

Journal of Education and Future year: 2018, issue: 13, 65-78



The Effect of Digital Stories on Fifth-Grade Students' Motivation*

Tuğba Turan**

Burcu Sezginsoy Şeker***

Abstract

Social studies is a discipline which includes mainly the subjects related to abstract concepts. Digital stories have an important role in materialising abstract thinking. Storytelling, story listening, story reading improve creative thinking and story provides permanent learning when combined with education. Digital storytelling is a method that can be used to develop students' skills appropriate to the age we live in, to arouse their perceptions, to encourage them, and to increase their motivation to learn. Presenting the effect size of using digital stories on training individuals in the digital age on motivation will reveal the importance and requirement of using digital stories appropriate to the current age. The purpose of this study is to examine the effect of using digital stories while lecturing about subjects in the "Realizing Dreams" unit of the Social Studies course on students' motivation. The study group includes 72 fifth-grade students in two different classes of Makbule Suleyman Alkan Secondary School, located in Izmir. In this study, an experimental model was used. Also, Turkish version (Kutu & Sözbilir, 2011) of the ARCS motivation survey developed by Keller (1987) was used to measure the motivation. As a result of the research, a significant difference was found in support of the experimental group which digital stories were used in terms of general motivations and subdimensions (attention-compliance and trust-satisfaction). In this context, it can be said that the student group in which digital stories are used as material is more motivated in terms of general motivation and sub-dimensions than the student group in which the videos in Eba are used as material.

Keywords: digital story, social science teaching, motivation, ARCS motivation survey

.

^{*} This study was presented as an oral assertion in the conference of "International Conference on New Horizons in Education (ÎNTE 2017)" which was held in Berlin. This study is supported by Balıkesir Üniversity Scientific Research Projects) (BAP-SRP Coordination Unit. (Project Number: 2017/077)

^{**} Graduate Student, Balıkesir University, Faculty of Necatibey Education, Department of Social Science Education, Balıkesir, Turkey. E-mail: tugbaturan@outlook.com

^{***} Assist. Prof. Dr., Classroom Teacher, Balıkesir University, Faculty of Necatibey Education, Department of Primary School Education, Balıkesir, Turkey. E-mail: sezginsoy@balikesir.edu.tr

Dijital Hikâyelerin Beşinci Sınıf Öğrencilerinin Motivasyonlarına Etkisi

Öz

Sosyal Bilgiler soyut kavramlara ilişkin konuların ağırlıklı olarak yer aldığı bir disiplin alanıdır. Dijital hikâyeler ise soyut düşünmeyi somutlaştırmada önemli bir role sahiptir. Hikâye yapma, hikâye dinleme, hikâye okuma yaratıcı düşünceyi geliştirmekte ve hikâye eğitimle birleştirildiğinde kalıcı öğrenme sağlamaktadır. Dijital hikâye anlatımları, öğrencilerin içinde bulunduğumuz çağa uygun becerilerini geliştirmek, algılarını toplamak, derse teşvik etmek ve öğrenmeye karşı motivasyonlarını arttırmak için kullanılabilecek bir yöntem olarak düşünülebilir. Dijital çağdaki bireylerin yetiştirilmesinde dijital hikâye kullanımının motivasyonu ne şekilde etkileyeceğini ortaya koymak, çağımıza uygun dijital öykü kullanımının önemini ve gerekliliğini ortaya çıkaracaktır. Bu araştırmanın amacı, ortaöğretim 5. sınıf Sosyal Bilgiler dersi "Gerçekleşen ünitesindeki konuların anlatımında dijital öykü kullanımının öğrencilerin motivasyonları üzerine etkisini araştırmaktır. Araştırmanın çalışma grubunu, İzmir il merkezinde Makbule Süleyman Alkan Ortaokulu 5. Sınıfında eğitim gören iki şubedeki toplam 72 öğrenci olusturmaktadır. Araştırmada deneysel model kullanılmaktadır. Araştırmada ölçme aracı olarak Keller (1987) tarafından gelistirilen ARCS motivasyon anketinin Türkçe'ye uyarlanmış hali (Kutu & Sözbilir, 2011) kullanılmıştır. Araştırma sonucunda dijital öykülerin öğrencilerin genel motivasyonları ve alt boyutlarında (dikkatuygunluk ve güven-tatmin) deney grubu lehine anlamlı bir farklılık olduğu görülmüştür. Bu bağlamda dijital hikayelerin materyal olarak kullanıldığı öğrenci grubunun, Eba'da yer alan videoların materyal olarak kullanıldığı öğrenci grubuna göre genel motivasyon ve alt boyutlar açısından daha motive edici olduğu söylenebilir.

Keywords: dijital hikaye, sosyal bilgiler öğretimi, motivasyon, ARCS motivasyon ölçeği

Introduction

The definition of technology which start with the history of mankind is practical applications that are used in organizing the information whose accuracy is proven in realising determined targets, satisfying the needs and facilitating the life (İşman, 2011, p.3). Technology change makes effects in economical, social, political and cultural fields in society, new change processes arise (Erkan, 1998, p. 92-96). Information is now everywhere. It is not possible to incarcerate it to limited institutions. So, it is required to shift schools from being institutions which transfer information to institutions which produce information and gain individuals skills such as, understanding, analysing and problem solving (Simsek, 1997, p.75).

Story is in every field of our lives. While stories are inside our lives to this extent, their usage in schools as lesson material will contribute to education process and will ease the learning of students. Digital storytelling focuses on a selected theme and maintains a certain point of view. Digital storytelling is a method which can be used for developing students' skills appropriate to the age we live in, to arouse their perceptions, to encourage them, and to increase their motivation against learning.

There are many different concepts used to identify the generation growing up with digital technologies and accepting these digital technologies as part of their lives. It can be observed that concepts such as New Millennium Learners; Millennials, Digital Natives, Net Generation, Gamer Generation, Instant Message Generation, Cyber Kids etc are used (Akçam-Yalçın&İzgi, 2014). Arrangement of learning environment in accordance with technological expectations and needs of today's students which are characterised as "New Millennium Learners or Digital Natives" a qualification which is requested by learners in current conditions. It will reveal the importance and necessity of digital story usage convenient for our age to put forth extention of the effects of digital story usage in the raising of individuals in digital era on their motivation, attitude and achievements. Based on the literature studies conducted, it is considered that usage of digital story in social studies lesson would make the lesson more visual, interesting and funny for students, it will increase the interest against lesson, motivation and success and it will enable a more permanent learning. In the century in which we live, technology presents so many opportunities for individuals such as accessing e-books regardless of the country they are published, learning in electronical environment, Access to open sources and free softwares, attending to interactive learning on the internet, electronical collaboration, actual learning environments and personal learning fields. Technological developments presents so many options with regards to education as well. And along with the increase in technological developments, stories also started to be told in virtual environments. Prensky (2001) suggests that today's students are quite different from the ones whom our educational system was designed to educate them. Teachers which are characterised as digital immigrants should improve themselves in order to be sufficient for students who are digital natives. They should direct to education models which digital native students could participate eagerly and actively. Otherwise it would be hard to direct attention of digital natives whose life style and perception has changed to lesson. The attention of digital native students can be focused on lessons by using digital stories. Even the digital storytelling requires so much active participation from students, the role of the teacher is equally important. Teacher must both interact with students in the process of storytelling and help them develop their storytelling skills. Digital stories becoming easy to produce and issue can be considered as an effective way in providing the motivation related to the lesson and teaching life lesson. Student motivation as an effective element in providing the attendance to lesson, following up the subjects with passion and realising learning. Keller (1984) states that motivation is an important variable in the design of an effective teaching and students show higher achievement when they are motivated. The ACRS model which was presented by Keller (1987) was suggested to diagnose motivational problems and to present suggestions for eliminating them at the beginning. "Attention", "Relevance", "Confidence" ve "Satisfaction" elements which are determined within the scope of ARCS Motivation Model are combined and applied to teaching design processes widely (Keller, 1987). Conducted researches confirmed that the ARCS model can increase the learning motivation and efficiency of teaching designs significantly (Liu & Chu, 2010). It is required to plan "Attention" stage of the ARCS model within the framework of a process which draws the attention and curiosity of students and help them connecting to the lesson. The second stage "Relevance" is the design of teaching in direction of career plans and needs of learners in order to increase the learning motivation of students. Third stage is the process of designing the content in a way to support the students to enhance their self-confidence. The last stage "Satisfaction" provides students the opportunity to use the knowledge and skills they have just learned in a real or simulated environment (Shih & Mills, 2007).

In this study, the scale developed by Keller (2010) in order to measure the motivation of students based on the ARCS motivation model was used. Conducted studies show that usage of computers for education creates complexity in learning processes and increase the student motivation (Baker, Gearhart & Herman, 1990; Dwyer, 1994). Digital stories through their education aimed and free softwares help students to understand the complex learning content by increasing the attention and motivation of students and facilitating the students study together and organise ideas (Robin, 2008; Van Gils, 2005). Thus, the stories set in a meaningful manner move beyond the traditional storytellings and transform into a motivation tool through their education aimed usage (Yang & Wu, 2011). In this context, in this study the effects of digital stories which were set for "Realized Dreams" unit of the Primary School 5. Grade Social Studies lesson on students' motivation were examined. "Material Motivation Scale" was applied to experimental and control groups after the treatment in order to determine student motivations related to the materials used in the teaching process. In the study, Turkish version (Kutu & Sözbilir, 2011) of the ARCS motivation survey developed by Keller (1987) was used and the answers were searched for the research problem and sub-problems below:

Research Problem

What is the effect of digital stories on student motivation?

Sub Problems

- Is there a significant difference between the motivations of experimental and control groups with regards to attention-relevance dimension?
- Is there a significant difference between the motivations of experimental and control groups with regards to confidence-satisfaction dimension?

Method

In the research "Posttest Control Group Design" which is among true experimental designs is preferred. There are two groups which were formed by random assignment in the posttest control group design. One of them is used as the experimental group and the other as the control group. Only posttest is applied to groups. Measuring was done after experimental treatment (Karasar, 2005). This research was rendered by handling two groups. First the

subjects were seperated randomly and one of them was assigned as experimental group and the other as control group. While in the experimental group, the teaching of "Realising Dreams" unit in Primary School Fifth Grade Social Studies lesson conducted with a curriculum planned according to 5E learning model and by using digital stories as the material, in the control group it was conducted with the teaching prescribed by current Social Studies Teaching Programme and by using the videos in Eba (Eğitim Bilişim Ağı -Education Information Network) as the material. The reason why posttest control group design is preferred in the study is that the materials used in the treatment can just be evaluated within the process and there would be no need for any pretest at this point.

Study Group

A total of 72 students studying in 5/H and 5/I branches of Makbule Süleyman Alkan Ortaokulu (Middle School) in Buca Sub-province of İzmir Province in 2016-2017 school year constitute the study group of the research. According to this 36 students (5/I branch) form the control group of the research and 36 students (5/H branch) form the experimental group.

Data Collection Tools

In the study, "Material Motivation Survey" was used in order to measure student motivation relevant to digital story materials which was developed for curriculum content appropriate for 5E. The survey which was developed by Keller (1987) to measure the effect of teaching materials based on ARCS motivation model on motivations was adapted to Turkish by Kutu and Sözbilir (2011), its validity and credibility study was conducted. While there are four dimensions as attention, relevance, confidence and satisfaction in the original form of the survey, in the Turkish version there are two dimensions as attention/relevance and confidence/satisfaction and the scale consists of 24 items. Cronbach Alpha coefficient of internal consistency was determined as 0,83 for the whole survey and the sub-factors as 0,79 and 0,69 respectively. In ARCS model, for the motivating education, four basic strategies below were identified (Keller, 1984); Attention component includes the required strategies for increasing and maintaining interest and curiosity. Relevance component includes the strategies related to necessities, field of interests and objectives of students. Confidence component includes strategies helping students develop a positive expectation in reaching success. Satisfaction component provides internal and external support for the effort made by students.

Treatment Process

Treatment lasted for 4 weeks between 27 February - 24 March 2017. The lessons were taught in 12 course hours as 3 course hours per week by using digital story materials. Treatment processes of the lesson which was designed according to 5E model and supported with digital story materials are presented in items below.

1. Curriculum which can be a sample for 6 learning outcomes which are in the fifth grade social studies programme "Realising Dreams" unit and gaining the concepts in the unit and which is conformant to 5e model was formed benefiting from the sources of "Social studies for the preschool/primary child" (Seefeldt, Castle & Falconer, 2015), "The BSCS 5E Instructional Model: Creating Teachable Moments" (Bybee, 2005) which were in the literature.

- 2. Digital stories which take place in different steps of 5E were prepared by the process steps below:
 - Scenario building step: In the first step, different digital story scenarios were prepared by researchers for each of them. In the process of scenario preparation, it was benefited from interviews made with teacher and students, teaching experience of the researcher and literature. It was decided in which step of 5e the prepared scenarios shold be used.
 - **Developing, loading and arrenging visuals step:** The visuals related to the prepared scenarios was developed by means of web 2.0 tools such as story board, goanimate, toondoo, animaker, etc. Visuals related to the scenarios were loaded to the programme by using file loading windows of Photostory 3 computer programme.
 - Sorting the visuals according to flow chart step: In this step, loaded visuals are sorted according to the plans of the story. In addition according to the flow of the story the presentation time of the visuals were determined in computer environment.
 - Writing and passing effect step: Researchers enriched their stories by adding passing effects between some visuals in computer environment.
 - **Story vocalization step:** In this step, researchers vocalized scenario text related to visuals by means of computer.
 - **Background music adding step:** In this step, researchers added background music to visuals in a way proper to the emotion in their story.
 - Story building step: After all the steps were completed successfully, they were controlled by making the preview of the relevant stories. The relavant stories were kept as projects by using Photostory 3 programme, in situations where the enrichment of the story is wanted, the stories were rearranged.
- 3. In the first week, the lesson was taught by supporting with digital stories formed in accordance with the learning outcome "He/she links inventions with technological advancements." In the "enter" step of curriculum formed according to 5E model attention was drawn to lesson by means of digital stories. Students were directed to brain storm by asking the questions of "In your opinion how did the invention of fire affect our lives? Can you give examples from your own life?" In the "explore" step, digital story named "Adventure of Fire" was shared. The questions of "What is the most important invention till now? What is the place and important of this invention in the life?" were directed to six different groups formed by the teacher. Students were asked to express their opinions. In the "explain" step the explanation of invention, inventor, explorer concepts were made and students were asked to compare these with their own definitions. In the "elaborate" step students were asked to prepare posters and to write motto about the subject. These posters and mottos were archived in the treatment file. In the "evaluate" step, "What is in the envelope?" activity was done. Students drawing colour envelopes tried to answer the question inside the envelope and entitled a friend to draw envelope. Thirteen envelops were answered by the students this way. The lesson was finalized after talking about the required materials for the preparation of the next lesson.
- 4. In the "enter" stage of the lesson attention was drawn to lesson with a digital story formed within the scope of learning outcome "He/she discusses about the effects of inventions and technological products to our social life" and the lesson was started with the question of "What kind of effects do the technological tools have to human life?" In the "explore" stage, the groups were asked to scrutinize the question of "How do the usage of automobile, plane in transportation; cell phone, television, internet in communication;

technological products at home affect social life?" with 6 thinking hats method. The opinions argued by each group were gathered in written by the teacher and archived to treatment file. The positive and negative aspects of technological tools were explained by the teacher. This enabled the students to compare their ideas with the explanation. In the "elaborate" step, students were asked to prepare a Digital Story scenario in accordance with the concepts they have learned about the subject of "Technology and Human Life". The scenarios were gathered in the following lesson and the scenario of each student was transformed into a digital story with the support of the teacher. It was provided that the student become active and use his/her previous knowledge, experience. In the "evaluate" step they were asked to write short texts about the questions of "Where does the technology stand in human life? Can human stay away from technology?" It was observed to what extent students understand the subject. Digital stories formed by students with the help of teacher and the texts they wrote were archived to the treatment file.

- 5. In the second week of the treatment, the learning outcomes "He/she realises the common characteristics of the inventors and the scientists." and "He/she respects the scientific studies and the ones conducting these studies" were gained together. In the "enter" stage of the lesson, the lesson was started by watching digital story. Their attention was drawn to lesson by asking the questions of "What does the concept of scientist mean to you? With what do the scientists deal?" The questions of "Are the inventions made by scientists important?" and "Would any difference have been today, if there hadn't been the inventions of scientists?" were asked to six groups formed by the teacher within the scope of duel activity. 3 groups which selected their rivals were called to the board and they were asked to put their opinions forth. The argued opinions were expressed by the group spokesperson. In the "explain" step of the lesson the "Scientist" concept was explained in details by the teacher. In the "elaborate" step, the students were asked to perform a drama in accordance with the concepts they have learned within the content of "Scientists" subject. In the "evaluate" step, activity named "Let's match the concepts" was carried out.
- 6. In the third week, the lesson was started by watching digital story which was formed related to the learning outcome "He/she shows the importance Atatürk gave to science and technology on the basis of evidences." In the "explore" stage of the lesson, the class which was divided into 6 groups was asked to express their opinions through their spokespeople by asking the question of "If hadn't Atatürk been a foresighted leader, what would the situation of Turkey have been today?" and to submit them in written to the teacher. In the "explain" step, the mistakes and deficiencies of students related to the relevant subject were eliminated by the teacher. In the "elaborate" stage the activity named "Being a Leader" was carried out by using station technique. It was observed to what extent students understand the subject. Thus it was provided that the students become active and use their previous knowledge, experiences. In the "evaluate" step, pictures of Atatürk was delivered and this pictures were interpreted by students.
- 7. In the fourth week, the lesson was started by watching digital story which was formed in accordance with the learning outcome "He/she recognizes and follows up periodicals appropriate for his/her level related to science and technology." in the "enter" stage of the lesson. The digital story was interrupted and brain storm was conducted by directing the questions of "What is the magazine you follow up? Why did you prefer that magazine" and "Can you share one of your memories which you have experienced in the library?" After the attention of students had been focused to lessons, the students who were separated to six groups was asked to express their opinions by asking the questions of "Is it required for

every student to follow up a periodical?" and "Is the rule of being silent in the library logical or necessary?" In the "explain" step, after the teacher makes the necessary explanations, he/she enabled the students to take some important notes. In the "elaborate" step, the students were asked to design a magazine cover which they will prepare in collaboration with group members and prepare a bibliography. In the "evaluate" step, "What is in the envelope?" activity was carried out with students.

- 8. While in the experimental group the lessons were taught within the process above, in the control group lessons were taught through the teaching prescribed by current Social Studies Teaching Programme and by using the videos in Eba (Eğitim Bilişim Ağı Education Information Network) as the material.
- 9. After the lesson instructions finished, "Material Motivation Survey" was applied to both groups on 24 Mart 2017.

Analysis of Data

In the direction of the study, the effect of digital stories in the study to student motivations were examined. The scale developed by Keller (2010) in order to measure learner motivation by taking ARCS motivation model which was developed as a definitive model for the diagnosis of the problems related to student motivation as basis was used for measuring the motivation. In this process, unpaired t-test was conducted in order to determine whether there is a significant difference related to their general motivations and sub-dimensions (attention-relevance and confidence-satisfaction) after the treatment or not. The data obtained from "Material Motivation Scale" are evaluated descriptively. Data was also evaluated under attention-relevance, confidence-satisfaction dimensions which are the factors of the scale. While the arithmetic average obtained from scale are interpreted the values; between 1.00-1.80 were regarded "very low", between 1.81-2.60 "low", between 2.61-3.40 "middle", between 3.41-4.20 "high" and between 4.21-5.00 "very high" (Kutu & Sözbilir, 2011).

Findings

Unpaired t-test was conducted in order to determine whether digital stories made a significant difference in students' general motivations and sub-dimensions (attention-relevance and confidence-satisfaction) after the treatment or not.

Findings related to General Motivation: As seen Table 1, a significant difference was found between the experimental and control groups with regards to general motivation in support of experimental group. [t(70)=1.88, p<.05].

Table 1. *Unpaired t-test results related to general motivation*

Group	N	$\frac{-}{x}$	Sd	df	t	Sig.
Experimental	36	97.4722	3.85	70	1.88	.00*
Control	36	66.2778	10.62			

*p<.05

Findings related to Attention-Relevance Dimension of Motivation: As seen in Table 2, in the motivations of experimental and control groups, in the attention-relevance dimension, a significant difference was found in support of experimental group [t(70)=1.04,

p<.05]. With reference to this findings; it could be said that the student group which digital stories were used as material were more motivated in attention-relevance dimension when compared to the student group which videos in eba were used as material.

Table 2. Unpaired t-test results related to attention-relevance dimension in motivation

Group	N	$\frac{\overline{}}{x}$	Sd	df	t	Sig.
Experimental	36	49.6111	2.06	70	1.04	.00*
Control	36	29.3889	5.91			
*p<.05						

Findings related to Confidence-Satisfaction Dimension of Motivation: As seen in Table 3, in the motivations of experimental and control groups, in the confidence-satisfaction dimension, a significant difference was found in support of experimental group [t(70)=1.03, p<.05]. With reference to this findings; it could be said that the student group which digital stories were used as material were more motivated in attention-relevance dimension when compared to the student group which videos in eba were used as material.

Table 3. Unpaired t-test results related to confidence-satisfaction dimension in motivation

Group	N	$\frac{-}{x}$	Sd	df	t	Sig.
Experimental	36	47.8611	2.50	70	1.03	.00*
Control	36	36.8889	5.71			

^{*}p<.05

When the results above are examined, it is possible to say that digital stories increase student motivation. In the studies which the effect of digital stories to motivation is researched in the literature, the usage of different scales were encountered. For example; Yang & Wu used "The Motivated Strategies for Learning Questionnaire (MSLQ)" scale for measuring the motivation of the students in their research which they had maintened for a year aimed at the effect of digital story usage in English classes on success, critical thinking and motivation of 10. grade students. Aktas and Uzuner-Yurt (2017) defined the effect of learning environment which digital stories are used as learning material on the motivation by using the Turkish version of the same scale which was adapted to Turkish by Büyüköztürk and others (2004). The data in the thesis study of Sever (2014) named "A Study on the Effects of Digital Storytelling on the Motivation Level of Students" was collected with qualitative and quantitive methods including two surveys and one interview which were directly taken or adapted from Attitude/Motivation Test Scale of Gardner (2004). In the consequences of all these researchs which were evaluated with different scales, it is seen that digital stories increase student motivation.

Materials are among the important factors which enable education to be successful. Although there are lots of measuring tools in the literature for the assessment of these materials, measuring tool which was prepared within the frame of a model is rarely encountered (Dincer & Doğanay, 2016). It is considered that especially the measuring of the motivation created with digital story materials will contribute to the literature. It is thought that the continuous measuring of the variables which effects academic achievement directly or indirectly such as motivation is important.

Discussion, Result and Suggestions

Developments in technology, which has an important place in the lives of individuals, bring about many changes in education as well as in all areas of our lives. The changes in technology are not only facilitating the lives of individuals but also increasing the interaction with the computer and the internet, such as access to information and the use of information in different ways (Erdem, 2017:448). Today's children are born and grown with computer, internet, cell phone, camera and all other products of digital world. In today's world where classical schoolbooks are turned into interactive books, communication and even socialization are carried out mostly in digital environments, excluding educational environments from these technologies is unimaginable. It is required to provide the integration of these technologies to education for drawing the attention and motivation of the new generation to learning environments. In our country, the technological change in education which started with Fatih Project functions as a bridge in the realisation of integration of technology to education process. "Digital stories" can be used in realisation of integration of technology to class environment. Digital stories will be a guide to teachers in creating educational environment for digital natives of the digital world.

In this context, in this study, the effect of digital stories created for the "Realizing Dreams" unit of the 5. grade Social Sciences lesson on students' motivation is examined. "Material Motivation Survey" was applied to both experimental and control groups after the treatment in order to measure student motivation related to materials used during teaching process. In the study, Turkish version (Kutu & Sözbilir, 2011) of the ARCS motivation survey developed by Keller (1987) was used to measure the motivation. In the consequence of the study, it was seen that digital stories make a significant difference in support of experimental group in their general motivations and sub-dimensions (attention-relevance and confidence-satisfaction). In this context, it can be said that the student group in which digital stories are used as material is more motivated in terms of general motivation and sub-dimensions than the student group in which the videos in Eba are used as material. Studies conducted show that learning environments where technology is used are efficient in increasing the student motivation and achievement (Çakır, Solak & Tan, 2016; Keller & Sang, 2001; Reisoğlu, Yılmaz, Çoban, Topu, Karkuş & Göktaş, 2015; Di Serio, Ibáñez & Kloos 2013; Ersoy, Duman & Öncü, 2016).

In the researches performed related to usage of digital stories as teaching tool, it was specified that digital story is an efficient tool, strategy or method for learning and teaching process; it enabled students to improve their skills such as expressing themselves, problem solving, critical thinking, reflective thinking and literacy; it gave students an opportunity to put forth realistic products, to organize their thoughts consistently and to write in a creative way (Baki & Feyzioğlu,2017; Demirer, 2013; Gakhar & Thompson, 2007; Hung, Hwang & Huang, 2012; Lambert, 2002; Malita, & Martin, 2010; Ohler, 2013; Sarıtepeci, 2017; Yang, & Wu, 2012).

In this context, digital storytelling may be considered as a method which can also be used in order to improve the students' skills which are appropriate to our age, to arouse their perception, to encourage them and to increase their motivation about learning. Studies conducted put forth that motivation increases the possibility of students participate in the activities which helps them learn and thus they obtained a better performance. Hence, learning methods and strategies which draw students' attention and become integrated with them affects students' achievement and their connection to the subject deeply in a positive

way (Theall, 1999). Along with the usage of digital storytelling in education, connection was made between new generation students which are integrated with technology and traditional school environment (Ohler, 2008). This situation affect their motivations against lesson and school positively. Miller (2009) expresses that digital storytelling presents many potential learning benefits along with increasing student motivation and it is a perfect strategy in the telling of personal stories. Demirer (2013) specified that projects created with digital storytelling increased student motivation, enriched teaching with creative presentations which was supported by technology and improved communication skills. In the studies which research the effect of digital storytelling activity on educational outputs in the literature; it is seen that digital storytelling has positive effects on student motivation and academic achievement (Hung, Hwang & Huang, 2012; Yang & Wu, 2012; Aktaş & Uzuner-Yurt, 2017). Duveskog and his friends (2012) stated in their study that digital storytelling offers many advantages compared to traditional methods with regards to increasing motivations, creativity and imagination of students. In this regard, it is possible to say that research results show parallelity with the results ensued about digital stories increasing motivation.

Some suggestions were developed on the basis of this study. Digital story studies which can be used as a lesson tool for teachers and students could be applied for different courses. Thus, dissemination of technology usage in education will be provided. In addition, subjects that are hard to embody can be bared by using digital stories and this may help especially the students who are in the concrete operational stage understand the subject. Today's students and teachers who are considered as digital generation would prepare creative teaching materials by themselves using this method and they would ensure permanence in learning.

References

- Aktas, E., & Yurt, S. U. (2017). Effects of Digital Story on Academic Achievement, Learning Motivation and Retention among University Students. International Journal of Higher Education, 6(1), 180.
- Baki, Y., & Feyzioğlu, N. (2017). Dijital Öykülerin 6. Sınıf Öğrencilerinin Öykü Yazma Becerilerine Etkisi. International Online Journal of Educational Sciences, 9(3), 686-704.
- Baker, E. L., Gearhart, M., & Herman, J. L. (1990). Apple classrooms of tomorrow (ACOT) evaluation study, first-and second-year findings. Apple Classrooms of Tomorrow Research Report. Retrieved: January, 9, 2003.
- Büyüköztürk, Ş., Akgün, Ö. E., Özkahveci, Ö. & Demirel, F. (2004). Güdülenme ve Öğrenme Stratejileri Ölçeğinin Türkçe Formunun Geçerlik ve Güvenirlik Çalışması. [The Validity and Reliability Study of the Turkish Version of the Motivated Strategies for Learning Questionnaire] Educational Sciences: Theory & Practice, 4(2), 207-239.
- Bybee, R. W., Taylor, J. A., Gardner, A., Van Scotter, P., Carlson Powell, J., Westbrook, A., & Landes, N. (2006). The BSCS 5E Instructional Model: Origins, Effectiveness and Applications. (p.1-65) Retrieved from: www.bscs.org/bscs-5Einstructional-model on 25.04.2016
- Çakır, R., Solak, E., & Tan, S. S. (2016). Artirilmiş Gerçeklik Teknolojisi İle İngilizce Kelime Öğretiminin Öğrenci Performansına Etkisi. Gazi Eğitim Bilimleri Dergisi, 1(1).

- Demirer, V. (2013). *Use of e-storytelling in primary education and its effects*. (Unpublished PhD dissertation), Necmettin Erbakan University, Institute of Educational Sciences, Konya.
- Di Serio, A., Ibáñez, M., & Kloos, C. (2013). Impact of an augmented reality system on students' motivation for a visual art course, *Computers & Education*, 68, 586–596.
- Dinçer, S., & Doğanay, A. (2016). Öğretim Materyali'ne İlişkin Motivasyon Ölçeği (ÖMMÖ) Türkçe Uyarlama Çalışması. İlköğretim Online, 15(4).
- Duveskog, M., Tedre, M., Sedano, C. I., & Sutinen, E. (2012). Life planning by digital storytelling in a primary school in rural Tanzania. *Journal of Educational Technology & Society*, 15(4), 225.
- Dwyer, D. C., Ringstaff, C., Haymore, J., & Sandholtz, P. D. (1994). Apple classrooms of tomorrow. *Educational leadership*, *51*(7), 4-10.
- Erdem, A. (2017). Educational Importance of Augmented Reality Application. *Educational Research and Practice (eds: Koleva, I. Duman G.)*, St. Kliment Ohridski University Press, 448-458.
- Erkan, H.(1998). *Bilgi Toplumu ve Ekonomik Gelişme*.4b, Türkiye İş Bankası Yay. No: 326. Bilim Dizisi, No: 8, Ankara.
- Ersoy, H., Duman, E. & Öncü, S. (2016). Artırılmış Gerçeklik ile Motivasyon ve Başarı: Deneysel Bir Çalışma. *Journal of Instructional Technologies & Teacher Education*, 5(1).
- Gakhar, S., & Thompson, A. (2007). Digital storytelling: Engaging, communicating, and collaborating. *In Society for Information Technology & Teacher Education International Conference*, 1, 607-612.
- Gardner, R. C. (2004). *Attitude/motivation test battery: International AMTB research project*. Canada: The University of Western Ontario, Web: Retrieved from: http://hyxy.nankai.edu.cn/jingpinke/buchongyuedu/Motivation%20measurement-AMTB.pdf on 10.09.2017.
- Hung, C. M., Hwang, G. J., & Huang, I. (2012). A Project-based Digital Storytelling Approach for Improving Students' Learning Motivation, Problem -Solving Competence and Learning Achievement. *Journal of Educational Technology & Society*, 15(4), 368.
- İşman, A. (2011). Öğretim teknolojileri ve materyal tasarımı. Ankara: Pegema.
- Karasar, N. (2005). Scientific research method. Ankara: Nobel.
- Keller, J. M. (1984). The use of the ARCS model of motivation in teacher training. *Aspects of educational technology, 17,* 140-145.
- Keller, J. M. (1987). Development and use of the ARCS model of instructional design. *Journal of instructional development*, 10(3), 2-10.
- Keller, J. M. (2010). The Arcs model of motivational design. *In Motivational Design for Learning and Performance* (pp. 43-74). Springer US.
- Keller, J.M., & Sang H.S. (2001). Effectivenes of motivationally adaptive computer-assisted instruction on the dynamic aspects of motivation. *Educational technology, Research and development, 49*(2) 5-22.
- Kutu, H., & Sözbilir, M. (2011). Öğretim Materyalleri Motivasyon Anketinin Türkçe'ye Uyarlanması: Güvenirlik ve Geçerlik Çalışması. *Necatibey Eğitim Fakültesi Elektronik Fen ve Matematik Eğitimi Dergisi*, 5(1).

- Lambert, J. (2002). Digital storytelling: Capturing lives, creating community. Berkeley, CA: Center for Digital Storytelling.
- Liu, T. Y., & Chu, Y. L. (2010). Using ubiquitous games in an English listening and speaking course: Impact on learning outcomes and motivation. Computers & Education, 55(2), 630-643.
- Malita, L., & Martin, C. (2010). Digital storytelling as web passport to success in the 21st Procedia-Social and Behavioral Sciences, 2(2),3060-3064. https://doi.org/10.1016/j.sbspro.2010.03.465
- Miller, E. A. (2009). Digital storytelling. University of Iowa.
- Ohler, J. (2008). Digital storytelling in the classroom: New media pathways to literacy, learning, and creativity. Thousand Oaks, CA: Corwin Press
- Ohler, J. B. (2013). Digital storytelling in the classroom: New media pathways to literacy, and Corwin Press. Retrieved from: learning, creativity. https://doi.org/10.4135/9781452277479 on 07.08.2017.
- Prensky, M. (2001). Digital natives, digital immigrants part 1. On the horizon, 9(5), 1-6.
- Reisoglu, I., Yilmaz, R., Çoban, M., Topu, F. B., Karkus, T., & Göktas, Y. (2015). Üç boyutlu sanal dünyalardaki tasarim ögelerinin motivasyon boyutlari açısından ıncelenmesi. Pegem Egitim ve Öğretim Dergisi (Pegem Journal of Education and *Instruction*), 5(3), 257.
- Robin, B. R. (2008). Digital storytelling: A powerful technology tool for the 21st century classroom. Theory into practice, 47(3), 220-228.
- Sarıtepeci, M. (2017). Ortaokul düzeyinde dijital hikâye anlatımının yansıtıcı düşünme becerisi üzerindeki etkisinin incelenmesine yönelik deneysel bir çalışma. Journal of *Faculty of Education, 6*(3), 1367-1384.
- Seefeldt, C., Castle, S., & Falconer, R. C. (2015). Social studies for the preschool/primary child. Sevgi Çoskun-Keskin (Eds.) Ankara: Nobel.
- Sever, T. (2014). An Investigation into the Impact of Digital Storytelling On The Motivation Level of Students. (Unpublished MA thesis), Canakkale Onsekiz Mart University, Institute of Educational Sciences, Çanakkale.
- Shih, Y. E., & Mills D. (2007). Setting the new standard with mobile computing in online learning. The International Review of Research in Open and Distributed Learning, 8(2).
- Simsek, H. (1997). Paradigmalar Savaşı Kaostaki Türkiye, İstanbul: Sistem.
- Theall, M. (1999). Motivation from within: encouraging faculty and students to excel. New Directions for Teaching and Learning, N. 78. San Francisco: Jossey-Bass.
- Van Gils, F. (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.
- Y.T. Yang & W.C. Wu (2011). Digital storytelling for enhancing student academic achievement, critical thinking, and learning motivation: a year-long experimental study. Computers & Education, 59 (2), 339-352.
- Yalçın-Akçam,İ., & İzgi, Ü. (2014). Levels of Providing the OECD New Millennium Learner Criteria of the Prospective Teachers Studying in Primary School Teaching Undergraduate Program. Procedia-Social and Behavioral Sciences, 116, 1258-1262.

78 THE EFFECT OF DIGITAL STORIES ON FIFTH-GRADE STUDENTS' MOTIVATION

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. Retrieved from: https://doi.org/10.1016/j.compedu on 2011.12.012