# Digital Fairy Tales: Children's Literacy Development During the Covid-19 Pandemic

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## Abstrak

*Teknologi digital telah menjadi bagian dari pengalaman sehari-hari kebanyakan anak-anak. Penerapan literasi digital pada pendidikan anak usia dini saat ini berupa pengembangan buku digital dan dongeng digital. Tujuan dari penelitian ini adalah untuk mendeskripsikan dan menganalisis praktik pengembangan dongeng digital yang dilakukan di sekolah. Penelitian ini menggunakan metode penelitian studi kasus. Subjek penelitian ini adalah 10 orang guru pendidikan anak usia dini yang menjadi fasilitator pengembangan dongeng digital. Pemilihan subjek ini didasari oleh purposive sampling, dengan pertimbangan bahwa kemampuan dan kontribusi informan dapat memberikan kontribusi pada pemahaman fenomena yang diteliti. Pengumpulan data dilakukan dengan wawancara secara mendalam melalui pertemuan tatap muka. Analisis data menggunakan tiga macam kegiatan yaitu reduksi data, model data, dan verifikasi kesimpulan. Hasil penelitian ini menggambarkan bahwa implementasi dongeng digital dan pengembangannya cenderung mengarah pada penerapan video dongeng digital, tanpa interaksi langsung dengan anak usia dini. Penerapan ini belum sesuai dengan konsep dan teori literasi digital dan dongeng digital untuk anak usia dini. Sehingga, harapannya pengembangan dongeng digital selanjutnya lebih mengambil sudut pandang kebutuhan pada stimulus yang penting dan lebih bermakna pada anak usia dini tanpa meniadakan interaksi yang menjadi inti dari kegiatan mendongeng.*

*Kata kunci: Digital Fairy Tales, Early Literacy, Development*

## Abstract

Digital technology has become a part of most children's everyday experiences. In kindergarten, they tend to have many encounters with various forms of digital communication. The application of digital literacy in early childhood education is currently in the form of developing digital books and digital fairy tales. The purpose of this study is to describe and analyze the practice of developing digital fairy tales carried out in schools. This research uses the case study research method. The subjects of this study were 10 early childhood education teachers who became facilitators of digital fairy tale development. The selection of this subject was based on purposive sampling, with the consideration that the abilities and contributions of the informants could contribute to the understanding of the phenomenon under study. Data collection was carried out by in-depth interviews conducted through face-to-face meetings. Data analysis uses three types of activities, namely data reduction, data modeling, and drawing conclusions. The results of this study illustrate that the implementation of digital fairy tales and their development tend to lead to the application of digital fairy tale videos without direct interaction with early childhood. This application is not in accordance with the concepts and theories of digital literacy and digital fairy tales for early childhood. Thus, it is hoped that the development of digital fairy tales will take the point of view of the need for an important and more meaningful stimulus in early childhood without eliminating the interactions that are the core of storytelling activities.

**Keywords**: Dongeng Digital, Literasi Dini, Pengembangan

## 1. INTRODUCTION

The early years of a child's life (3-6 years) are seen as an important period in the lifelong process of life. This period provides a foundation for children to develop to their full potential, and experts claim that if adults fail to take advantage of this period, it will be difficult for children to "catch up" with further developmental tasks (Khasanah & Fauziah, 2020; Trisnawati & Sugito, 2020). Education and child rearing are currently focused on a personality-oriented model where the main emphasis is placed on understanding the individual needs and development of each child (Shomiyatun, 2018; Wildová & Kropáčková,

2015). This model is based on the hypothesis that every child is an individual with unique talents, abilities, motivations, and ways of learning (Buckler et al., 2021; Sumaryanti, 2018).

Early literacy recognition is an important part that must be given to children. The intended literacy does not necessarily begin with writing or reading, but rather motivates and teaches children to be sensitive in learning about their surroundings (Bujuri, 2018; Phillips et al., 2021). However, the majority of early childhood education institutions in Indonesia consider reading and writing an absolute must for early literacy (Karima & Kurniawati, 2020; Setiyaningsih & Syamsudin, 2019). Readers who learn to read (or write) spontaneously are mainly due to ongoing or previous learning activities from older siblings. (Bauer & Booth, 2019; Sumaryanti, 2018). Children should not be forced to read, but they should be given sufficient opportunities and stimulation to support their reading motivation and further develop their reading skills (Guo et al., 2021; Weber-Mayrer et al., 2018; Zahro et al., 2019).

Storytelling is one of the conventional methods that are often used to stimulate literacy skills, especially in early childhood education. Storytelling is a process in which a person uses vocalizations, narrative structures, and mental images to communicate with an audience (Csima et al., 2018; Zucker et al., 2021). The use of stories in early childhood education has been widely encouraged because it is entertaining and is seen as a natural way of teaching and learning with children. In addition, empirical research reveals that storytelling enables processes such as language interaction, imagination stimulation, and cognitive engagement, which are shown to contribute to the development of literacy skills (Hannust & Kikas, 2007; Schachter et al., 2016). The right story contains five main elements of literature, namely setting, theme, character, plot, and conflict. When these elements are handled properly, they develop a story scheme that supports understanding, and hence, storytelling is a good way to convey content and provide tutoring in an engaging and personal way (Saidah & Damariswara, 2019; Snow, 1991).

So far, the design of an effective storytelling approach in early childhood education is still elusive. Stories seem underutilized for what educators can do (Maharani et al., 2020; Suryani & Seto, 2020). Especially if the story is used only to get the children's attention at the beginning of a class activity or for a time of relaxation after the main task has been completed (Bakken et al., 2017; Sumaryanti, 2018). Storytelling should support core information, i.e., the storytelling component should engage children in affective and cognitive experiences around language, print, and stories. During storytelling, teachers can provide guidance by interacting with children. Storytelling should be followed by play-based activities where children can hone their literacy skills. It is important to consider what parents have to offer when learning to read and how the child responds while learning to read. In addition, the quality of the interaction builds between parents and children for children's learning success in language acquisition and early literacy, as well as contributes to overall academic achievement in the following years (Csima et al., 2018; McLeod et al., 2019). While supporting the development of literacy skills, currently, digital literacy is also given priority in early childhood. Children need to become skilled at handling this form of digital communication (Schachter et al., 2016; Wildová & Kropáčková, 2015).

The development of digital literacy in early childhood education is currently being driven by the development of digital books and digital fairy tales (Ottley et al., 2015; Setiyaningsih & Syamsudin, 2019). The combination of spoken storytelling with audio, pictures, and various digital tools is called "digital storytelling" (Korat & Falk, 2019; Wildová & Kropáčková, 2015). When storytelling is combined with play-based activities, it can provide an effective stimulus for early literacy experiences (Guo et al., 2021; Novitasari, 2019). In addition, empirical research reveals that storytelling enables processes such as language interaction, imagination stimulation, and cognitive engagement, which are shown to contribute to the development of early childhood literacy skills (Roberts & Rochester, 2021;

Snow, 1991). Technological advances have significantly increased the affordability of online storytelling (Bakken et al., 2017; Lucas et al., 2021). Nowadays, the digital tools needed for computer storytelling, smartphones, and audio recording devices have become more accessible. In addition, a large number of powerful yet simple storytelling software programs are now available (Morphis, 2018; Shomiyatun, 2018). The combination of spoken storytelling with audio, images, and various digital tools has led to what is now called "digital storytelling" (Beasley et al., 2021; Kumpulainen et al., 2020).

Digital storytelling means using technology properly to tell a story. To create digital stories, designers must pay special attention to personalization (Kaynar et al., 2020; Langub & Lokey-Vega, 2017). The proper use of these digital elements can contribute to making the content more understandable and motivating for children. When digital storytelling is used in early childhood education, the impact is very likely to familiarize children with digital media (Annisa et al., 2020; Maureen et al., 2018). The purpose of this study was to analyze the practice of developing digital fairy tales carried out in schools. In addition, researchers also want to analyze the suitability of digital fairy tale practice and its development in Kindergarten, Payangan District, Gianyar Regency, Bali.

## 2. METHODS

This research uses a case study qualitative research method (Lindsay-Smith et al., 2018; Starman, 2013). This study tries to dig up information to describe and explain the development of digital fairy tales carried out in early childhood education schools. This research is based on the uniqueness of the digital fairy tales developed. The subjects of this study were 10 early childhood education teachers who became facilitators of digital fairy tale development (G1,G2,G3,...G10). The selection of this subject was based on purposive sampling (purposed sampling), with the consideration that the abilities and contributions of the informants could contribute to the understanding of the phenomenon under study. This research was conducted in Kindergarten, Payangan District, and Gianyar Regency, Bali. The identity of the informants is presented in Table 1.

**Table 1**. Informant Identity

| Code | Identity | Code | Identity |
|------|----------|------|----------|
| G1 | Bhalananda, Kindergarten Teacher | G6 | Kartini, Kindergarten Teacher |
| G2 | Melati, Kindergarten Teacher | G7 | Madu Kumara. Kindergarten Teacher |
| G3 | Hindu Widya Kumara, Kindergarten Teacher | G8 | Kumara Indrakila. Kindergarten Teacher |
| G4 | Tirta Kumara, Kindergarten Teacher | G9 | Kerta Kumara, Kindergarten Teacher |
| G5 | Cili Mekar, Kindergarten Teacher | G10 | Widya Santhi Kumara, Kindergarten Teacher |

Data was collected by in-depth interviews through face-to-face meetings, observations, and interviews. Interviews were conducted with teachers and parents face-to-face outside of class or class hours to obtain more detailed information about the application of using digital fairy tales in schools. The data from the interviews were collected using a recording device (a smartphone), and the results were then compiled into a transcript of the interview results (a copy of the recording). The results of this interview are then analyzed and given meaning to each piece of information obtained. The collected meanings are then classified into several main substances of information (themes), which are then analyzed further. Data analysis uses three kinds of activities, namely data reduction, data modeling, and conclusion verification. In addition, this study also uses source triangulation and

technique triangulation. Source triangulation is carried out to determine the validity of the data by comparing information from one source to another. While technical triangulation is done to find out the truth of the data by comparing the results of interviews with observations and documentation.

## 3. RESULTS AND DISCUSSION

**Results**

Based on data obtained from observations, in-depth interviews, and documentation conducted, the application of digital fairy tales in schools can be classified into three general themes: the form of applying literacy for early childhood at school; teachers' understanding of digital literacy; and forms of applying digital literacy. namely those related to digital fairy tales.

**Literacy Understanding**

The application of literacy for early childhood at school still refers to conventional literacy activities, namely reading and writing. Beginning reading and writing lessons are taught at the age of 5–6 years, which are included in the category of Kindergarten B class. Early reading and writing skills are carried out so that children can learn to read and write early and prepare children's basic abilities before entering elementary school. The results of the interviews are shown in Table 2.

**Table 2**. Teacher interview results related to literacy

| Source person | Description |
|---|---|
| Melati, Kindergarten Teacher | "...currently, literacy learning in this school applies to writing and reading." |
| Mekar, Kindergarten Teacher | "In terms of literacy, our school has implemented a reading program from an early age." |
| Kerta Kumara, Kindergarten Teacher | "Literacy includes academic activities to train children's fine motor and cognitive skills." |

Based on Table 2, early reading learning is done by introducing vowels first, then consonants, then combining vowels and consonants, learning syllables, sentences, and then complete sentences (subject, predicate, and object). Then for learning to write, starting from thickening vowels, then thickening all letters, and learning to write each other's names. Learning to write is not done as fast as learning to read because it considers the readiness of children to write. This initial reading and writing activity is mostly done on worksheets. However, apart from writing, an activity that is often done as part of literacy is storytelling. The analysis of the application of literacy is shown in Table 3.

**Table 3**. An Analysis of the Application of Children's Literacy in Schools

| | Subtheme | Subtheme Relationship |
|---|---|---|
| 1 | Literacy is applied by learning to read and write. | Teachers believe that children's literacy activities are absolute and are manifested in learning to read and write from an early age, and all things related to literacy are always interpreted as reading and writing activities. |
| 2 | Things related to literacy are always associated with reading and writing. | |

Table 3 above shows that teachers have too rigid a point of view on literacy. Teachers are too focused on reading and writing activities as the implementation of the application of

literacy for early childhood, and almost all of them are associated with cognitive skills. This indicates that the teacher's understanding of literacy for early childhood is still very limited, so that the implementation is not as expected.

**Digital Literacy Comprehension**

Although the literacy taught in schools still leads to conventional literacy, schools have started to implement digital literacy. For example, the teacher advises parents to use the YouTube Kids application because there are many interesting materials for early childhood learning that are presented through YouTube Kids. Parents are free to find materials that children like and supervise children when giving these materials to their children. Youtube Kids is one of the literacy media that is often accessed by parents and children. The results of the interviews are shown in Table 4.

**Table 4.** Teacher's interview results regarding digital literacy

| Souce person | Description |
|---|---|
| Bhalananda, Kindergarten Teacher | ".....until now, at school, we are still oriented to reading and writing. If it's a learning application for early childhood learning, yes, we recommend using YouTube Kids too, but that's not included in learning at school. " |
| Kumara Indrakila, Kindergarten Teacher | "Usually parents are creative in finding learning resources for their children. We free up parents to supervise their children playing YouTube. " |
| Widya Santhi Kumara, Kindergarten Teacher | "Until now, at school, we are still oriented to reading and writing. If the learning application is for early childhood learning, yes, we recommend using youtube kids too, but that is not included in learning at school. Usually, parents are creative in finding learning resources for their children. We free up parents to supervise their children playing YouTube. " |

Based on Table 4, it was found that although the literacy applied in schools still leads to conventional literacy, schools have started to implement digital literacy. For example, the teacher advises parents to use the YouTube Kids application because there are many interesting materials for early childhood learning that are presented through YouTube Kids. Parents are free to find materials that children like and supervise children when giving these materials to their children. Youtube Kids is one of the literacy media that is often accessed by parents and children. Youtube Kids Media is one of the digital literacy media that is often used in early childhood learning at home. In addition to YouTube Kids, one digital literacy that is applied is digital fairy tales. Digital fairy tales are storytelling activities that are carried out online using the help of electronic devices and online meeting applications. Initially, this digital fairy tale activity was carried out as one of the innovation efforts to realize fairy tales that could be applied during the COVID-19 pandemic. So, this digital fairy tale is an alternative for teachers to present storytelling activities that can be applied to pandemic situations. The analysis of the application of digital literacy is shown in Table 5.

**Table 5**. An Analysis of the Application of Digital Literacy

| | Subtheme | Subtheme Relationship |
|---|---|---|
| 1 | The teacher advises children and parents to use YouTube Kids. | The teacher advises parents to use youtube kids to accompany early childhood to study |
| 2 | Teachers assume that parents are creative in finding educational content for children. | at home, because apart from teachers, parents are also considered capable of |

| Subtheme | Subtheme Relationship |
|---|---|
| 3 The teacher assumes the YouTube Kids application to be a good digital literacy container for children. | supervising and finding positive content that supports the child's learning process. |

From Table 5, it can be understood that in the early childhood learning process, it is highly directed to use youtube kids media. The teacher advises parents to use youtube kids to accompany early childhood learning at home, because, apart from teachers, parents are also considered capable of supervising and finding positive content that supports children's learning processes. This reflects that both teachers and parents are very dependent on media and applications such as mobile phones and Google to surf to find information, especially those related to early childhood learning.

**Digital Fairy Tale Application and Development**

YouTube Kids Media is one of the digital literacy media that is often used in early childhood learning at home. In addition to YouTube Kids, one digital literacy that is applied is digital fairy tales. Digital fairy tales are storytelling activities that are carried out online using the help of electronic devices and online meeting applications. Initially, this digital fairy tale activity was carried out as one of the innovation efforts to realize fairy tales that could be applied during the COVID-19 pandemic. So, this digital fairy tale is an alternative for teachers to present storytelling activities that can be applied to pandemic situations. Interviews related to the development of digital fairy tales are shown in Table 6.

**Table 6.** Digital Fairy Tale Development Teacher Interview Results

| Source Person | Description |
|---|---|
| Widya Santhi Kumara, Kindergarten Teacher | "At the beginning of the pandemic yesterday, we tried to use digital fairy tales to replace some storytelling methods that cannot be implemented in schools." |
| Madu Kumara, Kindergarten Teacher | "... actually, the setting of this digital fairy tale is live, zoomed in. However, due to some considerations of parental work, internet connection, and use of gadgets (usually 1 gadget in the house is for 2 children, as well as the work of parents), we feel that digital fairy tales are a bit difficult to do in Payangan." |
| Tirta Kumara, Kindergarten Teacher | "During the learning of fairy tales, we sent a video of the fairy tale that had been made to the WhatsApp group, and then after watching the video, our children were assigned to answer several questions that we had previously conveyed to parents in 1 package with the video that was sent earlier. Now the questions are, "What is the title of the story that has been told?", then "Who is the character that should be imitated?", and "Who has bad behavior? Why?" We try to emphasize the characters according to the topics discussed in the story." |

Based on Table 6, the application of digital fairy tales initially used references from YouTube, but over time, teachers and schools developed this digital fairy tale activity by adding cheerful variations and additional animations to fairy tales. Digital fairy tales are developed in the form of learning videos that contain additional animation and background sound (background sound) so that they are more attractive to children. This development is slightly different from the concept of digital fairy tales in general because it is based on considerations of device limitations, time, and signal constraints from the majority of parents. Usually, digital fairy tales are carried out in cyberspace with the help of meeting applications such as Zoom, Google Classroom, or Webex, which also allow interaction between teachers and students. However, in this case, the school is developing digital stories that resemble

learning videos. This digital fairy tale activity is carried out 2 times a week. The stages of implementing this digital storytelling include the teacher introducing himself (in the video), then delivering the introduction, and starting to tell the story. For teacher-student interaction, it was replaced with a video of a teacher delivering the message of the child's impression (response) to participating in the previous storytelling activity. This reflection is done so that parents and children understand the role of the characters in the story being told. In addition to children, parents are also asked to respond to this digital storytelling learning. The analysis of the application of digital fairy tales is shown in Table 7.

**Table 7**. An Analysis of the Application of Digital Fairy Tales

| | Subtheme | Subtheme Relationship |
|---|---|---|
| 1 | Digital fairy tales are an alternative to conventional fairy tales during a pandemic. | Digital fairy tales are an alternative to conventional fairy tales during a pandemic. However, digital fairy tales are not implemented interactively due to device constraints owned by parents. This interaction is replaced by a flashback question at the end of the video. |
| 2 | Due to device constraints imposed by parents, digital fairy tales are not carried out interactively. | |
| 3 | Interaction is replaced with flashback questions at the end of the video. | |

From Table 7, it can be understood that this development was assisted by instructional design experts and experts in early childhood education. The school requested assistance from an instructional design expert to ensure that the video design was appropriate and targeted to convey the role of the characters, the storyline, and the aesthetics of the video. Then, experts in the field of early childhood education help assess the suitability of the intent, content, and design of the video to be given to early childhood. The determination of the theme of the story or fairy tale to be used is taken from stories or fairy tales that are close to the school environment, especially fairy tales that contain moral values and noble values of Balinese culture. As long as this digital fairy tale is applied, parents give a positive response. This is indicated by the large number of requests from parents to increase the frequency of implementing digital fairy tales in early childhood learning per week. This request is still under consideration because it is related to the development process and design preparation, which takes a long time.

**Discussion**

Technology plays an important role in all aspects and fields, one of which is education. Education is closely related to learning and learning facilities. Currently, many educators and students use technology-based learning tools in learning because technology-based facilities tend to be efficient and able to present a more attractive and innovative appearance. The use of technology in education is very helpful for all people to be able to learn anywhere and anytime. Likewise, in early childhood learning. The existence of the COVID-19 pandemic seems to be a turning point in the use of technology in early childhood learning. Starting from the use of computers and smart phones, learning videos, the use of virtual meeting applications, and even entertainment for early childhood. Social interaction through virtual meeting rooms and digital storytelling activities is an important part of keeping up with today's technological advances. From the results of interviews conducted, the application of digital literacy and fairy tales in the Payangan District Kindergarten is not fully in accordance with the concepts and theories that are closely related to digital fairy tales. The application of literacy tends to be conventional, which is only focused on reading and writing activities at the beginning. Educators' understanding of appropriate literacy for early childhood needs to be improved (Karima & Kurniawati, 2020; Zucker et al., 2021),

because this will affect the literacy practice that will be carried out by educators. Fairy tales can be used as a part of early literacy, but from the interviews, it can be seen that educators do not fully understand the function of storytelling activities. Supposedly, educators can better interpret and develop storytelling activities so that they can become one of the closest and most interesting literacy activities for children (Birgisdottir et al., 2020; Saidah & Damariswara, 2019).

Then, the development of digital literacy through video storytelling is also carried out outside of the concept of digital literacy. Digital literacy, in this case, digital fairy tales developed, is more directed towards the development of learning videos containing fairy tales (Fitriyah et al., 2021; Karima & Kurniawati, 2020). Digital fairy tale activities are storytelling activities in which they tell a story or stories by using vocalizations, narrative structures, and mental images to communicate with the audience using appropriate and correct technology (Bauer & Booth, 2019; Langub & Lokey-Vega, 2017). However, based on the results of interviews and observations made by digital fairy tales, what is meant is to develop learning videos using technology that are designed to be attractive and innovative, whose goal is to make children interested and excited to listen. There is no direct interaction with the audience or children, and they can only watch the video that is played, just like watching videos in general. So this can be said to be inappropriate if it is mentioned as a digital fairy tale that is in accordance with the concept of implementing instructional stimuli in early childhood.

This is in accordance with previous research which states that media development is combined with technology to meet and keep up with today's very rapid technological developments (Saurina, 2016). This is done so that the media used is relevant to the existing technology without reducing the essential value of each medium that you want to develop. The development of digital fairy tales should not reduce the essential value of interaction that must exist, because interaction is the main point in storytelling activities. The results of this study also found that interaction is very essential in early childhood learning. In addition, other studies have also found that involving children in storytelling activities encourages them to explore and get carried away by the atmosphere of the story, which is expected to deepen their character (Martono, 2019). This study found that understanding characters and meanings through fairy tales makes children learn about the identity of their characters, how to be good examples or role models, how to play a good role, and how children should behave and adapt to their environment.

So far, the design of an effective storytelling approach in early childhood education is still elusive. Stories or fairy tales seem underused for what they can do (Risma et al., 2020; Widayati et al., 2020). The recommendation from the researcher based on the results of this study is that storytelling should be followed by play-based activities where children can hone their literacy skills. Instructional structures with a storytelling approach must be integrated with play-based activities. Such an approach can at least turn storytelling into a meaningful and fun way to create structure and a child-friendly stimulus for literacy development in early childhood education. This research is also full of limitations, especially in terms of its scope. This is because this study only tries to analyze the development of digital literacy, specifically fairy tales. So, for further research, it is possible to conduct deeper research involving other factors such as motivation and environment in the application of fairy tales.

## 4. CONCLUSION

The application and development of digital literacy, in this case, digital fairy tales, must refer to play-based activities so that children do not only learn, but can learn through play. The use of fairy tales in early childhood education has been widely encouraged because it is entertaining and is seen as a natural way of teaching and learning with children. So, the

meaning of storytelling should still be implemented in developing ordinary fairy tales into digital fairy tales. Storytelling is a good way to deliver content, providing tutoring in an engaging way, and so is digital storytelling. When digital storytelling is used in early childhood education, the impact may be to familiarize children with digital media from an early age.

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