

Writing a Folktale as an Activity of Written Expression: Digital Folktales with StoryJumper*

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Abstract

One of the technological tools utilized in written expression is digital storytelling. The purpose of this study is to investigate digital folktale writing activities as a means of written expression on the basis of the opinions of pre-service teachers. In line with this aim, how digital storytelling website was used, the contributions of digital story writing, pre-service teachers' collaborative digital story writing experiences, benefits of digital story writing, and problems pre-service teachers experienced were also investigated. The digital stories prepared by the pre-service teachers were also analyzed in terms of the pre-determined criteria. The participants of the study employing the case study design, one of the qualitative research designs, are 92 pre-service elementary school teachers. The pre-service teachers divided into groups prepared 22 different digital folktales by using the StoryJumper website. The data of the study were collected through semi-structured interviews and documents. In the analysis of the interview data, the descriptive analysis technique was used. The folktales prepared were analyzed by means of document analysis based on the pre-determined criteria. As a result of the analyses, the data collected from the interviews were gathered under 6 themes. The pre-service teachers stated positive opinions about the digital storytelling website they had used. In addition, it was concluded that digital storytelling activity improved the pre-service teachers' written expression skills, contributed to their personal and professional development and that it was activity suitable for group work. In addition, it was revealed that the lowest scores were taken from the dimension of adding audio while they received better scores from the dimensions of originality of the topic and pictures used. And they received full points from the dimensions of the characters in the folktale and ending.

Keywords: Digital Storytelling, Written Expression, Folktale, Teacher Training, Storyjumper

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Introduction

In the 21st century, individuals live in an environment full of technology and media, which includes access to information, collaboration, individual contribution and the use of rapidly changing technological tools (Malita and Martin, 2010). The knowledge and skills expected from individuals differ after rapid changes. Individuals in the community must have skills to meet the requirements of the 21st century. For this reason, many institutions and organizations have been conducting studies to determine what these skills might be (Kotluk and Kocakaya, 2015).

ICT (Information, Communications and Technology) Literacy is one of the 21st century skills (Fadel, 2008). Being literate is no longer just about reading and writing. The literate of the 21st century should be able to download, upload, rip, burn, chat, save, blog, Skype, IM and share (Eryaman, 2007; Mullen and Wedrick, 2008). The rapid development of information, communications and technology has also changed the way people communicate. According to Hocly (2012), as people communicate more with language, the language has become an integral part of the digital environment as technology evolves (as cited in Chiang, 2020).

It is possible to say that language and language skills are frequently used in digital environments and this usage is mostly related to reading and writing skills. In rapidly developing technological environments, individuals convey their thoughts in writing and share their stories with different tools (computers, tablets, mobile phones etc.) and applications (Facebook, Instagram, Tweeter etc.).

Smyth (1998) states that individuals use writing to create their dream worlds, tell stories, share information and make their experiences permanent (Graham, Gillespie and McKeown, 2013). Writing performed in digital environments involves the use of technological skills. Determination of the technological skills to be possessed by citizens affects today's education systems and classroom environments.

Mishra and Koehler (2006) introduced the concept of technological pedagogical content knowledge in which teachers' technological knowledge is integrated with their pedagogical knowledge within the context of their professional development. Technological pedagogical content knowledge focuses on the content-pedagogy-technology-knowledge relationship. In this respect, it is very important in teacher education and technology (Robin, 2008). Pre-service teachers are familiar with various communication tools such as email, Facebook and Twitter. However, these tools are very different when they are used in the classroom. Most teachers want to have websites to record what is happening in the classroom. For this reason, it is necessary to provide pre-service teachers with experiences related to technology before they have become a teacher (Wickstrom 2013). When pre-service teachers' self-efficacy towards technology develops, they can create learning environments infused with technology when they become teachers. Digital storytelling, which is an effective

technology for improving the technological competences of pre-service teachers (Heo, 2009), is also one of the technological tools that can be used to provide pre-service teachers with experiences of written expression.

Digital storytelling is a recently emerging contemporary narrative culture (Wilson, 2014), and refers to the combination of the art of storytelling with digital multimedia such as images, sounds and videos (Robin, 2006). Digital storytelling, which is a kind of storytelling using Web 2.0 tools, technologies and strategies (Alexander and Levine, 2008), was first started with the trainings they gave to people who wanted to share their personal narratives in the Centre of Digital Storytelling, where Lambert was the founding partner (StoryCenter, 2020).

Digital storytelling, a curriculum innovation integrated with the communication, language and literacy skills of technology, is an approach that can be experienced by people from all ages, ranging from children in the kindergarten to adults, and in which media tools and narration are used together (Hathorn, 2005). In order for digital stories to exist in the field of education, they must be compatible with the curriculum and develop students' critical thinking, report writing skills and media literacy (Ohler, 2005). Multimedia tools and especially digital storytelling can be used for both students and teachers to be motivated and participate effectively in the lesson (Robin, 2008). Digital storytelling facilitates the integration of student participation, in-depth learning reflections, technology integration and project-based learning, which are all student-centred learning strategies (Barrett, 2005). Digital stories can be used as a teaching material in different fields. Teachers can use a variety of digital stories to give their students information on any subject, from mathematics to science, art, technology, and health education (Robin, 2008). In digital storytelling, the story should be at the forefront and technology should be at the back (Bull and Kajder, 2004). Digital storytelling is an art that combines traditional literacy skills (listening, speaking, reading, writing) and new literary skills (digital visuals, video, music, computer graphics) and provides an alternative way for students engaged in writing to be involved in the writing process (Bandi-Rao and Sepp, 2014).

Digital storytelling improves students' technological skills and increases their use of technology (Aktaş and Uzuner-Yurt, 2017; Baki, 2015; Gregory and Steelman, 2008; Gregory, Steelman and Caverly, 2009; Kotluk and Kocakaya, 2015; Niemi, Harju, Vivitsou, Viitanen, Multisilta and Kuokkanen, 2014; Shelby-Caffey, Úbéda and Jenkins, 2014; Wang and Zhan, 2010). It allows students to share their own products and get feedback by seeing each other's work (Chiang, 2020; Erişti, 2016; Nguyen, 2011; Waycott and Kennedy, 2009). In addition, it enables students to communicate with each other by discussing about what has been done in the process (Gregory and Steelman, 2008; Xu, Park and Baek, 2011). It also supports students' collaborative work and learning from each other (Gils, 2005; Hung, 2019; Sadik, 2008; Shelby-Caffey et al., 2014; Xu et al., 2011). While researching the resources to be used in the digital storytelling process, collecting the

information in the storytelling stages improves students' ability to organize and evaluate the information (Doğan, 2007; Hung, 2019; Yang and Wu, 2012) while also supporting their critical thinking skills (Shelby-Caffey et al., 2014; Xu et al., 2011). With digital storytelling, students' participation and motivation increases (Aktaş and Uzuner-Yurt, 2017; Chiang, 2020; Ciğerci, 2015; Doğan, 2007; Erişti, 2016; Yang and Wu, 2012). There are studies on digital storytelling improving the basic language skills of students (Amelia and Abidin, 2018; Kurudayıoğlu and Bal, 2014; Shelby-Caffey et al., 2014) showing the digital storytelling fosters the development of some certain language skills. Ciğerci (2015) showed that digital storytelling improved listening skill; Tabak (2017) showed that it improved reading-comprehension skill, Özkaya and Coşkun (2019) showed that it improved comprehension and retention and Karakoyun (2014) and Demirer and Baki (2018) showed that it improved speaking skill.

When the literature is reviewed, it is seen that there are studies that have revealed the positive effects of digital storytelling especially on writing skills (Amelia and Abidin, 2018; Baki, 2015; Doğan, 2007; Girmen, Özkanal and Dayan, 2019; Özüdoğru and Çakır, 2020; Shelby-Caffey et al., 2014). There are studies focusing on creative writing and revealing that digital storytelling also improves this skill (Baki, 2019; Chislom and Trent, 2013; Göçen, 2014; Karakoyun, 2014).

In order to improve students' writing skill with digital storytelling, teachers should also be technologically and pedagogically qualified enough. Bandi-Rao and Sepp (2014) summarized the skills that teachers should use in digital storytelling in terms of technological pedagogical content knowledge. Accordingly, the teacher, as the person who teaches writing, should have sufficient content knowledge about how to organize personal narratives, ideas and paragraphs, to draft and to generate stories. He/she should have pedagogical knowledge about the materials, methods and techniques to be used while transferring this information to his/her students and how to convey this information to them. In addition, teachers should have technological knowledge about which technological tools are available and appropriate in digital storytelling activities. They also need to have technological pedagogical content knowledge that will integrate the opportunities provided by technology with students' critical thinking and learning.

Writing learned at schools that are generally formal environments should be effectively imparted to individuals from an early age. Teachers and especially elementary school teachers play a very important role in the acquisition of this skill by students. Writing, which helps teachers share the learning-teaching process with their students, is an expression skill.

The inability of teachers to use their language skills effectively may cause their students to experience poor learning and misunderstand the related subject. In this respect, it is important to develop teachers' expression skills. Aktaş and Gündüz (2005) state that significant language and expression mistakes are committed by most of the university students and the solution to this problem

should be found in teacher training institutions that train teachers (Oğuz, 2009). Universities are the primary educational institutions that provide training for teachers. Education faculties are institutions that prepare pre-service teachers to become teachers. Attempts made to develop writing skill in students at primary school should be continued until the end of higher education. In this context, developing the written expression skills of pre-service teachers is important in terms of preparing them for their future profession. In this connection, digital storytelling activities were conducted with pre-service teachers in the current study. Digital storytelling activities were carried out on a website that incorporates the stages of digital storytelling (determining the point of view, identifying emotions, determining the moment, seeing the story, listening to the story, combining the story and sharing the story) determined by Lambert (2010). The pre-service teachers were asked to write folktales.

The folktale is a literary genre that takes its origin from imagination, contains extraordinary events and heroes, takes place in uncertain places and times, and has no intention to convince listeners or readers (Saltık, 2016). Folktales are useful for children in terms of developing good speaking skills, creating a useful personality, making their lives happy, making them organized and planned and developing their worlds of thought and concept (Arıcı, 2016). Bakken and Whedon (2002) state that the stories, folktales and fables that children first listen to from their families are used by teachers in the process of teaching literacy when they reach primary school age. Given the importance and function of folktales, it is very important for an elementary school teacher to use this material effectively to develop reading and writing (Çetinkaya, Topçam and Sönmez, 2019).

The purpose of the current study is to investigate digital folktale writing activities as a means of written expression on the basis of the opinions of pre-service teachers. To this end, answers to the following questions were sought:

1. According to the opinions of the pre-service teachers;
 - How is the digital storytelling website they have used?
 - What are the contributions of digital story writing to their written expression skills?
 - What are their collaborative digital story writing experiences?
 - What are the benefits of the digital story writing activity?
 - What are the problems they have experienced during the digital story writing process?
 - What are their suggestions for the digital story writing activity?
2. How are the digital stories prepared by the pre-service teachers in terms of the pre-determined

Method

Research Design

The current study employed the case study design, one of the qualitative research designs. Case study refers to the investigation of an existing phenomenon in its actual context (Yin, 2003). A teacher, student or a newly implemented program can be the case (Stake, 1995). The study was conducted in line with the holistic single case design. The current study focused on the digital folktale writing activity performed by the pre-service teachers.

Participants

The participants of the current study are 92 pre-service teachers attending a state university in Turkey and taking the Written Expression course in the 2017-2018 academic year. A total of 22 groups were formed among the participants. Interviews were conducted with 11 pre-service classroom teachers. In the determination of these interviewees, the criterion sampling method, one of the purposive sampling methods, was used. In this regard, a great care was taken to select the pre-service teachers to be included in the interviews from among the pre-service teachers who had organized the group members in the process and developed a schedule to be followed in the process of story writing and agreed to participate in the interviews on a volunteer basis. In the criteria setting stage, the researcher's observations within the context of the course and the communication of the pre-service teachers with the researchers and their peers were determinative. The participants took part in the current study with code names in the form of numbers (e.g. S1, S8 etc.). In addition, the folktales prepared by the participants were discussed and examined in the study as a document. The folktales were coded by assigning numbers such as T1, T3 etc.

Information about the pre-service teachers participating in the interviews is given in Table 1. The data presented in Table 1 were collected to be descriptive of the participants, who are first-year undergraduate students.

Table 1. Information about the participating pre-service teachers

Participant	Gender	Age
S1	Female	19
S2	Female	18
S3	Female	18
S4	Female	18
S5	Male	20
S6	Female	19
S7	Female	18
S8	Male	20
S9	Male	21
S10	Male	20
S11	Female	18
A total of 11 students	7 Female 4 Males	5 persons aged 18 2 persons aged 19 3 persons aged 20 1 person aged 21

Data Collection

Prior to the study, the pre-service teachers were explained the importance of written expression and genres of written expression. The characteristics to be possessed by folktales, one of these genres, were explained and some story writing programs/websites/applications were introduced to the participants. In creating digital stories, a Web 2.0 tool that does not require installation on the computer, has the option to be accessed free of charge on the website, and which contains the steps required for digital storytelling was used. This web tool is a website called StoryJumper. This site was selected due to the ease it provides in converting the products created in digital storytelling into a book and in adding audio. From among writing genres, the folktale was selected as it is relatively short and is widely used with primary school students. Explanations about the application were made and sample activities were shown to the pre-service teachers in four class hours (two weeks).

Semi-Structured Interview Questions

After the completion of the story writing activity, semi-structured interviews were conducted with the pre-service teachers selected from among the study group. In the development of the interview form, first an interview was conducted with another pre-service teacher and on the basis of the obtained results from this interview, the questions of the semi-structured interview were constructed. Then, these interview questions were submitted to the review of a field expert and thus the final form of the questions was given. In the interview form, there are some items to elicit information about the gender, age and type of the high school graduated and interview questions. During the interviews, the pre-service teachers were asked questions to elicit their opinions about the digital storytelling website, the contributions of this activity to their writing skills and collaborative writing skills, the problems they encountered and to elicit their suggestions to improve the activity.

Folktales Created by the Pre-service Teachers (Documents)

The pre-service teachers were asked to prepare their folktales to be suitable for primary school children. The study lasted for five weeks and the folktales prepared were accessed via the links sent in the digital environment. Related links were shared on the internet with all the pre-service teachers participating in the current study.

Data Analysis

Descriptive analysis was used in the analysis of the semi-structured interviews conducted with the pre-service teachers. In descriptive analysis, the data are summarized according to the previously determined themes. Based on the research questions, the conceptual structure or the dimensions included in the interview, a framework for data analysis is created (Yıldırım and Şimşek, 2018). Sub-themes were created over the themes determined in line with the research questions and the interview data were analyzed using the NVivo12 program.

In qualitative research, validity and reliability are considered as trustworthiness. In this context, validity is named as credibility and transferability and reliability is named as dependability (Lincoln and Guba, 1985). Within the context of credibility, (Creswell, 2009), each participant was shown the transcripts of the interviews and the analyses conducted for each participant's approval and data diversification, and it was checked whether the data were correctly understood by the researcher. In addition, within the context of credibility, the folktales prepared were examined as the second source of data to support the interview data. In the current study, the criterion of transferability (Erlandson, Harris, Skipper and Allen, 1993) was satisfied by using the purposive sampling method. Within the scope of dependability, the researcher gave 45% of the interview transcripts to a field expert and presented the codes and themes he/she created. The dependability ratio was calculated by using the formula proposed by Miles and Huberman (1994) [$P = (\text{agreement} / (\text{agreement} + \text{disagreement})) \times 100$] on the codes generated by the expert and the researcher. In this way, the dependability rate was found to be 90.4%.

In the analysis of the folktales, document analysis was used and a total of eight criteria were employed. *Originality of the topic of the folktale (5 points), message (advice) given in the folktale (5 points), characters in the folktale (10 points), drawings used in the folktale (10 points), spelling and punctuation rules in the folktale (10 points), sounding (5 points), ending of the folktale (5 points) and harmony in working with group members (5 points)*; on the basis of these criteria, the folktales were evaluated out of 55 points. The field expert examining the analysis of the interview data, performed scoring on the basis of a form having the criteria of the folktale. The folktales were analyzed by taking the mean of the scores given by the researcher and field expert.

Results

The results obtained in the current study are presented in the order specified by the research questions. A total of six themes were determined for the digital folktale writing activity and are shown in Figure 1.



Figure 1. Themes of the Digital Folktale Writing Activity

In the current study, first the pre-service teachers were asked their opinions about the website they had used in writing their digital folktales. The sub-themes derived from their opinions are given in Figure 2.

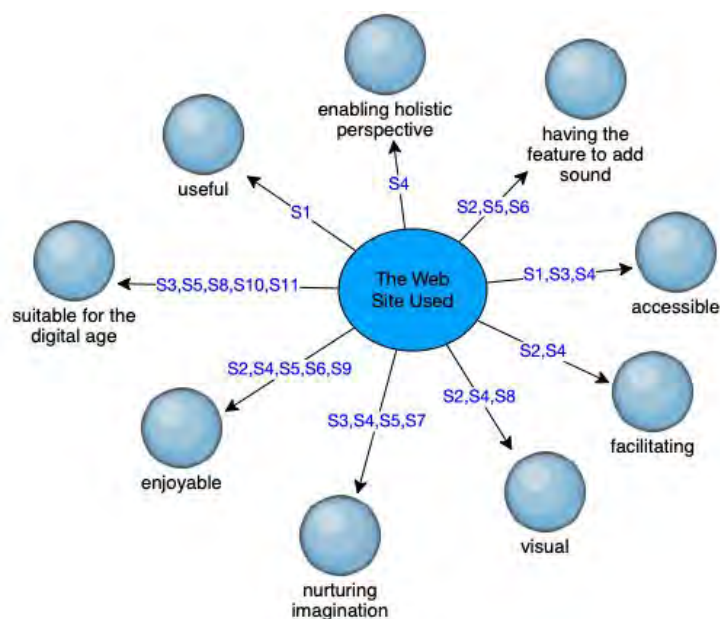


Figure 2. Sub-Themes of the Website Used

The pre-service teachers expressed positive opinions about the website they had used. The pre-service teachers largely found the website used as *suitable for the digital age and enjoyable*. In this connection, S11 expressed his/her opinions as follows: *“It is very close to our age. Today, children have tablets, mobile phones...Thus, the digital environment is more attractive...”* S6; on the other hand, talked about the activities they did as follows: *“We had great fun, laughed, wrote and sang songs...”*. S5 emphasized that the website nurtures imagination as follows: *“With what you have seen there, your imagination can be nurtured.”* The fact that the website used is available for everyone was stated as follows by S3: *“It can be very convenient for children who cannot buy books, are not financially in a good situation.”* The positive opinions about the sound adding feature of the website were expressed by S2 as follows: *“Our tone of voice is more realistic.”* and by S5 as follows: *“You can create new things with the sound effects.”* On the other hand, S1 expressed his/her opinions about the benefits of the website as follows: *“...I think that it is a highly useful activity. It is both beneficial for me and for the people who will read the folktale.”* The visual aspects of the website were found to be useful by pre-service teachers. In this regard, S2 expressed his/her opinions as follows: *“We used to write by hand in primary school and we got really tired of writing. It was very easy to visualize in this website.”* and S4 expressed his/her opinions in this regard as follows: *“It allows us to spare both paper and time. You can more easily express what you think of...”* S4 also expressed his/her opinions about the possibility of having a holistic perspective in the website as follows: *“You can see the outcome very quickly, that is, when you prepare a folktale on a sheet of*

paper, it can take time to see the outcome. ... Moreover, you can control the process more easily. It is more holistic.”

The pre-service teachers were asked their opinions about the contributions of the digital story writing activity to written expression skills. Sub-themes were derived from the opinions obtained in this regard and presented in Figure 3.

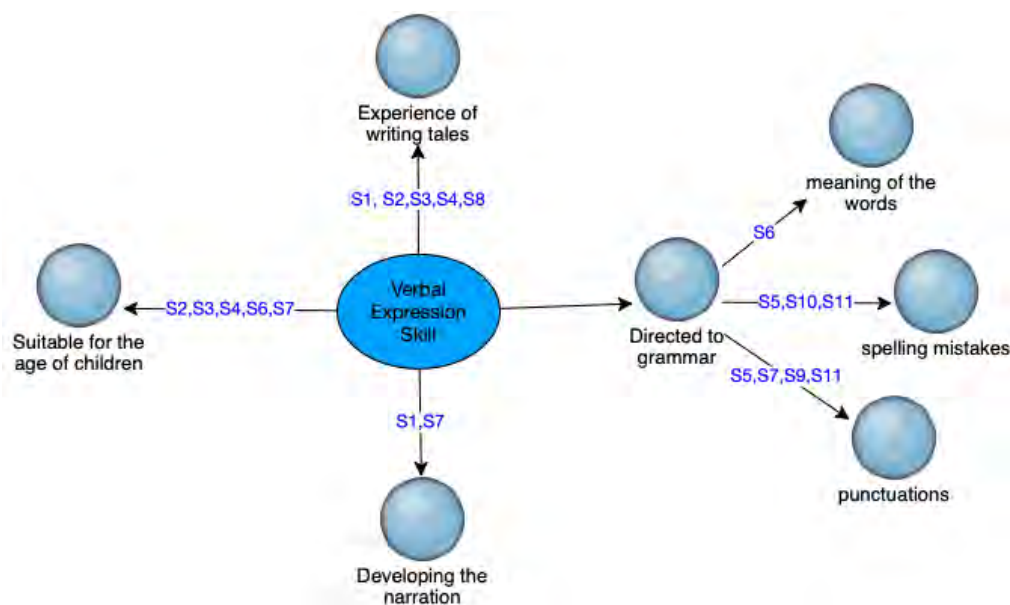


Figure 3. Sub-Themes related to Written Expression Skill

It was found that the greatest contribution of the digital story writing activity to the written expression skills of the pre-service teachers is their recognizing how to write stories suitable for the age of children and gaining story writing experience. In this regard, S6 explained how he/she preferred simple sentence structures more suitable for primary school children as follows: *“... I learned that I should not talk like talking to an adult. You need to simplify a concept or a sentence. I actually recognized this while writing.”* One of the pre-service teachers S8 stated that he/she learned how to write a folktale as a writing genre and gained some folktale writing experiences as follows: *“I have never written a folktale before. I have watched many videos about folktale writing before doing the assignment to learn the language of folktales. That is, I learned to write a folktale by researching.”*

The pre-service teachers expressed the contributions of the digital story writing activity to grammar subjects as follows: *“As I write it on the computer, the mistakes are automatically underlined like writing the suffixes «de» and «ki» separately. I learned that the words in «Her şey» are written separately. (S10)”*. S9: *“In my opinion, it was useful... We paid attention to punctuations; we learned.”* In addition to opinions about spelling and punctuation mistakes, they learned some new things about the meanings of the words as expressed by S6: *“It made certain contributions because we read it several times after we had written. I recognized that how a word is used and that its meaning changes depending on the context...”* The pre-service teachers also think that the activity also

improved their narration as stated by S1: *“I think that there were some improvements in terms of written narration. ...”* S7: *“...It made some contributions to us both in writing and narration.”*

The pre-service teachers were asked their opinions about working collaboratively and individually during the digital story writing activity. In this regard, a total of three sub-themes were obtained and are presented in Figure 4.

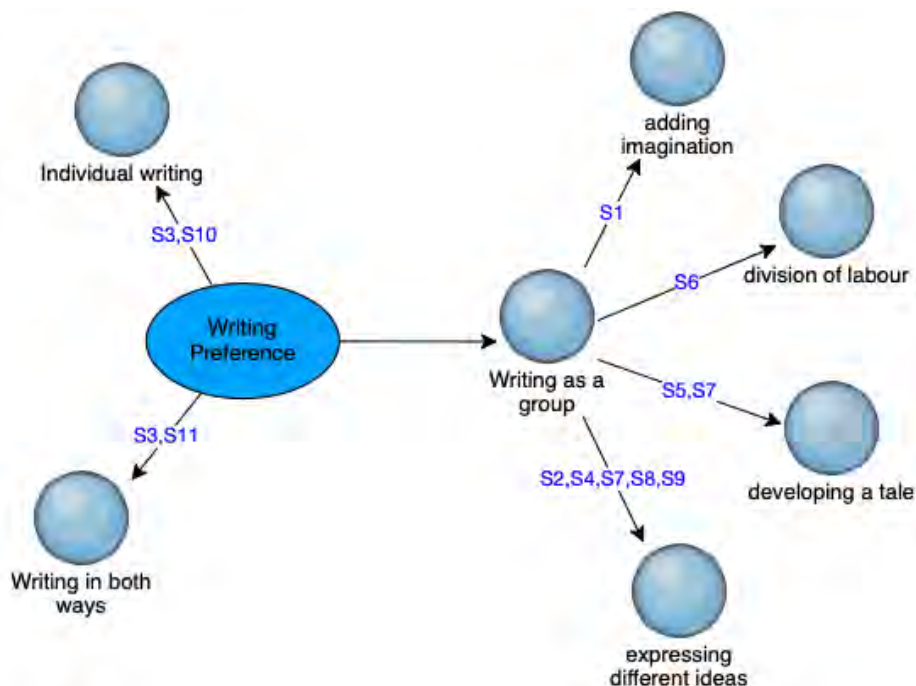


Figure 4. Sub-Themes related to Writing Preference

The majority of the pre-service teachers stated that they prefer writing with their group members. Some opinions expressed in this regard are as follows: S1: *“We managed it with the contribution of each group member though there were different opinions.”* S7: *“It was better in the group. Different opinions proposed by different people improved the story.”* S6: *“I strongly prefer to work with group members because I wrote the song in the folktale. Another group member wrote the rest of the tale; another one entered it into the computer. ...”*

On the other hand, two teachers stated that it would be better to work individually. In this regard, S10 expressed his/her opinions as follows: *“In my opinion, it must be done individually. In the group, we had some disagreements.”* Similarly, S3 expressed his/her opinions as follows: *“... It could have been done individually. For example, in the group I said something; others objected to this; they said no.”* On the other hand, the same pre-service teacher (S3) also stated that the group activity was good as there were different opinions. On the other hand, the pre-service teacher S11 stated that he/she can work in both ways: *“I like managing; my opinions were different in the group. Therefore, we experienced some conflicts, but it was something good, I am offering an idea and they may have*

different viewpoints thus it becomes very good. On the other hand, there are some disadvantages of working with others.”

The pre-service teachers were asked the benefits of the digital story writing activity. The pre-service teachers explained the benefits as personal and professional benefits. The pre-service teachers’ opinions about the benefits of the digital story writing activity are presented in Figure 5.

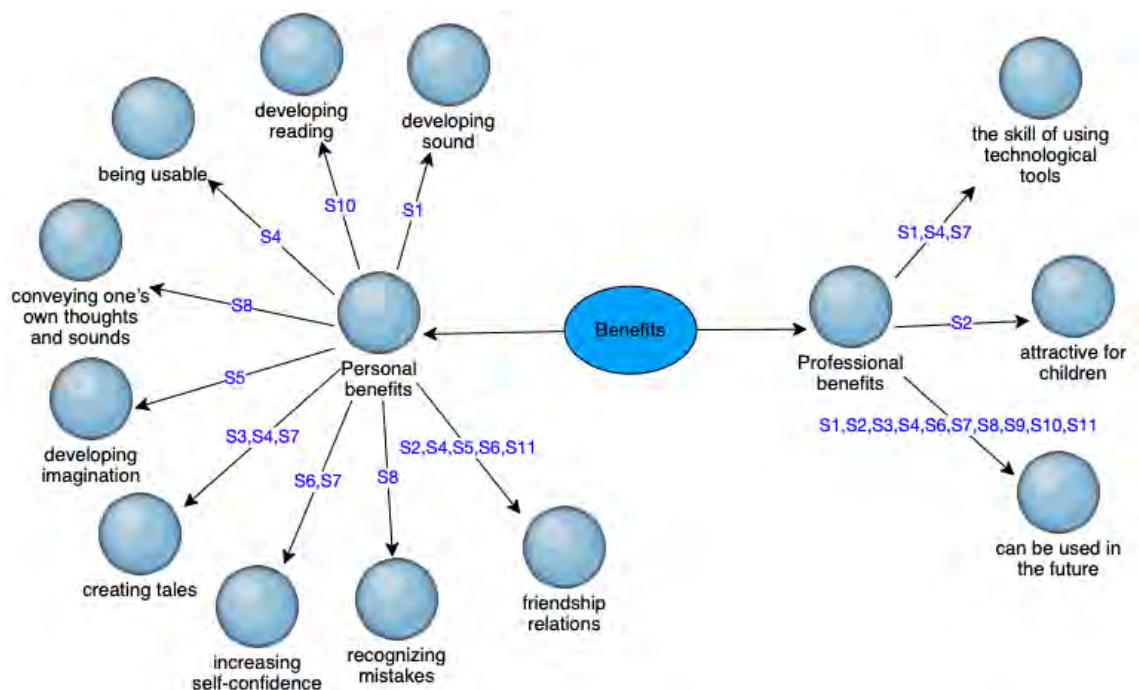


Figure 5. Sub-Themes related to Benefits

Except for one, all the pre-service teachers think that digital story writing is an activity that can be used in their future professional careers. In this regard, S7 expressed his/her opinions as follows: *“I can use this with my own students in the future. We can create stories by using this with my students.”* S9: *“I can write stories for my students in the future. I can use it in my classes with my students.”* In relation to the skill of using technological tools that is important for a teacher in his/her professional life, the following opinions were expressed by the pre-service teachers: *“.... It is useful to improve the mastery of computer skills and of some specific programs... It is among the things that should be known by a teacher (S1).”* S4: *“...technology is developing rapidly. I want to apply this because it will make the same contributions to my students in the future.”* In relation to experience of establishing communication with children, S2 expressed his/her opinions as follows: *“I have learned how to attend to children.”*

The second most strongly emphasized benefit of the digital story writing activity by the pre-service teachers is its strengthening their friendship relations with other students. In this regard, some pre-service teachers expressed their opinions as follows: S2: *“We were not so close before. We have become closer thanks to this activity. I really want to thank you.”* and S5 emphasized a personal benefit

as follows: *"We have now a more sincere atmosphere."* S8 on the other hand expressed how he/she realized his/her mistakes as follows: *"... I realized my tone of voice while listening and how and where I committed mistakes."* S7 expressed how his/her self-confidence improved as follows: *"I first thought that I was very bad at sounding but when I hear my voice, I understood that I am not so bad at it."* In relation to the creation of folktales, some of the pre-service teachers expressed their opinions as follows: *"I may write another folktale there in the future...(S3)."* and *"I may create folktales in this way in the future. The program allows us to share it with whomever we want (S7)."* Another pre-service teacher expressed his/her opinions about the contribution of writing digital stories to his/her imagination as follows: S5: *"... everyone can do this, but this is largely related to imagination and this activity developed my imagination. As an adult we are not using our imagination much, but such activities encourage us to do this."* Another student mentioned the benefit of this digital story writing activity on his/her reading: S10: *"My Turkish is not good...I took great care to read carefully for it to be understood by the listener. I first read very fast, then I stuttered and finally I managed to read smoothly."* The pre-service teacher S1 emphasized the issue of using voice as follows: *"It increased my awareness of voicing; using my voice. I learned that I could improve myself in this respect."* Another pre-service teacher S8 touched upon the issue of conveying one's thoughts to others: *"It was my first experience; making your sound heard by others over a story; explaining your own thoughts, opinions...it was a nice experience."* Another pre-service teacher (S4) stated that he/she could use digital story writing with his/her children in the future: *"If I have a family in the future, I can use it for my children."*

The pre-service teachers were also asked the problems they encountered during the digital story writing activity. Their responses were gathered under five sub-themes. These problems are largely related to adding and recording sound and website itself and these sub-themes are presented in Figure 6.

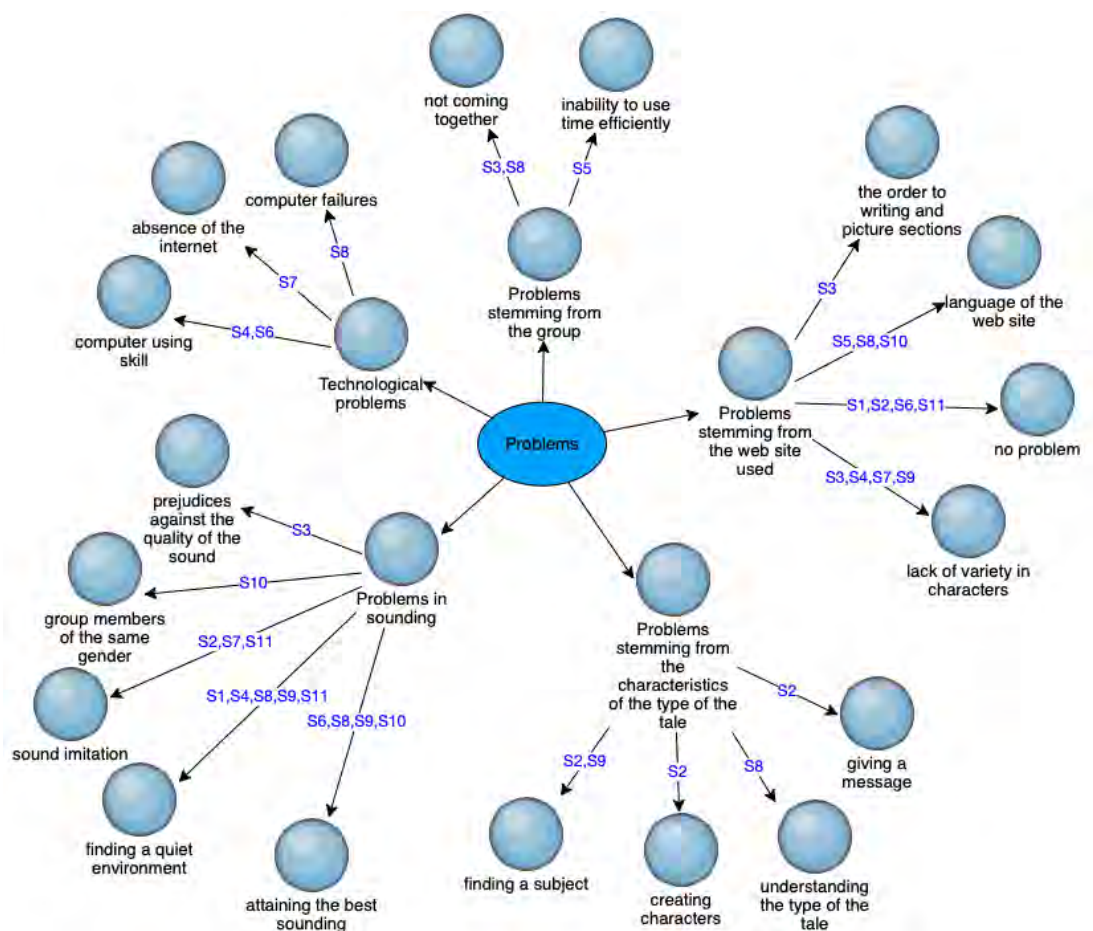


Figure 6. Sub-Themes related to Problems

A pre-service teacher complaining about the shortage of the characters presented in the website to be used in stories expressed his/her opinions as follows: S3: “...*The site needs to develop more characters because there are few characters. For example, while looking for an apple, it was good but while looking for human figures, there were not many options.*” The same pre-service teacher expressed his/her opinions about the order of pictures and writing as follows: S3: “*I wanted to write a dialogue, but we could not be sure of whether to write there or cut it. We could not understand much whether the child would look at the picture first and then read the text.*” On the other hand, S8 explained the difficulty stemming from the language used in the website (English): “*We had difficulty in understanding the program. It was in English and there were many words which we did not know.*” Another pre-service teacher expressed that he/she did not have any problems as follows S11: “*One of our friends was good at English. I did not have much difficulty in using the website as it was simple. The teacher had already given some instruction about the use of it. We did not have much difficulty.*” Another sub-theme in which many opinions were expressed is the sub-theme of problems in sounding. In this regard, one pre-service teacher explained how he/she tried to find the best sound as follows: S8: “*After we had recorded, we listened to it to see whether it is good or bad. We sometimes repeated our recoding as we did not like it.*” In relation to problems related to perception of the beauty of the sound,

S3 expressed his/her opinions as follows: *“There was a narrator in the dialogues; we selected a friend who had a nice voice; I only recorded one sentence.”* In relation to the problem of imitating sounds, S2 expressed his/her opinions as follows: *“Our leading character was a little girl. It was quite difficult to imitate the sound of a little girl. We tried hard to do it...”*

Another pre-service teacher pointed to the problem of sounding by gender as follows: S10: *“We had a problem of producing the sound of a female. All the members of the group were males ...”* indicating that group members should be from different genders. Another problem mentioned by the pre-service teachers is the difficulty in finding a place silent enough to record. In this regard, S4 expressed his/her opinions as follows: *“There were many problems in recording. I would like to have done it in a different place. I wish one of us had a house because we had to do it in a cafe. Therefore, there were sounds in the environment; this was a problem.”*

Some of the pre-service teachers stated that they had technological problems in the use of the computer and the internet. In relation to problems related to the computer, S8 expressed his/her opinions as follows: *“There was a problem with the charge of the computer and the speakers of the computer were broken... such small problems we experienced.”* Again in relation to the use of the computer, S6 expressed his/her opinions as follows: *“I do not much understand about the computer.”* Another pre-service teacher explained his/her problems with the internet as follows: S7: *“...we had some difficulty because there was a problem with the internet connection.”*

Some of the pre-service teachers stated that they experienced some problems arising from the features of the folktale genre in their digital story writing activities. S2: *“We wanted it to be a bit different ... So we conducted some search for a character; it lasted long ... We wanted to attract the attention of children ... we wanted to give a nice message thus we had some difficulty. It was difficult for us to find a topic.”*, indicating that if you pay too much attention to the features to be included in a folktale (character, topic, message-advice), then it takes too much time and you can experience more problems. Another pre-service teacher S8 explained how he/she tried to understand the folktale genre as follows: *“I have never written a folktale; thus, I had some difficulty. Before doing my folktale assignment, I read something about folktales in YouTube...”*

Some of the pre-service teachers explained their opinions about the problems arising from working in groups as follows: S3: *“...In general I like group works...but it can be difficult to find a time convenient for everyone. Therefore, we had great difficulty in finding the convenient time so we were a bit late.”* Similarly, S8 stated: *“... as we did not know each other much, we experienced some problems in meeting.”* S5 expressed problem arising from time management as follows *“...for example we did not do it in one day, we procrastinated a bit and we left it to the last day...It was something about group work.”*

Finally, the pre-service teachers were asked about their suggestions for digital story writing and they are presented in Figure 7.

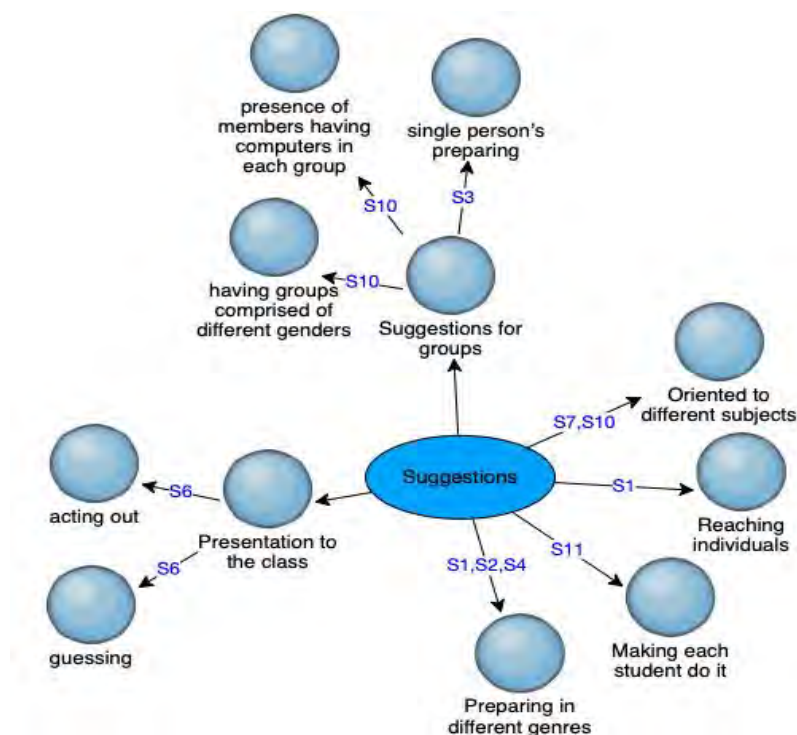


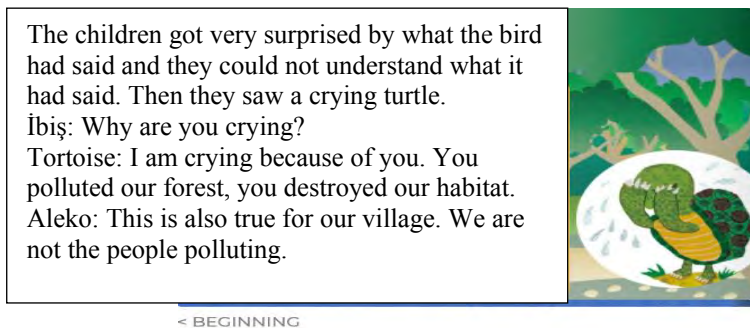
Figure 7. Sub-Themes related to Suggestions

Pre-service teachers stated that they would like to present their folktales to the class. S6 emphasized the importance of sharing digital folktales in the class: “...making everyone read their story in the class. I wonder who did what and how...” In addition, the same teacher stated that stories could be presented and shared through guessing and acting out in the class: “...We could have found some costumes. We could have selected the best story and presented it in the class. You can guess; that is, who this person is...”

Another suggestion is that this activity can be conducted with other genres, not only with folktales. This was stated by S1 as follows: “Not only folktales, we can work on other things such as novels, stories and memories.” Due to a problem he/she experienced, S10 suggested that a student having a computer should be assigned to each group: “It is necessary to assign one student having a computer to each group...” Moreover, S10 also stated that the gender composition of the groups should be taken into consideration: “We had a sound problem. We had three men in the group. In my opinion, male voice should be dominant in folktales.” Another suggestion for groups was made by S3: “It can be done individually; individuals can be more committed to the task; that is, they say that this is my job.” S11 stated that everyone should do it as follows: “You need to make everyone do it, particularly the first-year students. We are enthusiastic; we want to do something about children. We have more enthusiasm in the first-year...” S1 made his/her suggestion about accessibility: “...I think this should be accessible to particular people. I mean it should not remain in the website without being seen by anyone; someone might use it. This should be shared; the site allows this.” In relation to the applicability of the digital story writing activity in different courses, S7 expressed his/her opinions as

follows: *“In Turkish classes, I can tell folktales to children. ... In life sciences classes, I can use it for sound effects while talking about ordinary things we experience in daily life.”* S10: *“In social studies classes, the contents of folktales can be useful; with them, I can give useful information to students.”*

Under the last sub-purpose of the current study, the folktales generated by the pre-service teachers were evaluated according to the pre-determined criteria. None of the digital folktales prepared by the pre-service teachers received full points from the sounding sub-dimension ($f=8$). Two of the 8 folktales were found to include no sounding. In this connection, during the interview S11 stated: *“We did not add sound because we did not have any female characters in our folktale. Therefore, sounding should have been done by the males but they did not; how could we sound like a man?”*; thus they confirmed this shortcoming of the folktale. In this folktale whose characters are two males, İbiş and Aleko, and some animals (T17), it is seen that there is no audio button and this can be seen in Picture 1.



Picture 1. Folktale 17 (Power of Unity)

The next criterion is the message (advice) in the folktale. Six folktales had missing points from this criterion. T19 received the lowest score from this criterion. Though the folktale is built on negative events, no message (advice) was found within or at the end of the folktale. Four folktales received missing points because of the lack of harmony between group members. From the spelling and punctuation criterion, 3 folktales received missing points. The section from the folktale T22 including punctuation mistakes and wrong spelling of conjunctions is shown in Picture 2.

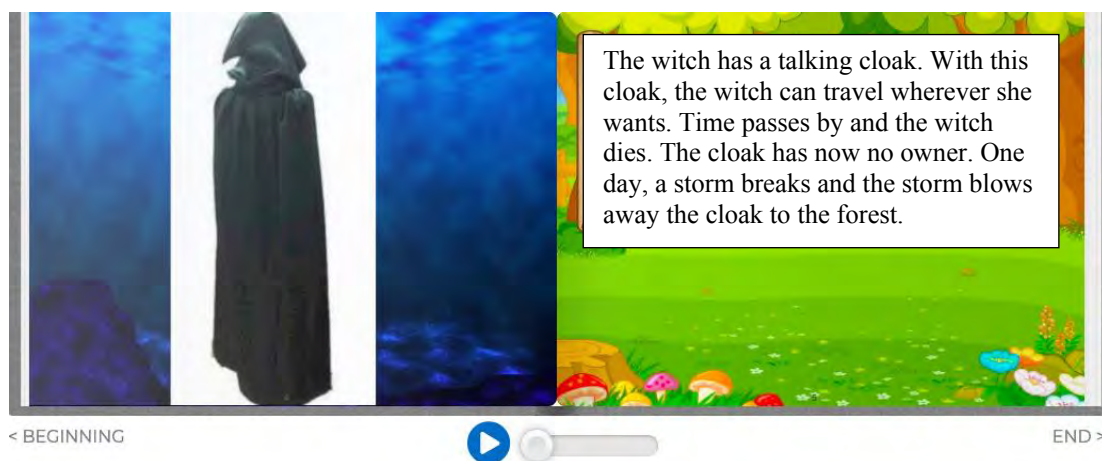
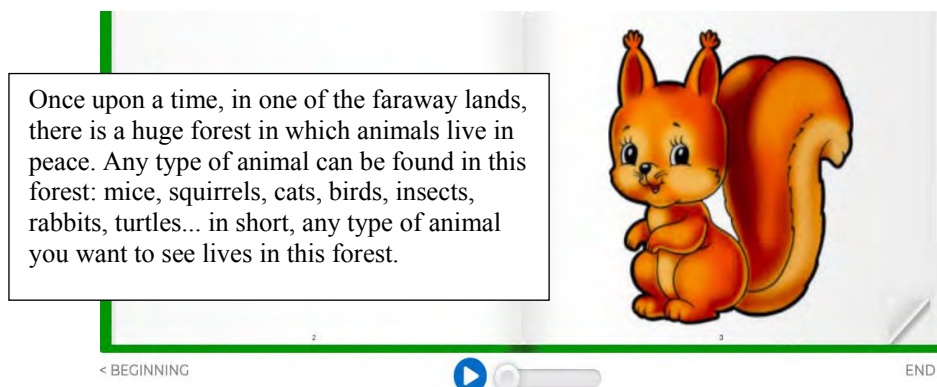


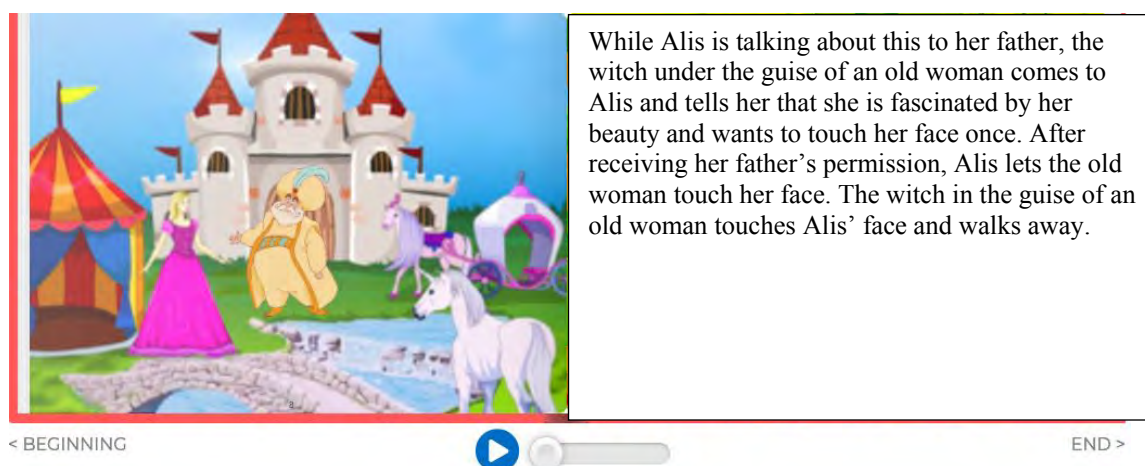
Figure 2. Folktale 22 (Ahmet with the Cloak)

The folktales receiving missing points from the sub-dimensions of pictures ($f=2$) and originality of the topic ($f=2$) were determined. From among these folktales, T5 is presented in Picture 3 as a folktale including individual animal pictures without a background and not allowing acting out.



Picture 3. Folktale 5 (Honesty Always Wins)

In the criterion of the originality of the folktale, T13 received missing points with its content that is like the mixture of many different folktales. In the folktale, the character named Alis is sent to deep sleep by the witch and the king looks for the prince who will wake her up, thus, it is like the mixture of classic tales such as Snow White and Alice in Wonderland. A page from this folktale is shown in Picture 4.



Picture 4. Folktale 13 (Magic Potatoes)

From the criteria of characters in the folk tale and ending of the folktale, all the folktales received full points.

Discussion, Conclusion and Recommendations

In the current study, the pre-service teachers' opinions about the digital story writing activity and the folktales they had prepared were investigated. As a result of the study, the pre-service teachers were found to have positive opinions about the website they had used. It was determined that they see the digital storytelling website StoryJumper suitable for the digital age, useful, fun, facilitating and

accessible. In addition to this, the pre-service teachers expressed positive opinions about the sound adding feature of the program and the visuals it provides and its allowing them to see their tales holistically. In their digital storytelling study conducted on pre-service science teachers, Anılan, Berber and Anılan (2018) revealed that pre-service teachers found the activity enjoyable. Similarly, in their studies, Shelton, Archambault and Hale (2017) and Hung (2019) reported that pre-service teachers found digital storytelling activities enjoyable. While the facilitating aspect of writing folktales in the digital environment was emphasized in the study, Bandi-Rao and Sepp (2014) revealed that university students feel more comfortable in their digital writing activities and find digital literacy more comprehensible than the traditional literacy style. Another type of literacy emerged in McLellan's (2008) study. McLellan (2008) argues that digital storytelling activities improve visual literacy. These studies in the literature support the pre-service teachers' positive opinions about the visual aspects of the website used in the current study.

In the current study, the pre-service teachers expressed opinions about the contributions of the digital folktale writing activity to the development of grammar, expression skills, and experiences about working with children. In relation to the experience of folktale writing, Shelton et al. (2017) revealed that pre-service teachers gain firsthand story writing experience. In the current study, it was determined that through the digital folktale writing activity the pre-service teachers developed their written expression skills, had the experience of creating digital folktales and created folktales suitable for the level of children. In addition, the current study revealed that writing digital folktales helped the participants correct spelling mistakes, use punctuation correctly and gain awareness of the meaning of words. These findings concur with the study by Özüdoğru and Çakır (2020) reporting that digital storytelling activities improved the written expression of pre-service teachers.

In the current study, it was revealed that the pre-service teachers experienced problems in finding a topic, choosing the characters appropriate to the topic, giving appropriate advice etc. Though the pre-service teachers had some difficulties, as stated by Bandi-Rao and Sepp'in (2014) and Hung (2019) as a result of their studies conducted on university students, students involved in digital story writing activities can improve many skills as they need to organize ideas while writing, put them into a logical order and conduct analysis and synthesis.

In the current study, the great majority of the pre-service teachers stated that this activity would be more suitable for working in groups. It was found when they worked in groups, they could combine their imaginations and presented different opinions. It was also found that group works allowed improving the folktales produced and provided the participants with opportunities to work collaboratively; on the other hand, some pre-service teachers think that working individually can be better as there are some group members who do not take responsibility. Hung (2019) also reported that students prefer to write in groups rather than individually as they discuss, have more fun, help each

other and learn from each other. In this way, working in a group fosters the skill of working collaboratively. Xu et al. (2011) and Gregory and Stealman (2008) stated that digital storytelling is another means of communication and reported that working in cooperation together with their peers improved university students' communication skills. In the current study, it was also found that working in groups helped students develop friendships and closer relationships with other students. Similar results were reported by Özüdođru and akır (2020).

Some pre-service teachers on the other hand emphasized that individual and group works have both some negative and some positive sides and thus digital stories can be written in both ways. Menezes (2012) used a different digital storytelling website (Storybird) for both group and individual writing and stated that digital storytelling can be done in both ways.

In the current study, it was found that the digital story writing activity had both professional and personal benefits for the participating pre-service teachers. The digital story writing activity was found to develop the pre-service teachers' ability to use technological tools and programs, teach them how to attend to children and provide them with a tool to use in their future professional career. In studies conducted on pre-service teachers in relation to the applicability of the storytelling method (Göen-Kabaran, Karalar, Aslan-Altan, Altıntaş, 2019; Karataş, Bozkurt and Hava, 2016; Shelton et al., 2017; Uslupehliyan, Kurtođlu-Erden and Cebesoy et al., 2017), it has been reported that pre-service teachers find it applicable, think that it can make some important contributions to their teaching when they become a teacher and that they can use it with their future students. In studies showing the professional benefits of digital storytelling (Aktaş and Uzuner-Yurt, 2017; Gregory and Stealman, 2008; Heo, 2009; Karakoyun, 2014; Kotluk and Kocakaya, 2015; Özüdođru and akır, 2020; Shelton et al., 2017), it has been reported that pre-service teachers developed their technological skills. Similar findings were reported by the study conducted by McLellan (2008) on university students.

In the current study, the personal benefits of the digital story writing activity were found to include developing friendship relationships, imagination, use of their voice and communication of thoughts. In addition, it was found to increase their self-confidence, to provide them with an application to use in their future and to encourage them to produce folktales. Chiang (2020) conducted a study on university students and concluded that students were more willing to write with digital story writing and the idea of sharing their written products with others made them feel more motivated. Thus, it can be argued that the digital story writing activity used in the current study made the pre-service teachers more motivated as they shared their ideas and used their creativity. The digital story writing activity also helped the pre-service teachers recognize their mistakes. This finding is supported by Kurudayıođlu and (2014) reporting that digital storytelling activities helped pre-service teachers to correct their language mistakes and speaking mistakes.

It was found that the pre-service teachers encountered some problems in the digital story writing process. These problems were found to have resulted from the website used, the features of the folktale genre, sounding, working in groups and technological tools. The order of writing and pictures, the use of English as the language of the website and lack of variety in characters offered in the website were found to be the problems experienced in relation to the website. In their study conducted on pre-service teachers by using GoAnimate to create animations, Kapucu, Eren and Avcı also found that the participating pre-service teachers could not find all the animations they wanted and in a similar manner, in the study conducted by Chiang (2020), the participants complained about the difficulty of finding suitable pictures. Moreover, as the language of the program used is not the mother tongue of the participating pre-service teachers (Kapucu et al., 2014; Uslupehlivan et al., 2017), the participating pre-service teachers had difficulties in understanding the program and instructions. Some of the teachers; on the other hand, stated that they did not experience any problems in relation to the website and that they worked easily and comfortably in the website after solving small problems such as connection problems to the internet, lack of competence in using the computer and faults in the computer.

The pre-service teachers were also found to experience some problems in understanding the features of the folktale genre and how to write a folktale. In this regard, they had some difficulties in deciding how to design the folktale, finding a message (advice) suitable for their folktales, finding a topic and creating proper characters. In relation to writing an introduction to the folktale and knowing how to write it, similar problems were reported to be experienced by the pre-service teachers in the study by Uslupehlivan et al. (2017). In the current study, some pre-service teachers were found to have conducted some kind of research to understand the folktale genre. In the study conducted by Shelton et al. (2017), it was found that the pre-service teachers' doing some research in the process of digital story writing was positively perceived by them as it taught how to write a story.

In the current study, the pre-service teachers experienced the most problems with sounding. In this regard, they had difficulties in imitating some sounds, finding sounds from different genres, having to repeat again and again to come up with the best sound, finding a quiet place. Another source of difficulty was the prejudices against one's own voice in the digital folktale writing process. Moreover, they had also some problems in terms of meeting their group members and managing the time effectively. Therefore, some pre-service teachers suggested that it would be better to work individually in the process of digital folktale writing.

Another suggestion of the pre-service teachers to improve the process is to include members from both genders in each group. Moreover, they also suggested the inclusion of one student having a computer in each group. This suggestion is thought to have been made as a solution to their technology-related problems. Moreover, the pre-service teachers stated that they would like to share the

digital stories they had prepared in their classes and to present them though acting out, guessing with their peers. Though the link to each folktale was shared with all the students in the class, the pre-service teachers seemed to want to examine the folktales in a more detailed manner.

In light of the findings of the current study, it can be suggested that pre-service teachers should be provided with opportunities to design different activities by using digital storytelling. Moreover, pre-service teachers can be allowed to decide whether to write individually or in a group. Prepared digital folktales can be given to primary schools to be used with their students. The current study is focused on the folktale genre and written expression skills of pre-service teachers. Future studies can investigate different literary genres and different language skills.

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