

Chapter 10

The Effect of Using Digital Stories in Teaching English as a Second Language: Digital Stories in Teaching English

Fatma Gizem Karaoglan Yilmaz

Bartın University, Turkey

Busra Koseoglu

Bartın University, Turkey

Cansu Ayvali

Bartın University, Turkey

Tugba Ozturk

Ankara University, Turkey

ABSTRACT

The purpose of this study is to analyze the effect of using digital storytelling on motivation and learning strategies in foreign language teaching. This study was conducted with 20 students enrolled in the preparatory class to learn English as a foreign language for a year in 2018-2019 academic year in a state university in Turkey. Motivation scale and learning strategies scale were used to obtain data. According to the result, there was no significant distinction between digital storytelling and the use of learning strategies in foreign language teaching. This study indicates that the use of digital storytelling in foreign language teaching had no effect on the development of students' use of learning strategies.

DOI: 10.4018/978-1-7998-3062-7.ch010

INTRODUCTION

Advances in information and communication technologies have been transforming educational implications and experiences. Digital learning tools are emerging as a promising means of enhancing learning environments (Ozcinar & Ozturk, 2013). Developments in software, use of internet technology for educational purposes (Çakır & Yıldırım, 2009) and accessing information easily and instantly have made digital literacy gain great importance along with the traditional literacies (Küngerü, 2016). Digital storytelling, in this context, has emerged as a tool used for a variety of reasons in different disciplines such as education, health and communication (Çıralı, 2014) among other digital technologies. Originated from the traditional storytelling, which is a natural way of human communication (Chung, 2006), digital storytelling has made its use in education inevitable. The role of this new storytelling used in both teaching and learning by teachers and students is explained in many studies (Bromberg, 2013; İncikabı, 2013; Kordaki, 2014; Robin, 2006, 2008; Silseth, 2013). Digital storytelling as an educational tool provides guidance and space for students and at the same time teaches communication skills (Gömleksiz & Pullu, 2017). The storytelling has been one of the most frequently used methods in many ways in education, from past to now in almost all levels (Turgut & Kışla, 2015). With today's technology, digital stories, which are mostly computer or web based traditional stories (Ciğerci & Gültekin, 2017), are multimedia forms that promote critical thinking and lead innovative learning (Gömleksiz & Pullu, 2017). The digital storytelling might be a powerful tool for educators to use in their classroom practices (Robin, 2008) as well.

The use of digital storytelling in language education is also an important area to focus on. However, its use is still new, and this raises a need of new scientific investigations. In the present study, two educational aspects of digital storytelling in foreign language teaching will be explored. These aspects are motivation and learning strategies.

Motivation, which is a theoretical structure used to explain the initiation, orientation and quality of behavior, especially of the purpose-oriented behavior (Brophy, 2004), refers to the individual's endeavor to produce behaviors in line with the target in order to meet their needs (Ülgen, 1995). Motivation is generally considered as a basis for almost every learning activity (Tugan, 2015) and an indispensable factor in learning a language (Özçalışan, 2012).

Learning strategies are a set of behaviors or thoughts that are expected to affect the processes of obtaining the information during the process of learning, storing it in their memory and retrieving it when necessary (Çalışkan, 2016). Also, they help the individual process and construct the information while facilitating self-learning (Sökmen, 2006). As in many areas of education, learning strategies are also given importance in foreign language education. From this perspective, language learning strategies can be described as the various processes that foreign language learners use in their learning process to make learning easier and faster (Boylu, 2015).

Although there is a growing body of research concerned with digital storytelling, to our knowledge, this is the first study showing the relationship between motivation and learning strategies, which are very essential for the effective learning process in digital storytelling in foreign language teaching. From this point of view, it is aimed in the present study to examine the effect of digital story on motivation and learning strategies in foreign language teaching.

For that purpose, the remainder of this article will explore the following research questions:

The Effect of Using Digital Stories in Teaching English as a Second Language

1. Is there a significant difference between the motivation post-test scores of the experimental and control groups?
2. Is there a significant difference between the learning strategies post-test scores of the experimental and control groups?
3. Is there a significant difference between the motivation pretest and post-test scores of the students in the experimental group?
4. Is there a significant difference between the learning strategies pre-test and post-test scores of the students in the experimental group?

BACKGROUND

In this section, theoretical background is presented about digital story telling in foreign language teaching and two important variables as learning strategies and motivation in this context.

Technology and Language Education

Throughout their daily lives, students are constantly imposed to computers, video cameras, mobile phones, digital music players and electronic games (Smeda, Dakich, & Sharda, 2014). In that sense, technology integration in education is important to meet a society's needs that covers the 21st century skills (Bacanak, Karamustafaoğlu, & Köse, 2003; Doğan & Robin, 2008). In education, the use of technology can open doors to students to have prosperous learning practices and attend to learning motions (Karaoglan Yilmaz & Durak, 2018).

In terms of foreign language education, technology and foreign language education are intertwined and not separated (Singhal, 1997). Language is a dynamic process, in that sense, one of the best approaches to learn a language is to offer in interactive and authentic environments to the students. The Internet and computer technologies are powerful means to assist the approaches in language teaching (Nishioka, 2016; Wang, 2005). Now, the effect of technology is considered to be significant in teaching and learning of the target language (Nomass, 2013). In this study, more specifically the contribution of digital storytelling to language learning is examined.

Integration of Traditional Story Into Technology: Digital Story

Throughout the history, storytelling has been an essential component of human life to transfer culture and knowledge from one generation to another, to share values with wisdom, and to preserve heritage (Bromberg, Techatassanasoontorn, & Andrade, 2013; Heo, 2009; Razmi, Pourali, & Nozad, 2014; Smeda et al., 2010; Wang & Zhan, 2010). Storytelling, which has existed long before the emergence of written sources (İnceelli, 2005), has been one of the most commonly used educational teaching methods (Turgut & Kışla, 2015; Uslupehlivan & Kurtoğlu Erden, 2016). In his study, Pedersen (1995) states that telling a story is an original way of teaching. Because storytelling is a pedagogical instrument that has been employed in education to convey knowledge from one generation to another for ages, even in modern times (Smeda et al., 2010), it is used by educators as a way of explaining complex ideas, concepts or information to students (Yılmaz, Üstündağ, & Güneş, 2017). Integrating the visual images with the written text –as happens in digital storytelling- helps the students understand the topic better (Robin,

2008) and allows students to interact with both visual and written texts (Kajder & Swenson, 2004). Due to the fact that storytelling activities are a part of meaning making (Razmi et al., 2014), they take an important place in education (Turgut & Kışla, 2015) and increase participation as well as help students reflect on the daily life; thus, they have been regarded as a key method in language teaching for centuries (Kurudayıoğlu & Honey, 2014).

The stories, which are oral and written cultural products that facilitate cognitive changes by affecting memory (Çıralı Sarıca & Koçak Usluel, 2016) have been digitalized through the advances in information and communication technologies (Kurudayıoğlu & Bal, 2014; Uslupehlivan & Kurtoğlu Erden, 2016). Thus, the tradition of telling and listening stories has gained a new meaning with the existence of technology (Rahimi & Yadollahi, 2017; Turgut & Kışla, 2015). Thanks to the use of computers and emergence of various applications and systems, there have been several important developments in the way the stories are presented (Gils, 2005).

On looking at conceptual framework of digital storytelling, Smeda et al. (2010, p.2) define it as “a modern incarnation of the traditional art of oral storytelling”. Heo (2009, p.407) describes as “the field of storytelling using digital media to tell a story”. According to Robin (2006), in general, all of the definitions (Chung, 2006; Ciğerci & Gültekin, 2017; Lambert, 2002; Meadows et al., 2003; Price, Strodtman, Brough, Lonn, & Luo, 2015) refer to the storytelling incorporating multimedia tools as images, audio and video. Basically, digital storytelling is the case of creating a short film that combines a scenario or an original story with various multimedia components such as images, music, video and narration which is often the voice of an author (Doğan & Robin, 2008).

The process of transition from consumer to producer position is a critical process in the digital storytelling development (Kocaman Karoğlu, 2015) with Web 2.0 technologies enabling the users to produce content and exchange information (Küngerü, 2016), giving students the opportunity to seek for information, create and understand their own materials, communicate with other individuals and assess the materials they create (Gömleksiz & Pullu, 2017). Thus, the stories produced by the individuals are more accessible and more visible (Kengürü, 2016).

Digital stories contribute to the improvement of students' language and especially speaking skills (Wilson, 1997), improve their past experiences and help them build strong social interactions and provide ways to participate in active and authentic learning (Smeda et al., 2010). Educational use of digital stories often refers to a process consisting of self-discovery, learning and new knowledge (Wang & Zhan, 2010) and in that sense, these tools could be employed in language learning. In the classroom, it is used for a variety of aims such as teaching the content, making students active researchers and storytellers (Doğan & Robin, 2008). It can improve the age-appropriate talents of the students and enable them to focus on the lesson more carefully (Turan & Sezginsoy Şeker, 2018). Moreover, it can go beyond attracting students' attention and inspire less motivated students (Suwardy et al., 2013). Compared to the traditional practical methods, digital storytelling materials can offer more enhanced educational practices because of a variety of the reasons such as it is re-usable and more attractive (Gils, 2005). Also, digital storytelling enables students to use the materials on personal technologies (for example, music on MP3 devices and photos and videos on digital cameras) conveniently (Heo, 2009) which are very helpful in language learning. As the digital stories' basic component is the language, the effect of creating digital stories on language learning is also appealing (Doğan & Robin, 2008). Much has been written on this subject and it has been found that storytelling enables students to learn actively in foreign language teaching (Turgut & Kışla, 2015). Digital storytelling has the potential to develop a wide variety of learning skills, literacy and cognitive/academic skills (Rahimi & Yadollahi, 2017). Students can develop their communication

The Effect of Using Digital Stories in Teaching English as a Second Language

capabilities –which is essential in language learning- express their ideas and create meaningful stories (Robin, 2008).

Like in traditional storytelling, digital stories revolve around a selected theme and commonly have a certain perspective. Different from the traditional storytelling, it is created by combining digital graphics, texts, sound recordings, video and music mixes to provide information on any subject (Robin, 2006). Digital storytelling, as a means of expression, has different types (Küngerü, 2016). However, it is possible to divide the main types into three particular groups: personal narratives, historical narratives/documentaries, informative/instructive narratives (Robin, 2006). Digital storytelling, which can be considered as a bridge that connects the abstract concepts with the process of creation, sharing and discussion (Price et al., 2015), can be used for teaching and learning by both teachers and students (Kordaki, 2014; Robin, 2006; Wang & Zhan, 2010). Teachers can use or create digital stories to teach content of the course which involves presenting an idea, reinforcing understanding of a given topic and reviewing materials (Çıralı Sarıca & Koçak Usluel, 2016; Robin, 2006, 2008; Wang & Zhan, 2010). Digital stories can also be a powerful means for students to create their own stories (Robin, 2006). By enabling students to participate in the process (Gils, 2015), the students learn to do research on a topic, make inquiries, voice their opinions, create meaningful texts and develop their communication skills. Students who participate in this experience may learn to criticize the work of others as well as to criticize their work by performing social work (Robin, 2008).

The digital storytelling creation is a multi-stage process including various learning activities (Karaglan Yılmaz & Durak, 2018). Center for Digital Storytelling (2005) develops seven essentials of digital storytelling (Robin, 2006: 710) upon which digital storytelling is centered as shown in Figure 1. These elements are;

- Point of View – what is the perspective of the author?
- A Dramatic Question – a question that will be answered by the end of the story.
- Emotional Content – serious issues that speak to us in a personal and powerful way.
- The Gift of your Voice – a way to personalize the story to help the audience understand the context.
- The Power of the Soundtrack – music or other sounds that support the storyline.
- Economy – simply put, using just enough content to tell the story without overloading the viewer with too much information.
- Pacing – related to Economy, but specifically deals with how slowly or quickly the story progresses.

Demirer (2013) remarks that the digital storytelling with these seven components provides the story-writer with an opportunity to convey the key points with his own voice. The story can make them laugh or make them feel sad by leaving an emotional effect on the audience, and thus prevent the readers from getting bored and raise their interest in the story (Demirer, 2013).

The Effect of Digital Story Use on Motivation in Foreign Language Teaching

Motivation is a force, desire or reason that initiates the persistence to achieve a goal. It is a crucial psychological state that students with low motivation cannot improve their foreign language skills (Doğan, 2009). The factors such as internal and external orientations, perception of success or failure (Doğan, 2009) and the positive attitude towards the language and culture learned could be regarded as essential factors necessary for success in foreign language learning (Özçalışan, 2012).

Figure 1. The seven essentials of digital storytelling (Robin, 2006)



Researchers point out that motivation is a critical factor determining the language learning success (Arslan & Akbarov, 2010; Çelik, 2010). Mehdiyev, Usta and Uğurlu (2016) suggest that motivation can affect positively or negatively the perceptions and behaviors related to language learning. According to Gardner (2007), motivation plays a part in the second language learning process. While Hadžimehmedagić and Akbarov (2014) assert that motivation is regarded as a very significant factor leading to success in the second language acquisition, Dornyei (1994), in his study, argues that one of the main determinants of the foreign language learning achievement is motivation. Görgeç, Kömür and Deniz (2009) point out that motivational factors are one of the variables affecting the language learning process. While researchers such as Atay (2004), and Cheng and Dörnyei (2007) conclude that this variable is an important factor in foreign language acquisition, Kaboody (2013) states that this motivation to develop students in the target language is considered as a complicated process.

According to Dreon et al. (2011), creating content and links related to students' lives helps to motivate them and aim to teaching. In order to achieve this motivation in teaching, appropriateness of these content and connections to the student's desire, the characteristics of the material used and the attractiveness of the environment are seen important (Tatlı & Aksoy, 2017) and here, digital storytelling could play an important and promising role in motivating the students. Moreover, the story can be used as a way of facilitating the discussion on a given topic and sense making (Robin, 2006). Since narrative stories are effective, memorable and entertaining as educational tools (Neuhauser, 1993), teaching a complicated subject with stories may make students become more oriented towards the course –thus, motivated- and learn meaningfully by stimulating their emotions in their imagination (Turgut & Kışla, 2015). Furthermore, working with digital stories created with multimedia tools could be considered as a way of providing exciting experiences (Hathorn, 2005). Digital storytelling focuses on a chosen theme and accommodates a certain perspective (Turan & Sezginsoy Şeker, 2018). Thus, those students who want to produce their own digital stories may help raise their interest and motivation (Robin, 2006). The

participation of students to their own learning practices promotes in-depth learning (Bromberg et al., 2013). In addition, it also helps students develop their multidimensional communicative competencies through a student-centered approach as well as motivate them towards the target language (Razmi et al., 2014 and Tatlı & Aksoy, 2017).

The Relationship of Digital Story Use With Learning Strategies in Foreign Language Teaching

Taşdemir and Tay (2008) explained the learning strategies as the strategies that enable the student to learn in the shortest and the most effective way through teaching and learning methods and techniques. Belet and Yaşar (2007) remark that learning strategies promote learners to become aware of their own learning processes and enhance the effectiveness of the learning process. In their study, they mention that the use of learning strategies improves students' reading comprehension and writing skills and is effective in developing positive attitudes towards language learning.

Here, digital storytelling could help with learning strategies thanks to its components. For instance, in writing up a scenario for the story, the students' writing skills could be improved, the memories of the students actively involved in the process could be also affected (Çıralı Sarıca & Koçak Usluel, 2015). Thus, a strong and efficient way to learn, recall and reflect contributes to the students' learning (Levett-Jones, Bowen & Morris, 2015). Digital storytelling is important for the students to create content and links about their lives, increase and accelerate their level of understanding (Dreon et al., 2011).

MAIN FOCUS OF THE CHAPTER

Research Design

In this study, quantitative research method was employed and quasi-experimental design was used. Data were obtained by using the pretest-posttest control group design, which is a type of the quasi-experimental ones in which the effect on the dependent variable was investigated by interfering with the independent variable (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz, & Demirel, 2018).

Participants

In this study, the study group was chosen based on a convenience sampling method. The participants consist of 20 students. Ten students are in the experimental group and ten students are in the control group, enrolled in the preparatory class to learn English as a foreign language for a year in 2018-2019 academic year in a state university in Turkey. Ages of the students range between 18 and 21 while the average is 19 years-old. There are four female and 16 male students.

Data Collection Tools

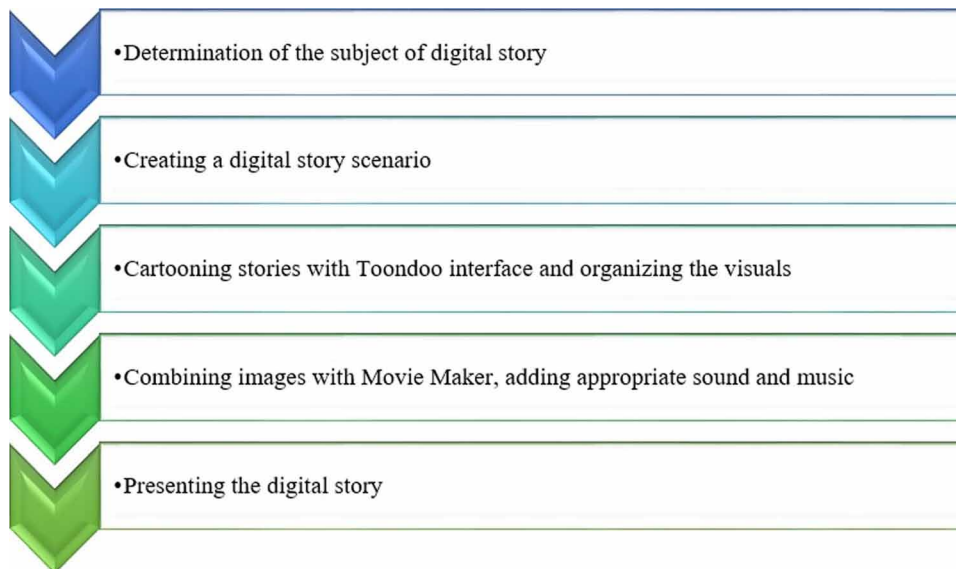
In the quantitative dimension of this study, Turkish version of Motivated Strategies for Learning Questionnaire (MSLQ), which is a scale produced by Pintrich, Smith, Garcia and McKeachie (1991), was used. Validity and reliability of the scales, which were administered as two separate scales as "Motivation

Scale” and “Learning Strategies Scale”, were ensured by using the data obtained from 852 undergraduate students. As a result, it was found that both of these two scales had construct validity with confirmatory factor analysis results and all of the items and subscales in the scale were distinctive with the reliability results.

Data Collection Process

In the first week of the study, which was a 6-week study, students were informed about the research and then the pretest was administered. As of the second week, based on the course content, approximately 5 minutes long digital stories were created by students with Toondoo which is used for making cartoon and then they animated these cartoons with Movie Maker software. In the last week of the study, posttest was administered to the experimental and control groups. The digital story making stages are shown in Figure 2 which demonstrates how a digital story should be created by following the stages as 1) identifying a digital story, 2) creating a scenario, 3) cartooning stories and 4) organizing the visuals along with images with appropriate sound or music and 5) finally presenting the digital story.

Figure 2. Digital story preparation process



Data Analysis

In order to run data analysis to find out whether there is an effect of digital story use on motivation and learning strategies in foreign language teaching, first of all, normality test was used to determine if data are modeled by a normal distribution. Results showed that the data demonstrated non-normal distribution. Therefore, Mann-Whitney U test was used since the distribution of data did not meet the normality assumption as well as Wilcoxon test was used since variables were nonparametric (Büyükoztürk, 2007).

Findings

Findings About the Motivation Scale Posttest Scores of the Experimental and Control Groups

Mann Whitney U test was used to find out whether there is a significant difference between the motivation scale posttest scores of the study groups. While the mean values from the posttest scores of the students in the experimental group are 149.00, the average of the students in the control group is 154.00. Mann Whitney U test results from the experimental group and the control group are presented in Table 1.

Table 1. Mann Whitney U test results according to experimental and control groups motivation scale posttest scores

Group	N	Mean Rank	Sum of Ranks	U	p
Experimental	10	9.95	99.50	44.500	.677
Control	10	11.05	110.50		

Based on the analyses, it was found that there is no significant difference between the experimental and control groups in terms of digital storytelling and their motivation in foreign language teaching (U:44.5, $p>.05$). This finding indicates that digital storytelling in foreign language teaching has no effect on the students' motivation who study foreign languages.

Findings About the Learning Strategies Scale Posttest Scores of the Experimental and Control Groups

Mann Whitney U test was used to find out whether there is a significant difference between the learning strategies scale posttest scores of the study groups. While the mean values in the experimental group are 218.80, the average of the students in the control group is 248.30. Mann Whitney U test results from the learning strategies scale administered to experimental group after the implementation and to the control group students are presented in Table 2.

Table 2. Mann Whitney U test results according to experimental and control groups learning strategies posttest scores

Group	N	Mean Rank	Sum of Ranks	U	p
Experimental	10	9.15	91.50	36.500	.307
Control	10	11.85	118.50		

Based on the analyses, it was found that there is no significant difference between the experimental and control groups in terms of learning strategies in foreign language teaching (U:36.5, $p>.05$). This

The Effect of Using Digital Stories in Teaching English as a Second Language

finding indicates that digital storytelling in foreign language teaching has no effect on the use of learning strategies for foreign language learners.

Findings About the Motivation Scale Pretest and Posttest Scores of the Experimental Group

Wilcoxon test was used to find out whether there is a significant difference between the motivation scale pretest and posttest scores of the study groups. While the mean motivation pretest scores of the students in the group are 144.50, the posttest score average is 149.00. The results of the Wilcoxon test on whether the students' motivation for foreign language teaching with digital storytelling before and after the experiment show a significant difference which is presented in Table 3.

Table 3. Wilcoxon test results according to motivation scale posttest scores of experimental group before and after the experiment

Pretest-Posttest	N	Mean Rank	Sum of Ranks	z	p
Negative ranks	6	4.17	25.00	.255	.799
Positive ranks	4	7.50	30.00		
Ties	0				

Analyses in Table 3 show that there is no significant difference between the pretest and posttest scores of the experimental group ($z=.255$, $p>.05$). According to the results, it is observed that digital storytelling in foreign language teaching has no substantial effect on motivation. However, when the average scores are examined, the motivation posttest scores of the students participating in digital storytelling in foreign language teaching are higher than the pretest scores, although the result does not constitute a statistically significant difference.

Findings About the Learning Strategies Scale Pretest and Posttest Scores of the Experimental Group

Wilcoxon test was used to find out whether there is a significant difference between the learning strategies scale pretest and posttest scores of the experimental group. While the mean pretest scores of the students in the group are 212.60, the posttest score average was 218.80. The results of the Wilcoxon test on whether students' use of learning strategies for foreign language teaching with digital storytelling before and after the experiment show a remarkable difference as could be seen in Table 4.

The Effect of Using Digital Stories in Teaching English as a Second Language

Table 4. Wilcoxon test results according to learning strategies post-test scores of experimental group before and after experiment

Pretest-Posttest	N	Mean Rank	Sum of Ranks	z	p
Negative ranks	5	5.20	26.00	.153	.878
Positive ranks	5	5.80	29.00		
Ties	0				

Analyses in Table 4 show that there is no significant difference between the pretest and posttest learning strategies scale scores ($z=.153$, $p>.05$). According to these results, it is seen that digital storytelling in applied foreign language teaching has no substantial effect on students' use of learning strategies. However, when the average scores are examined, the posttest learning strategies scores of the students participating in digital storytelling are higher than the pretest scores, although the result does not constitute a statistically significant difference.

SOLUTIONS AND RECOMMENDATIONS

The present study has attempted to explore the effect of digital storytelling on learning strategies and motivation of the students in foreign language teaching. It was revealed that use of digital storytelling in foreign language teaching has no effect on the development of students' use of learning strategies and their motivation. However, it was found that the motivation posttest scores of the students participating in digital storytelling in foreign language teaching are higher than the pretest scores and the posttest learning strategies scores of the students participating in digital storytelling are higher than the pretest score. A possible reason could be that of the program of the students in which they are enrolled. Accordingly, they study at a preparatory program aiming to teach English and the students might have been already motivated towards learning a foreign language. As for the learning strategies, teachers might design a learning setting more enhanced with digital storytelling tools as well as integrate into the course taking into account of cognitive, behavioral and metacognitive skills of the students.

This contradicts with existing literature. In terms of learning strategies, Rahimi (2017) remarks that digital stories develop students' diverse learning skills and cognitive abilities. Kordaki (2014) points out that it facilitates theoretical thinking and contributes to creativity. Signes (2008) emphasizes that digital stories are important in education in terms of teaching students how to combine some fundamentals. Wang (2010) argues that teachers can utilize digital stories to provide instructional contents such as the display of an idea and the expression of a subject. Robin (2008) mentions that digital storytelling is a well-placed technology application in order to overcome some obstacles in teaching and to employ the technology efficiently in the classroom of teachers. While Gils (2015) points out that digital storytelling offers more alternatives than traditional teaching approaches, enabling individual learning and improving students' learning, Campbell (2012) suggests that teachers find multimedia-rich digital stories as a powerful learning tool to teach curriculum subjects.

In terms of motivation, it has been reported by many researchers that motivation is an indispensable factor in language education (Özçalışan, 2012; Tugan, 2015) and this tendency of motivation is supported by digital storytelling (Bromberg, 2013; Robin et al., 2005; Smeda, 2010; Yang, 2012). According to

Smeda et al. (2010), digital storytelling increases students' motivation and encourages them to solve problems (Smeda et al., 2010). It provides the student with a rich, original learning experience, provides them with autonomy, and present and discuss their outputs with a related target audience (Kearney, 2009; Kearney & Schuck, 2006), attracts and intensifies the interest of students (Yang & Wu, 2012). For Stockwell (2013), one of the reasons why technology is frequently used in language learning is to motivate the students towards the course and here, digital storytelling could represent an ideal technology use to boost students' motivation.

FUTURE RESEARCH DIRECTIONS

The present study's results could be expanded with further research with following dimensions:

- The dependent variable examined in this study can be examined in different aspects by increasing the diversity of students.
- Motivation and learning strategies as independent variables that constitute the problem statement of this study can be investigated with different variables.
- In teacher training programs in relation to teaching foreign languages, prospective teachers' use of digital story telling could be further explored for them to gain the necessary knowledge and skills to integrate these tools in their lessons.

CONCLUSION

This study examined the use of digital stories in foreign language teaching according to the learning strategies variable. It concludes that when compared with experimental and control group students, and the learning posttest scores of the students who participated in digital storytelling in foreign language teaching were examined according to pretest scores, there is no significant distinction between digital storytelling and the use of learning strategies in foreign language teaching. This study indicates that the use of digital storytelling in foreign language teaching has no effect on the development of students' use of learning strategies.

REFERENCES

- Al Kaboody, M. (2013). Second language motivation; the role of teachers in learners' motivation. *Journal of Academic and Applied Studies*, 3(4), 45–54.
- Arslan, M., & Akbarov, A. (2010). Türkiye'de yabancı dil öğretiminde motivasyon - yöntem sorunu ve çözüm önerileri. *Selçuk Üniversitesi Edebiyat Fakültesi Dergisi*, 24, 179–191.
- Atay, D. (2004). İngilizce öğretmenlerinin motivasyon stratejileri. *HAYEF: Journal of Education*, 1(1), 99–108.

The Effect of Using Digital Stories in Teaching English as a Second Language

Bacanak, A., Karamustafaoğlu, O., & Köse, S. (2003). Yeni bir bakış: Eğitimde teknoloji okuryazarlığı. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 14(14), 191–196.

Belet, Ş., & Yaşar, Ş. (2007). Öğrenme stratejilerinin okuduğunu anlama ve yazma becerileri ile Türkçe dersine ilişkin tutumlara etkisi. *Eğitimde Kuram ve Uygulama*, 3(1), 69–86.

Boylu, E. (2015). *Yabancı dil olarak türkçe öğrenenlerin dil öğrenme stratejilerini kullanma düzeyleri*. Ankara: Yayımlanmamış Yüksek Lisans Tezi. Gazi Üniversitesi.

Bromberg, N. R., Techatassanasoontorn, A. A., & Andrade, A. D. (2013). Engaging students: Digital storytelling in information systems learning. *Pacific Asia Journal of the Association for Information Systems*, 5(1), 1–22. doi:10.17705/1pais.05101

Brophy, J. (2004). *Motivating students to learn*. Lawrence Erlbaum Associates. doi:10.4324/9781410610218

Büyüköztürk, Ş. (2007). Sosyal bilimler için veri analizi el kitabı (7. Bs). Ankara: Pegem Akademi.

Büyüköztürk, Ş., Akgün, Ö. E., Özkahveci, Ö., & Demirel, F. (2004). The validity and reliability study of the turkish version of the motivated strategies for learning questionnaire. *Educational Sciences: Theory and Practice*, 4(2), 231–239.

Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2018). Bilimsel araştırma yöntemleri (24. Bs.). Ankara: Pegem Akademi.

Çakır, R., & Yıldırım, S. (2009). What do computer teachers think about the factors affecting technology integration in schools? *İlköğretim Online*, 8(3), 952-964.

Çalışkan, M. (2016). Öğrenme sürecine etkin katılma: Öğrenme stratejileri ve yürütücü biliş. In M. Yavuz (Ed.), *Yeni nesil okul-araştıran okul içinde* (pp. 37-76). Konya: Eğitim Yayınevi.

Campbell, T. A. (2012). Digital storytelling in an elementary classroom: Going beyond entertainment. *Procedia: Social and Behavioral Sciences*, 69, 385–393. doi:10.1016/j.sbspro.2012.11.424

Çelik, M. (2013). Interest-based language teaching to increase motivation and output in Turkey. *Sosyal ve Beşeri Bilimler Araştırmaları Dergisi*, 24, 29–44.

Center for Digital Storytelling. (2005). *Seven elements of digital storytelling*. <https://www.storycenter.org/history.html>

Cheng, H. F., & Dörnyei, Z. (2007). The use of motivational strategies in language instruction: The case of EFL teaching in Taiwan. *International Journal of Innovation in Language Learning and Teaching*, 1(1), 153–174. doi:10.2167/illt048.0

Chung, S. K. (2006). Digital storytelling in integrated arts education. *The International Journal of Arts Education*, 4(1), 33–50.

Çiğerci, F. M., & Gültekin, M. (2017). Use of digital stories to develop listening comprehension skills. *Issues in Educational Research*, 27(2), 252–268.

Çıralı, H. (2014). *Dijital hikâye anlatımının görsel bellek ve yazma becerisi üzerine etkisi*. Ankara: Yüksek Lisans Tezi. Hacettepe Üniversitesi.

The Effect of Using Digital Stories in Teaching English as a Second Language

- Demirer, V. (2013). *İlköğretimde e-öyküleme kullanımı ve etkileri*. Konya: Yayınlanmamış Doktora Tezi. Necmettin Erbakan Üniversitesi.
- Dikbaş, Y., & Hasırcı, Ö. K. (2008). Öğrenme stratejileri öğretiminin ve ders işlenişinde kullanımının öğrencilerin akademik başarılarına ve tutumlarına etkisi. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 9(2), 69–76.
- Dogan, B., & Robin, B. (2008). Implementation of digital storytelling in the classroom by teachers trained in a digital storytelling workshop. In *Society for Information Technology & Teacher Education International Conference* (pp. 902-907). Association for the Advancement of Computing in Education (AACE).
- Doğan, Ö. (2009). *İngilizce hazırlık okuyan öğrencilerin motivasyon düzeyleri*. Eskişehir: Yüksek Lisans Tezi. Osmangazi Üniversitesi.
- Dörnyei, Z. (1994). Motivation and motivating in the foreign language classroom. *Modern Language Journal*, 78(3), 273–284. doi:10.1111/j.1540-4781.1994.tb02042.x
- Dreon, O., Kerper, R. M., & Landis, J. (2011). Digital storytelling: A tool for teaching and learning in the youtube generation. *Middle School Journal*, 42(5), 4–10. doi:10.1080/00940771.2011.11461777
- Gardner, R. C., & Lambert, W. E. (1959). Motivational variables in second-language acquisition. *Canadian Journal of Psychology/Revue. Canadian Psychology*, 13(4), 266–272. doi:10.1037/h0083787
- Gils, F. V. (2005). Potential applications of digital storytelling in education. In *3rd Twente Student Conference on IT* (Vol.7). University of Twente, Faculty of Electrical Engineering, Mathematics and Computer Science Enschede.
- Gömlüksiz, M. N., & Pullu, E. K. (2017). Toondoo ile dijital hikâyeler oluşturmanın öğrenci başarısına ve tutumlarına etkisi. *Electronic Turkish Studies*, 12(32), 95–110. doi:10.7827/TurkishStudies.12717
- Görgeç, İ., Kömür, Ş., & Deniz, S. (2013). İngilizce öğretmen adaylarının güdüleme stratejilerini değerlendirmeleri. *Sosyal ve Beşeri Bilimler Araştırmaları Dergisi*, 23, 147–160.
- Gregori-Signes, C. (2008). Integrating the old and the new: Digital storytelling in the EFL language classroom. *Greta*, 16(1&2), 43–49.
- Hadžimehmedagić, M., & Akbarov, A. (2014). The importance of frequent usage of various motivational strategies in second language acquisition. *Linguistics, Culture and Identity in Foreign Language Education*, 1157.
- Hakan, K., Aydın, B., & Bulent, A. (2015). An investigation of undergraduates' language learning strategies. *Procedia: Social and Behavioral Sciences*, 197, 1348–1354. doi:10.1016/j.sbspro.2015.07.388
- Hathorn, P. P. (2005). Using digital storytelling as a literacy tool for the inner-city middle school youth. *The Charter Schools Resource Journal*, 1(1), 32–38.
- Heo, M. (2009). Digital storytelling: An empirical study of the impact of digital storytelling on pre-service teachers' self-efficacy and dispositions towards educational technology. *Journal of Educational Multimedia and Hypermedia*, 18(4), 405–428.

The Effect of Using Digital Stories in Teaching English as a Second Language

İnceelli, A. (2005). Dijital hikâye anlatımının bileşenleri. *The Turkish Online Journal of Educational Technology*, 4(3), 132–142.

İncikabı, L., & Kıldan, A. O. (2013). An analysis of early childhood teacher candidates' digital stories for mathematics teaching. *International Journal of Academic Research*, 5(2), 77–81. doi:10.7813/2075-4124.2013/5-2/B.10

Kajder, S., & Swenson, J. A. (2004). Digital images in the language arts classroom in the curriculum: Language arts. *Learning and Leading with Technology*, 31(8), 18–21.

Karaoglan Yılmaz, F., & Durak, H. (2018). Examining pre-service teachers' opinions about digital story design. *Education and Information Technologies*, 23(3), 1277–1295. doi:10.1007/10639-017-9666-2

Kearney, M. (2009). Towards A Learning Design for Student-Generated Digital Storytelling. In *Future of Learning Design Conference*. New South Wales, Australia: University of Wollongong. Retrieved from <http://ro.uow.edu.au/cgi/viewcontent.cgi>

Kearney, M., & Schuck, S. (2006). Spotlight on authentic learning: Student developed digital video projects. *Australasian Journal of Educational Technology*, 22(2), 189–208. doi:10.14742/ajet.1298

Kocaman-Karoğlu, A. (2015). Öğretim sürecinde hikâye anlatmanın teknolojiyle değişen doğası: Dijital hikâye anlatımı. *Eğitim Teknolojisi Kuram ve Uygulama*, 5(2), 89–106.

Kordaki, M. (2014). On the design of educational digital stories: The Ed-W model. *Procedia: Social and Behavioral Sciences*, 116, 1631–1635. doi:10.1016/j.sbspro.2014.01.447

Küngerü, A. (2016). Bir ifade aracı olarak dijital öykü anlatımı. *Abant Kültürel Araştırmalar Dergisi*, 1(2), 190–202.

Kurudayıoğlu, M., & Bal, M. (2014). Ana dili eğitiminde dijital hikâye anlatımlarının kullanımı. *Sakarya Üniversitesi Eğitim Fakültesi Dergisi*, (28), 74–95.

Lambert, J. (2002). *Digital storytelling: Capturing lives, creating community*. Berkeley, CA: Digital Diner Press.

Levett-Jones, T., Bowen, L., & Morris, A. (2015). Enhancing nursing students' understanding of threshold concepts through the use of digital stories and a virtual community called 'Wiimali'. *Nurse Education in Practice*, 15(2), 91–96. doi:10.1016/j.nepr.2014.11.014 PMID:25487056

Meadows, D. (2003). Digital storytelling: Research-based practice in new media. *Visual Communication*, 2(2), 189–193. doi:10.1177/1470357203002002004

Mehdiyev, E., Gonca, U. S. T. A., & Uğurlu, C. T. (2016). İngilizce dil öğreniminde motivasyon. *Elektronik Sosyal Bilimler Dergisi*, 15(57), 361–371.

Neuhauser, P. C. (1993). *Corporate legends and lore: The power of storytelling as a management tool*. New York: McGraw-Hill.

Nishioka, H. (2016). Analysing language development in a collaborative digital storytelling project: Sociocultural perspectives. *System*, 62, 39–52. doi:10.1016/j.system.2016.07.001

The Effect of Using Digital Stories in Teaching English as a Second Language

Nomass, B. B. (2013). The impact of using technology in teaching English as a second language. *English Language and Literature Studies*, 3(1), 111–116.

Özçalışan, H. (2013). *Yükseköğrenim öğrencilerinin İngilizceyi öğrenme motivasyonları*. Yüksek Lisans Tezi. Kocatepe Üniversitesi, Afyon.

Ozcinar, H., & Ozturk, H. T. (2013). Methods for Analyzing Computer-Mediated Communication in Educational Sciences. In N. Sappleton (Ed.), *Advancing Research Methods with New Media Technologies* (pp. 228–249). London: IGI Global. doi:10.4018/978-1-4666-3918-8.ch013

Pedersen, E. (1995). Storytelling and the art of teaching. *Forum*, 33(1), 2–5.

Price, D. M., Strodman, L., Brough, E., Lonn, S., & Luo, A. (2015). Digital storytelling: An innovative technological approach to nursing education. *Nurse Educator*, 40(2), 66–70. doi:10.1097/NNE.000000000000094 PMID:25290965

Rahimi, M., & Yadollahi, S. (2017). Effects of offline vs. online digital storytelling on the development of EFL learners' literacy skills. *Cogent Education*, 4(1), 1–13. doi:10.1080/2331186X.2017.1285531

Razmia, M., Pouralib, S., & Nozad, S. (2014). Digital storytelling in EFL classroom (oral presentation of the story): A pathway to improve oral production. *Social and Behavioral Sciences*, 98, 1541–1544. doi:10.1016/j.sbspro.2014.03.576

Robin, B. (2006, March). The Educational Uses of Digital Storytelling. In *Society for Information Technology & Teacher Education International Conference* (pp. 709-716). Association for the Advancement of Computing in Education (AACE).

Robin, B. R. (2008). Digital storytelling: A powerful technology tool for the 21st century classroom. *Theory into Practice*, 47(3), 220–228. doi:10.1080/00405840802153916

Sarıca, H. Ç., & Usluel, Y. K. (2016). Eğitsel bağlamda dijital hikâye anlatımı: Bir rubrik geliştirme çalışması. *Eğitim Teknolojisi Kuram ve Uygulama*, 6(2), 298–309.

Sarıca, H. Ç., & Usluel, Y. K. (2016). The effect of digital storytelling on visual memory and writing skills. *Computers & Education*, 94, 298–309. doi:10.1016/j.compedu.2015.11.016

Silseth, K. (2013). Surviving the impossible: Studying students' constructions of digital stories on World War II. *Learning, Culture and Social Interaction*, 2(3), 155–170. doi:10.1016/j.lcsi.2013.04.004

Singhal, M. (1997). The Internet and foreign language education: Benefits and challenges. *The Internet TESL Journal*, 3(6), 107.

Smeda, N., Dakich, E., & Sharda, N. (2010, July). Developing a framework for advancing e-learning through digital storytelling. In *IADIS International Conference E-Learning* (pp. 169-176). Academic Press.

Smeda, N., Dakich, E., & Sharda, N. (2014). The Effectiveness of digital storytelling in the classrooms: A comprehensive study. *Smart Learning Environments*, 1(1), 6. doi:10.118640561-014-0006-3

Sökmen, İ. (2006). *İngilizce öğretmenlerinin strateji öğretimi ile ilgili inançları*. Eskişehir: Yüksek Lisans Tezi. Anadolu Üniversitesi.

The Effect of Using Digital Stories in Teaching English as a Second Language

- Stockwell, G. (2013). Technology and motivation in English-language teaching and learning. In *International perspectives on motivation* (pp. 156–175). London: Palgrave Macmillan. doi:10.1057/9781137000873_9
- Suwardy, T., Pan, G., & Seow, P. S. (2013). Using digital storytelling to engage student learning. *Accounting Education*, 22(2), 109–124. doi:10.1080/09639284.2012.748505
- Taşdemir, A., & Tay, B. (2007). Fen bilgisi öğretiminde öğrencilerin öğrenme stratejilerini kullanmalarının akademik başarıya etkileri. *Uludağ Üniversitesi Eğitim Fakültesi Dergisi*, 20(1), 173–187.
- Tatlı, Z., & Aksoy, D. A. (2015). Yabancı dil konuşma eğitiminde dijital öykü kullanımı. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, 45, 137–152.
- Tendero, A. (2006). Facing yourselves: The effects of digital storytelling on teacher education. *Contemporary Issues in Technology & Teacher Education*, 6(2), 174–194.
- Tugan, S. E. (2015). *The relationship among foreign language classroom anxiety, motivation and achievement of Turkish EFL students*. İstanbul: Yayımlanmamış Yüksek Lisans Tezi. Fatih Üniversitesi.
- Turan, T., & Şeker, B. S. (2018). The effect of digital stories on fifth-grade students' motivation. *Journal of Education and Future*, 13, 65–78.
- Turgut, G., & Kışla, T. (2015). The use of computer-aided story in education: Literature review. *Turkish Online Journal of Qualitative Inquiry*, 6(2), 97–121. doi:10.17569/tojqi.57305
- Ülgen, G. (1995). *Eğitim psikolojisi: Birey ve öğrenme*. Ankara: Bilim Yayınları.
- Uslupehlivan, E., & Erden, M. K. (2016). *Usage of digital storytelling method in higher education. International Conference on Quality in Higher Education, Sakarya, Turkey*.
- Wang, L. (2005). The advantages of using technology in second language education. *The Journal*, 32(10), 38–42.
- Wang, S., & Zhan, H. (2010). Enhancing teaching and learning with digital storytelling. *International Journal of Information and Communication Technology Education*, 6(2), 76–87. doi:10.4018/jicte.2010040107
- Wilson, J. A. (1997). *A program to develop the listening and speaking skills of children in a first grade classroom* (Master Thesis). University of Virginia.
- Yang, Y. T. C., & Wu, W. C. I. (2012). Digital storytelling for enhancing student academic achievement, critical thinking and learning motivation: A year-long experimental study. *Computers & Education*, 59(2), 339–352. doi:10.1016/j.compedu.2011.12.012
- Yılmaz, Y., Üstündağ, M. T., & Güneş, E. (2017). Öğretim materyali olarak dijital hikâye geliştirme aşamalarının ve araçlarının incelenmesi. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 17(3), 1621–1640. doi:10.17240/aibuefd.2017.17.31178-338851

ADDITIONAL READING

Behmer, S., Schmidt, D., & Schmidt, J. (2006, March). Everyone has a story to tell: Examining digital storytelling in the classroom. *In Society for Information Technology & Teacher Education International Conference* (pp. 655-662). Association for the Advancement of Computing in Education (AACE).

Karaoglan Yilmaz, F. G., Özdemir, B. G., & Yasar, Z. (2018). Using digital stories to reduce misconceptions and mistakes about fractions: An action study. *International Journal of Mathematical Education in Science and Technology*, 49(6), 867–898. doi:10.1080/0020739X.2017.1418919

Morgan, H. (2014). Using digital story projects to help students improve in reading and writing. *Reading Improvement*, 51(1), 20–26.

Ohler, J. (2006). The world of digital storytelling. *Educational Leadership*, 63(4), 44–47.

Sever, T. (2014). *An investigation into the impact of digital storytelling on the motivation level of students*. Unpublished MA Thesis. Çanakkale Onsekiz Mart University, Institute of Educational Sciences, Çanakkale.

Valkanova, Y., & Watts, M. (2007). Digital story telling in a science classroom: Reflective self-learning (RSL) in action. *Early Child Development and Care*, 177(6-7), 793–807. doi:10.1080/03004430701437252

Verdugo, D. R., & Belmonte, I. A. (2007). Using digital stories to improve listening comprehension with Spanish young learners of English. *Language Learning & Technology*, 11(1), 87–101.

Yang, Y.-T. C., & Wu, W.-C. I. (2012). Digital Storytelling for enhancing student academic achievement, critical thinking, and learning motivation. A year-long experimental study. *Computers & Education*, 59(2), 339–352. doi:10.1016/j.compedu.2011.12.012

KEY TERMS AND DEFINITIONS

Digital Story: Digital story can be defined as video presentations rich in multimedia elements.

Digital Storytelling: Digital storytelling can be defined as the process of creating a short film by combining a text or an original story with multimedia elements such as picture, sound recording, and video.

Digital Teaching: Digital teaching can be defined as any type of teaching that is accompanied by technology or by instructional practice that makes effective use of technology.

Foreign Language Education: Foreign language education can be defined as the teaching of a modern language that is neither an official language nor the mother tongue of a significant part of the population.

Foreign Language Learning: Foreign language learning can be defined as learning of a nonnative language outside of the environment where it is commonly spoken.

Language Learning: Language learning can be defined as developing the ability to communicate in the second/foreign language.

Learning Strategies: Learning strategies are tactics students use to assist them in the learning process.

Motivation: Motivation can be defined as an internal drive that activates behavior and gives it direction.