research study, Arslan and Kızıl (2010) aimed to analyze whether the use of blogs has a statistically significant impact on improving writing skills of EFL learners and the results suggested that blog-assisted writing instruction had a greater impact on participants' writing scores when compared to in-class writing instruction. In other words, benefiting from blog software in terms of writing process was revealed to be more effective than traditional way of in-class writing instruction experienced by language learners.

To investigate whether CALL has an effective impact on improving writing skills of Saudi learners, Al-Menei (2008) conducted a research study through which he suggested that the post-test mean scores of the participants of the experimental group were statistically higher than those of the control group in terms of writing performance.

CALL and Digital Storytelling

Examining the concept of storytelling.

Story is defined as a kind of narrative and serves as an historical expression of an event, person or situation that includes the information about characters, location, events, time and the ways that the story goes through that could also be used for different purposes such as instruction, biography and ethnicity (Chung, 2006) and storytelling as "a constructed experience that involves both listener and teller in a highly interactive and creative process" (Mello, 2001, p.5) which serves as a natural way for humans to communicate and interact with each other. Since storytelling allows people to be able to make a better understanding of

complex concepts or information, it has been widely benefited from while people are in social interaction (Chung, 2006) in terms of sharing values and wisdom, exchanging knowledge and generating understanding (Malita & Martin, 2010).

Storytelling has been in use for all types of human interaction throughout the time due to its characteristics that provide people with the ways to be able to explain and interpret events, experiences or situations that also give them the opportunity of constructing new meaning and knowledge. Additionally, through storytelling it is possible to connect the generations regarding past with the present or future ones to transfer or reformulate beliefs or values that are oral or written (Chung, 2006). Thanks to its functions and benefits in terms of both listener and teller, it is has also been widely discussed within the scope of learning that will be presented in details in the following section as well.

Interaction between storytelling and learning.

Due to the fact that storytelling enables individuals to make meanings through several processes, it is closely related to learning, the idea which is also suggested by Malita and Martin (2010, p. 3061) by saying as "storytelling and learning are inextricably intertwined because the process of composing a story is also a process of meaning-making" and by Tsou, Wang and Tzeng (2006, p.17) in terms of the idea that "storytelling is a practical and powerful teaching tool" that is also widely benefited by teachers and learners in terms of language teaching and learning process due to its features in terms of forming a positive and collaborative language learning classroom setting where teachers could also utilize it in order to develop their students' linguistic skills as listening, speaking, reading and writing. Additionally, integrating storytelling into language teaching and learning curriculum could help language learners improve their language proficiency in those skills (Nazir Atta-Alla,

2012) which is also suggested by Huang, Hwang and Huang (2012) that storytelling has been widely utilized in learning process thanks to its features of having a positive impact on improving students' construction of knowledge and learning motivation because it helps students decrease their affective filter level in order to benefit from their imagination and collaboration in language learning process through the activities administered in classroom that are storytelling-based which give learners the opportunity of expressing their ideas orally that also help them improve their skills in terms of oral communication (Nazir Atta-Alla, 2012). The suggestions are also in line with the findings of a research study that was conducted by Mello (2001) who aimed to investigate the impact of storytelling in language learning process and concluded that learners regarded it as a powerful tool to improve their L2 language skills.

From teachers' perspective, storytelling is believed by many to serve as a cornerstone for their language teaching instruction as they take advantage of stories to develop and improve their students' productive and receptive language skills and raise their awareness in terms of cultural elements. In other words, it is possible to deduce that storytelling is useful for both teachers and learners in language teaching and learning process. Since through storytelling, ESL/EFL learners have the opportunity to improve their language skills and transform them as well (Nazir Atta-Alla, 2012).

Storytelling and the use of digital storytelling.

Throughout the history, "stories have taken many different forms and stories have been adapted to each successive medium that has emerged" (Malita & Martin, 2010, p. 3061) and through the advances in computer technology, the art of storytelling has also got through a digital transformation that is different from telling stories orally like in the past, but using

and benefiting from multiple multimedia tools to tell personal stories and share them with people all over the world via social media (Castañeda, 2013).

Due to the fact that digital technologies started to be an important part of people's lives, modern societies have been transformed into a kind of virtual environment that makes the use of digital devices inevitable and thanks to those advances, the integration of technology to educational settings has become more efficient which also allowed learners to produce and edit videos and movies to be able to tell and share their own stories with others (Chung, 2006) through which the idea of digital storytelling came into the prominence which is defined as "a short, often a personal narrative, voice-recorded and set to music, which contains video footage, and/or photographs" (Castañeda, 2013, p. 55) in order to describe or show a crucial character, event, situation or position (Chung, 2006) which is also suggested by Choi (2012, p.5) as "digital storytelling is a creative way of telling stories by combining images, texts, sounds, and movies to tell and share the users' stories in a digital format". Furthermore, Alexander (2011) refers to the concept of digital storytelling as sharing stories with each other through the ways of digital technologies and also regards stories as the transformation of narratives through the elements of cyber culture and Meadows (2003) also suggests that digital storytelling refers to specifically personal multimedia stories that are created through various tools such as digital cameras, computers or several software.

With the introduction of Web 2.0 tools, a new era started which presented user-generated content and provided storytelling with new versions of multimedia programs among diverse materials (Alexander, 2011). The idea is also in line with those of Lankshear and Knobel (2003 as cited in Skinner& Hagood, 2008) who suggest that literacy has been turned into another form that is different from previous perspectives of print-bound from a singular point, but is iconic and requires several skills that are associated with digital requirements of the 21st century which are transversal in a way that is also in non-print formats because new

form of literacies regard text as any kind of material that could be read, understood or constructed to be able to share meaning. It could also be used in many different ways consisting of skills as listening, speaking, reading and writing (Skinner & Hagood, 2008) because it is possible to create digital stories easily by utilizing almost any digital material or device that is used by a great number of people that are professionals or amateurs. Their genres could range from personal, fiction or nonfiction to brief stories that are formed by a single or multiple mediums (Alexander, 2011).

Drawing on the idea that individuals are living in a virtual environment surrounded by several multimedia tools, learners are also observed to turn into like 'digital natives' who are much interested in benefiting from digital tools and applications and it is also suggested that they benefit from digital tools like a second language to whom creating digital stories are an appealing function (Alexander, 2011) and lead their instructors to think on the ways to be able to provide them with opportunities regarding conversion of traditional methods into virtual settings (Burmark, 2004; Burn & Reed, 1999; Chu, 1995; Cradler et al., 2002; Pierson, 2001; Pritchard, 2004 as cited in Tecnam, 2012) that are formed by cyber culture (Aleaxander, 2011).

Digital storytelling versus traditional storytelling.

With the introduction of the new era of storytelling based on technology, several comparisons have been made between traditional and digital storytelling that could be illustrated by Porter (2005, as cited in Yang, 2011) who compares digital storytelling to traditional oral storytelling by referring to the former one as the new form of the latter one that includes the engagement of personal stories constructed through several technical materials such as images, sound and music integrated with the author's point of view.

Similarly, several research studies have been conducted indicating that digital storytelling is beyond the functions of traditional storytelling in terms of attracting learners' interest, improving their motivation and concentration level, providing them with the opportunity of collaboration and organizing their knowledge, assisting them to deal with complex learning elements and sharing their ideas with others in a meaningful way (Sadik, 2008) since "by providing systematic instructional procedures, convenient free-use software, and objective evaluation, DST constitutes a meaningful approach for energizing instructors and motivating students" (Yang, 2011, p. 340).

A comparison of oral storytelling to digital storytelling that was suggested by Tecnam (2013, p. 27) is indicated in Table 1 as in the following:

Table 1

Comparing Digital Storytelling to Oral Storytelling

0 10, 11	D' '- 1 0 11'
Oral Storytelling	Digital Storytelling
Thousand ago	In 1994 by Atchley &
	Lambert at the Center for
	Digital Storytelling
Human voice and gesture	Multimedia components
	(video, image, sound, etc.)
Verbal communication	Information devices
	(PCs, Tablets, etc.)
Typically painted or printed	Stored electronically in
paper	digital form
Verbal delivery-	Multiple way delivery/
centered/one-way	Interaction & collaboration
speaking & listening	
Primarily oral combined with	To unfold a highly sensory
gestures & listening	experience with narrative
	voice, images, sound and
	music into illuminated
	understandings
	Human voice and gesture Verbal communication Typically painted or printed paper Verbal delivery- centered/one-way speaking & listening Primarily oral combined with

Digital storytelling and learning.

Storytelling has been widely associated with and integrated into learning due to its approving impact on learners' construction of knowledge and improvement of L2 motivation that could be illustrated by several research studies such as that of Robin (2008) who suggested the idea that digital storytelling assists and encourages learners in terms of discussion process regarding the topics included in the story and also enables them to organize obtained findings in a more comprehensible way that was also suggested by Tsouu et al. (2006) in that integration of computers or digital technologies into language teaching and learning process is considerably beneficial for learners in the virtual environment. Bran (2010) also suggests that digital storytelling could raise learners' interest and helps them improve their language learning achievement thanks to the function of presenting materials with different kinds of images, texts or sound.

Burmark (2004, as cited in Hung, 2012) has addressed to the idea that digital storytelling serves as an interactive approach due to the functions that enable students to be able to collect information, give them the opportunity of creating or forming new ideas and helps learners enhance their comprehension level regarding the content of the learning process through the organization of the knowledge that they have. Furthermore, a new framework entitled as *Community of Inquiry* that was developed by Lowenthal and Dunlap (2010) and was based on the construction of digital storytelling as an approach, aimed to create an online setting for both learners and instructors to get involved in interaction and share their ideas with each other.

To bridge the gap between learners of urban and rural settings that had never experienced or benefited from computer technology before, Gyabak and Godina (2010 as

cited in Hung, 2012) introduced the construction of digital storytelling as a kind of instructional instrument.

From pedagogical perspective, digital storytelling could serve as a useful material to enhance learners' performance through providing an increase on their motivation level via attracting their interest by several functions in terms of audio-visual effects that it has (Sylvester & Greenidge, 2010). The idea related to an increase on learners' motivation or interest in learning process is also discussed in the literature as Lowenthal and Dunlap (2010) express that digital storytelling helps learners to get involved in learning through several integrated multimedia tools.

Examining the advantages of digital storytelling.

Many different aspects related to the benefits of the use of digital storytelling have been discussed in the literature by many researchers. Alexander (2011) addresses to the idea that through the construction of digital stories, students get the opportunity of having their own creative project, in other words, they are integrated into the narrative process by themselves.

Many other different benefits of the use or construction of digital storytelling could be suggested thanks to the technological developments that affect educational settings and through which learners could have innovative ways of teaching and learning by utilizing from low-cost and user-friendly software tools such as *iMovie*, *Movie Maker* and *Photo Story* 3 (Yang, 2012).

Among the benefits of digital storytelling, it could be suggested that in the construction of a digital storytelling project, learners could benefit from the pedagogical ways of constructivist learning that could be observed mostly in terms of the story creation process

that is also addressed to the concept of meaningful learning. Additionally, it is also suggested that thanks to the meta-cognition perspective, learners are provided with the opportunity of making connections between their own work and their meaningful learning (Alexander, 2011) that is also suggested by Castañeda (2013) in that digital stories not only provides learners and the audience with the information but also go further by creating meaningful information for them and also by Chung (2006) who expresses that thanks to the developments in technology, learners could be able to create their own sense of learning and knowledge. Furthermore, it helps learners enrich their own ideas through their digital projects and communicate via them in terms of the real world.

A participatory approach is discussed within the scope of digital storytelling in that it creates an interaction between the two as the storyteller and the listener. Furthermore, through digital storytelling, learners could have new opportunities to create dialogues via several communicative practices (Flottemesch, 2013).

Construction of digital stories is utilized in terms of improving language skills as it is referred to the idea that digital storytelling not only helps learners enhance the production step for the output, but also serves as a good practice for learners in terms of writing because it is suggested that like in the teaching of first language, the process approach that is utilized by digital storytelling, also contributes to improve second language writing skills as through this approach, several additional goals are also set that require to combine the presentation of the story with the use of technology to be able to enrich it (Castañeda, 2013). From pedagogical perspective, digital storytelling could also be utilized by learners as an opportunity in terms of applying the knowledge that they have into their own learning process which addresses to learning in different forms such as auditory, kinesthetic and visual (Flottemesch, 2013).

Among the other benefits of digital storytelling, Roby (2010) suggests that taking advantage of digital storytelling in classroom integrated with sound, music, photos, and video

enables instructors to capture learners' interest and Yang (2012) addresses to the idea that digital storytelling provides learners with authentic scenarios related to their personal experiences that turn the subject matter into a more crucial and precious one.

With the help of digital technology, digital stories that assist learners to get background information, could be uploaded onto various websites through which they could take advantage of them whenever they need and want to access even when they are outside the classroom (Choi, 2012). Similarly, Standley (2003, as cited in Hartley, 2009) also addresses to the idea that the possibility of uploading digital stories onto websites for a global audience makes the use of digital storytelling more remarkable than the other forms in terms of storytelling as it is possible for learners to tell or share their stories with others again and again through which learners become more motivated when they have the opportunity of presenting and sharing their digital stories to a different and wide audience (Roland 2006, Salpeter 2005 as cited in Hartley, 2009).

Digital storytelling gives learners of different ages the opportunity of designing multimodal stories through which their experiences and interests could be represented (Skinner & Hagood, 2008) because creating authentic scenarios that are associated with their personal experiences makes the content of the story more crucial and valuable for the students (Koohang et al., 2009; Neo & Neo, 2010, as cited in Yang, 2012).

Yang (2012) addresses to the idea that thanks to the integration of developments in technology, digital storytelling has been turned out to be regarded as an up-an-coming technology-supported approach for the purpose of assisting learners to improve their learning process, acquire the subject matter, enhance the ability of critical-thinking skills, foster motivation and literacy level regarding information as it is suggested that the construction of digital short stories assists learners to control the language learning process, encourage them for language learning confidence, advance the importance of task value and improve language

learning motivation level. Additionally, in the creation of each of the stories, learners are inclined to select and rearrange the elements ranging from personal materials to other kinds of multimedia tools that reinforce the story and the goals that enable them to improve their skills regarding the use of technology and media (EDUCAUSE Learning Initiative, 2007, as cited in Yang, 2012).

Advantages of using digital storytelling for teachers.

It is widely accepted that digital storytelling has many pedagogical implications for instructors. With the use of digital storytelling for educational purposes, teachers could be able to make difference in terms of recognition and approval of different preferences of learning styles and being aware of the digital realities of their age for their digital-native students. Teachers could also benefit from digital storytelling in order to assist learners to enhance their knowledge and use of technology-based literacy skills through raising awareness on them regarding their opportunities and responsibilities as individuals for the use of digital technologies and copyright issues. Additionally, from ethnographic perspective, digital storytelling also helps teachers to get insight by enabling them to have sympathetic connections with learners, their families and the society that they are residents of (Roby, 2010).

It is suggested that to be able to promote and encourage learners for active learning process, instructors are needed to design various materials to get learners involved in learning process and attract their interest in order to motivate them as well (Chang, 2005). Additionally, Lowenthal (2009, as cited in Hartley, 2009, p.253) suggests that "digital storytelling offers educators a new and exciting way to captivate students' interests like never

before" as students are observed to be more motivated, enthusiastic and involved in terms of digital storytelling process (Davis 2004, Hofer and Swan 2006, as cited in Hartley, 2009).

Choi (2012) makes reference to digital storytelling by comparing it to traditional storytelling in that ESL/EFL instructors could be able to eliminate the limitations regarding the traditional ways of teaching and could also provide learners with background information for the subject matter in a more efficient and effective way thanks to the possibilities that digital storytelling approach presents by incorporating all kinds of learning elements to a single media material integrated with several media tools including images, pictures/photos, audio, text and sound that are not possible to benefit in terms of traditional ways of reading activities.

Sylvester and Greenidge (2009) suggest that digital storytelling could be utilized by instructors in terms of the process of enhancing motivation level of the struggling writers through providing them with the opportunity of getting the pleasure of creating their own stories equipped with multimedia tools and also turning them into more competent writers.

Creating storyboards for the construction of digital storytelling.

In the process of the construction of a digital story, storyboards are introduced to the students to help them organize their stories in an efficient way and plan to use certain parameters of digital storytelling such as time duration, transition of images, audio and videos and special effects as well (Chung, 2006). In other words, it serves as an overall plan that gives students the opportunity of constructing an efficient blueprint for their digital stories (Choi, 2012) because the use of storyboard facilitates the process of the narration of events that will be used in the digital storytelling project in a logical sequence, as in a situation of a

gap or break in terms of the story, the writer may have the opportunity of making several changes in the draft before conducting it (Sylvester & Greenidge, 2009).

Multimedia programs: Photo Story 3.

Photo story is a multimedia program presented for Windows users with various functions such as creating filmstrips through the integration of several images and giving individuals the opportunity of adding a kind of basic soundtrack for their digital projects as well. Although it does not have all the media functions of CDs- level for digital story projects, it could be used as an introductory material that enables users to edit new videos, photos/pictures, sound/voice with basic results through its easily accessible function (Alexander, 2011).

Chapter Summary

In this chapter, literature review regarding the related topics was suggested in a detailed way. Firstly, the history of computer assisted language learning (CALL) that the study was based on, was given reference to for the study and it was explained in several issues in terms of the relationship between CALL and language learning process and the previous research studies related to the impact of CALL in terms of the improvement of both productive and receptive skills.

Following the detailed information on the use of CALL, the concept of storytelling and then digital version of it under the name of digital storytelling within digital age through multimedia tools were introduced that formed the basis of the present study. Storytelling and digital storytelling were discussed in terms of the benefits and their impact on language learning process with an emphasis on the use of the latter one in the digital information age. Some information regarding the program that was used by the participants to create their digital stories and the use of storyboards to design them were also presented.

Chapter III

Methodology

In this chapter, firstly the objectives of the study and the formulated hypotheses in accordance with them are presented. Then the steps regarding the design of the study are explained in details that are integrated with the data collection tools as both qualitative and quantitative. Following the design of the study, the main study based on the findings collected through the pilot study is explicated in terms of participants, setting and data collection instruments. Additionally, a sample lesson plan is also presented in order to reveal the activities and steps that were used in the main study. Lastly, the procedures related to data collection and the analyses of them are explained.

Objectives and Hypotheses

The main objective of this study is to investigate the impact of the construction of digital storytelling on the motivation level of students who are studying at Çanakkale Onsekiz Mart University, School of Foreign Languages, optional and compulsory preparatory classes. Among the other objectives of the present study is to analyze if variables in terms of gender, frequency of computer use, computer self-efficacy beliefs and the frequency of the use of the internet to learn English has an impact on students' language learning motivation level as well.

Hypotheses to Be Searched

The present study was formed under several hypotheses that were indicated as the following:

H0₁: There is no statistically significant difference between the pre-test scores of experimental and control groups regarding English language learning motivation level.

H1₁: There is statistically significant difference between the pre-test scores of experimental and control groups regarding English language learning motivation level.

H0₂: There is no statistically significant difference between the pre-test and post-test scores of the experimental group regarding English language learning motivation level.

H1₂: There is statistically significant difference between the pre-test and post-test scores of the experimental group regarding English language learning motivation level.

H0₃: There is no statistically significant difference between the pre-test and post-test mean scores of the control group regarding English language learning motivation level.

H1₃: There is statistically significant difference between the pre-test and post-test mean scores of the control group regarding English language learning motivation level.

H04: There is no statistically significant difference between the pre-test mean scores of the female and male learners in the experimental group.

H14: There is statistically significant difference between the pre-test mean scores of the female and male learners in the experimental group.

H05: There is no statistically significant difference between the post-test mean scores of the female and male learners in the experimental group.

H15: There is statistically significant difference between the post-test mean scores of the female and male learners in the experimental group.

 $H0_6$: There is no statistically significant difference between the pre-test mean scores of the female and male learners in the control group.

H1₆: There is statistically significant difference between the pre-test mean scores of the female and male learners in the control group.

H0₇: There is no statistically significant difference between the post-test mean scores of the female and male learners in the control group.

H17: There is statistically significant difference between the post-test mean scores of the female and male learners in the control group.

Design of the Study

The present study was conducted in accordance with a quasi-experimental research design that is entitled as "the nonequivalent control (comparison) groups design". The name refers to the fact that participants of experimental and control groups are not selected randomly that addresses to the idea that the groups are not equal in conceptual terms. However, the advantage of benefiting from the nonequivalent control groups design rather than the intact group design in which the participants of the groups are of intact classes, is the opportunity of having data collected from participants' mean scores of pre-tests through which it is possible to determine whether experimental and control groups are similar or homogenous at the beginning phase of the study. Furthermore, through this quasi-experimental research design, the researcher is able to compare not only the pre-test mean scores but also participants' post-test mean scores (Nunan & Bailey, 2009).

Based on the theoretical assumptions of the research design, the participants of the research study were not selected randomly. However, with the help of the pre-test scores that included in the design as a major feature, the groups were tested in order to analyze whether

they were equal or distributed homogenously based on the *English Language Learning Motivation Questionnaire* in terms of their L2 motivation level which revealed that both groups are distributed equally.

Some basic steps conducted in the study were suggested as in the following:

Table 2
Steps Conducted in the Study

	PROCEDURES	
STEPS	Experimental Group	Control Group
Step 1	Pre-test:	Pre-test:
	Questionnaire 1: English Language	Questionnaire 1: English
	Learning Motivation Questionnaire	Language Learning Motivation
	Questionnaire 2: Motivation Level of	Questionnaire
	Making Digital Short Stories	
	Questionnaire	
Step 2	<u>Treatment :</u>	No Treatment:
	Construction of Digital Stories	Traditional teaching approach
	through Photo Story 3	as pen-paper
Step 3	Post-test:	Post-Test:
	Questionnaire 1: English Language	Questionnaire 1: English
	Learning Motivation Questionnaire	Language Learning Motivation
	Questionnaire 2: Motivation Level of	Questionnaire
	Making Digital Short Stories	
	Questionnaire	

As the participants are students of pre-determined classes in school of foreign languages, the groups were administered as experimental and control and a pre-test entitled as "English Language Learning Motivation Questionnaire" was carried out in order to determine that the groups were equal in terms of their L2 motivation level. After making sure that the students are equal in terms of their motivation level towards English language learning, the participants of the experimental group were included in a two-month study in which they were instructed in terms of the construction of digital stories through Photo Story 3 while the participants of the control group were instructed through traditional way of penpaper teaching. The underlying rationale behind the application of different activities in the groups was to analyze whether the construction of digital storytelling had an impact on their English language learning motivation level that addressed to the treatment conducted in the experimental group. At the final step, both groups were given the same questionnaires that were applied at the first step as the post-test and the participants of the experimental group were also asked to express their opinions on the semi-structured interview.

Data Collection Tools

Rationale regarding the data collection instruments.

The present study was conducted through mixed method research design that is defined as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (Johnson & Onwuegbuzie, 2004, p.17). The studies through mixed method that is regarded to be the third main research approach or paradigm consist of the collection or analysis of both qualitative and quantitative data that are carried out through one or more

strategies in research process (Johnson, Onwuegbuzie & Turner, 2007). It is suggested that mixed method research design assists researchers "to expand the scope and improve the analytic power of their studies" (Sandelowski, 2000, p.246).

According to Patton (1987) research methods have several strong features and bringing those research methods could make our research method stronger. Thus, a strong research method could appear through benefiting from mixed method where several different research methods are brought together. He also suggests that it is possible to obtain rich and extensive findings through supporting the quantitative research studies with qualitative comments.

Three different types related to the dominant factor are discussed within the scope of mixed method research design, which are formed as: qualitative dominant, quantitative dominant and equal status which is suggested by Johnson and Onwuegbuzie (2004, p. 22) as in the following as well:

Table 3

Mixed Method Research Types

	Time Order Decision			
		Concurrent	Sequential	
	Equal	QUAL + QUAN	QUAL→ QUAN	
Equal Paradigm Status	•		QUAN→ QUAL	
Emphasis	Dominant	QUAL + QUAN	QUAL QUAN QUAL→ QUAN	
on Decision	Status		QUAL QUAN	
		QUAN + QUAL	QUAN QUAL QUAL	

Due to the fact that the data in the present study are mainly analyzed through quantitative data in terms of two questionnaires and are supported through qualitative methods by means of a semi-structured interview, it was based on the quantitative dominant mixed method research design and it is also suggested that supporting a quantitative analysis results with qualitative findings would enable the study more reliable and valid.

Data collection instruments: Questionnaire.

Questionnaires are widely accepted instruments that are defined as any kind of written materials for the participants to express their opinions by writing or choosing the best option for them regarding the statements or questions included on the document (J.D. Brown, 2011 as cited in Nunan & Bailey, 2009).

The statements or the questions on the questionnaire are indicated in two different ways as open or close-ended. A closed item is defined as a type of statement in which the possible answers are pre-determined and the participants are asked to select the most appropriate one in accordance with their opinions (Nunan & Bailey, 2009). Some benefits of the use of closed items are suggested in that they have the function of practicality as the participants could be able to select the items that fit their opinions best easily and fast. In research studies specifically in the field of applied linguistics, Likert scales are widely benefited from in order to analyze participants' feelings or opinions on the statements. Among the advantages of Likert scale, it could be suggested that it enables researchers to obtain the information or the data in a more organized way through the numerical data.

There are several benefits of the use of questionnaires in research studies as data collection tools since Dörnyei (2003) suggests that questionnaires are beneficial tools in terms of time, effort and financial reasons. Additionally, he addresses to some limitations or disadvantages of the use of questionnaires by referring to "the simplicity of answers yielded, the problem of respondents who are unmotivated or unreliable, the famous halo effect, the

acquiescence and prestige biases, issues concerning self-deception and respondent literacy, and the effect of fatigue in cases where the questionnaire is long" (Dörnyei, 2003, p. 9).

Two different questionnaires were used in this present study as data collection tools titled as "English Language Learning Motivation Questionnaire" and "Motivation Level of Making Digital Short Stories Questionnaire" whose items were directly transferred or adapted from Gardner (2004)'s widely used Attitude/Motivation Test Battery (AMTB) in many research studies regarding motivation. The questionnaires were formed under 5 point Likert-scale ranging from strongly disagree to strongly agree in terms of closed items.

Data collection instruments: Interview.

The other instrument that was used in the present study as data collection tool is an interview that is among the most important and familiar data instruments for the analysis of qualitative data which is defined in terms of "discussions, usually one-on-one between an interviewer and an individual, meant to gather information on a specific set of topics" (Harrell & Bradley, 2009, p. 6) whose main purpose is also suggested by Bloom and Crabtree as having a better understanding of the data based on experiences, descriptions or opinions of interviewees (Bloom & Crabtree, 2006).

Among the benefits of utilizing from interviews in terms of data collection, it is suggested that through them, researcher could overcome the limitations of the responses regarding questionnaires in terms of close-ended items (Austin 1981, as cited in Barriball & While, 1994).

Several types of interviews are suggested within the scope of qualitative research methods. A semi-structured interview is defined as a verbal process between the interviewer and the researcher based on asking and answering questions in order for researcher to get information on the subject matter and is also addressed to the idea that "although the interviewer prepares a list of predetermined questions, semi-structured interviews unfold in a conversational manner offering the chance to explore issues they feel are important" (Longhurst, 2003, p. 103).

A semi-structured interview was used as another data collection instrument within the purpose of this study in order to get a better understanding of the impact of the construction of digital storytelling on learners' L2 motivation level through 10 open ended questions that were developed by the researcher which were tested through the pilot study in terms of ambiguity or understandability and administered in the main study as well.

Pilot Study

Objectives.

Before the application of the main study, a pilot study was conducted in order to reveal any problems or deficiencies in terms of the treatment and data collection instruments including questionnaires and interview regarding the construction of digital stories to be analyzed. Within this regard, the pilot study gave the researcher the possibility of making changes or corrections in any part of the treatment or data collection instruments for the purpose of the study. The pilot study was also conducted in order to investigate whether the participants had any problems regarding the use of program and had difficulties understanding the questions on the semi-structured interview. In other words, the pilot study helped the researcher test the reliability and validity of the data collection instruments. Additionally, it enabled the researcher how to design the whole study in accordance with the purpose.

Setting and participants.

For the purpose of the pilot study, 32 volunteer students who are studying at Çanakkale Onsekiz Mart University, School of Foreign Languages, optional and compulsory preparatory classes were involved in the treatment that lasted for two weeks. The demographic information related to gender of the students that took part in the pilot study revealed that 17 of them were female and 15 of them were male. The students are learners of different departments that have been taking a year-long English language classes that also thought to be applicable for the purposes of the study.

Data collection instruments.

Two different questionnaires that were called as *English Language Learning Motivation Questionnaire* and *Motivation Level of Making Digital Short Stories Questionnaire* were conducted in order to analyze students' perceptions on the impact of the construction of digital short stories on their English language learning motivation level. Besides, a semi-structured interview was also carried out to analyze the results as well.

English Language Motivation Questionnaire was formed under two parts. In the first part, students were asked to indicate their personal information such as their gender, age, department, prep school type and they were also required to express if they have a computer with internet access at their home, have a computer training program before, whether created or heard the term of digital storytelling before and were also asked to choose the most appropriate options for them among the items regarding their computer proficiency level and the frequency of the use of the internet to learn English.

The statements that were redesigned based on the data obtained from the pilot study were suggested as in the following:

Item11. About how much time do you spend a day using computers?

At the initial process, the item was open-ended but due to the answers ranging from many different answers that would be difficult to analyze, the item was categorized in three forms as 0-4, 5-8 and 9+ hours a day.

Item7. English Prep School Program Type Level: Elementary Pre-Intermediate

Due to the fact that the students were elementary learners of English but would be as learners of Pre-Intermediate level during the study process, the item was omitted from the questionnaire that would not be a variance anymore.

The items that were 24 in total and included in the second part of the questionnaire were directly transferred or adapted from the widely accepted questionnaire developed by Gardner (2004) entitled as *Attitude/Motivation Test Battery (AMTB)* in terms of the high level of reliability and validity that was acknowledged based on several earlier research studies. There were two negatively-formed statements that are suggested as Items 14 and 21; and 22 positively worded ones in *English Language Learning Motivation Questionnaire*, which were conducted through 5-point Likert scale ranging from *strongly disagree* to *strongly agree* in order to have an understanding of the participants' perceptions regarding their L2 motivation level.

24 items were also included in the second questionnaire that was entitled as *Motivation Level of Making Digital Short Stories Questionnaire*. Among those are 21 items were adapted versions of Gardner (2004)'s *AMTB* and 3 of them that referred to items 17, 18 and 24 were developed by the researcher based on 5-point Likert scale in order to analyze participants' perceptions regarding their opinions on the contribution of the digital short stories for their language skills which were indicated as the following:

- 24. Making digital short story improves my speaking skills in English language learning.
- 18. Making digital short story improves my writing skills in English language learning.
 - 17. Making digital short story expands my grammar knowledge.

As another data collection tool that served as a qualitative method, a semi-structured face-to-face interview was constructed by the researcher in order to get students' perceptions on the statements related to the impact of the construction of digital storytelling. The interview included 10 questions (Appendix C) that were developed by the researcher for the purpose of the study. It was conducted in order to analyze students' responses and opinions on the open-ended statements regarding the process of the construction of digital stories through which the researcher could have a better understanding of the impact of the project on learners' L2 motivation level and be able to analyze the hypotheses through different methods.

In order to provide the requirements of the factors of the validity and reliability of the instrument, the interview was applied to 6 students in the pilot study and their responses on the questionnaires were recorded and later were transferred into the computer in order to test the instrument for any kind of problems that could happen or make sure that there is no ambiguity in terms of the questions.

Procedures regarding data collection.

At the very beginning of the procedures for data collection, an official report (Appendix I) was taken by the researcher in order to be able to conduct the study. Following the official procedure and before conducting the main study, a pilot study was carried out in order to test the data collection instruments and 32 prep school students were included in the

study. Firstly, the participants were informed about the purpose of the study and an informed consent form was administered (Appendix H) and they were applied *English Language Learning Motivation Questionnaire* as pre-test.

Due to the opportunity of access to the internet, the session regarding the instructions to be able to use the program that was determined as *Photo Story 3* for the purpose of the study for the construction of learners' digital stories, was carried out in computer labs.

In the first week, a tutorial (Appendix D) was presented to the participants in order to introduce and explain how to use the program entitled as *Photo Story 3* that they would design their digital stories on, which is defined as a multimedia program presented for Windows users with various functions in terms of creating filmstrips through the integration of several images and giving individuals the opportunity of adding a kind of basic soundtrack for their digital projects as well. Although it does not have all the media functions of CDS- level for digital story projects, it could be used as an "introductory tool for users new to video editing, while letting them produce some basic results" (Alexander, 2011) through its easily accessible function.

The tutorial included the steps that the participants would use to create their stories that were suggested by Dore (2007) as in the following:

- 1. How to start the program and begin a new digital story.
- 2. How to import and arrange the intended pictures/ photos that were included in the file browser.
- 3. How to see the imported photos/pictures shown on the timeline and how to select each of them to edit in terms of special effects such as brightness, color etc.
- 4. How to activate the motion for the pictures to be able to narrate the story.
- 5. How to determine the specific start and duration time for the motion for each picture/photo.

- 6. How to use the position rectangle to determine where to start the motion part for the intended photo/picture.
- 7. How to use the position rectangle to determine where to finish the motion part for the intended photo/picture.
- 8. How to save the period of motion for each imported photo/picture.
- 9. How to remove any transitions to provide an uninterrupted motion for the photos.
- 10. How to add a title for the screen regarding the pictures/photos.
- 11. How to form a title in the box.
- 12. How to use *Select Font* option to make changes in terms of font size, color and style.
- 13. How to use the alignment option to determine the narration in the horizontal or vertical alignment.
- 14. How to add some effects.
- 15. How to record voice or sound for each photo/picture.
- 16. How to preview the recording or how to change it to a new one.
- 17. How to import music for the narration of each photo/picture.
- 18. How to save the story on the computer.
- 19. How to view the story.

Several images from the *Photo Story 3* were also suggested as in the following:



Figure 1. The 1st step for Photo Story 3.

In the first step of the project, learners are required to choose the option as "begin a new story" to start their digital story constructions.

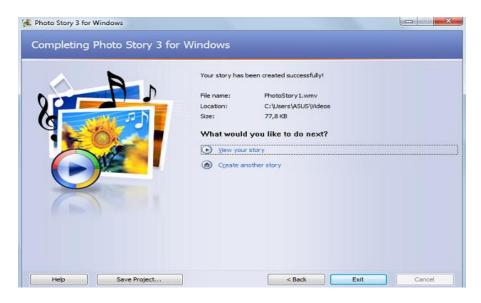


Figure 2. The last step for Photo Story 3.

In the last step, learners save their projects and need to be sure to complete them by means of seeing the label as "view your story".

Following the tutorial, to help learners visualize the system in a digital story project, a story that was entitled as "Christmas Presents" by Jennifer Bassett included in *Bookworms Club Reading Circles* was selected and presented to the participants. In terms of the selection of the short story, learners' L2 language proficiency, age and background knowledge related to the subject matter were taken into consideration that are widely accepted to be very crucial (Khatib, Rezaei & Derakhshan, 2011). It is also suggested that if short stories are selected appropriately, ELT learners will greatly benefit in terms of their language learning process (Murdoch, 2002 as cited in Erkaya, 2005).

The selected story was presented to the students that had been designed in a digital story format using *Photo Story 3* by the researcher and some of the examples were suggested as in the following:



Figure 3. Example 1 from digital storytelling project.



Figure 4. Example 2 from digital storytelling project.

Following the tutorial, learners were instructed in terms of the construction of digital storytelling in which they completed several phases that would be carried out in the main study as well. Firstly, learners were asked to think on a digital story of their own and were sent an outline via e-mail in order to organize their ideas before the construction related to characters, time, setting, problem and solution for the story that they would create to form their ideas (Appendix E). When the outlines were ready, they were asked to send them back to the researcher to be confirmed as appropriate. Then, they were sent a second document entitled as "storyboard" via e-mail to organize their ideas in the form of the sentences and photos or pictures to be used in their projects and were also asked to send them back to the researcher to be guided on the mistakes in their sentences to be corrected and for the suggestions as well.

In the second week, learners transferred the photos/pictures and the sentences, included in their storyboards, to the program to create their digital stories. Following the transfer, the students determined the sound/music and several special effects for their narration. After the completion of the stories, the participants presented them to their friends.

Following the treatment after two weeks in terms of the construction of digital stories, 6 of the participants were interviewed to test the validity and reliability of the questions on the interview and participants' responses were recorded and then transferred to the computer. The questionnaires were not conducted as the post-test for the participants of the pilot study since the aim was not to analyze whether there was a statistically significant difference between the mean scores of the pre-test and post-test but to test the validity and reliability of the data collection instruments.

Data Analysis

The data collected through data collection instruments in terms of questionnaires entitled as *English Language Learning Motivation Questionnaire* and *Motivation Level of Making Digital Short Stories Questionnaire* were typed on and analyzed through Statistical Package for Social Sciences (*SPSS version 20.0*) program. Additionally, to determine the reliability of the questionnaires, a reliability analysis was also conducted through *SPSS*.

To be able to determine the validity and reliability of the questions of the interview, the participants' responses were transferred into the computer and were analyzed through descriptive analysis. Furthermore, the transcriptions were conducted in order to make sure that there was no ambiguity in the questions as the participants were also asked whether there were any questions that were hard to understand in terms of the purpose.

Findings and Conclusion

Based on the findings collected through the pilot study, two items (11 and 7) were redesigned in terms of the personal information part and were indicated as in the following: *Item11*. About how much time do you spend a day using computers?

The statement was firstly formed as open-ended question, however, due to the great number of answers regarding participants' period of time to use computers that were hard to analyze, the item was redesigned in three forms as 0-4, 5-8 and 9+ hours a day.

The second item that was redesigned based on the findings collected through pilot study was indicated as in the following:

*Item7. English Prep School Program Type Level: Elementary | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate | Pre-Intermediate |

As the proficiency level of the participants of the study would change from elementary into pre-intermediate during the study, the item was omitted due to the fact that it would not be a variable for both groups any more.

In order to investigate the reliability of the data collection instruments in terms of questionnaires that were entitled as *English Language Learning Motivation Questionnaire* and *Motivation Level of Digital Storytelling Questionnaire*, Cronbach Alpha values were calculated and indicated as in the following:

Table 4

Reliability Analysis of the Questionnaires

Questionnaires	Cronbach's Alpha Value
English Language Learning Motivation	.772
Questionnaire	
Motivation Level of Making Digital Short	.846
Stories Questionnaire	

Based on the findings, it was revealed that both of the questionnaires had sufficient reliability value in order to be used in the study.

To be able to analyze the reliability and validity of the questions included in the semi-structured interview, participants' responses were recorded and analyzed via descriptive analysis and through which they suggested that there were no ambiguous or unrelated questions. Therefore, the semi-structured interview was also regarded to be reliable and valid in order to collect qualitative data.

Main Study

Setting.

The present study was applied to 63 prep school learners studying at Çanakkale Onsekiz Mart University, School of Foreign Languages, compulsory and optional programs that are learners of different departments but have been learning English that lasts for a year which is thought to be appropriate for the purpose of the study as well.

Participants.

The participants of the present study were 63 prep school students studying at Çanakkale Onsekiz Mart University, School of Foreign Languages, optional and compulsory programs. They were designed in two groups as experimental that consisted of 33 participants and control group including 30 learners whose detailed descriptions related to gender, departments, program types, the period of time that they spent to learn English, computer proficiency, and the frequency of the use of the internet in order to learn English were revealed as in the following sections.

Activities and tasks used in the study.

In the design of the study several types of activities were used for both control and experimental groups which were formed under three categories as pre-stage, while-stage and post-stage activities that were suggested in the Table 5 as in the following:

Table 5

Activities and Tasks Used in the Study

Control Group	Experimental Group
Pre-Stage Activities	Pre-Stage Activities
 Preliminary survey 	 Preliminary survey
• Brainstorming	• Brainstorming
While-Stage Activities	While-Stage Activities
• Writing a storytelling outline	Sample Tutorial
(Appendix E)	• Downloading <i>Photo Story 3</i>
• Finding/ drawing photos/pictures to	• Writing a digital storytelling outline
create their stories	(Appendix E)
	• Finding/ drawing photos/pictures and
• Creating a storyboard (Appendix F)	music/sound/voice and special effects
	to create their stories
	• Creating a storyboard (Appendix F)
	• Importing the story and
	pictures/photos and music/sound into
	the <i>Photo Story 3</i>
Post-Stage Activities	Post-Stage Activities
 Continuing the story 	 Continuing the story
Writing an end	Writing an end
	 Adding special effects
	• Saving the story

Sample lesson.

Several activities/tasks that were indicated in the previous section were applied to the participants of the experimental and control groups, following the pre-test regarding their English language learning motivation level. During this phase, the sample lesson was conducted through one of the stories entitled as "Christmas Presents" by Jennifer Bassett in order to visualize the program and the process in the experimental group. The activities carried out in the experimental group included the same steps as those conducted in the control group.

At the pre-stage activity, *preliminary survey* and *brainstorming* were administered in both groups regarding their ideas to design their stories. The participants made a preliminary survey about the topic that they would create their stories on and they were also included in a brainstorming session together with other participants and the researcher. Since they talked about their ideas and topic, they were also given feedback in that whether their ideas were applicable.

At the while-stage activity, following the feedback about the applicability of their ideas as a story, both groups were asked to write a storytelling outline through which they would express their intended stories in terms of topic, characters, time & setting, problem and solution (Appendix E) that could be illustrated as in the following:

DIGITAL STORY TELLING OUTLINE Name &Surname: Title of the Story: Little Girl's Doll Topic: Jane's friend Walter makes a joke to Jane. The joke ends badly. Characters: Jane: Lead Walter: Jane's friend Ashley: Jane's mum Time &Setting: Time: 21-22-23 September 2010 Setting: Philadelphia Problems: The problem is that Walter makes a joke to Jane but the joke is very bad. Solution: There is no solution because unfortunately anybody can't do anything.

Figure 5. A sample of digital storytelling outline created by a participant.

Following the completion of the outlines, the participants sent them to the instructor via e-mail and they were given feedback.

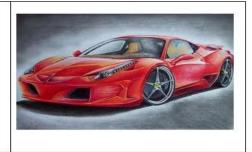
The experimental group was asked to use or search on the internet for relevant photos/pictures to create their digital stories and they saved them to utilize on the *Photo Story*3. On the other hand, the control group was also asked to find or draw pictures to use on their pen & paper stories. Then two groups were given *storyboards* to use or upload their photos/pictures and to create the sentences in terms of the narration that could be suggested as in the following:

STORYBOARD

Name & Surname:

Story Title: LOST HOLİDAY





Narration:

Selin and her family go on a holiday

Narration:

Selin puts a dog into the car secretly. Selin's father gets angry and they have an accident





Narration:

Selin's family dies.

Narration:

Selin lives with her grandfather.

Figure 6. An example of a storyboard created by a participant.

The participants sent their storyboards to the researcher and they were also given feedback.

At the post-stage activity, both groups were asked to continue their stories and write an end. The control group wrote their stories on a sheet of paper and read them to their friends. The experimental group also wrote an end to their stories and uploaded the music or their own voice recordings to their digital stories and saved them to present in the class.

Data collection procedures.

From quantitative aspect, the research study was conducted by quasi-experimental method. In this study the methods to be used depend on the topic, problem and the setting. Analyzing the research studies in this field, the experimental method is regarded to be the best one for the purpose of the study. The most common features of true experimental studies are random selection of participants and random selection of them to groups as experimental and control (Nunan & Bailey, 2009). However, it is not always possible to select the participants randomly. Within this regard, quasi-experimental method is benefited from. In this method, the groups of the participants are pre-determined and one of those groups are selected as experimental and the other one as control. A treatment regarding the purpose of the study is applied to the experimental group while the control group is not given the treatment. Both pre-test and post-test are administered for both groups to be able to analyze the impact of the treatment on the experimental group (Çepni, 2001).

In this study, whether there was a statistically significant difference between the motivation level of the participants of the experimental group that created digital short stories through *Photo Story 3* and those of the control group that was not given the treatment was aimed to be analyzed. In other words, the aim was to reveal whether the independent variable (the construction of digital short story) had a significant impact on the dependent variable (participants' L2 motivation level).

Firstly, both groups were administered a pre-test in terms of their English language learning motivation level. Following it, the participants of the experimental group were involved in a two-month study through which they created their own digital short stories by means of several steps such as digital short story outline (Appendix E) which was the initial step to help participants to organize their ideas in the form of a story. Then, the storyboards (Appendix F) that helped them to determine the scenes and the narration one by one and the pictures that they would use on their digital stories were also created. On the other hand, the participants of the control group were also subjected to a two-month study through which they were instructed through traditional methods and were required to form their stories not through digital ways but in paper. In the final step, participants of both groups were asked to complete the questionnaires that had been administered as pre-test, in the form of post-test to be able to reveal the findings whether there is statistically significant difference between the two in terms of their L2 motivation level.

The lesson plans that were utilized during the research process for both groups were suggested in the Table 5. In the design of the research plan, two different materials entitled as storyboard (Appendix F) and short story outline (Appendix E) were used. At the final phase of the study, a post-test regarding their English motivation level was administered to both groups.

Table 6

Research Model

Groups	Pre-Te	st	Treatment	Post-	Test
Experimental	•	English Language	Construction	•	English Language
Group		Learning	of Digital		Learning
		Motivation	stories		Motivation
		Questionnaire			Questionnaire
	•	Motivation Level		•	Motivation Level
		of Making Digital			of Making Digital
		Short Stories			Short Stories
		Questionnaire			Questionnaire
Control	•	English Language	Traditional	•	English Language
Group		Learning	way of pen-		Learning
		Motivation	paper		Motivation
		Questionnaire			Questionnaire

In terms of qualitative data, interviews were conducted to get learners' perceptions regarding the construction of digital short stories. After being recorded, participants' responses were transferred to the computer and were analyzed through descriptive analysis that aims to reveal the hidden facts and describe the data (Straus and Corbin, 1990).

Data analysis.

After collecting the data from the participants of experimental and control groups, they were transferred into the analysis process. The quantitative data were analyzed through

Statistical Package for Social Sciences for Personal Computers (SPSS 20). Firstly, the data collected through the pre-test and post-test scores were analyzed in order to determine whether they were distributed normally. Kolmogorov Smirnov and Shapiro-Wilk tests could be used in order to determine whether the data are distributed normally. Kolmogorov Smirnov test is conducted when the data are or higher than 29 while Shapiro-Wilk test is administered when the data are lower than 29 (Kalaycı, 2006). Within this regard, as the number of participants is higher than 29, Kolmogorow-Smirnov test was used in order to determine whether the groups are distributed normally. Due to the fact that some of the data did not suggest a normal distribution, non-parametric tests called as Mann Whitney U and Wilcoxon signed-rank test were used in the analysis procedure.

Mann-Whitney U test is used "for the comparison of measures of location for two samples where the assumption of normality is questionable" (Rosner & Grove, 1999). Additionally, this test is known to be the non-parametric alternative of t-test in parametric studies (Kalaycı, 2006) which is used to analyze whether there is a statistically significant difference between two groups (Can, 2013) in terms of the analysis of normally distributed or parametric data. Wilcoxon signed-ranked test is also used to analyze the significance value of two related scores which is known to be non-parametric alternative of dependent sample t-test (Kalaycı, 2006).

Due to the fact some of the significance values of more than two groups are distributed normally, a parametric test, analysis of variance (ANOVA) that is defined as "a technique for analyzing the way in which the mean of a variable is affected by different types and combinations of factors" (Bewick, Cheek & Ball, 2004, p. 130) was also used to analyze the data.

Interviews were also conducted in order to get participants' perceptions of the construction of digital short stories and the findings were revealed through descriptive analysis.

Chapter Summary

In this chapter, the methodology was indicated in details. Firstly, the objectives and the hypotheses of the study were revealed. Following the process, the design of the study through the pilot study was suggested. Then the data collection tools were also presented in details. Lastly, the methodology that was applied in the main study with reference to the pilot study was also explained.

Chapter IV

Findings and Discussion

In this chapter, the findings that were analyzed through SPSS 20 will be indicated in terms of the hypotheses that were constructed for the purpose of the study. Besides, the descriptive analysis of the semi-structured interview questions will also be revealed that were formed based on the hypotheses of the study.

Findings

Analyses and participants' demographic features.

The participants of the study are 63 learners in total that were formed as experimental (N=33) and control groups (N=30). The use of detailed descriptive analysis for the participants of the study is regarded to be an important factor that increases the reliability of the study (Yıldırım & Şimşek, 2003). Within this regard, detailed descriptive analyses of the participants of both groups were conducted in order to make a comparison between the experimental and control groups in terms of an indicator of the normal distribution of them as well.

Table 7

Gender Differences of Experimental and Control Groups

	Experim	Experimental		ol
Gender	Frequency	Percent	Frequency	Percent
Male	17	51.5	14	46.7
Female	16	48.5	16	53.3
Total	33	100.0	30	100.0

Analyzing the Table 7 regarding gender differences of the experimental group which consisted of 33 participants, it was revealed that there were 17 male and 16 female learners in the group. In other words, 51.5 % of all participants were male and 48.5 % of them were female. On the other hand, in Table 7 which also shows the gender distribution of the control group, it was indicated that 46.7 % of the participants, which indicated the number of 14, were male and 53.3% of them that also addressed to the number of 16 were female. Additionally, age differences of the participants of experimental and control groups were suggested in Table 8 as in the following:

Table 8

Age Differences of Experimental and Control Groups

	Experimental		Control	
Age	Frequency	Percent	Frequency	Percent
18	10	30.3	4	13.3
19	12	36.4	12	40.0
20	6	18.2	7	23.3
21	4	12.1	3	10.0
22	1	3.0	3	10.0
23	0	0	1	3.3
Total	33	100.0	30	100.0

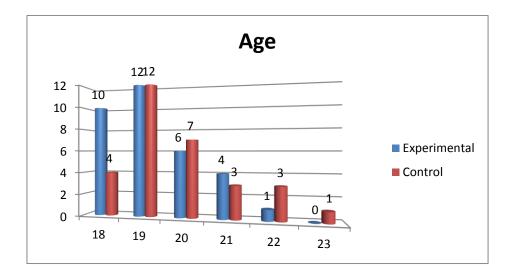


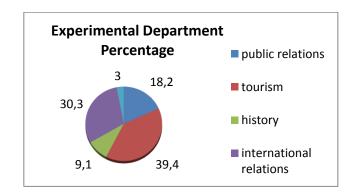
Figure 7. Age differences of experimental and control groups.

Analyzing the Table 8 regarding age distributions of the participants' of the experimental group, it was indicated that 10 of them are at the age of 18, 12 of them at 19, 6 of them at the age of 20, 4 of all at the age of 21 and only 1 of them is at the age of 22. Generally, it is possible to suggest that age distributions of the participants of the experimental group vary between 18 and 19. On the other hand, Table 8 which also suggests age distribution of the control group, reveals that 12 of all participants are at the age of 19, 7 of them at 20, 4 of them at 18, 3 of them at 21 and 22; and 1 of them is at the age of 23. Examining the figure 7, it is also possible to conclude that in general, the age distribution of the participants of the control group ranges from 18 to 20.

Table 9

Department Distributions of Both Groups

	Experimental		Control	
Department	Frequency	Percent	Frequency	Percent
Public Administration	6	18.2	9	30.0
Tourism	13	39.4	5	16.7
History	3	9.1	8	26.7
International Relations	10	30.3	8	26.7
Foreign Trade	1	3.0	0	0
Total	33	100.0	30	100.0



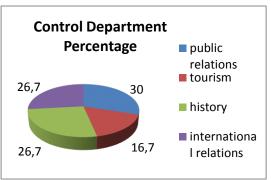


Figure 8. Distribution of participants' departments.

Through Table 9 which reveals the department distribution of the participants, it is indicated that 13 of all participants are students of the department of *Tourism*; 10 of them are of the department of *International Relations*, 3 of them are of the department of *History* and 1 of them are of the department of *Foreign Trade*. Drawing on the findings, it is suggested that most of the participants are learners of the departments of *Tourism* and *International Relations*.

Looking at the department distributions of the participants of the control group that is shown in the Table 9, it is indicated that 9 of all are learners of the department of *Public Administration*, 8 of them are learners of the department of *International Relations* and *History*, and 5 of them are of the department of *Tourism*. In Figure 8, it is also revealed that most of the participants are learners of the departments of *Public Administration*, *History* and *International Relations*.

Table 10

Participants' Period of Learning English

	Experime		Experimental		Con	trol
Year	Frequency	Percent	Frequency	Percent		
1	8	24.2	6	20.0		
3	0	0	2	6.7		
4	3	9.1	2	6.7		
5	1	3.0	0	0		
6	2	6.1	3	10.0		
7	1	3.0	7	23.3		
8	6	18.2	1	3.3		
9	2	6.1	3	10.0		
10	9	27.3	3	10.0		
11	1	3.0	1	3.3		
13	0	0	2	6.7		
Total	33	100.0	30	100.0		

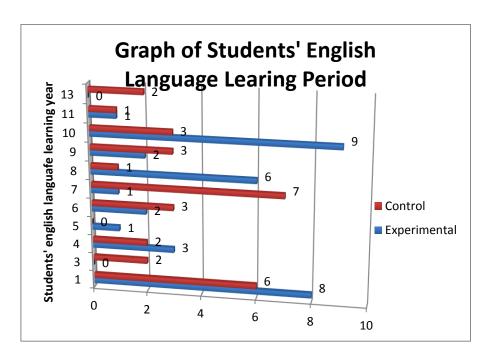


Figure 9. Graph of students' English language learning period.

Analyzing the Table 10 which shows the period of time that the participants spent to learn English, it is seen that 9 of all participants have been learning English for 10 years, 8 of them for 1 year, 6 of them for 8 years, 3 of them for 4 years, 2 of them for 6 years, 2 of them for 9 years and 1 of them for each period of 5, 7 and 11 years. The average number of years regarding the participants of the experimental group refers to 6.4. Additionally, Figure 9 which shows the distribution of English language learning period of the experimental group, it is suggested that most of the participants have been learning English for 1 or 10 years.

The Table 10 which presents the period of time that the participants of the control group spent to learn English, it was revealed that 7 of all participants have been learning English for 7 years, 6 of them for 1 year, each group of 3 learners for 6, 9 and 10 years and 2 learners for 3, 4 and 13 years, and 1 learner for 8 and 11 years. The average time of period regarding learning English for the control group indicates as 6.3 years. Analyzing the Figure 9 regarding the period of English language learning, it is indicated that most of the participants have been learning English for 1 or 7 years.

Table 11

Prep-types of Experimental and Control Groups

	Experimental		Control		
Prep-type	Frequency	Percent	Frequency	Percent	
Optional	4	12.1	1	3.3	
Compulsory	29	87.9	29	96.7	
Total	33	100.0	30	100.0	

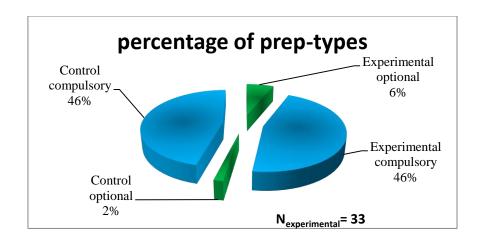


Figure 10. Prep-type of experimental and control groups.

In order to analyze participants' prep school program types as optional or compulsory, descriptive analysis was administered through which it was indicated in Figure 10 that 4 of all participants are learners of optional classes and 29 of them are learners of compulsory programs. Figure 10 shows that in general, most of the students in the experimental and control groups are learners of compulsory programs.

Table 12

Participants' Access to the Internet

	Experi	Experimental		trol
Access	Frequency	Percent	Frequency	Percent
Yes	26	78.8	20	66.7
No	7	21.2	10	33.3
Total	33	100.0	30	100.0

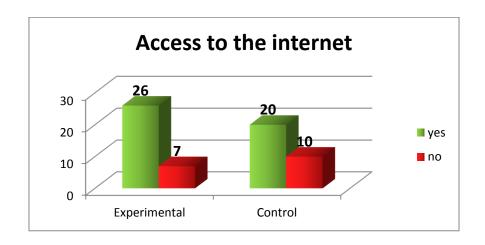


Figure 11. Participants' access to the internet.

Through the Table 12 that indicates the percentage of participants of the experimental group who have access to the internet, it was revealed that 26 of all participants answered as positive and 7 of them as negative. Analyzing Figure 11, it is also possible to conclude that most of the learners of the experimental group have access to the internet.

The Table 12 which also indicates the distribution of the participants of the control group regarding their internet access, it was revealed that 20 of all participants answered as positive and 10 of them as negative. Analyzing Figure 11, it is also possible to state that like the experimental group; most of the participants of the control group have access to the internet as well.

Table 13

Training for Computers

	Experimental		Control	
Training for computers	Frequency	Percent	Frequency	Percent
Yes	8	24.2	11	36.7
No	25	75.8	19	63.3
Total	33	100.0	30	100.0

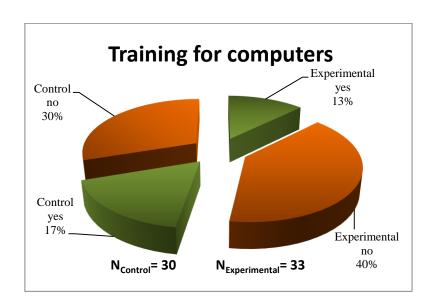


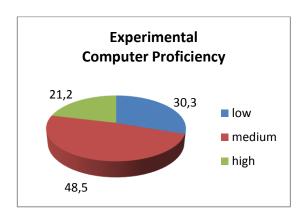
Figure 12. Training for computers.

In order to find out whether the participants of the experimental group had training before, regarding computer use, descriptive analysis was applied and it was revealed that 7 of them answered as positive and 28 of them as negative. Analyzing Figure 12, it is possible to conclude that most of the participants did not have computer training before. In the Table 13 which also shows the percentage of the participants of the control group in terms of computer training, it was indicated that 11 of all participants had computer training before while 19 of them did not. Figure 12 also suggests that most of the participants of the control group did not have computer training before.

Table 14

Participants' Perceived Computer Proficiency Levels

	Experi	Experimental		trol
proficiency	Frequency	Percent	Frequency	Percent
Low	10	30.3	5	16.7
Medium	16	48.5	18	60.0
High	7	21.2	7	23.3
Total	33	100.0	30	100.0



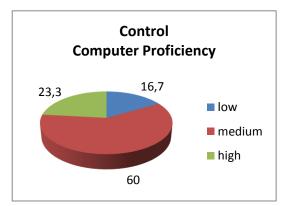


Figure 13. Participants' perceived computer proficiency levels.

Table 14, which indicates participants' perceived computer proficiency levels, reveals that 16 of all participants in medium level, 10 of them in low and 7 of them in high levels. Analyzing the Figure 13 regarding the percentage level of participants' perceived computer proficiency; it was revealed that 45.5 % of them are in medium, 30.3% of them in low and 21.2 of them are in high levels. Drawing on the findings, it is possible to suggest that 80% of the experimental group have a high level of computer proficiency.

Relying on the findings shown in Table 14, it was revealed that 18 of the participants of the control group regarding their perceived computer proficiency level are in the medium, 7 of them are in high and 5 of them are in the low level. Figure 13 also indicates that 60% of the participants are in medium, 23.3% of them in high and 16.7% of them are in low levels. The findings also suggest that almost 77% of the participants have a high level of computer proficiency.

Table 15

Time for Computer Use

T'	Experimental		Control	
Time	Frequency	Percent	Frequency	Percent
Less than 5 hours a day	11	33.3	10	33.3
5-8 a day	10	30.3	11	36.7
9 hours and over a day	12	33.4	9	30
Total	33	100.0	30	100.0

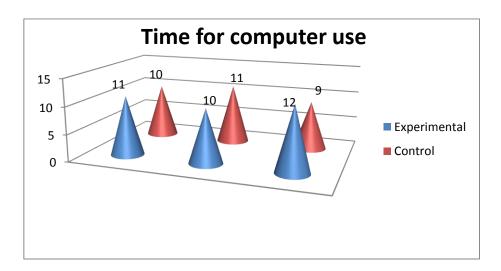


Figure 14. Time for computer use.

Through the Table 15, regarding participants' period of time for computer use, it was revealed that 11 of all participants spend less than 5 hours, 10 of them as 5-8 hours, and 12 of them as 9^+ hours a day. Analyzing Figure 14, it is also possible to indicate that most of the participants of the experimental group spend more than 8 hours on the computer. Table 15 that also presents the percentage regarding period of time for computer use for the control group, indicates that 10 of the participants spend less than 5 hours, 11 of them indicate as 5-8 hours, and 9 of them as 9^+ hours.

Table 16

The Frequency of the Use of Computers to Learn English

	Experimental		Control		
Learning	Frequency	Percent	Frequency	Percent	
Never	0	0	3	10.0	
Rarely	7	21.2	6	20.0	
Sometimes	14	42.4	12	40.0	
Often	9	27.3	7	23.3	
Always	3	9.1	2	6.7	
Total	33	100.0	30	100.0	

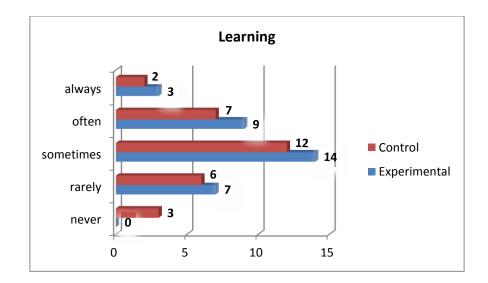


Figure 15. The frequency of the use of computers to learn English.

In order to reveal how often participants use the internet to learn English, descriptive analysis was conducted and it was revealed that 14 of all participants answered as *sometimes*, 9 of them as *often*, 7 of them as *rarely* and 3 of them as *always*. Analyzing Figure 15 it is also suggested that most of the participants' responses are in the categories of *sometimes* and *often*. Analyzing the Table 16 that also shows the percentage for the participants of the control group regarding the use of internet in terms of English language learning, it was indicated that 12 of all participants answered as *sometimes*, 7 of them as *often*, 6 of them as *rarely*, 3 of

them as *never* and 3 of them as *always*. Additionally, Figure 15 also reveals that like the experimental group, most of the participants' responses are included in the category of the percentage of *sometimes* and *often*.

Table 17

Participants' Story Perceptions

	Experi	mental	Control		
Story	Frequency	Percent	Frequency	Percent	
Yes	24	72.7	17	56.7	
No	9	27.3	13	43.3	
Total	33	100.0	30	100.0	

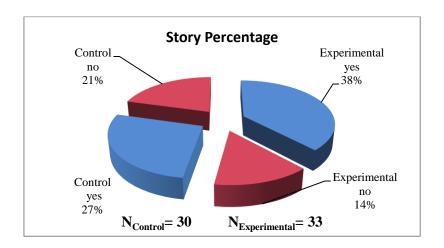


Figure 16. Participants' story perceptions.

Descriptive analysis was conducted in order to analyze whether the participants like reading short stories in terms of English language learning and it was indicated in the Table 17 that 24 of them answered as positive and 9 of them as negative. Through the findings shown in Figure 16, it is suggested that most of the participants like reading short stories in general in language learning process. Through the Table 17, it was also revealed that 17 of the participants of the control group answered as positive and 13 of them as negative. Drawing on the findings in Figure 16, it is also possible to conclude that most of the participants of the control group like reading short stories in general as well.

Table 18

Participants' Story Experiences

	Experii	nental	Control		
Create	Frequency	Percent	Frequency	Percent	
Yes	7	21.2	3	10.0	
No	26	78.8	27	90.0	
Total	33	100.0	30	100.0	

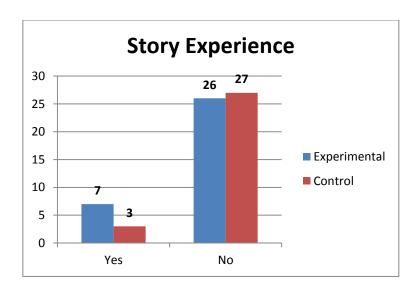


Figure 17. Participants' story experiences.

In order to investigate whether the participants of the study had created a short story before, descriptive analysis was administered and it was revealed in the Table 18 that 26 of them answered as negative and 7 of them as positive. Through the findings shown in Figure 17, it was suggested that most of the participants had not created short stories before. Drawing on the findings in the Table 18, it was also indicated that 27 of the participants of the control group had not created a short story before while 3 of them answered as positive. Figure 17 also suggests that most of the control group had not created short story before.

Table 19

Term of Digital Storytelling

	Experi	nental	Control		
Term	Frequency	Percent	Frequency	Percent	
Yes	4	12.1	9	30.0	
No	29	87.9	21	70.0	
Total	33	100.0	30	100.0	

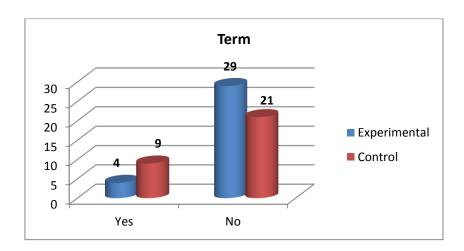


Figure 18. Term of digital storytelling.

Through the Table 19 which indicates whether the participants had heard the term of digital storytelling before, it was revealed that 29 of all participants of the experimental group answered as negative and 4 of them as positive. Through the Figure 18, it was also suggested that most of the participants had not heard the term before. Additionally, Table 19 also indicates that 21 of all participants of the control group had not heard the term before while 9 of them answered as positive. Figure 18 also indicates that like the experimental group, most of the participants of the control group had not heard the term before.

Comparison of experimental and control groups in terms of their L2 motivation level based on pre-test and post-test scores.

In order to determine whether there is a statistically significant difference between experimental and control groups in terms of their English language learning motivation level; in other words, if the participants of both experimental and control groups are homogeneous regarding their L2 motivation level, *Test of Normality*, based on their pre-test mean scores, was administered in the initial step and the findings regarding the first hypothesis were suggested in Table 20 as in the following:

H0₁: There is no statistically significant difference between the pre-test scores of experimental and control groups regarding English language learning motivation level.

H1₁: There is statistically significant difference between the pre-test scores of experimental and control groups regarding English language learning motivation level.

Table 20

Homogeneity Level of Experimental and Control Groups' Pre-Tests

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Groups	Statistic	N	P	Statistic	N	P
Experimental	.158	33	.037*	.841	33	.000
Control	.208	30	.002*	.863	30	.001

p*<0.05

Due to the fact that the data included in each group are over the number of 29, *Kolmogorov-Smirnov* test was conducted. Analyzing Table 20, it was revealed that the mean scores of experimental (p=.037) and control groups (p=.000) in terms of their pre-tests are not distributed normally. Thus, the data were analyzed through *Mann-Whitney U test*, which is among non-parametric tests, and the results were indicated as in the following:

Table 21

Mann-Whitney U Test Results of the Pre-test Scores of Experimental and Control Groups

Group	N	Mean	Mean Rank	Sum of Ranks	M-Whitney U	р
Experimental	33	3.50	35.08	1157.50	393.500	.162
Control	30	3.35	28.62	858.50		
1.00 0.05						

p=.162, p>0.05

As shown in Table 21, significance value in the test indicated as p=.162 (p>0.05) which addressed to the idea that there is not a statistically significant difference between experimental and control groups. In other words, a *Mann-Whitney U test* indicated that there is not a statistically significant difference between experimental and control groups in terms of their L2 motivation level on their pre-test mean scores (U = 393.5, p >0.05). Additionally, analyzing the mean scores of the experimental and control group, it is indicated that the experimental group has a mean score of 3.50 while the control group has 3.35 which addresses to the idea that the mean scores are similar to each other. Consequently, the null hypothesis related to the idea that there is no significant difference between both groups in terms of their L2 motivation level was accepted. Furthermore, the alternative hypothesis addressing to the idea that there is statistically significant difference between two groups in terms of L2 motivation level was rejected.

In order to analyze experimental and control groups in terms of their English language learning motivation level based on their post-test scores regarding the hypothesis suggesting "H1₁: There is statistically significant difference between the pre-test scores of experimental and control groups regarding English language learning motivation level", a Mann-Whitney U test, based on the Test of Normality, was carried out which was indicated in the following:

Table 22

Test of Normality Based on Experimental and Control Groups' Post-test Scores Regarding

Their L2 Motivation Level

Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	N	p	Statistic	N	p
Experimental	.167	33	.020*	.870	33	.001
Control	.162	30	.043*	.924	30	.034

p*<0.05

As shown in Table 22, post-test mean scores of experimental and control groups regarding their L2 motivation level are not distributed normally. Therefore, a *Mann-Whitney U* test was administered in order to analyze the data and the results were revealed in Table 23 as in the following:

Table 23

Mann-Whitney U-Test Results of the Mean Scores of Experimental and Control Groups Based on L2 Motivation Level

Group	N	Mean	Mean Rank	Sum of Ranks	M-Whitney U	p
Experimental	33	3.97	47.00	1551.00	.000	.000
Control	30	3.16	15.50	465.00		
- 0.000 - 0.05						

p=0.000, p<0.05

Taking the significance value into account, Mann-Whitney U test indicated that there is a statistically significant difference between experimental and control groups in terms of L2 motivation level based on their post-test scores (U = .000, P<0.05). Analyzing the mean scores of experimental (M= 3. 97) and control groups (M=3, 16), it is suggested that the experimental group had higher level of L2 motivation when compared to the control group on the post-test mean scores. Therefore, the hypothesis related to the idea that there is a statistically significant difference between the groups in terms of their English language

learning motivation level on post-test scores was accepted while the alternative hypothesis was rejected.

The findings, which were analyzed based on the data collected from participants' responses on the semi-structured face-to-face interviews, indicated similar results regarding their L2 motivation level. Through the interviews, it was indicated that participants of the experimental group addressed to an increase and positive change in terms of their English language learning motivation level based on their responses specifically related to the 7th question in the interview as in the following:

7. Are there any changes in your English language learning motivation after the construction of your digital short story?

Drawing on the questions some of the responses were suggested as in the following:

"At first, I was nervous but after the study my opinions changed certainly in a positive way. It helped me improve my grammar skills and I learnt a lot of vocabulary. It helped me improve my motivation level due to visual elements and it was so nice and to present it enabled me to have experience. It was a start for me and I want to continue to create such projects later." (Interviewee 13)

"At first when I heard to create such a story, I felt a bit nervous because it would be a completely new story but at the end of the project, I was so happy. I learnt a lot of vocabulary and practiced my grammar skills. It was also effective in terms of classroom participation." (Interviewee 12)

"Absolutely. If I am required to create such a story again, I would really like to do it.

All of the functions of the project were nice. Creating something on your own makes you feel better. It improves one's motivation level when something happens that first is not thought to come true." (Interviewee 11)

"Before I created this story, my motivation level towards learning English had not been in high level but after the story, I recognized that I had an ability to do that. I suppose I will continue to write stories. It affected me in a positive way." (Interviewee 8)

"Yes. Writing is so important to enhance English language learning and it has become easier and more enjoyable through this project. It increased my motivation level to learn English, because it made easier to determine the correct tense and use it in a context appropriately. Firstly, I thought that I would not be able to do it; but after you manage to do something, you forget about the previous ideas on that." (Interviewee 3)

"I realized that I could be able to do things. We learn English grammar and skills to learn the language and it is nice to see that they work well while creating such a story. I think I can benefit from it in the future. Those kinds of activities are among the best ones to learn English, because we produce after we learn in the class and if it continues, it will be nice." (Interviewee 7)

"Those who do not like learning English may like it in this way. I had difficulty creating the story, but when I started to create it, I really enjoyed." (Interviewee 2)

Question 10 in the semi-structured face-to-face interview also addresses to the contributions of the construction of digital storytelling which was formed as:

10. How did the construction of your digital short story affect your English language learning?

The responses regarding the question were also indicated as in the following:

"I learnt a lot of new words because through this way, I could keep more vocabulary in my mind. I searched a lot before starting to my digital story project. I wished I had borrowed English books from the library." (Interviewee 2)

The findings are in line with several research studies such as that of Yang (2012) who aimed to analyze the impact of digital storytelling on 110 10th grade senior high school

learners' English language learning motivation level that lasted for a year as a quasi-experimental design and based on the data collected from participants' mean scores of pre-test and post-test, it was revealed that the experimental group outperformed the control group with a statistically significant difference specifically in terms of some pedagogical traits as task value and learners' self-efficacy.

Through another research study, Tecnam (2012) aimed to investigate whether the use of digital storytelling has any effects on 32 5th grade Korean ELL learners' perceptions and attitude regarding English language learning in and after school through a 12-week study. Drawing on the findings based on mean scores of the post-test regarding learners' self-evaluation and instructors' lecture review reports and surveys, it was indicated that the potential advantages of the construction of digital storytelling had positive impact on participants' perceptions and changes in terms of their attitude towards English language learning. The findings revealed that the use of digital storytelling helped learners have a better understanding of the subject matter which enabled them to get involved in classroom participation and discussion voluntarily and in a more active way. Furthermore, it was also suggested that "digital storytelling made students engaged in the content of the story not only by promoting motivation and interest, but also by providing confidence in learning English" (p. 25).

Based on the findings and the related research studies included in the literature regarding the increase on L2 motivation level of learners through digital storytelling, it could be concluded that the construction of digital storytelling has a positive impact on learners' motivation level in terms of English language learning.

Comparison of the experimental group in terms of the mean scores of their pretest and post-test regarding L2 motivation level.

In order to analyze whether there is a statistically significant difference between the pre-test and post-test scores of the experimental group based on L2 motivation level, *Test of Normality* was carried out and the findings were indicated in the Table 24 regarding the hypotheses as in the following:

H0₂: There is no statistically significant difference between the pre-test and post-test scores of the experimental group regarding English language learning motivation level.

H1₂: There is statistically significant difference between the pre-test and post-test scores of the experimental group regarding English language learning motivation level.

Table 24

Test of Normality Based on Pre-Test and Post-Test Scores of the Experimental Group

Regarding Their L2 Motivation Level

	Kolmo	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	N	P	Statistic	N	P	
Pre-test	.158	33	.037*	.841	33	.000	
Post-test	.167	33	.020*	.870	33	.001	

p*<0.05

Drawing on the findings revealed in the Table 24, it is suggested that the pre-test and post- test mean scores of the experimental group in terms of L2 motivation level are not distributed normally. Therefore, to determine whether there is a statistically significant difference between the two, *Wilcoxon signed-rank test*, which is among non-parametric tests, was administered and the findings were revealed as in the following:

Table 25

Wilcoxon Signed-Rank Test Based on the Pre-Test and Post-Test Scores of the Experimental

Group in terms of L2 Motivation Level

	N	Mean Rank	Sum of Ranks	Z	p
Negative Ranks	O ^a	.00	.00	-5.015 ^b	.000
Positive Ranks	33 ^b	17.00	561.00		
Ties	0^{c}				
Total	33				

^{*}Based on negative ranks, p<0.05

Analyzing the Table 25 and taking the significance level (p=.000) into account, it is indicated that there is a statistically significant difference between pre-test (M= 3.50, SD=.27) and post-test mean (M= 3.97, SD=.16) scores of the experimental group. Besides, the findings, revealed through rank scores, indicated that all of the participants had a positive level in terms of their L2 motivation on their post-test scores. Therefore, the hypothesis related to the idea that *H12: There is statistically significant difference between the pre-test and post-test scores of the experimental group regarding English language learning motivation level* was accepted while the alternative hypothesis was rejected.

The findings are also similar to the responses of the participants of the experimental group on the interview questions after the construction of digital short stories that are indicated as in the following:

"It was so beneficial for me. I could express myself better. I tried to be better at creating sentences. It improved my English language learning skills. I make a contrast between my previous English proficiency level and that of mine now and it improved a lot." (Interviewee 8)

"I recognized that there was a difference between the first moment I started that project and the last one that I created it because a story as good or bad was created while there was nothing for which I could say, it is my own work now." (Interviewee 10)

The findings are similar to those of the responses on the question 4 as "how have your feelings changed about making digital short stories in English language learning after the study? that were obtained via the interview as in the following:

"In my opinion every one of the learners of prep classes should create such a digital story because I enjoyed a lot in terms of the selection of photos/pictures. Integrating special effects and music into our stories was much more enjoyable. It was not just an ordinary PowerPoint presentation. I enjoyed more doing digital story thanks to visual elements." (Interviewee 7)

"In my opinion, visual materials are more effective rather than just the use of traditional books; it is more effective in English language learning." (Interviewee 12)

The findings are in consistent with several research studies included in the literature that could be illustrated by that of Pop (2012) who aimed to analyze whether the use of digital storytelling has an impact on the motivation level and enhancement of language skills of learners and concluded that there was an increase in terms of students' level of interest towards English language learning based on the post-test scores of the experimental group.

Consequently, both qualitative and quantitative data reveal that like among the groups as experimental and control, there was an increase in the post-test mean scores of the experimental group when compared to their pre-test scores that could be addressed to the idea that English language learning motivation level of the participants of the experimental group changed in a positive way after the construction of digital short stories.

Comparison of the control group in terms of the mean scores of their pre-test and post-test regarding L2 motivation level.

In order to determine whether there is a statistically significant difference between the pre-test and post-test mean scores of the control group, *Test of Normality* was administered in the first stage to analyze whether their pre-test and post-test scores are distributed normally which was indicated in Table 26. The findings based on the following hypotheses were revealed in the Table 27 as in the following:

H03: There is no statistically significant difference between the pre-test and post-test mean scores of the control group regarding English language learning motivation level.

H13: There is statistically significant difference between the pre-test and post-test mean scores of the control group regarding English language learning motivation level.

Table 26

Test of Normality Based on the Pre-Test and Post-Test Mean Scores of the Control Group

	Kolmo	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	n	p	Statistic	n	p	
Pre-mean	.208	30	.002*	.863	30	.001	
Post-mean	.162	30	.043*	.924	30	.034	

p*<0.05

Through the findings (p<0.05), it was revealed that the mean scores of the pre-test and post-test, based on L2 motivation level, are not distributed normally. Thus, *Wilcoxon signed-ranks test*, which is among non-parametric tests regarding paired samples, was carried out and the findings were revealed as in the following:

Table 27

Wilcoxon Signed-Rank Test Based on Pre-Test and Post-Test Scores of the Control Group in terms of Their L2 Motivation Level

	N	Mean Rank	Sum of Ranks	z	p
Negative Ranks	23ª	17.13	394.00	-3.329 ^b	.001
Positive Ranks	7 ^b	10.14	71.00		
Ties	0^{c}				
Total	30				

^{*}Based on positive ranks, p<0.05

As shown in the Table 27, there is a statistically significant difference between the pretest and post-test (p=.001) scores of the control group. Besides, analyzing the positive ranks of the statistics, it is suggested that 23 of all participants had a more negative level on the post-test mean scores (M= 3.16, SD= .30) when compared to their pre-test scores (M=3.35, SD=.39). Moreover, it is indicated that there is a decrease in the post-test mean scores of the control group. As a result, the null hypothesis advocating no existence of significant difference between the mean scores of the pre-test and post-test of the control group in terms of L2 motivation level was rejected and the alternative hypothesis was accepted.

The findings are in line with another research study conducted by Verdugo and Belmonte (2007) who aimed to analyze the impact of digital storytelling on the improvement of language skills of Spanish young learners of English and concluded that there was a decrease on the post-test scores of the control group when compared to the pre-test mean scores.

Through another research study Yılmaz (2012), who aimed to investigate the impact of the integration of short stories through computers, indicated that there was a significant decrease on English language learning motivation level of the participants of the control group based on the post-test mean scores.

Consequently, it could be deduced from the findings and the research studies in the literature that learners' L2 motivation level decreases on the post-test after the traditional way of pen-paper storytelling. In other words, learners' motivation level regarding English language learning changes in a negative way through traditional way of storytelling.

Comparison of the experimental group regarding gender difference.

In order to analyze whether there is a statistically significant difference between perceptions of male and female participants of the experimental group, *Test of Normality* was carried out at the initial step to determine whether the scores are distributed normally and the results were suggested as in the following:

H0₄: There is no statistically significant difference between the pre-test mean scores of female and male learners in the experimental group.

H1₄: There is statistically significant difference between the pre-test mean scores of female and male learners in the experimental group.

H05: There is no statistically significant difference between the post-test mean scores of female and male learners in the experimental group.

H15: There is statistically significant difference between the post-test mean scores of female and male learners in the experimental group.

Table 28

Test of Normality Based on Gender Difference Regarding the Experimental Group

		Kolmog	Kolmogorov-Smirnov ^a		Shapiro-W	ilk	
		Statistic	N	P	Statistic	N	P
Male	Pre-mean	.136	17	.200	.904	17	.080
Maie	Post-mean	.167	17	.200	.890	17	.047*
	Pre-mean	.210	16	.058	.785	16	.002*
Female	Post-mean	.153	16	.200	.937	16	.313

p*<0.05

As shown in the Table 28, due to the fact that the number based on participants' gender types is under the number of 30, the data were analyzed based on *Shapiro-Wilk* Statistic table which indicates the significance value as p<0.05. Therefore, to determine whether there is statistically significant difference between the pre-test scores of male and female learners in the experimental group, *Mann-Whitney test* was administered which is suggested in the Table 29 as in the following:

Table 29

Mann-Whitney U-test of the Pre-test Scores of the Experimental Group Based on Gender

Group	N	Mean Rank	Sum of Ranks	M-Whitney U	p
Male	17	17.47	297.00	128.000	.772
Female	16	16.50	264.00		

p=0.772, p>0.05

Analyzing the pre-test mean scores of the female (M= 3.48) and male (M=3.52) participants, it is indicated that there is not a statistically significant difference between the two (p>0.05). In other words, it is revealed that participants' gender does not have a statistically significant impact on their pre-test mean scores. Consequently, the null hypothesis related to the idea that $H0_4$: There is no statistically significant difference between the pre-test mean scores of female and male learners in the experimental group was accepted. To analyze whether there is a statistically significant difference between the post-test mean scores of female and male learners, Mann-Whiney U test was administered through which the findings were revealed as in the following:

Table 30

Mann-Whitney U-test of the Post-test Scores of the Experimental Group Based on Gender

Group	N	Mean Rank	Sum of Ranks	M-Whitney U	p
Male	17	18.38	312.50	112.500	.393
Female	16	15.53	248.50		

p=0.393, p>0.05

Based on the findings shown in the Table 30, it was indicated that there is not a statistically significant difference between perceptions of female and male learners in the experimental group (p>0.05). As a result of this, the null hypothesis related to the idea that there is no statistically significant difference between the post-test mean scores of female and male learners in the experimental group was accepted.

The interview results were also indicated as in the following:

"My motivation level increased because it was so enjoyable. I also presented my digital story in front of my friends. We had a responsibility regarding the creation of a digital story project and we did it. I created my story based on my dreams, in other words, it was a story of mine. It was so nice." (Interviewee 7: Female)

"After I had created my digital story, I watched it. Then I made a presentation of my story to my friends. My friends and you also watched it and all of you congratulated me for that and it was so nice to hear. I was so happy because everybody liked it. We were in interaction because I was a presenter and they were audience and in the end both of us came together and it was so nice, too". (Interviewee 3: Male)

The findings reveal the similar results in the literature. Through the study that was conducted by Tatum (2009) in order to analyze the impact of digital storytelling on learners' comprehension of information texts, it was indicated that students' gender types did not suggest a statistically significant difference on their perceptions. However, Bozdoğan (2012), who aimed to analyze the stories created by ELT students in a digital format via Moviemaker, concluded that five types of stories were formed only by males based on the common characteristics as being negative. Additionally, the characters that were used in their stories reflected the gender of the owner as female students used female cartoon characters and male learners benefited from male cartoon characters as well.

Drawing on the findings collected through both the present study and several earlier related research studies, it is possible to conclude that both male and female learners' L2 motivation level changes in a positive way after the construction of digital short stories. In other words, participants' gender types do not have a statistically significant impact on their motivation level regarding English language learning.

Comparison of the control group regarding gender difference.

In order to determine whether there is statistically significant difference between male and female participants of the control group, *Test of Normality* was administered in the initial step and the results indicated that the mean scores based on gender are not homogenous which is also indicated in the following as:

Table 31

Test of Normality of the Mean Scores of the Control Group Based on Gender

		Kolmo	gorov-Sm	nirnov ^a	Shapiro-Wilk			
	Gender	Statistic	N	P	Statistic	N	P	
Pre- mean	Male	.260	14	.011	.775	14	.002*	
	Female	.197	16	.097	.882	16	.041*	
Post- mean	Male	.153	14	.200*	.922	14	.234**	
2	Female	.189	16	.128	.935	16	.289**	

p*<0.05, p**>0.05

Analyzing the Table 31, it was suggested that while the pre-test mean scores of female and male learners are not distributed normally, the post-test mean scores of them are. Therefore, while *Mann-Whitney U* test was used in order to investigate whether there is a statistically significant difference between the pre-test scores of male and female learners, an *Independent Sample T-test* was administered in terms of perceptions of control group based

on post-test mean scores to reveal the findings regarding the formulated hypotheses suggested in the following and the results were also revealed.

 $H0_6$: There is no statistically significant difference between the pre-test mean scores of the female and male learners in the control group.

H1₆: There is statistically significant difference between the pre-test mean scores of the female and male learners in the control group.

H07: There is no statistically significant difference between the post-test mean scores of the female and male learners in the control group.

H17: There is statistically significant difference between the post-test mean scores of the female and male learners in the control group.

Table 32

Mann-Whitney U-Test Results of the Pre-Test Scores of the Control Group Based on Gender

Gender	n	Mean Rank	Sum of Ranks	M-Whitney U	p
Male	14	15.64	219.00	110.000	.934
Female	16	15.38	246.00		

p>0.05

Analyzing the Table 32, it is suggested that there is not a statistically significant difference between the pre-test mean scores of female (M=3.29) and male (M=3.42) learners of the control group in terms of their perceptions of the use of digital storytelling (p>0.05). Consequently, the hypothesis regarding $H0_6$: There is no statistically significant difference between the pre-test mean scores of female and male learners in the control group was accepted and the alternative hypothesis was rejected.

In order to reveal whether there is a statistically significant difference between the post-test scores of female and male learners, an independent sample t-test was conducted through which the results were indicated as in the following:

Table 33

Independent Sample T-test Results of the Post-test Scores of the Control Group Based on Gender

Group	N	X	S	SD	T	P	
Male	14	3.1994	.29516	28	.605	.550	
Female	16	3.1302	.32663				

P > 0.05

Analyzing the findings based on t-test, it was revealed that the statistically significance level indicates as p>.05. In this respect, there is not a statistically significant difference between the post test scores of female and male learners. Based on the mean scores of female (M=3.13) and male (M=3.19) learners, it is also possible to conclude that participants' gender does not have a statistically significant impact on their perceptions. Therefore, the hypothesis suggesting the idea $H0_7$: There is no statistically significant difference between the post-test mean scores of female and male learners in the control group was accepted and the alternative hypothesis was rejected.

The findings are in line with several research studies that could be exemplified by that of Normann (2011) who aimed to investigate whether there was any statistically significant difference between male and female learners in terms of their learning potentials based on digital storytelling project and concluded that gender differences did not have a statistically significant impact on participants' learning potentials.

Consequently, the findings suggest that like the experimental group, gender types of the participants of the control group do not make a statistically significant difference on their L2 motivation level.

The impact of the frequency of the use of computers on the pre-test and post-test scores of the experimental group regarding L2 motivation level.

In order to analyze the period of time that the participants of the experimental group spent on computers, *Test of Normality* was conducted before the analysis of the pre-test scores of the experimental group, which was suggested as in the following:

Table 34

Test of Normality Based on the Pre-test and Post-Test Scores of the Experimental Group

Regarding the Frequency Computer Use

	Groups	Kolmogor	ov-Sm	irnov ^a	Shap	iro-W	ilk
		Statistic	N	p	Statistic	N	p
	Less than 5 hours a day	.139	11	$.200^{*}$.915	11	.276
Pre-mean	5-8 a day	.253	10	.068	.782	10	.009*
	9 hours and over a day	.193	12	$.200^{*}$.906	12	.190
	Less than 5 hours a day	.234	11	.095	.839	11	.031*
Post-mean	5-8 a day	.171	10	$.200^{*}$.901	10	.224
	9 hours and over a day	.175	12	$.200^{*}$.890	12	.117

p*<0.05

Due to the fact that some of the statistically significant difference levels indicate mean values of p>0.05, *Kruskal Wallis*, which is among the non-parametric tests, was conducted in order to investigate whether there was a statistically significant difference between the period of time regarding computer use and the motivation level on the pre-test scores of the participants in the experimental group and the findings were indicated in the Table 35 as in the following:

Table 35

Kruskal Wallis Test Results Based on the Pre-test Scores of the Experimental Group

Regarding the Frequency of Computer Use

Groups	N	Mean Rank	DF	X^2	p
Less than 5 hours a day	11	19.05	2	1.593	.451
5-8 a day	10	18.05			
9 hours and over a day	12	14.25			
Total	33				

p>0.05

Analyzing the significance value (p=.451), it was indicated that there was not a statistically significant difference between the two (p<0.05). Another *Kruskal Wallis test* was also administered in order to analyze whether the frequency of the use of computer has a statistically significant difference on the post-test mean scores of the experimental group and the findings were shown in the Table 36 as in the following:

Table 36

Kruskal-Wallis Test Results Based on the Post-test Scores of the Experimental Group

Regarding the Frequency Computer Use

	Groups	N	Mean Rank	df	\mathbf{X}^2	p
	Less than 5 hours a day	11	15.55	2	1.918	.383
	5-8 a day	10	14.95			
	9 hours and over a day	12	20.04			
	Total	33				
0.05	•	12 33	20.04			

p>0.05

Examining the significance value (p=0.383), it is suggested that there was not a statistically significant difference in terms of the post-test mean scores of the experimental group based on the frequency of the use of computers (p>0.05).

The findings are in consistent with another research study conducted by Yılmaz (2012) that concluded based on the findings collected through pre-test and post test mean scores

regarding the frequency of computer use on learners' L2 motivation level that, there was no statistically significant difference between the two.

Consequently, through the findings, the null hypothesis advocating that there is no statistically significant difference between participants' frequency of the use of computers and their English language learning motivation level was accepted and the alternative hypothesis was rejected. It is also suggested that the frequency of the use of computers does not have a statistically significant impact on learners' L2 motivation level.

The impact of the frequency of the use of computers on the pre-test and post-test scores of the control group regarding L2 motivation level.

Before the analysis of the impact of the frequency of computer use on the pre-test scores of the control group regarding their L2 motivation level, *Test of Normality* was conducted to investigate whether the mean scores of the participants are distributed normally:

Table 37

Test of Normality Based on the Pre-test and Post-test Scores of the Control Group Regarding the Frequency of Computer Use

	Group	Kolmogo	orov-Sı	nirnov ^a	Shapiro-Wilk		
		Statistic	n	p	Statistic	n	p
	Less than 5 hours a day	.200	10	.200*	.909	10	.272
Pre-mean	5-8 a day	.244	11	.067	.841	11	.032*
	9 hours and over a day	.268	9	.062	.760	9	.007*
	Less than 5 hours a day	.147	10	$.200^{*}$.952	10	.694**
Post- mean	5-8 a day	.281	11	.016	.861	11	.059**
	9 hours and over a day	.265	9	.068	.861	9	.098**

p*<0.05, p**>0.05

Due to the fact that some of the significance values indicate p<0.05, a non-parametric test, *Kruskal Wallis* was used to analyze whether the frequency of the use of computers had a

statistically significant difference on participants' perceptions based on pre-test scores. Based on the findings that indicate p>0.05, a parametric test, one-way ANOVA was also administered to analyze whether there was a statistically significant difference in terms of learners' period of time regarding the use of computers on their post-test mean scores.

The findings based on *Kruskal Wallis* regarding the pre-test scores were indicated as in the following:

Table 38

Kruskal Wallis Test Results Based on the Pre-Test Scores of the Control Group Regarding the Frequency of Computer Use

Groups	N	Mean	df	X^2	р
Less than 5 hours a day	10	14.20	2	.626	.731
5-8 a day	11	15.18			
9 hours and over a day	9	17.33			
Total	30				

p>0.05

As the significance value indicates (p=.731), it was revealed that there was not a statistically significant difference in terms of the pre-test mean scores of the control group regarding the frequency of the computer use. One-way ANOVA results based on the frequency of the use of computers regarding post-test scores of the control group were indicated in the Table 39 as in the following:

Table 39

ANOVA Test Results Based on the Post-test Scores of the Control Group Regarding the Frequency of Computer Use

	Sum of Squares	df	Mean Square	f	Sig.
Between Groups	.065	2	.033	1.311	.285
Within Groups	.744	30	.025		
Total	.809	32			

p>0.05

Analyzing the Table 39 that indicates the significance value as (p=.285), it was revealed that there was no statistically significant difference in terms of the post-test scores of the control group regarding the use of computers (p<0.05). Drawing on the findings, the null hypothesis was accepted.

Consequently, it could be concluded that like the experimental group, L2 motivation level of the participants of the control group do not change according to their frequency of the use of computers.

The impact of the frequency of the use of computers to learn English on the pretest and post-test scores of the experimental group regarding L2 motivation level.

Test of Normality was conducted before the analysis regarding the impact of the frequency of computer use to learn English based on their pre-test and post-test scores through which the findings were revealed in the Table 40:

Table 40

Test of Normality Based on the Pre-test and Post-test Scores of the Experimental Group

	Group	Kolmogo	rov-Smir	nov ^a	Sha	oiro-Wilk	
	_	Statistic	N	p	Statistic	N	p
	rarely	.280	7	.104	.834	7	.088
Pre-mean	sometimes	.218	14	.070	.820	14	.009*
	often	.186	9	$.200^{*}$.904	9	.278
	always	.349	3		.832	3	.194
	rarely	.219	7	$.200^{*}$.949	7	.725**
Post-mean	sometimes	.191	14	.177	.918	14	.208**
	often	.186	9	$.200^{*}$.948	9	.671**
	always	.225	3		.984	3	.756**

p*<0.05, p**>0.05

Due to the findings, some of which indicate p<0.05 significance levels, a non-parametric test *Kruskal Wallis* was administered to analyze the impact of the use of computers

to learn English on participants' L2 motivation level through which the findings were suggested in the Table 41. However, due to the fact that some of significance values indicate p>0.05 on the post-test mean scores, one-way ANOVA was also used to analyze the difference and the findings were revealed in the Table 42.

Table 41

Kruskal Wallis Test Results Based on the Pre-test Scores of the Experimental Group

Regarding Computer Use to Learn English

Groups	N	Mean Rank	df	X^2	р
Rarely	7	11.14	11.14 3		.254
Sometimes	14	17.79			
Often	9	18.28			
Always	3	23.17			
Total	33				

p>0.05

Relying on the findings shown in the Table 41, it was suggested that there was no statistically significant difference between participants' frequency of the use of computers to learn English and their L2 motivation level based on their pre-test scores (p>0.05).

The findings based on one-way ANOVA regarding the analysis of the post-test scores of the experimental group in terms of the frequency of the use of computers to learn English were indicated in the following as:

Table 42

ANOVA Test Results Based on the Post-test Scores of the Experimental Group Regarding

Computer Use to Learn English

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.193	3	.064	3.032	.045
Within Groups	.616	29	.021		
Total	.809	32			

p<0.05

Due to the fact that the significance level indicates p<0.05, it was revealed that there was a statistically significant difference between variables. Multiple comparisons were also administered to reveal the indicated differences between variables as in the following:

Table 43

Multiple Comparisons Regarding the Difference between Groups

(I) learning	(J) learning	Mean Difference (I-J)	Sig.
	sometimes	08631	.583
Rarely	often	07011	.776
•	always	30159*	.027*
	rarely	.08631	.583
Sometimes	often	.01620	.994
	always	21528	.116
	rarely	.07011	.776
Often	sometimes	01620	.994
	always	23148	.103
Always	rarely	.30159*	.027*
	sometimes	.21528	.116
•	often	.23148	.103

p*<0.05

Analyzing the Table 43, it is suggested that there is a statistically significant difference between the frequency level as "rarely" and "always".

There are several research studies in the literature that address to the relationship between computer use and academic achievement. It could be illustrated by that of Sparks (1986, as cited in Subrahmanyam, Greenfield, Kraut & Gross, 2001) which reveals that there is a positive correlation between computer use and learners' academic achievement in terms of math, science and language arts.

Based on the findings that indicate a statistically significant difference between the post-test scores of those who *rarely* and *always* use the internet in order to learn English when compared to their pre-test scores, it is possible to conclude that the use of computers for the purpose of L2 learning has an important impact on learners L2 motivation level. Due to the fact that, the use of computers in order to learn English makes a statistically significant

difference on participants' post-test scores rather than the pre-test mean scores, it is possible to conclude that the treatment regarding the use of computers through digital technologies changed their L2 motivation in a positive way.

The impact of the frequency of the use of computers to learn English on the pretest and post-test scores of the control group regarding L2 motivation level.

Test of Normality was conducted before the analysis of the impact of the frequency of computer use to learn English and the findings based on the pre-test and post-test scores were suggested as in the following:

Table 44

Test of Normality Based on the Pre-test and Post-test Scores of the Control Group

	Group	Kolmogo	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Group	Statistic	N	p	Statistic	N	p	
	never	.227	3		.983	3	.747	
	rarely	.238	6	$.200^{*}$.880	6	.267	
Pre-mean	sometimes	.229	12	.081	.834	12	.024*	
	often	.394	7	.002	.661	7	.001*	
	always	.260	2					
	never	.319	3		.885	3	.339**	
	rarely	.263	6	$.200^{*}$.848	6	.152**	
Post-mean	sometimes	.178	12	$.200^{*}$.954	12	.697**	
	often	.247	7	$.200^{*}$.885	7	.248**	
	always	.260	2					

p*<0.05, p**>0.05

As some of the significance values indicate p<0.05, *Kruskal Wallis* test was administered in order to analyze whether there was a statistically significant difference between the frequency of the use of computers to learn English and L2 motivation level of the control group based on pre-test scores. However, due to the fact that some of the significance levels indicate p>0.05, one-way ANOVA was also administered to analyze the results based on post-test mean scores.

Table 45

Kruskal Wallis Test Results Based on the Pre-test Scores of the Control Group Regarding

Computer Use to Learn English

	N	Mean	df	X^2	р
Never	3	14.67	4	.872	.929
Rarely	6	13.42			
Sometimes	12	15.33			
Often	7	16.93			
Always	2	19.00			
Total	30				

p>0.05

Analyzing the Table 45, it was suggested that there was no statistically significant difference between the frequency of the use of computers to learn English and the motivation level of the control group on the pre-test scores.

One-way ANOVA results were also indicated in the following regarding the post-test scores:

Table 46

ANOVA Test Results Based on the Post-test Scores of the Control Group Regarding

Computer Use to Learn English

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.063	4	.016	.145	.963
Within Groups	2.706	25	.108		
Total	2.769	29			

p>0.05

Based on the findings, it was revealed that there was no statistically significant difference between the frequency of the use of computers to learn English and the motivation level of the control group on the post-test scores. Therefore, the null hypothesis regarding the idea that there is no statistically significant difference between the frequency of the use of computers in order to learn English and their L2 motivation level was accepted while the alternative hypothesis was rejected.

Consequently, unlike the findings collected through the post-test mean scores of the experimental group regarding the use of computers in order to learn English, there was no statistically significant difference on the post-test scores of the control group. Therefore, it could be concluded that the treatment that was applied to the experimental group was beneficial in terms of the use of computers in order to improve L2 motivation level.

The impact of computer self-efficacy perceptions on the pre-test and post-test scores of the experimental group regarding L2 motivation level.

In order to analyze the impact of computer self-efficacy perceptions of the experimental group on the pre-test and post-test, *Test of Normality* was used first to determine whether the mean scores are distributed normally and the results were indicated in the Table 47:

Table 47

Test of Normality Based on the Pre-test and Post-test Scores of the Experimental Group

	Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Group	Statistic	N	p	Statistic	N	р
	low	.173	10	.200*	.889	10	.167
Pre-mean	medium	.274	16	.002	.769	16	.001*
	high	.202	7	$.200^{*}$.917	7	.445
	low	.193	10	$.200^{*}$.902	10	.231**
Post-mean	medium	.161	16	$.200^{*}$.945	16	.420**
	high	.223	7	.200*	.901	7	.334**

p*<0.05, p**>0.05

Drawing on the some of the significance values that indicate p<0.05, *Kruskal Wallis* test was used in order to analyze participants' self-efficacy perceptions. Additionally, as some of the significance values indicate p>0.05, one-way ANOVA was also administered to analyze the impact of computer self-efficacy perceptions of the experimental group based on their post-test scores.

Table 48

Kruskal Wallis Test Based on the Pre-test Scores of the Experimental Group Regarding

Computer Self-Efficacy Perceptions

Groups	N	Mean	df	X^2	р
Low	10	14.35	2	1.132	.568
Medium	16	18.44			
High	7	17.50			
High Total	33				

p>0.05

Through the significance mean value, it was indicated that there was no statistically significant difference between participants' computer self-efficacy perceptions and their L2 motivation level based on the pre-test scores.

One-way ANOVA was also administered in order to analyze the significance value of computer self-efficacy perceptions of the experimental group based on their post-test scores.

Table 49

ANOVA Test Based on the Post-test Scores of the Experimental Group Regarding Computer Self-Efficacy Perceptions

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.066	2	.033	1.335	.278
Within Groups	.743	30	.025		
Total	.809	32			
p>0.05					

Relying on the findings, it was indicated that there was not a statistically significant difference between computer self-efficacy perceptions of the experimental group and their English language learning motivation level regarding their post-test scores (p>0.05).

Similar findings were revealed in terms of participants' responses on the interview questions that address to the idea that computer self-efficacy beliefs had no significant impact on the participants' L2 motivation that could be suggested as in the following:

"At first, I had difficulty using the program. I had no computer. However, when I started to create the story, I did not have problems; I enjoyed a lot especially in terms of finding photos and music." (Interviewee 9)

"I had no problems regarding the use of the program. I just had difficulty finding good photos/pictures to import into my digital story." (Interviewee 5)

Unlike the present findings, some differences in terms of computer use were discussed in the literature. Gordon (2011), who aimed to investigate experiences of three secondary teachers in terms of a digital storytelling project with their students, indicated that teachers' perceptions regarding the use of computers played a significant role in terms of the integration of digital storytelling into their curriculum because one of the teachers was not happy to hear to integrate computers into curriculum due to the fact that he did not perceive himself as a proficient computer-user. Similarly, through another research study whose aim was to investigate the relationship between first grade college students' digital storytelling creation projects and their self-efficacy beliefs in terms of media production skills, Spicer (2013) indicated the idea that there were statistically significant gains on the behalf of the experimental group based on the post-test scores.

Based on the findings of the present study, it could be concluded that participants' perceived computer self-efficacy beliefs had no statistically significant impact on their L2 motivation level. Therefore, it could be suggested that the participants that have low, medium or high level of computer proficiency share similar L2 motivation level. Furthermore, it is possible to conclude that learners do not need to have a high level of computer proficiency in order to create a digital short story.

The impact of computer self-efficacy perceptions on the pre-test and post-test scores of the control group regarding L2 motivation level.

To investigate whether there was statistically significant difference between computer self-efficacy perceptions of the control group and their L2 motivation level on the pre-test and post-test scores, *Test of Normality* was used first through which the findings were revealed as in the following:

Table 50

Test of Normality Based on the Pre-test and Post-test Scores of the Control Group

	Chara	Kolmogo	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Group	Statistic	N	p	Statistic	N	p	
	low	.360	5	.033	.774	5	.049*	
Pre-mean	medium	.242	18	.007	.862	18	.013*	
	high	.193	7	$.200^{*}$.851	7	.126	
Post-mean	low	.229	5	$.200^{*}$.858	5	.220**	
	medium	.211	18	.034	.914	18	.101**	
	high	.145	7	$.200^{*}$.965	7	.864**	

p*<0.05, p**>0.05

Due to the fact that some of the significance values indicate p<0.05, *Kruskal Wallis* test was administered and the findings were revealed in the Table 51. However, as there were also some significance values that indicate p>0.05, one-way ANOVA was also conducted through which the results were also revealed in the Table 52.

Table 51

Kruskal Wallis Test Results Based on the Pre-test Scores of the Control Group Regarding

Computer Self-Efficacy Perceptions

Group	N	Mean	df	X^2	р
Low	5	16.90	2	.557	.757
Medium	18	15.92			
High	7	13.43			
Total	30				

p>0.05

The findings suggested that computer-self efficacy perceptions did not have a statistically significant impact on L2 motivation level of the control group based on the pretest scores (p>0.05).

One-way ANOVA findings were also indicated in the Table 52 as in the following:

Table 52

ANOVA Test Results Based on the Post-test Scores of the Control Group Regarding

Computer Self-Efficacy Perceptions

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.041	2	.021	.204	.816
Within Groups	2.727	27	.101		
Total	2.769	29			
n>0.05	2.707	2)			

p>0.05

Based on the findings, it was revealed that there was not a statistically significant difference between computer self-efficacy perceptions of the control group and their L2 motivation level based on post-test scores. Therefore, the null hypothesis related to the no existence of a statistically significant difference between the frequency of the use of computers to learn English and L2 motivation level of the control group was accepted and the alternative hypothesis was rejected.

Chapter Summary

In this chapter, the descriptive analysis of the data collected through questionnaires and semi-structured face-to-face interviews were revealed based on the hypotheses that were formed for the purpose of the study. Additionally, the findings were also discussed in terms of several other related research studies included in the literature and participants' responses on the interview questions in order to support them as well.

Chapter V

Conclusion, Implications and Further Research

The current study analyzed the impact of the construction of digital storytelling on learners' English language learning motivation level. The chapter reveals the conclusion part of the study under the light of the findings that were obtained through the study and also presents several implications for instructors and learners based on the pedagogical assumptions. Consequently, several suggestions will also be made regarding further research.

Conclusion

The current study was designed as a quasi-experimental study based on the model of "the nonequivalent control (comparison) groups design" in which the groups as experimental and control are not selected randomly. However, it is grounded on the idea that both groups are similar to each other in conceptual framework based on the pre-test mean scores. Drawing on the applied pre-tests regarding participants' motivation level in terms of English language learning, both groups were suggested to be equal or homogenous that also formed the basis of the study.

Mixed method research design that consists of both qualitative and quantitative methods was used in this study and the data were collected through questionnaires and semi-structured face-to-face interviews in order to analyze the hypotheses that were formed for the purpose of the study. Several conclusions were revealed based on the findings and with reference to the literature.

Unlike the findings collected through participants' pre-test mean scores in terms of L2 motivation, the data collected from participants' post-tests revealed that there was a statistically significant difference between experimental and control groups. Furthermore, a decrease in the mean scores of the control group was also indicated in terms of the findings and it is also possible to conclude that participants' English language learning motivation level increased due to the treatment. In other words, the treatment regarding the construction of digital stories had a positive impact on learners' L2 motivation level. The increase in the motivation level of students was also supported by the results of the semi-structured interviews. Furthermore, the findings revealed in this study are also in line with several other research studies included in the literature based on the use of digital storytelling (See Bozdoğan, 2012; Yang, 2012; Tecnam, 2012).

In order to investigate the comparison between pre-test and post-test scores of the experimental group, the data were analyzed and it was indicated that there is a statistically significant difference between the two by giving reference to the findings that suggested an increase in all of the participants in the experimental group. The results were also observed to be similar drawing on the responses of the participants on the semi-structured interviews that were analyzed via descriptive analysis and suggested a positive change in their motivation level in terms of English language learning that are in consistent with studies in the literature such as that of Pop (2012) that indicated an increase in students' interest regarding the use of digital storytelling. However, the findings based on the pre-test and post-test scores of the participants of the control group showed a decrease in terms of their L2 motivation level. Therefore, it is possible to deduce that the difference between the pre-test and post-test scores of the experimental and control group resulted from the treatment that the experimental group had in terms of the construction of digital stories while the control group did not have.

The data were also analyzed based on the pre-test and post-test mean scores of female and male learners in the experimental group and the findings indicated no statistically significant difference between the two as their mean scores showed similar percentage to each other. Similarly, the mean scores of the pre-test and post-test collected from the control group did not reveal a statistically significant difference as well. The findings were also similar to several other research studies in the literature as Tatum (2009) concluded that there was no statistically significant difference on the findings regarding gender difference. However, Bozdoğan (2012) addressed to gender difference in her study that aimed to analyze the digital stories of ELT students for young learners and concluded that the gender of the owner of the story determined the selection of the gender of the cartoon characters in the story as well.

The data were analyzed in terms of other variables such as the frequency of the use of computers and computer self-efficacy beliefs for which the findings indicated no statistically significant difference in terms of participants' L2 motivation level. However, the findings regarding the frequency of the use of computers in order to learn English revealed a statistically significant difference on the post-test mean scores of the experimental group which could be referred to the treatment that had a positive impact on participants' L2 motivation level.

The quantitative findings of the study were in consistent with the results obtained from the qualitative data collected through semi-structured interviews through which the participants addressed to positive changes or benefits of the construction of digital stories. Most of the participants suggested that they benefited from digital storytelling project in terms of the enhancement of their writing and speaking skills and also indicated that through the project their L2 motivation level improved due to the enjoyable function of it and thanks to the visual aspects. Specifically, learners indicated that they learnt a lot of vocabulary and practiced their writing skills in terms of the formation of the sentences that they had great

difficulty. Furthermore, they addressed to the idea that the feeling of the production of a material on their own made them very happy as they believed that they would do another one which also improved their motivation level as well.

Taking all the findings into consideration, it was concluded that the construction of digital stories increased L2 motivation level of the experimental group in several aspects based on the qualitative and quantitative data as a result of the treatment while there was a decrease on the post-test mean scores of the control group that was instructed through traditional way of pen& paper.

Implications

The current study reveals the findings of a project regarding the construction of digital stories and analysis of the impact of it on learners' L2 motivation level. Due to the fact that learners are also regarded to be 'digital natives' in the information age, the findings of this study shed light on the impact of a digital project on the motivation level of learners that is widely accepted as the most crucial requirements of the language learning process because the more the learners are motivated, the better they perform or involved in the process.

Based on the findings of the study that revealed a positive impact on learners' L2 motivation level, it could be presented as an implication that the teachers could benefit from the construction of digital storytelling in their classrooms and could design their syllabus including digital storytelling projects in order to motivate their students in language learning process as through both qualitative and quantitative data, it was suggested that learners were more engaged and their interest increased as they enjoyed while doing digital story projects and felt happy to create them by themselves.

Suggestions for Further Research

This quasi-experimental study analyzed the impact of the construction of digital stories on L2 motivation level of the participants studying at Çanakkale Onsekiz Mart University, School of Foreign Languages, optional and compulsory programs. Due to the fact that the sampling included 63 participants, the findings may not be addressed or generalized to all students studying at different departments in different universities or settings. Therefore, several other research studies could be conducted with different participants in different settings or in different grades as elementary or secondary.

Since the construction of digital short stories could be carried out in different ways for different subject matters, it could be utilized in terms of the discussion or presentation of different themes in various fields including the Ministry of Education.

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Appendices

Appendix A

English Language Learning Motivation Questionnaire

Dear Participant,

This questionnaire was designed to find out university students' English language learning motivation level. There is no right or wrong answer in the questionnaire. Please answer the following questions on Part 1 and indicate your opinion by specifying the most appropriate option for you on Part 2.

	Thank you very much for your participation.
Ins. Tuba SEVER Çanakakkale Onsekiz Mart University School of Foreign Languages Optional and Compulsory Prep Classes tubasever@comu.edu.tr PART 1	Supervisor: Assist. Prof. Dr. Cevdet YILMAZ Canakkale Onsekiz Mart University Faculty of Education English Language Teaching Department cyilmaz@comu.edu.tr
1. Gender: Female Male	
2. Age:	
3. Department:	
4. How long have you been studying English?	Years
5. English Prep School Program Type: Option	Compulsory Compulsory
6. Do you have a computer with Internet access Yes No:	s that is available for your use at your home?
7. Have you had a computer training program b	pefore? Yes No No
8. How do you rate your computer proficiency	level? Low Medium High
9. About how much time do you spend a day us	sing computers? 0-4 5-8 9+
10. How often do you use the internet to learn I	English?
Never Rarely Sometimes	Often Always
11. Do you like short stories in learning English	h? Yes No
12. Have you ever created a short story before?	
Yes No	

13. Have you e	ever heard the term digital storytelling before?
Yes	No

	PART 2	Strongly Disgaree	Disagree	Neutral	Agree	Strongly Agree
1	It is really great to learn English.	1	2	3	4	5
2	I learn English because I want to understand all the English I see and hear	1	2	3	4	5
3	I want to learn English to be able to know all aspects of English.	1	2	3	4	5
4	I think learning English is a waste of time	1	2	3	4	5
5	I learn English to be able to feel comfortable while talking to native speakers of English.	1	2	3	4	5
6	Learning English is really enjoyable for me.	1	2	3	4	5
7	I learn English to meet people from all over the world.	1	2	3	4	5
8	I learn English to be able to take part in activities of other cultural groups	1	2	3	4	5
9	I get bored in my English language learning class	1	2	3	4	5
10	I learn English to be able to search for English materials on the internet	1	2	3	4	5
11	I want to study English almost every day to be able to keep up to date with the language	1	2	3	4	5
12	I want to learn English because I really enjoy the activities of my English class	1	2	3	4	5
13	I want to learn English much better to be able to make it natural for me.	1	2	3	4	5
14	I do not have much interest in learning English.	1	2	3	4	5

15	I would like to study more English in the future	1	2	3	4	5
16	I look forward to learn English much better	1	2	3	4	5
17	I learn English to be able to read English books	1	2	3	4	5
18	I learn English to be able to understand English films video, television and radio programmers	1	2	3	4	5
19	I really enjoy spending time in my English class	1	2	3	4	5
20	I learn English to be able to become a well-educated person	1	2	3	4	5
21	I do not enjoy learning English	1	2	3	4	5
22	I learn English to be able to interact with more people	1	2	3	4	5
23	I learn English to be able to understand the more complex aspects of English	1	2	3	4	5
24	I learn English to be able to get in touch with people from all over the world	1	2	3	4	5

Appendix B

Motivation Level of Making Digital Short Stories Questionnaire

Dear Participant,

This questionnaire was designed to find out university students' motivation level in terms of using short stories through digital storytelling. There is no right or wrong answer in the questionnaire. Please answer the following questions on Part 1 and indicate your opinion by specifying the most appropriate option for you on Part 2.

	Thank you very much for your participation.						
Ins. Tuba SEVER Çanakakkale Onsekiz Mart University School of Foreign Languages Optional and Compulsory Prep Classes tubasever@comu.edu.tr PART 1	Supervisor: Assist. Prof. Dr. Cevdet YILMAZ Canakkale Onsekiz Mart University Faculty of Education English Language Teaching Department cyilmaz@comu.edu.tr						
1. Gender: Female Male							
2. Age:							
3. Department:							
4. How long have you been studying English? Years							
5. English Prep School Program Type: Option	Compulsory Compulsory						
6. Do you have a computer with Internet access Yes No:	s that is available for your use at your home?						
7. Have you had a computer training program before? Yes No							
8. How do you rate your computer proficiency level? Low Medium High							
9. About how much time do you spend a day using computers?							
10. How often do you use the internet to learn English?							
Never Rarely Sometimes Often Always							
11. Do you like short stories in learning English? Yes No No							
12. Have you ever created a short story before?							
Yes No							
13. Have you ever heard the term digital storyto	elling before? Yes No						

	PART 2	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Making digital short story in my English class is really great.	1	2	3	4	5
2	Making digital short story is important for me to be able to understand and use English audio and visual materials.	1	2	3	4	5
3	Making digital short story is important because I really want to know all aspects of English.	1	2	3	4	5
4	Using short stories through digital storytelling in learning English is really a waste of time.	1	2	3	4	5
5	I prefer to spend more time in my English digital storytelling class than the other classes	1	2	3	4	5
6	Making digital short story is really enjoyable.	1	2	3	4	5
7	Using short stories through digital storytelling allows me to meet new friends in the group.	1	2	3	4	5
8	I would prefer to spend all of my time making short story in learning English.	1	2	3	4	5
9	I get bored while I make digital short story	1	2	3	4	5
10	I feel more active while I make my digital short story	1	2	3	4	5
11	Learning English through making digital short story provides me to keep up to date with the language	1	2	3	4	5
12	I enjoy the activities in my digital storytelling class more than the activities in my other classes	1	2	3	4	5
13	I really want to know English better that it will be natural for me.	1	2	3	4	5
14	I do not have much interest in learning English through making digital short story	1	2	3	4	5
15	I like making digital short story so much that I really want to learn more English in the future.	1	2	3	4	5

16	I want to learn English much better through making short story	1	2	3	4	5
17	Making digital short story expands my grammar knowledge.	1	2	3	4	5
18	Making digital short story improves my writing skills in English language learning.	1	2	3	4	5
19	I look forward to spending time in my digital short storytelling class.	1	2	3	4	5
20	I feel successful while I make my digital short story in English language learning.	1	2	3	4	5
21	Making digital short story is not enjoyable in English language learning.	1	2	3	4	5
22	I understand English much better while I make my digital short story	1	2	3	4	5
23	Making my digital short story is important to be able to understand more complex aspects of English.		2	3	4	5
24	Making digital short story improves my speaking skills in English language learning.		2	3	4	5

Appendix C

Interview Form

Participant's Name & Surname:
Participant's Gender: Female Male Age:
Interview Date: Interview Place:
Name of the Interviewer:
Interview Questions
1. What are your general feelings towards the construction of digital short stories in English
language learning?
2. What are the benefits of making short stories in the classroom?
3. How did you feel when you first started to make your digital story?
4. How have your feelings changed about making digital short stories in English language
learning after the study?
5. What kind of challenges did you face while making your digital story? How did you
overcome them?
6. What did you like most while making your digital short story?
7. Are there any changes in your English language learning motivation after the construction
of your digital short story?
8. Are there any changes in your participation into the classes after the study?
9. Are there any changes in your relationship to your friends after sharing your digital short
story with them?

10. How did the construction of your digital short story affect your English language learning?

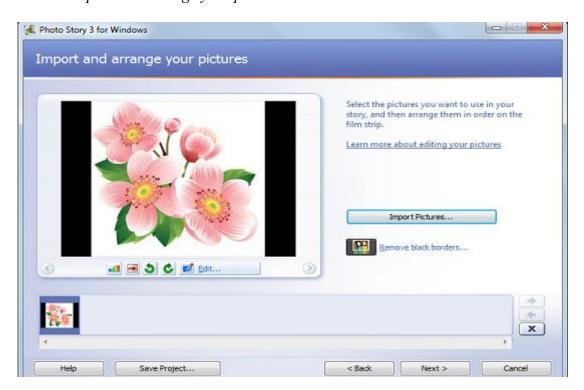
Appendix D

Tutorial for Photo Story 3 for Windows

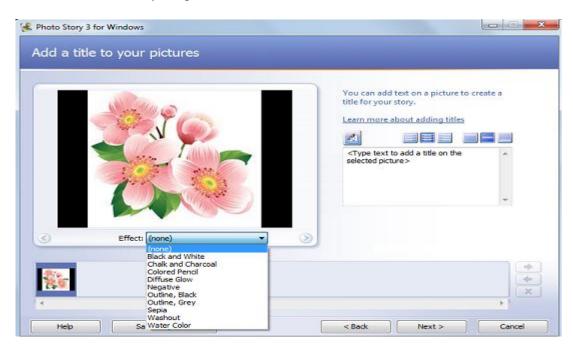
1. "Begin a new story"



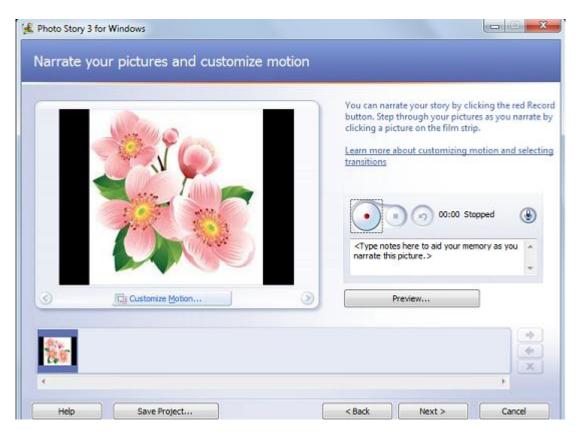
2. "Import and arrange your pictures"



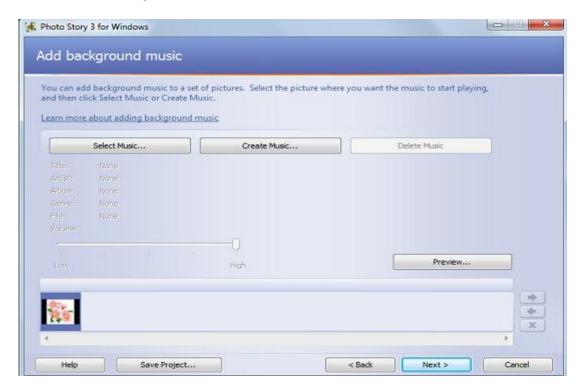
3. "Add a title to your pictures"



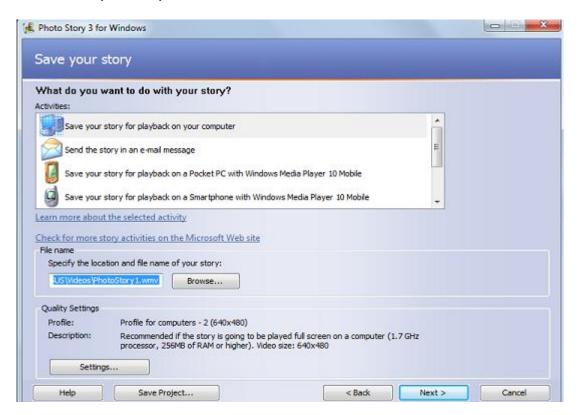
4. "Narrate your pictures and customize motion"



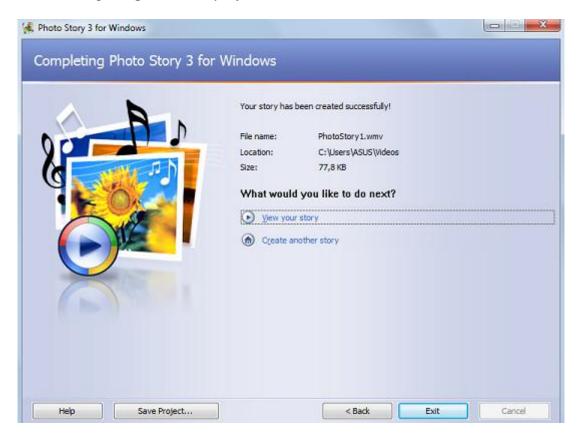
5. "Add a background music"



6. "Save your story"



7. "Completing Photo Story 3 for Windows"



Appendix E

Digital Storytelling Outline

Name & Surname:
Title of the Story:
Topic:
Characters:
TD: 0 C-44:
Time & Setting:

Solution:			

Appendix F

Storyboard

Name	R	Surname:
name.	α	Surname:

Story Title:	
Photo	Photo
Narration:	Narration:
Photo	Photo
Narration:	Narration:

Appendix G

Examples from Participants' Digital Short Story Projects

Participant 1:













Participant 2:

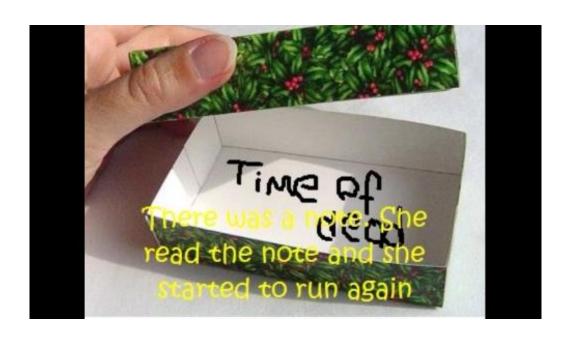




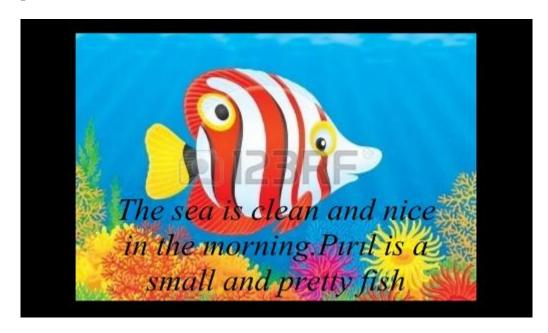


Participant 3:





Participant 4:





Participant 5:







Appendix H

INFORMED CONSENT

Project Title: An Investigation into the Impact of Digital Storytelling on the Motivation

Level of Students

Principle Investigator: Ins. Tuba SEVER

Çanakkale Onsekiz Mart University

School of Foreign Languages

tubasever@comu.edu.tr

Supervisor: Assos. Prof. Dr. Cevdet YILMAZ

Çanakkale Onsekiz Mart University

Faculty of Education

English Language Teaching

Purpose of the Study: The purpose of this study is to analyze students' perceptions of the construction of digital stories on their English language learning motivation.

Procedures of the Study: This study will involve getting preparatory classes students', who have been taking computer-integrated courses, perceptions of the impact of the construction of digital stories on their English language learning motivation level. For the purpose of the study, you will be given two questionnaires to express your ideas on the statements related to the construction of digital stories on your English language learning motivation level. Besides, at the end of the project, you will be also interviewed about your experience. Time to answer the statements on the questionnaires will almost take 10-15 minutes.

Confidentiality: This study involves no personal information of the participants on the
questionnaire or any part of the research project. You are only required to express your ideas
on the statements and write the information for the descriptive analysis of the research data.
Risks: The study has no foreseeable risks for the participants to take part.
Benefits: While you may not have a direct benefit, your participation to the study and your
ideas on the statements might suggest a better understanding for the researchers in terms of
benefiting from the construction of digital stories in language learning process.
Voluntary Participation: Participation in this study is voluntary and you can stop or decide not to continue at any time during it.
If you have any questions please do not hesitate to contact the researcher through e-mail.
I give my consent to be a participant and my digital project to be used for this research study:
Name:
Signatura

Appendix I



T.C. ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ YABANCI DİLLER YÜKSEKOKULU MÜDÜRLÜĞÜ

Says: 12164519/010.99 - 842

Konu: Dilekçeniz

ÇANAKKALE 01.11.2013

Sayın Okt. Tuba SEVER

İlgi: 31.10.2013 tarih ve 1291 sayılı dilekçeniz;

İlgili dilekçeniz incelenmiş olup, dilekçenizde belirttiğiniz hazırlık bölümü öğrencilerine anket ve " Digital Öykücülük' adlı uygulama yapma isteğiniz uygun bulunmuştur.

Geregini rica ederim.

Yrd. Doç. Dr. Hasan BAYRAKTAR