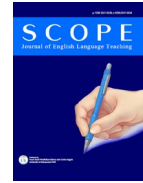




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Research Article

EFL Reading Comprehension through Digital Storytelling in Multimodal Digital Literacy

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KEYWORDS

EFL reading comprehension;
 Digital Storytelling;
 Multimodal digital literacy;

A B S T R A C T

This current study used the multimodal digital literacy lens to examine how digital storytelling can improve reading comprehension in EFL learners. With the growing integration of text, audio, images, and interactivity in digital literacy, this study explored how these multimodal components can improve EFL learners' reading experiences. This study applied digital storytelling strategies in a digital storytelling platform, such as multimedia resources and narrative structure, to increase student engagement and comprehension. The triangulation of four instruments, i.e. in-class observation, think-aloud protocol, questionnaire, and interview, was used to be a reliable and valid study. The findings revealed that digital storytelling could be used to teach reading comprehension. Learners expressed positive opinions about learning to read and comprehend the text through multimodal digital literacy, especially digital storytelling. The results showed that digital storytelling makes greater comprehension of textual content possible. Using multimodal techniques for EFL learners could significantly improve reading comprehension results and give learners in remote areas the tools they need to navigate a digitally mediated society successfully.

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INTRODUCTION

Learning to read text made EFL learners phobic because they could not understand it glancingly without a translator application. This phenomenon must be solved to reach the purpose of the study, especially in a remote area where most learners only get the knowledge of English at school. The observer searched for tools to improve reading comprehension.

The language learning landscape has changed dramatically in recent years with digital technology, which provides new ways to engage learners and improve their literacy.

Digital storytelling is a potent tool for teaching and learning reading text in English as a foreign language, especially when it comes to reading comprehension, among these advances. Digital storytelling creates a dynamic and engaging experience that enhances multimodal literacy and encourages deeper text understanding by combining multimedia elements like text, images, music, and video.

Understanding textual material and interpreting and synthesizing meaning across several communication channels are essential for reading comprehension, a fundamental aspect of language ability. Traditional print-based reading strategies might not adequately meet the

demands of modern literacy in a world that is becoming more and more multimodal. With its combination of multimedia and narrative, digital storytelling presents an extraordinary chance to close this gap by giving learners access to various representational mediums that enhance and supplement reading.

Many scholars found that the multimodal method can be used to teach English. This method has become a dynamic methodological framework in language education today, utilizing a variety of communication modalities to enhance learning and help learners develop deeper linguistic competencies. This current study, which looked at the effectiveness and implications of the multimodal method in language teaching, was supported by recent theoretical developments and empirical research.

Multimodal methods in language teaching promote the integration of multiple modes, including visual, auditory, gestural, and spatial representations, to improve language learning and cross-cultural comprehension (Kress & Jewitt, 2021). In contrast to the conventional method (text-centric approaches), this method recognized that communication involves multiple modes of expression and interpretation (Jewitt & Kress, 2003; Jewitt, 2020). Teachers can design immersive learning environments that accommodate learners' diverse learning preferences and cultural backgrounds by utilizing a variety of media formats and technologies (Cope & Kalantzis, 2020).

Recent studies have shown that the multimodal method can significantly improve language learners' communicative competence and intercultural awareness (Arizábal, 2022; Unsworth, 2023). Research has also indicated that multimodal learning environments foster critical thinking, creativity, and digital literacy and improve language proficiency (Lotherington & Jenson, 2021; Thorne, 2019). Furthermore, these approaches support authentic language use by offering interactive communication and group learning opportunities (Jewitt & Kress, 2022).

Multimodal methods in language teaching are becoming more widely acknowledged, but issues with digital inequality, teacher preparation, and curriculum integration still exist (Kress, 2021; Kalantzis & Cope, 2017). This study looked at current practices, pinpointed valuable strategies, and provided recommendations for successfully applying multimodal methods in EFL educational contexts. This method consists of the VARK learning style.

The VARK (Visual, Aural/Auditory, Read/Write, Kinesthetic) model of learning styles provides a framework to understand how individuals perceive and process information effectively. According to the VARK model, learners exhibit preferences for visual (V), auditory (A), read/write (R), and kinesthetic (K) modes of learning. Visual learners prefer visual aids such as text, images,

pictures, and settings; auditory learners excel with spoken explanations and lectures and read/write learners prefer textual materials and note-taking. In contrast, kinesthetic learners thrive through hands-on activities and physical engagement (Fleming & Mills, 1992).

The multimodal method leverages these preferences by integrating various instructional techniques and materials that cater to different learning styles within a single educational context. By incorporating visual, auditory, read-or-write, and kinesthetic elements into lesson plans and activities, teachers can design a more inclusive and effective learning environment that addresses the diverse needs of learners. This figure elaborates on the VARK learning style.



Figure 1. VARK learning style

In the dynamic landscape of digital literacy, reading is part of the VARK learning style. Reading is not only reading; reading with comprehension has also transcended traditional text-based formats to encompass multimodal forms of communication. Multimodal digital literacy refers to navigating, comprehending, and critically engaging with information presented across various modes, such as text, images, videos, and interactive elements within digital platforms. This evolution reflects a broader understanding that communication today involves reading words and interpreting and synthesizing information from diverse media sources.

According to Soares (2020), integrating multimodal elements challenges readers to interact with information in more dynamic and immersive ways, enhancing comprehension through visual, auditory, and interactive stimuli. This approach emphasizes that meaning is constructed through the synergistic interaction of different modes, prompting readers to decode visual cues, interpret spatial arrangements, and navigate hyperlinks alongside textual content. Furthermore, as noted by contemporary researchers, proficiency in multimodal literacy is increasingly crucial in navigating the complexities of digital environments where communication spans multiple media (Soares, 2020).

Nowadays, the multimodal learning style in VARK is influenced by digital tools. Many scholars have developed it. Its digital emergence brought about the invention of digital storytelling. There are many scholars developed digital storytelling on many occasions. Flewitt (2005), Miller (2006), Burgess (2006), Ohler (2008), Tseng, J. J., Chu, H. C., Hwang, G. J., & Tsai, C. C. (2008), Robin, B. R. (2008), Lambert, J. (2013), Cárdenas, M. L., Delgado-Kloos, C., & Muñoz-Merino, P. J. (2017), Zainuddin, Z., & Perera, C. J. (2021). These studies revealed mixed findings and the advantages of digital storytelling.

In contrast, Pautasso, D. (2013). Ferdig, R.E. (2013), and Guest, I. (2013), Baker, D.P. (2018) critically analyze digital storytelling's pedagogical affordances and question whether it truly functions effectively as a learning tool. The author may discuss limitations or challenges associated with digital storytelling in educational contexts, offering a nuanced perspective that contrasts with more celebratory accounts of its benefits.

It is an example of how researchers engaged in critical discourse to evaluate the effectiveness and limitations of digital storytelling in various applications, providing a balanced view of its potential drawbacks alongside its perceived advantages. However, many studies still need to apply digital storytelling platforms to digital tool applications.

There are many platforms for digital storytelling. One of them was from Joe Lambert (2013), who introduced the products of Story Center, a digital storytelling platform. Figure 2 shows a digital storytelling platform.



Figure 2. Digital Storytelling

This application was used to teach reading comprehension in this study, and the observer took Story Bird and digital stories on YouTube as the products of the Story Center. The observer chose this digital storytelling platform as a teaching medium for solving learners' comprehension difficulties. However, many previous studies still need to apply digital storytelling platforms as a model of multimodal digital tools. On this occasion, the current study was used in an EFL reading comprehension class.

This study used a qualitative approach to investigate how digital storytelling can enhance EFL learners' reading

comprehension. It specifically looked into how learners' comprehension of texts, their capacity to decipher meaning in various modes, and their involvement in reading activities are impacted by multimodal resources found in digital storytelling. This study highlighted the potential of digital storytelling as an effective teaching tool in the EFL environment by investigating learners' experiences, perspectives, and obstacles. This helps to foster literacy skills and critical thinking in the digital age.

In the end, this study demonstrated the significance of multimodal digital literacy in influencing the direction of language instruction, especially in reading comprehension as we advance, highlighting the necessity of creative methods that equip learners to function in a world full of various media and communication modes, particularly in a remote location.

Here, the observer used these research questions:

1. How to improve EFL reading comprehension through digital storytelling?
2. What is the EFL learner's opinion about digital storytelling to improve reading comprehension?

METHOD

1. Design

Reading comprehension is a part of receptive skills. For EFL Learners, it takes work to comprehend the text spontaneously. They needed to translate to guess the content. They had no interest in English text. Adopting an instrumental case study in qualitative method, this research tried to use digital tools as a multimodal method for teaching reading comprehension. As many previous scholars argued, digital storytelling can enhance reading comprehension. A digital tool platform from Joe Lambert (the founder of Story Center) was used to observe EFL reading comprehension.

2. Research Site And Participants

The site is at a Madrasah Aliyah Negeri in Majalengka-west Java, an Islamic state school where the observer becomes a teacher. Most learners are EFL learners. Their daily language is Sundanese. This is suitable for this research using a purposive sampling technique. Purposive sampling for qualitative research is a non-probability sampling technique where researchers deliberately select participants or elements based on specific characteristics or criteria relevant to the research objective (Creswell, 2013). Purposive sampling focuses on choosing individuals who can provide the most appropriate and insightful information related to the research questions. Ten classrooms for twelfth grade and 12 IPA 3 classroom learners were selected for the field study. This classroom has high- and low-scoring learners in reading

comprehension. Therefore, this classroom is suitable for this study.

3. Data Collection Method

This field study used qualitative analysis in a purposeful sampling technique. There were four instruments: in-class

observation, think-aloud protocol, questionnaire, and interview.

a. Observation:

Learners' behaviours, reactions, and interactions with the digital stories were documented.

Table 1. In-Class Observation Data

Aspect	Details	Notes
Date, Time, and Place	a. Meeting 1: June 9, 2023 b. Meeting 2: June 10, 2023 c. Meeting 3: June 11, 2023 d. Meeting 3: June 12, 2023 Each meeting is 90 minutes in a 12 IPA 3 classroom	All students come to meetings one, two and four. One student did not come to the third meeting because of sick.
Class Information	12 IPA 3 classroom high scorers and low scorers in reading comprehension score	This classroom has 36 students: SN, DM, DD, JJ and MA are high scoring students, and DN, MF, and RM are low-scoring students. They are Sundanese native speakers.
Lesson Topic	a. Meeting 1 and 2: Narrative text b. Meeting 3 and 4: Recount Text	a. Title for narrative text: - The tale of Naughty Kitten - Where is my moka b. Titles for recount text: - I Will Never Use Math. - Someday I Will Cook Like Her
Digital Storytelling used	The product of Story Center by Joe Lambert	The link: - http://www.storybird.com/picture-book/the-tale-of-naughty-kitten . - https://www.storybird.com/picture-book/where-s-my-mom . - https://www.storybird.com/picture-book/i-will-never-use-math . - https://www.youtube.com/watch?v=pxXQK_pWEOM
Students Engagement	High Engagement	The students demonstrated a high interest in the digital storytelling activity. They were attentive, learning forward and focusing on the interactive displays. Their facial expressions showed curiosity and engagement with the storyline.
Student Interaction	Active learning in group and peer feedback	A majority of students were able to express their thought about the digital story. They shared insights about their favourite parts, connections to personal experiences, and predictions for what might happen next in the storyline.
Reading Comprehension Activities	a. Pre-reading, while-reading, post-reading activity. b. Assessing through Think-aloud Protocol	Students' reading text sessions in digital storytelling, asking and answering questions verbally in think-aloud protocol sessions, and discussing and summarizing the whole text.
Use of Multimodal Elements	Visual, audio, English text	As the observer, the teacher demonstrated digital storytelling that contains images, English text, and audio
Student Reaction	Active and enthusiastic	a. The students demonstrated a high interest in the digital storytelling activity. They were attentive, leaning forward and focusing on the interactive displays. Their facial expressions showed curiosity and engagement with the storyline. b. Students could respond to questions about the text's content. They articulated their thoughts clearly, referencing specific scenes or characters to support their answers-those who were confused sought assistance from peers or the teacher. c. Students appeared enthusiastic and optimistic about learning through digital storytelling. They showed eagerness to explore new stories and interact with multimedia elements, indicating enjoyment and immersion in learning.
Teachers Role	Facilitator, Guide	a. The teacher facilitated students in introducing the multimodal method in language teaching. b. Teacher guided students in learning to read English text using digital storytelling.

Challenges Observed	Technical Issues	a. There was an unstable signal for a few minutes during the second meeting. b. Internet connection was from teacher’s handphone hotspot. c. In the third meeting, there was an electric-off for about ten minutes. The meeting was entirely in 90 minutes.
Students Feedback	Active learning	Several students actively asked questions when encountering challenging parts of the story. They raised their hands or leaned towards vocabulary, plot details, or cultural references than were unfamiliar to them.
Impact on Reading Comprehension	Positive and significant impact	Overall, students found it relatively easy to understand the contents of the digital storytelling text. The combination of visuals, audio narration, and interactive elements facilitated comprehension and made abstract concepts more accessible.
Overall Effectiveness	Effective	Students perceived learning through digital storytelling as more effective and efficient than traditional aids, audio support, and interactive features that enhanced their understanding and engagement with the content.
Additional Notes	Student’s curiosity	In the last meeting, students appeared enthusiastic and optimistic about learning through digital storytelling. They showed eagerness to explore new stories and interact with multimedia elements, indicating enjoyment and immersion in learning. They asked for permission to explore the platform using the teacher’s laptop

b. Think-Aloud Protocols:

Prompt learners to verbalize their thoughts while engaging with digital storytelling content. Then, encourage reflection on comprehension strategies and reactions to the storytelling elements. Record audio or video of think-aloud sessions and capture learners' verbalizations, comments, and observed interactions. The observer transcribed think-aloud recordings and highlighted and annotated critical statements, strategies, and insights related to reading comprehension.

Structured questionnaires will be administered to learners after they have engaged in digital storytelling. Include items on perceived comprehension improvement, enjoyment, and preferences for digital storytelling elements. There were

d. Interviews:

Conduct structured interviews with participants to explore their experiences and perceptions in depth. It was made in Indonesian language because it is so hard for learners to understand it in English.

Table 2. Think-aloud Protocol Data

Meeting	Text Title	What is the text about?	What is the purpose of the text?	What tenses are mostly used in the text?	Retell the story of the text in your own words!
Meeting 1 June 9, 2023	The Tale of a Naughty Kitten	Just SN, as a high scorer, could answer it.	Just SN, as a high scorer, could answer it.	SN and DD pointed out the second verbs “lived,” “saw,” and “named.”	Although students worked in groups, only DD could answer by replaying the show
Meeting 2 June 10, 2023	Where is My Mom	SN and DD could answer it.	SN and DD could answer it	SN and DD could answer it	SN and DD could answer it
Meeting 3 June 11, 2023	I Will Never Use Math	SN, DM, DD, and RM could answer it	SN, MA, DD, DN, and RM could answer it	Many students mentioned the second verbs	All groups wanted to explain the story in Indonesian and Sundanese.
Meeting 4 June 12, 2023	Some Day I Will Cook Like Her	Many students raised their hands to mention the content of the text	Most high-scoring students could explain the purpose of the text	RM wanted to mention the verbs, but it must be corrected. High-scoring students mention the past tense form correctly	All groups wanted to retell the story in their style. They expressed correctly.

3. Interview guidelines

For students (after implementing digital storytelling)

- Pernahkah kamu mendengar istilah digital storytelling sebelumnya* (Have you heard the term digital storytelling before)?
 Ya (yes) Tidak (no)
- Apa perbedaan pembelajaran reading comprehension menggunakan digital storytelling dengan yang menggunakan metode konvensional* (What is the difference between learning reading comprehension using digital storytelling and using conventional methods)?
- Bagaimana pendapatmu tentang pembelajaran menggunakan digital storytelling dalam memahami reading text* (What do you think about learning to use digital storytelling in understanding reading texts)?
- Menurutmu manakah yang lebih mudah dipahami, reading text biasa ataukah reading text menggunakan digital storytelling* (Which do you think is easier to understand, reading printed text or reading text using digital storytelling)?

c. Questionnaires:

- e. *Menurutmu, adakah kekurangan dari penggunaan digital storytelling* (In your opinion, are there any drawbacks to using digital storytelling)?

4. Ethical Consideration

Ethical research practice involves safeguarding participants' rights and ensuring that the research contributes positively to the field and society (APA, 2020). In qualitative research, where data collection often involves interviews, observations, or case studies, observers must navigate complex issues related to consent, confidentiality, and potential emotional impact (Sanjek, 1990). The observer presents the name of the site and participants using initial names.

5. Data Analysis Procedure

The in-class observation, think-aloud protocol, and interview transcriptions were transcribed and analyzed using thematic analysis by Virginia Braun and Victoria Clarke (2012). The steps are as follows:

1. Familiarization with the data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

The observer systematically analyzed qualitative data gathered through observation, think-aloud protocols, questionnaires, and interviews to deepen learners' understanding of how digital storytelling impacts reading comprehension and identify effective educational strategies.

RESULTS AND DISCUSSION

Results

Based on the qualitative research findings using instruments: in-class observation, think-aloud protocol, questionnaire, and interview, the following discussions can be drawn to answer the following research questions:

1. How to improve EFL reading comprehension through digital storytelling?

Through in-class observations and think-aloud protocols, it was observed that digital storytelling effectively engages students in the reading comprehension process. Learners demonstrated increased attentiveness and interactive participation when digital storytelling methods were employed. The visual and auditory elements of digital stories appeared to aid in comprehension by providing context, enhancing understanding of content and linguistic features, and reinforcing critical concepts through multimedia reinforcement.

We, especially learners, explored how digital storytelling can transform how we learn reading comprehension. It was fascinating to see how different media—like videos, images, and interactive elements—were woven together to create engaging narratives. Instead of just reading text, we were immersed in a multimedia experience that challenged us to interpret information from various perspectives.

One thing that stood out was how digital storytelling made complex ideas more accessible. For example, seeing a story depicted through images, text overlays, and sound effects helped me grasp the context and emotions better than reading a textbook. It felt like we were part of the story, actively piecing together details from different media to understand the whole picture.

Moreover, digital storytelling encouraged us to think critically about the choices made when presenting information. SN, as the high-scorer learner argued,

“... bu, ini sesuatu yang baru. Kata-kata pada teks diwakili oleh gambar, jadi saya tidak terlalu pusing meski tidak tahu terjemahannya. (ma'am, it is new for me. Pictures represented the words, so I am confident with the meaning) ...”

We discussed how the selection of images, the pacing of the narrative, and even the background music influenced our understanding and emotional response. In the second meeting, RM, as a low-scorer learner, said,

“... Saya sedih melihat kelinci kecil yang kehilangan ibunya. Serasa hoyong ngabantuan pangneangankeun. (I was sad seeing the little rabbit who lost her mom. I wanted to help her) ...”

It was a reminder that effective communication is about conveying information and crafting an experience that resonates with the audience.

Learners felt the power of digital storytelling in enhancing reading comprehension. It is not just a tool for learning; it is a way to engage deeply with content, connect with ideas on multiple levels, and develop a more nuanced understanding of the material. The learners paid full attention to the learning time. As the observer, the teacher looked forward to exploring more stories and discovering how each can expand our perspective and improve her EFL learners' comprehension skills.

The think-aloud protocol sessions offered a window into learners' cognitive processes during digital storytelling activities. Participants verbalized their thoughts and reactions while interacting with digital stories, revealing insights into their comprehension strategies, emotional responses, and overall engagement with the material. Common themes included using visual cues to infer meaning, the impact of multimedia elements on

understanding, and the role of personal experiences in connecting with the narratives. Learners often highlighted the storytelling format as conducive to enhancing their understanding of complex language structures and cultural nuances embedded in the narratives.

a. Content of the text:

During the think-aloud protocol, SN (a high-scorer learner) found herself dissecting the content of the digital storytelling piece. The teacher paused to analyze how each image and video clip contributed to the narrative. SN said,

“.... bu, asa langsung ngartos eusina, padahal teu terang artina (ma’am, I understood glancingly without knowing the translation)”

She told the whole of the story about the naughty kitten.

“..... isinya menceritakan tentang anak kucing nu nakal namina Beauty. Dia merasa paling cantik sehingga menganggap rendah teman-temannya. (it discussed about the naughty kitten named Beauty. She felt very beautiful. She ignored her friends)”

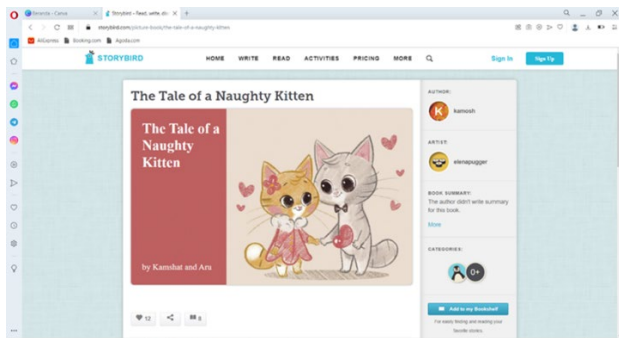


Figure 3. Narrative Text

In the last in-class observation, the low-scorer student, DN, is brave enough to explain the content about the experience of a girl. He told

“..... ceritana tentang seorang gadis nu hoyong jiga ibuna. Kunaon bet kitu, karena pengalamanna membuat kue khas daerahna. Ibuna pinter ngadamel kue mani anak pisan. (That story was talking about a girl who wanted to be like her mother. This because of her cooking experience in making delicious traditional cake).

Although learners expressed their thoughts in their mother tongue, this was correct. It made her appreciate how multimedia elements can enhance understanding beyond mere words.

b. Purpose of the text:

Reflecting on the purpose of the text, DM noticed how each scene was crafted to evoke specific emotions or convey critical messages. For example expression,

“... greget ka ucing nu eta, bu. hmmm Saya akan menjelaskan tujuan dari teks pada tayangan tersebut adalah untuk mengingatkan bahwa kita tidak boleh sombong. Karena dibalik kekurangan orang lain, ada kebaikan yang tidak terhingga. (I am annoyed with the naughty kitten, ma’am. Hmmm We must not be arrogant, because behind other people’s shortcomings, there is infinite goodness).

It changed the tone from suspenseful to heartwarming, guiding his emotional response and reinforcing the central themes. By knowing the content, he could tell the purpose of the text. This made him realize that digital storytelling is about presenting information and creating an immersive experience that aligns with the author's intentions and engages the audience deeply.

c. The tense primarily used in the text:

Throughout the digital storytelling experience, SN, high-scorer students, observed that the narrative predominantly used the past tense. In the digital storytelling show about the tale of a naughty kitten, she mentioned the words “lived,” “had,” “saw,” and “named” are words related to past tense. She told,

“.... Dongeng biasanya berbentuk masa lalu jadi kata yang dipergunakan bentuk past tense, kata kerja kadua, bu. (The tale is usually in the form of past, so words in the second verbs, ma’am)”

This choice helped establish a sense of continuity and progression in the story, making it feel like a cohesive journey rather than a series of disconnected events. It made her consider how tense can influence storytelling and how digital media allows for fluid transitions between past, present, and future perspectives.

d. Retelling the Story:

Recounting the story through the think-aloud protocol was enlightening. DD, MA, and DM focused on summarizing the main events and key messages, ensuring they captured the essence of each scene. They, with their groups, could explore the whole text in the show.

Overall, the think-aloud protocol illuminated how digital storytelling can enrich reading comprehension by encouraging us to engage actively with multimedia elements, discern the author's intent, and appreciate the narrative structure and tense choices. It highlighted the versatility of digital media in conveying complex ideas and emotions, transforming learning into a dynamic and immersive experience.

In the last in-class observation, learners paid full attention. They paid attention to the show in the interesting video in

recount text. Figure 3 shows digital storytelling in recount text.

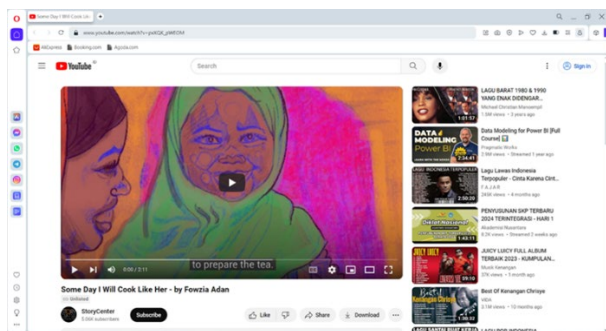


Figure 4. Recount Text

Interviews with learners highlighted that integrating digital storytelling into reading instruction promotes critical thinking skills and encourages learners to make connections between text and visuals. Additionally, the adaptability of digital storytelling enables customized learning experiences based on the interests and learning preferences of students. The Miller (2006) is relevant here. Digital storytelling would allow students to creatively and individually convey what they have learned from a text, he said, enhancing comprehension in general.

Interviewees unanimously agreed that digital storytelling significantly increased learners' engagement and interest in reading comprehension activities. They observed that multimedia elements such as images, animations, and interactive features captured their attention and motivated them to participate actively in learning activities.

Interviewees noted that digital storytelling helped learners grasp complex ideas and themes more effectively. By presenting information through multiple modalities—visuals, audio, and textual elements—the stories provided different entry points for understanding, catering to diverse learning preferences and abilities.

2. What is the EFL learner's opinion about digital storytelling to improve reading comprehension?

Data gathered through questionnaires and interviews indicated a predominantly positive reception among learners towards digital storytelling as a tool for learning reading comprehension. Learners appreciated digital stories' engaging and immersive nature, making complex texts more accessible and enjoyable. Many learners expressed that digital storytelling helped them visualize story elements, understand character motivations, and remember critical details more effectively than traditional methods. As Robin (2006) stated, digital storytelling can engage learners in language learning.

The in-class observation provided valuable insights into how digital storytelling was implemented and received in the EFL (English as a Foreign Language) classroom. Key observations included learners' engagement levels during

digital storytelling sessions, interaction with the digital materials, and comprehension of the stories presented. It was noted that learners generally exhibited higher engagement and enthusiasm when digital storytelling was integrated into the lesson plan compared to traditional reading exercises. This engagement was particularly evident during digital and text elements.

The questionnaire aimed to gather data on learners' perceptions and attitudes towards digital storytelling to improve EFL reading comprehension. Findings indicated that most learners perceived digital storytelling positively, citing enhanced motivation, improved understanding of vocabulary and grammar, and increased cultural awareness as significant benefits. Many learners preferred digital storytelling over traditional reading exercises due to its interactive nature and ability to cater to different learning styles. Feedback on specific aspects such as storyline coherence, audio-visual quality, and user interface also provided valuable insights for further refining instructional design. Detailed elaboration of learner's opinions in common emerging themes in in-class observation and think-aloud, and in questionnaire and interview are as follows:

3. Enhanced Engagement

In the questionnaire, over 86% expressed that digital storytelling increased their engagement with reading materials. They noted that multimedia elements such as videos, images, and interactive features made the stories more compelling and accessible than traditional text-only formats.

Many interviewees in interview sessions emphasized the emotional impact of digital storytelling. They observed that multimedia elements such as expressive visuals and sound effects helped evoke empathy towards characters and situations portrayed in the stories, enhancing emotional engagement and empathy.

4. Improved Comprehension

Most participants in the interview and questionnaire reported that digital storytelling enhanced their understanding of complex ideas and themes. They found that visual aids and interactive elements helped clarify critical concepts and emotions portrayed in the stories, leading to a deeper comprehension of the text. Also, in the last in-class observation, especially in the think-aloud protocol session, all low-scoring learners could express the whole content of the text and retell it to their friends, although in their mother tongue.

Most learners were very enthusiastic from the first until the fourth meeting of the in-class observation meeting. Actually, SN is a high-scoring student who is interested in the learning process from the beginning. While the other students adapt this method gradually.

5. Emotional Impact

Around 70% of respondents indicated that digital storytelling evoked more robust emotional responses than conventional reading methods. They noted that multimedia elements such as expressive visuals and character interactions heightened their emotional engagement and empathy toward the story.

6. Preferred Learning Style

A notable finding was that 92% of participants identified digital storytelling as their preferred method for learning reading comprehension. They appreciated the multimedia approach's ability to cater to diverse learning styles and provide a more immersive and personalized learning experience.

7. Challenges and Considerations

Despite the overall positive feedback, approximately 40% of respondents highlighted challenges such as potential distractions from excessive multimedia stimuli or technical issues with interactive features. Some also expressed concerns about the authenticity of the learning experience compared to traditional text-based learning.

Interviewees acknowledged challenges, such as the need for technical support and resources to create and implement high-quality digital stories. They also mentioned concerns about ensuring accessibility for all learners, including those with diverse learning needs or limited access to digital devices.

8. Educational Value

Most (91%) in questionnaire agreed that digital storytelling has significant educational value in enhancing critical thinking and creativity. They believed that analyzing multimedia narratives encouraged them to think more deeply about the author's intent, narrative structure, and thematic development.

Interviewees discussed integrating digital storytelling into the curriculum, noting its potential to complement traditional teaching methods and enrich literacy instruction. They expressed that the text in digital storytelling is more understandable than printed text. They emphasized the importance of aligning digital storytelling activities with learning objectives and ensuring they support broader educational goals.

Some interviewees expressed a need for professional development opportunities to enhance their skills in creating and effectively using digital storytelling in educational settings. They identified training in multimedia production, storytelling techniques, and curriculum integration as valuable areas for professional growth.

9. Future Interest and Exploration

A promising finding was that 100% of respondents expressed interest in exploring more digital storytelling resources for learning. They expressed curiosity about discovering other digital storytelling and multimedia platforms that could further enrich their reading comprehension skills.

Several interviewees highlighted that digital storytelling encouraged learners to think critically about the narrative structure, character motivations, and thematic elements. Analyzing multimedia narratives prompted deeper discussions and reflections, fostering analytical skills crucial for comprehending and interpreting texts.

In-depth interviews with learners provided nuanced perspectives on the effectiveness of digital storytelling in achieving educational objectives. Learners learned digital storytelling at first. They were enthusiastic about seeing text with pictures, sound, and animation. The observer as a teacher highlighted the adaptability of digital storytelling to diverse classroom settings and its potential to foster collaborative learning environments. The observer emphasized the role of digital storytelling in promoting comprehension of reading text skills and encouraging peer interaction. Learners echoed these sentiments, noting that digital storytelling improved their reading comprehension and confidence in using English communicatively. Most learners expressed it. Moreover, interviews revealed practical considerations such as technological accessibility, especially the internet connection. Besides that, learners wanted all English teachers in our school to use digital tools to enhance reading comprehension. There is a need for adequate teacher training to maximize the benefits of digital storytelling in EFL instruction.

The interviews underscored the positive impact of digital storytelling on learning reading comprehension, highlighting its ability to enhance engagement, deepen understanding, and foster critical thinking skills among students. However, effective implementation requires addressing technical challenges, ensuring accessibility, and providing ongoing support and training for teachers.

Overall, the findings suggest that digital storytelling holds great potential for enhancing reading comprehension by fostering engagement, improving understanding of complex content, and eliciting strong emotional responses. However, teachers should be mindful of balancing multimedia elements to avoid overwhelming learners and ensure that the educational integrity of the content is maintained.

Discussion

Pedagogical Implications

The findings underscore the pedagogical value of digital storytelling in enhancing EFL reading comprehension. By integrating multimedia elements and interactive features,

digital storytelling can cater to diverse learning styles and engage students more effectively than traditional methods. These findings relate to the concept of multimodal theory. Kress (2003) investigated the relationship between literacy practices and technology. He discussed how digital tools and platforms make new forms of expression and communication possible and how these innovations impact people's literacy practices and abilities. This influenced the students' motivation and engagement, as stated in motivation and engagement theory by Deci & Ryan (2000).

Cognitive Processes and Learning Strategies

Insights from the think-aloud protocol highlight how digital storytelling influenced cognitive processes during reading comprehension. These findings are also related to Bandura's social learning theory. Bandura (1977) argued that cognitive functions are essential to learning. He observed how people's thoughts and interpretations of their observations impact their behaviour. This viewpoint combined behaviour (using digital tools) and cognitive (comprehension) strategies.

The previous researchers, Mayorga et al. (2022), also revealed that digital narratives become a didactic tool that can improve reading comprehension, especially for ESL children in their first year of learning. Then, Fu et al. (2021) stated that a specific DST tool facilitates learning engagement in the learning process and improves speaking abilities.

Practical Considerations

While the benefits of digital storytelling for EFL reading comprehension are evident, practical considerations such as technological accessibility and instructional design are crucial for successful implementation. Kress (2003) examined how people and groups create communication practices that are appropriate to their goals and needs. He highlighted the significance of design in meaning creation, pointing out how decisions about color, layout, and multimedia components impact how texts are understood.

According to Vygotsky (1978), social interaction is a crucial component of cognitive development. Higher-order cognitive processes like reasoning and problem-solving start in social settings before internalizing into the person. Interaction with adults with excellent knowledge, such as parents, teachers, and peers, is also crucial.

Future Directions

Future research could explore the longitudinal effects of digital storytelling on language proficiency development and academic achievement in EFL contexts. Additionally, comparative studies could investigate the differential impact of various digital storytelling formats and platforms on learner engagement and learning outcomes. By addressing these areas, educators and researchers can

further enhance the efficacy of digital storytelling as a pedagogical tool for improving EFL reading comprehension and advancing language education practices globally.

CONCLUSION

In conclusion, The results of this study clearly demonstrate how effective digital storytelling is in teaching reading comprehension through both visual and auditory components. Digital storytelling's revolutionary potential in improving EFL reading comprehension was highlighted in this study.

The observer (teacher) and learners recognize its potential to improve engagement, facilitate understanding of complex texts glancingly, and promote interactive learning experiences. By integrating multimodal elements, promoting interactive engagement, and fostering cognitive and linguistic development, digital storytelling becomes a promising approach to enriching new language learning experiences. Implementing digital storytelling in educational settings holds promise for transforming traditional reading instruction into a dynamic and practical pedagogical approach suited to the digital age. Even as educational technologies continue to evolve, embracing innovative practices such as digital storytelling can empower teachers to cultivate a dynamic and inclusive learning environment conducive to achieving meaningful learning outcomes in EFL education.

REFERENCE

- American Psychological Association. (2020). *Publication Manual of The American Psychological Association* (7th ed.). APA.
- Baker, D. P. (2018). *The Schooled Society: An Introduction to The Sociology of Education*. Oxford University Press.
https://books.google.co.id/books/about/The_Schooled_Society.html?id=NqY8tAEACAAJ&redir_esc=y
- Bandura, A. (1977). Social Learning Theory. Prentice-Hall Google Scholar.
https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Bandura%2C+A.+%281977%29.+*Social+Learning+Theory*.*Prentice-Hall.&btnG=
- Braun, V. & Clarke, V. (2012). *Thematic Analysis*. Washington DC: American Psychological Association.
https://www.researchgate.net/publication/269930410_Thematic_analysis

- Burgess, J. (2006). Hearing ordinary voices: Cultural studies, vernacular creativity, and digital storytelling. *Continuum: Journal of Media & Cultural Studies*, 20(2), 201–214.
- Cárdenas, M. L., Delgado-Kloos, C., & Muñoz-Merino, P. J. (2017). Combining digital storytelling and learning analytics to improve writing skills. *Journal of Computer Assisted Learning*, 33(5), 479-491.
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative Inquiry: Experience and Story in Qualitative Research*. Jossey-Bass.
- Creswell, John W. (2010). *Qualitative, Quantitative, and Mixed Methods Approaches*. 4th edition. Sage Publication, Inc. https://books.google.co.id/books?id=4uB761C_pOQC&printsec=copyright&hl=id#v=onepage&q&f=false
- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing among Five Approaches (3rd Ed.)*. Sage.
- Drajati, N. A. (2022). *Pembelajaran Bahasa Inggris dengan Desain Digital Storytelling: Teori dan Praktek*. Dapur Kata. Bangka Belitung.
- Ferdig, R. E. (Ed.). (2013). *Handbook of Research on Effective Electronic Gaming in Education*. IGI Global.
- Flewitt, R. (2005). Conducting research with young children: Some ethical considerations. *Early Child Development and Care*, 175(6), 553–565.
- Fu, J.S., Yang S. H., Yeh, H.C., (2021). Exploring the impacts of digital storytelling on English as a foreign learner's speaking competence. *Journal of Research on Technology in Education*, vol. 54, No. 5, 679-694. <https://doi.org/10.1080/15391523.2021.1911008>
- Guest, I. (2013). The emergence of social media as a research tool: A literature review. *The Qualitative Report*, 18(1), 1-14.
- Jahandar, S., Khodabandehlou, M., Seyedi, G., & Abadi, R. M. D. (2012). The think-aloud method in EFL reading comprehension. *International Journal of Scientific & Engineering Research*, 3(9), 1-9. https://www.researchgate.net/profile/Gohar-Seyedi/publication/232660468_The_Think-aloud_Method_in_EFL_Reading_Comprehension/links/0fcfd50898638d9320000000/The-Think-aloud-Method-in-EFL-Reading-Comprehension.pdf
- Jati, A. G. (2018). *Innovation in ELT (BMP)*. Tangerang: Universitas Terbuka
- Jewitt, C. (2014). *Multimodal Methods for Researching Digital Technologies*. In S. Price, C. Jewitt, & B. Brown (Eds.), *Sage Handbook of Digital Technology Research* (pp. 187–202). Sage.
- Kress, G., & van Leeuwen, T. (2006). *Reading Images: The Grammar of Visual Design*. Routledge.
- Kress, G. (2010). *Multimodality: A Social Semiotic Approach to Contemporary Communication*. Routledge. <https://www.routledge.com/Multimodality-A-Social-Semiotic-Approach-to-Contemporary-Communication/Kress/p/book/9780415320610>
- Lambert, J. (2018). *Digital Storytelling: Capturing Lives, Creating Community (4th Ed.)*. Routledge. <https://www.routledge.com/Digital-Storytelling-Capturing-Lives-Creating-Community/Lambert-Hessler/p/book/9781138577664>
- Mayorga, K., Arias-flores, H., & Ramos-galarza, C. (2022). Digital storytelling to help improve reading comprehension. *AHFE International*, vol. 52, 419-423. https://openaccess.cms-conferences.org/publications/book/978-1-958651-28-5/article/978-1-958651-28-5_52
- Miller, J. L. (2006). *Digital Storytelling: A Creator's Guide to Interactive Entertainment*. Focal Press.
- Ohler, J. (2008). *Digital Storytelling in The Classroom: New Media Pathways to Literacy, Learning, and Creativity*. Corwin Press. https://www.researchgate.net/publication/281562462_Digital_Storytelling_in_the_Classroom_New_Media_Pathways_to_Literacy_Learning_and_Creativity
- Pautasso, D. (2013). Is digital storytelling a learning tool? Critical analysis of its pedagogical affordances. *Media International Australia*, 149(1), 19–28.
- Robin, B. R. (2006). *The Educational Uses of Digital Storytelling*. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2006* (pp. 709–716). Association for the Advancement of Computing in Education (AACE).
- Robin, B. R. (2008). Digital storytelling: A powerful technology tool for the 21st-century classroom. *Theory into Practice*, 47(3), 220–228. https://www.researchgate.net/publication/249901075_Digital_Storytelling_A_Powerful_Technology_Tool_for_the_21st_Century_Classroom

- Robin, B. R. (2016). *The Power of Digital Storytelling to Support Teaching and Learning*. Digital Education and Learning Series. IGI Global. <https://files.eric.ed.gov/fulltext/EJ1125504.pdf>
- Sanjek, R. (1990). *Fieldnotes: The makings of Anthropology*. Cornell University Press.
- Scolari, C. A. (2009). Transmedia storytelling: Implicit consumers, narrative worlds, and branding in contemporary media production. *International Journal of Communication*, 3, 586-606. <https://ijoc.org/index.php/ijoc/article/view/477>
- Soares, M. A. (2020). *It is Understanding Multimodal Digital Literacy in Education*.
- Tseng, J. J., Chu, H. C., Hwang, G. J., & Tsai, C. C. (2008). Development of an adaptive learning system with two sources of personalization information. *Educational Technology & Society*, 11(1), 194-210. https://www.researchgate.net/publication/223187051_Development_of_an_adaptive_learning_system_with_two_sources_of_personalization_information
- Unsworth, L. (2006). *Multiliteracies, E-Learning, and The Future of Education*. New York: Routledge. https://www.researchgate.net/publication/249024696_Multiliteracies_E-literature_and_English_Teaching
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard. https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Vygotsky%2C+L.+S.+%281978%29.+*Mind+in+Society%3A+The+Development+of+Higher+Psychological+Processes*.+Harvard+University+Press.&btnG=
- Zainuddin, Z., & Perera, C. J. (2021). Digital storytelling in EFL reading comprehension: The effects on students' understanding and motivation. *Language Learning & Technology*, 25(2), 103-125.