

Language Education Through Digital Storytelling: A Systematic Compilation Study

Dijital Öyküleme Yoluyla Dil Eğitimi: Bir Sistematik Derleme Araştırması

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ABSTRACT

In this study, it is aimed to identify the studies that use the digital storytelling method in language education with the method of systematic compilation. In accordance with this purpose, a total of 32 studies consisting of articles and theses published between 2004-2022 were accessed. The systematic review technique was used in the study in which the qualitative method was used. The obtained data were analyzed by content analysis. It was determined that 51% of the studies examined were about the skill of telling; 56% quantitative and 25% qualitative research methods were preferred.

Anahtar Kelimeler:

Dijital Öyküleme

Ana Dili Eğitimi

Dil Becerileri

ÖZET

Bu araştırmada sistematik derleme yöntemiyle dijital öyküleme yöntemini dil eğitiminde kullanan araştırmaları belirlenmek amaçlanmıştır. Bu amaca uygun olarak 2004-2022 yılları içerisinde yayımlanan makale ve tezlerden oluşan toplamda 32 araştırmadan erişilmiştir. Nitel yöntemin kullanıldığı araştırmada sistematik derleme tekniğinden yararlanılmıştır. Elde edilen veriler içerik analizi ile incelenmiştir. İncelenen araştırmaların %51'inin anlatma becerisine yönelik olduğu; %56 nicel ve %25 nitel araştırma yöntemi tercih edildiği sonucuna ulaşılmıştır.

1. INTRODUCTION

Digital stories that will be effectively prepared and presented to the audience have seven elements that are interconnected and dynamic in themselves (Bull & Kajder, 2004). These; 1. Perspective, 2. Interesting question, 3. Emotional content, 4. Economy, 5. Speed, 6. Good vocalization and 7. Use of music.

Constantly reviewing and addressing the concept of education emerges as an indispensable phenomenon in order to adapt to the times (Ateş, 2022). The ineffectiveness and ineffectiveness of educational practices, the constantly changing living conditions in the world, and the inability to fully adapt the existing understanding of education to this process are the necessary reasons for changing and updating education practices (Gardner, 2007). In this context, as a radical change in the field of education, a constructivist view has emerged that has changed the processes of learning since the 17th century (Ateş, 2022).

The constructivist view, which accepts that reality is not one, but local and multiple, argues that the real world cannot be understood with only one method. In general, constructivist approaches agree with the view that learners are active, reach understanding by choosing, and construct their own knowledge holistically through both individual and social activities (Yurdakul, 2005).

As of 2004 curriculum reform in our country, constructivist learning approach has been adopted and the change in the education process has been kept pace with the global world (Akşit, 2007). All curricula have been updated accordingly. However, when the current situation is evaluated, it is seen that student-centered education in schools is still not fully implemented (Education Monitoring Report, ERG, 2009). With the updated curricula, deficiencies in reaching the expected goals in the teaching process necessitate different and applicable new searches. When learning a topic, students often think of “Why do I have to know this?” or “Where will I use this?”. At this point, there is a need for bridges that can meet the learning needs of students and enable them to relate to the learned subject and daily life. Context-based learning approach acts as a bridge in this respect. This approach is explained as teaching content learning by using the situations, events and problems that students encounter in their daily lives as a context (Glynn & Koballa, 2005). Presenting the content with stories related to daily life helps to establish the context and makes learning more effective (Bennett, 2003). In this way, it has been observed that success towards the course interest (Ellis & Gabriel, 2010) and motivation increase and permanent learning is provided. From this point of view, it is possible to say that the teaching process is more effective for both teachers and students if the concept and content knowledge in a lesson is meaningfully associated with daily life.

The digital story, which is a form of the traditional story type based on written or oral expression, transferred to the computer environment by using multi-media technologically, is defined in different ways. Accordingly, the digital story:

- It is a product created by bringing together separate elements such as a story text, sound, music, picture and video by using human imagination (Banaszewski, 2002).
- It is the combination of traditional and personal stories and storytelling with painting, graphics, music and voice over (Porter, 2004).
- They are stories created by combining elements such as graphics, sound, video, animation (Dupain & Maguire, 2005).
- They are stories created by adding elements such as sound, visual, music, and video to a story after it has been written (Jakes & Brennan, 2005).
- To present the story in a multimedia format by using elements such as audio narration, music, picture and video of a created story text (Hull & Nelson, 2005).
- Your story; It is the presentation of elements such as text, video, visual, sound and music in a computer environment (Chung, 2007).
- It is a few-minute stories that are used to convey information on certain subjects such as personal stories, historical events, and to teach on these subjects by combining elements such as graphics, voiceovers, videos, texts and music (Robin, 2006).
- It is a short film product created by using an existing or written short story text using multimedia tools such as pictures, music, voiceovers, and videos (Dogan & Robin, 2008).
- Videos of 3-5 minutes on a personal experience or life that are important for the storyteller.
- It is the transfer of traditional stories and storytelling forms to computer screens with a contemporary method using today's technology (Matthews, 2008).
- Traditional stories and storytelling are done with a modern approach using multimedia elements (Wang & Zhan, 2010).
- A digital story is an artistic, creative and at the same time aesthetic product created in a digital format using the possibilities of a story's multimedia tools (Sawyer & Wills, 2011).

Although different definitions of digital story are made, it is seen that multimedia elements such as sound, graphics, music, video and text have common points in all definitions.

A certain theme and perspective, which are the features of traditional stories, are also features found in digital stories. Digital stories, which are composed of multimedia elements, are made to be watched on a computer or on the web in the form of a video (Robin, 2008).

How Is The Digital Story Prepared?

E-books are created in various formats. HTML or text-based e-books can be used with standard browsers. Students can search within these HTML or text-based books and copy and paste selected locations into other programs. Adobe PDF, Rocket, Palm, MS Reader, Mobi, and eBookMan are other formats used for e-books (Cavanaugh, 2002).

In this research, it is aimed to examine the studies on digital storytelling in the literature in all aspects (purpose, result, keyword, research design, data collection tool) and to determine the effect of digital stories on success in both mother tongue and foreign language education with meta-analysis. Although scanning and systematic compilation studies on digital storytelling method have been carried out in the literature, no study has been found that examines digital storytelling research in all its aspects and combines experimental studies with meta-analysis method.

2. METHOD

Purpose of the research

The main purpose of this research was determined as "to make a systematic compilation of academic studies conducted between 2004-2022 on the digital storytelling method used in language education". In line with this main purpose, the sub-objectives of the research were formed as follows.

1. What is the distribution of studies using digital stories in language education according to language skills?
2. What are the aims of research using digital stories?
3. What is the distribution of studies using digital stories in language education according to research designs?
4. What is the distribution of studies using digital stories in language education according to data collection tools?

Research Model

The systematic review method was used in this study. Systematic review is the use of systematic and open methods to collect and analyze data from the studies included in the review (Creswell & Plano, 2014). Accordingly, it is aimed to identify the studies on digital storytelling in language education. In this study, systematic review method is used as a method. The systematic review method (Karaçam, 2013) is a structured and comprehensive synthesis of numerous research studies on the same topic by experts in the field to reveal the best research evidence on a particular topic. Thus, original research studies on a particular subject are scanned in detail and broadly and analyzed in accordance with exclusion and acceptance criteria (Aslan, 2018). In this way, meaningful and applicable results can be

obtained from the findings and results of many studies on a particular subject, while highly reliable results are provided from subjects that are seen as complex or contradictory (Aslan, 2018). Researchers can generally perform systematic review screening for the following reasons (Aromataris & Pearson, 2014):

- To present general information about a subject,
- To show the history of development of knowledge about a subject,
- Identifying where evidence may be incomplete, contradictory or inconclusive,
- To determine whether there is a consensus or discussion on an issue,
- To define the relationships of existing studies on the subject,
- To justify why a problem is worth further study.

The systematic compilation method has a four-stage application. In the first stage, article eligibility criteria are clearly defined. In the second stage, all studies meeting the article eligibility criteria are systematically searched and articles meeting the acceptance criteria are identified. In the third stage, suitable articles (meeting the article acceptance criteria) are determined. In the last stage, the findings and results of the selected articles are presented and evaluated systematically (Greenwood et al., 2014). Considering the fact that the systematic review method should have a “clear and reproducible methodology”, the methodology part in such studies should be explained in great detail. In this context, first of all, the researcher/researchers should outline the search procedures used, specifying where and when the search took place and what search terms were used. In this study, studies conducted between 2004-2022 were examined. 32 studies published between these dates were taken from Google Academic and YÖKTEZ databases.

These criteria have enabled the findings of the study to be presented concretely and to obtain more reliable results from the study.

Table 1. Studies Examining the Relationship between the Digital Storytelling Method and the Researches Used in Language Education

| | | f | % |
|----------------------|--------------|-----------|------------|
| Type of work | Article | 20 | 62 |
| | Thesis | 12 | 38 |
| | Total | 32 | 100 |
| Year of study | 2022 | 3 | 9 |

| | | | |
|--|---|-----------|------------|
| | 2021 | 2 | 6 |
| | 2020 | 2 | 6 |
| | 2019 | 12 | 22 |
| | 2018 | 3 | 9 |
| | 2017 | 2 | 6 |
| | 2016 | 1 | 3 |
| | 2015 | 1 | 3 |
| | 2014 | 1 | 3 |
| | 2013 | - | - |
| | 2012 | - | - |
| | 2011 | 3 | 9 |
| | 2010 | 1 | 3 |
| | 2009 | 1 | 3 |
| | 2008 | 2 | 6 |
| | 2007 | - | - |
| | 2006 | 1 | 3 |
| | 2005 | 1 | 3 |
| | 2004 | 1 | 3 |
| | Total | 32 | 100 |
| Sample | 16-29 | 8 | 25 |
| | 31-49 | 14 | 44 |
| | 50-70 | 5 | 16 |
| | 71 + | 5 | 16 |
| | Total | 32 | 100 |
| Education of the sample group level | The study in which the kindergarten was sampled | 6 | 19 |
| | Study in which primary school was sampled | 9 | 28 |
| | Study in which secondary school was sampled | 8 | 25 |
| | High school | 6 | 19 |
| | University | 3 | 9 |
| | Total | 32 | 100 |

According to Table 1, it was seen that the digital storytelling method was used in 62% of the article type. While the majority of the studies were conducted in 2019 and 2020, no research was conducted in this area in 2005 and 2009. In the studies conducted, the sample consisted of 30-51 people, and primary school students (28%) were preferred in 9 studies.

3. RESULT

In the research, “How is the distribution of studies using digital stories in language education according to basic language skills?” The question was determined as the first sub-goal. The distribution of studies according to skills is given in Table 2.

Table 2. Distribution of Studies Using Digital Story in Language Education by Skills

| Theme | Code | f | % |
|-----------------|-------------------|-----------|------------|
| language skills | Write | 4 | 13 |
| | Read | 6 | 16 |
| | Listening | 7 | 22 |
| | All | 5 | 19 |
| | Digital Literacy | 4 | 13 |
| | Affective Factors | 6 | 19 |
| | Total | 32 | 100 |

As seen in Table 2, 22% of the studies in which the digital story method is used in language education are for listening skills, 13% for writing skills, and 16% for reading skills.

In the research, “How is the distribution of studies using digital storytelling method in language education according to research designs?” question was determined as the fifth sub-objective.

Table 3. Distribution of Studies Using Digital Story in Language Education According to Research Designs

| Theme | Code | f | % |
|--------------|---------------|------------|----------|
| Method | Quantitative | 18 | 56 |
| | Qualitative | 8 | 25 |
| | Mixed | 3 | 9 |
| | Meta analysis | 2 | 6 |
| | Unspecified | 1 | 3 |
| Total | 32 | 100 | |

As seen in Table 3, 56% of the studies in which digital storytelling method is used in language education are quantitative, 25% qualitative, 9% mixed, and 6% meta-analysis research. The research design used in 3% was not specified. In the research, “How is the distribution of studies using digital storytelling method in language education according to data collection tools?” The question was determined as the third sub-objective.

Table 4. Distribution of Studies Using Digital Story in Language Education by Data Collection Tools

| Theme | Code | f | % |
|----------------------|---------------|-----------|------------|
| Data collection tool | Test | 11 | 34 |
| | questionnaire | 9 | 28 |
| | meeting | 5 | 16 |
| | rubric | 3 | 9 |
| | scale | 1 | 3 |
| | digital story | 3 | 9 |
| Total | | 32 | 100 |

As seen in Table 4, in the studies examining the digital storytelling method in language education, 34% of the studies were used as a test, 16% as an interview, 9% as a rubric, 3% as a scale, 9% as a digital story data collection tool.

4. DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Digital story applications not only support students' writing skills but also their technology usage skills. The use of web-based digital stories in Turkish lessons contributes to students' efficient use of technology both inside and outside the classroom. The aim of this research is to make a systematic compilation of studies in which the digital storytelling method is used in language education. According to the first finding obtained from this study, 28% of the studies in which the digital story method was used in language education were based on writing skills, 23% on speaking skills, 14% on reading skills, 13% on listening skills, and 12% on all language skills. 4% is for digital literacy, 4% is for affective factors. Abidin et al. (2011) examined the effect of digital stories on listening comprehension skills in foreign language teaching of preschool children. In the experimental study consisting of experimental and control groups, students in the experimental group were shown digital stories and the data obtained from the posttest showed a significant difference in favor of the experimental group. Sandaran and Kia (2013) investigated the effect of digital stories on students' listening comprehension skills in a study they conducted with third grade (9 years old) students in a primary school teaching Chinese in Malaysia.

In addition to these studies based on digital stories, there are also studies in the literature investigating the effects of multimedia such as video and animation on listening comprehension skills. In the study conducted by Özdener and Eşfer (2009) based on the experimental design with pretest-posttest group, it was observed that the students who watched the video based on the ELVES method showed more improvement in listening skills compared to the other students, and that the students who watched the video with their classmates exhibited positive attitudes towards the lesson and were more

successful in the tests. Based on the experimental design, Türkyılmaz (2010) conducted a study with 48 primary school sixth grade students, consisting of four groups of 12 students each, and a slide show was prepared for the experimental group by the teacher using Windows Movie Maker, accompanied by voiced text through pictures and photographs. It was found that the students in the experimental group, in which listening activities were performed using multimedia, had higher listening comprehension posttest scores than the other groups. In the study conducted by Woottipong (2014) with a single group experimental design for the English lesson; 3-5 minutes long videos based on culture, environment and adventure were watched and it was found that the videos watched in the applied achievement test improved the listening comprehension skills of the students. According to the findings obtained from the research, most of the studies using digital stories in language education were prepared in quantitative (56%) and qualitative research (25%). The least used research design was meta-analysis (6%). The pattern of 3% of the studies was not specified. Wu and Chen (2020) conducted a systematic review study on research using digital storytelling method in education and concluded that 26 of 57 studies used qualitative research method and 11 of them used quantitative research method. 33% said that interview forms were used. The fifth and sixth findings of the study support each other. In 41% of the studies, planning according to the quantitative research design also included data collection tools in quantitative research.

In Campbell's (2012) study, students produced high-quality products and improved their writing skills by creating longer and more complex stories over time. Similarly, as a result of the study conducted by Yamaç (2015), it was determined that there were improvements in the sub-dimensions of ideas, organization, word choice, sentence fluency and spelling in terms of writing quality, and an increase in the number of story elements and words used in the written texts. The results of Özer's (2016) study showed that digital storytelling can be a valuable and effective approach in vocabulary teaching. In another study, it was concluded that digital storytelling improved students' writing skills (Çıralı, 2012). Karakoyun (2014) concluded in his study that digital storytelling activities improve 21st century skills. The results of this research overlap with the results of other research on the development of digital stories and students' writing skills.

It enabled the use of the test, scale and questionnaire used. The fact that the application and evaluation of these measurement tools is relatively easy compared to other measurement tools enables them to be used intensively in research.

Considering the results of the research, instead of reading and writing in the traditional sense, using applications such as reading and writing in online environments, using the internet effectively as a learning tool and creating multi-form texts in the learning environment will improve students' writing skills. In digital storytelling studies, students' readiness levels, choice of writing activities, teachers'

competencies in this regard, and technological opportunities offered by the school were determined as variables affecting the process.

Controlling these variables before starting digital storytelling studies in Turkish lessons will be effective in carrying out the process in a functional way. At the same time, planning should be done considering that the digital storytelling process goes beyond the time allotted to writing activities.

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