

## EFL Pre-Service Teachers' Experiences in Speaking through Digital Storytelling Project

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### ABSTRACT

This study delves into the experiences of EFL pre-service teachers engaging in a digital storytelling project to practice their speaking, with a focus on exploring significant learning outcomes through Fink's 2003 theory. This qualitative case study utilized semi-structured interviews and project reports as instruments, collecting data from five EFL pre-service teachers at Mulawarman University Samarinda through purposeful sampling. Thematic analysis was employed to analyze the data. Four major themes emerged from the data's thematic analysis, which encompassed the experiences of the participants: participation in the process of creating digital stories, focused speaking exercises, integration of other language abilities, and self-evaluation techniques. These themes also brought attention to the participants' learnings about digital storytelling for public speaking, the difficulties they faced, and the spectrum of emotions they went through. Furthermore, the significant learning outcomes they experienced were marked by an improvement in speaking skills and the establishment of speaking habits. Participants also gained insight into the relationship between activities such as writing scripts, recording, and reading for text reviews, all of which contributed to practicing their speaking. This project fosters self-awareness, enhances understanding of others, and instils an interest in undertaking similar projects in the future. Demonstrated ongoing learning highlights the impact of digital storytelling beyond technical skills, serving as a valuable tool for speaking practice.

**Keywords:** EFL pre-service teachers; digital storytelling; speaking practice

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### INTRODUCTION

As students and prospective teachers, EFL pre-service teachers require strong communication skills in delivering content and responding to students. On the other hand, it is challenging for foreign language learners to find opportunities to practice their speaking skills (Adam, Abid, & Bantulu, 2021; Jaca & Javines, 2020). On the other hand, it can be difficult for language learners, particularly those learning the extra language as a foreign language to find chances to practice their speaking and interpersonal skills in the target language. Individual speaking practice is often limited in the classroom and might be difficult to find someone to talk to outside of class (Maranatha, 2023; Timpe-Laughlin et al., 2020).

According to Fu et al. (2021), Digital storytelling is an innovative method designed to enhance the speaking skills of EFL learners. Utilizing digital devices and software, this approach offers learners access to images and storylines, facilitating the creation and narration of their own stories. Learners also have the ability to record their stories, enabling them to review and assess their storytelling later on. This interactive approach not only aids in language development but also fosters creativity among learners.

In earlier studies, it has been shown that digital storytelling has a positive influence on language skills. For instance, Tanrikulu (2020) conducted a study on students' views regarding collaborative digital storytelling and found that it can enhance their writing abilities. Additionally, it also has a positive impact on improving listening skills (Moradi & Chen, 2019). Furthermore, Simsek (2020) focused on digital storytelling made by pre-service EFL teachers as a group and examined the significant learning outcomes for EFL preservice teachers in creating digital storytelling on their writing performances to find out what important things the students learned that will help them become better teachers in the future.

Focusing on the enhancement of oral skills in EFL learners, the creation of digital stories, as observed by Yang et al. (2020), positively affected various aspects such as pronunciation, organizational skills, technical proficiency, and research capabilities. Furthermore, Fu et al. (2021) found that learners made notable progress in their speaking competence, particularly in terms of fluency and language use. However, alongside these positive experiences, pre-service teachers also face challenges when creating digital storytelling which include issues with copyright, limited availability of support for developing story structures, and a lack of user-friendly DST tools with technical support. In contrast to previous studies that focused on the broad effects of digital storytelling on language skills and technical challenges, this research specifically examines the experiences of EFL pre-service teachers in creating digital storytelling individually for speaking practice. To address this gap, this study draws on the significant learning theory proposed by L. Dee Fink. It aims to uncover speaking experiences and significant learning outcomes they get as creators in this process. By narrowing the focus to EFL pre-service teachers, the study provides insights into how digital storytelling can be effectively incorporated into language teacher education programs.

Digital storytelling, among other technologies, integrates the art of storytelling with numerous multimedia resources such as video, images, music, graphic art, and spoken word (Stenhouse & Schafer, 2019). Frazel (2010) divided the lengthy process of creating and telling story into three stages: preparation, production, and presentation. Similarly, the steps to create digital storytelling are listed by Cennamo et al. (2010) as script writing, constructing a storyboard, finding pictures, digital storytelling creation, and sharing it with others. These five stages open up the 3 phases described by Frazel. With the activity of making digital storytelling, students learn how to design their stories (Fu et al., 2021). Apart from learning to design their stories, students also learn how to increase their knowledge of vocabulary because the vocabulary search activities during the making are carried out repeatedly (Hava, 2019; Sam & Hashim, 2022). Students also learn to speak relevant information more clearly and concisely (Mirza, 2020). Moreover, Sam and Hashim (2022) found that creating digital storytelling gives students the most opportunities to practice speaking English, followed by a recording and re-recording process that assists them in learning to speak English effectively. It helps students learn new words and know how to utilize them when speaking. Besides that, being able to re-record what they are talking about makes them more confident in speaking. Similarly, according to Yang et al. (2020), through the process of recording narratives to create digital storytelling students' fluency and accuracy in speaking English improve. In addition, the activity of creating digital storytelling indicates an increase in vocabulary choice and pronunciation in students' speaking skills. Because there are activities

that can be repeated and can be edited from digital storytelling activities students can learn from their mistakes (Bobkina & Romero, 2020).

Furthermore, the DST (Digital Storytelling) provides a valuable and significant learning experience. It improves students' skills in using multimedia and visuals, and it helps them express themselves more effectively by expanding their reach to a wider audience and enhancing the quality of their communication (Moradi & Chen, 2019). Consequently, Fink taxonomy of significant learning in 2003 was used in the current study as conceptual framework. According to Fink (2003), learners have difficulties understanding the value or significance of what they learn; they learn a lot but do not learn what they need to learn. If learners are challenged and achieve anything that may be labeled "significant learning," the learning experience has been good. Fink categorizes significant learning into six categories: foundational knowledge, application, integration, human dimension, caring, and learning how to learn.

A significant learning experience leads to various positive outcomes. One outcome is the acquisition of foundational knowledge, where learners gain a solid understanding of the subject's phenomena and the conceptual ideas behind them. Another outcome is the ability to apply and think about the new knowledge in diverse ways, which helps learners develop important skills. Integration is another outcome, enabling learners to connect different bodies of knowledge and ideas, resulting in a comprehensive understanding of the subject. The human dimension outcome involves personal growth and improved interaction with oneself and others, fostering empathy and effective communication. Caring is an outcome that involves the development of new interests, emotions, and values, fostering a deeper connection and engagement with the learning process. Lastly, the outcome of learning how to learn equips individuals with the knowledge, skills, and strategies necessary to continue learning independently even after the course ends, enabling lifelong learning. These outcomes collectively contribute to a transformative and holistic learning experience (Fink, 2013).

Simsek's 2020 study applied the significant learning taxonomy to investigate the influence of significant learning outcomes on the writing performance of participants engaged in digital storytelling. Building upon this framework, our current research extends the exploration of significant learning outcomes, focusing specifically on participants' speaking practice during the creation of digital storytelling. While previous studies, such as those by Fu et al. (2021), Yang et al. (2020), and James et al. (2019), have examined the speaking skills of EFL and ESL students in digital storytelling activities, our study differs in its emphasis. Rather than solely concentrating on improving speaking skills, we delve deeper into the experiences of EFL pre-service teachers, examining how digital storytelling creation serves as a medium for significant learning outcomes, particularly in the context of speaking practice. Concerning the background of the study above there are two research questions that are going to be answered:

1. What experiences do EFL pre-service teachers get in speaking through digital storytelling project?
2. What significant learning outcomes do EFL pre-service teachers experience when they create digital storytelling for speaking practice, based on Fink's Taxonomy of Significant Learning?

## **METHOD**

The current research approach is qualitative, with a case study design. Qualitative approaches rely on text and visual data, involve distinct data processing procedures, and employ a variety of designs (Creswell, 2014). Case studies are a type of inquiry seen in many domains, particularly evaluation, in

which the researcher produces an in-depth analysis of a case, which is frequently a program, event, activity, process, or one or more persons (Creswell, 2014).

Participants are chosen using criterion purposeful sampling. The produced sample is homogeneous in terms of the chosen criteria and is especially beneficial for investigating a phenomenon in depth (Flick, 2018). In this context, participants are selected based on four criteria: First, because this research examines experiences in making digital storytelling independently and not in groups, the first criterion is that they have created a digital storytelling project individually. Next, they have a project report on the creation of digital storytelling, being willing to participate in the research, and having a DST video lasting between three to five minutes. This length, according to Göksün and Gürsoy (2022) is widely accepted as the duration of digital storytelling. In order to check the length of the participants' digital storytelling videos, they were requested to provide the link to their digital storytelling project. This served the purpose of both verifying their previous experience in creating digital stories and confirming the duration of their video. Furthermore, the project report is also essential as it acts as a valuable source of data for the study. Consequently, the researcher intentionally selected five pre-service teachers who met the specified criteria. These individuals are enrolled in the B classes of 2019 and 2020 within the English Department at the Faculty of Teacher Training and Education, Mulawarman University. To protect their privacy, pseudonyms have been assigned to these five participants in the present study. They are Nami, Vivi, Reva, Meli, and Hana.

The project reports and digital storytelling videos that were gathered from 5 pre-service teachers were subsequently utilized as evidence for the research. Following this, the researcher conducted semi-structured interviews. These interviews were structured based on Significant Learning Theory by L. Dee Fink in 2003 (*see the appendix*). They delved into the experiences of pre-service teachers and the significant learning outcomes they had acquired through the creation of digital storytelling for their speaking practice. Each interview lasted approximately 20 minutes for every participant. The interviews were recorded using a voice recorder. All outcomes were obtained with the participants' consent and documented by the researcher. The transcripts' results were then compiled into a folder accessible only to the researcher.

The data analysis technique used in this study is thematic analysis and the researcher used QDA Miner Lite tools to help the coding process of the data. According to Braun and Clarke (2006), thematic analysis is a technique for detecting, interpreting, and reporting themes in data. It organizes and explains the data collection in detail. There are six phases of thematic analysis, namely familiarizing the data, generating initial codes, searching for themes, reviewing themes, defining themes, and producing the report.

## **FINDINGS**

Each theme derived from the interview data and project report reflects the participants' various experiences and significant learning outcomes. There are a total of nine distinct themes emerging from both sources.

### **Acquiring knowledge about digital storytelling for speaking practice**

Participants in the current study have demonstrated an understanding of digital storytelling as a tool for practicing their speaking skills. Vivi's acknowledgment that "*Digital storytelling can also help me develop my speaking skills by practicing making scripts and videos*" illustrates this perspective. Engaging in scriptwriting and video production tasks, components of digital storytelling, aids in

enhancing speaking skills, as Vivi exemplifies. Moreover, participants expressed their desire to convey words effectively in their stories, as Reva indicated: *"By creating digital storytelling, we learn to determine which visuals are suitable for these words... and convey selected words in English so that they are easily understood."* Similarly, Hana emphasized the role of digital storytelling in expanding vocabulary and improving fluency through creative word arrangement. Reva's efforts to align words with visuals and Hana's focus on diction highlight the vocabulary-enhancing aspect of digital storytelling. Furthermore, Nami and Meli underscored how digital storytelling fosters fluency and vocabulary expansion, with Meli emphasizing the iterative process of refining pronunciation and vocabulary through multiple takes. These insights suggest that participants recognize the beneficial relationship between digital storytelling activities and the enhancement of speaking skills, informed by their engagement in tasks such as scripting, media selection, practice, and recording.

### **Applying speaking skills**

The study reveals that participants engaged in speaking practice both during and after the digital storytelling creation process, drawing from their experiences in digital storytelling production. During the process, participants utilized various methods to enhance their speaking skills. For instance, Hana emphasized the importance of the recording process, noting that it aided in pronunciation improvement. Similarly, Meli and Vivi highlighted the significance of scriptwriting in refining pronunciation, fluency, and vocabulary. Moreover, participants practiced speaking to ensure clarity for their audience, as Reva exemplified by adjusting pronunciation and intonation. Additionally, Nami employed self-dialogue practice to improvise and enhance speaking skills. Furthermore, participants utilized supporting applications like Google Translate and YouTube to supplement their learning. Following the process, participants continued to refine their speaking skills in real-life scenarios. Vivi's use of Google Translate to practice pronunciation exemplifies this post-process practice. Additionally, participants improvised, memorized vocabulary, and engaged in repetition to further enhance their speaking abilities. Reva's adaptation of speaking strategies to suit different audiences showcases the application of skills learned through digital storytelling in real-world contexts. Overall, the findings underscore how participants utilized digital storytelling as a platform to hone their speaking skills, encompassing pronunciation, vocabulary, fluency, and intonation, both during and after the creation process. These insights exemplify the application of significant learning outcomes, as participants not only mastered digital storytelling techniques but also applied them effectively to improve their speaking abilities in practical settings.

### **Integrating language skills**

The participants in this study elucidated how the activities they undertook, which were related to other language skills, were intricately connected to their practice of speaking. Vivi emphasized the relationship between speaking, listening, and writing, noting that writing down her thoughts beforehand aided in organizing her storytelling direction. She stated, *"In my opinion, there is a relationship between speaking skills and other skills such as listening and writing. If we want to have good speaking, we also have to learn listening to practice it properly when creating digital storytelling. And I think writing down first what we want to talk about really helps me so I know what I'm going to talk about in creating digital storytelling."* Similarly, Nami affirmed the importance of writing scripts in clarifying her storytelling intentions, highlighting the interconnectedness of writing and speaking. Meli further underscored this interdependence, asserting that without prior writing and listening activities, engaging in speaking becomes challenging. These insights demonstrate that the participants recognized the

holistic nature of language learning, wherein various skills complement each other. Consequently, it can be concluded that the integration of activities such as writing, reading, and listening alongside speaking practice in digital storytelling fosters a more comprehensive language learning experience, illustrating significant learning 'integration'. Through this process, participants not only honed their speaking skills but also intertwined multiple language competencies, enriching their language learning journey.

### **Fostering self-understanding through challenges**

The study reveals that participants encountered various challenges during the creation of digital storytelling, such as understanding complex themes, pronunciation difficulties, intonation adjustments, word composition, and copyright concerns. Nami highlights the challenge of unfamiliar vocabulary and medical terms, emphasizing the learning opportunity it presents. She states, *"Because we were given the theme, 'mental awareness,' and the theme is somewhat related to ourselves, it is a bit challenging to understand what it really means, like what exactly 'mental awareness' refers to."* Meli addresses pronunciation challenges and overcomes them through practice using Google Translate. Similarly, Reva navigates pronunciation and intonation hurdles by incorporating pre-recording practice sessions. Additionally, Reva discusses challenges related to language selection and copyright issues, addressing them by tailoring language to her audience and utilizing her own voice. Hana discusses struggles with word structure but finds solutions by breaking down her thoughts and gradually connecting them. These challenges serve as valuable learning experiences, as Hana learns to express her thoughts more effectively through writing. Meli acknowledges the need for improvement in pronunciation, while Reva emphasizes continuous growth through media consumption in English. These challenges contribute not only to linguistic development but also to personal growth and self-discovery. Digital storytelling emerges as a catalyst for students to not only enhance their language skills but also to explore their inner strengths and potential for improvement. Through overcoming these obstacles, participants gain a deeper understanding of themselves and their capabilities, fostering personal growth and ongoing self-improvement.

### **Expressing emotions in speaking**

Participants exhibited a range of emotions during the creation of digital storytelling, including happiness, a sense of being helped, normalcy, and occasional ambiguity. Vivi expressed her enthusiasm and motivation, describing the activity as a confidence booster for speaking skills. She stated, *"I am very happy and highly motivated because, in my opinion, creating digital storytelling is very interesting for boosting self-confidence and speaking skills."* Her positive sentiment towards digital storytelling motivated her interest in engaging in similar activities in the future. Similarly, Reva and Meli acknowledged the benefits of digital storytelling, feeling assisted in improving their speaking abilities and expressing interest in further participation. Reva noted, *"It felt quite helpful because we spent a lot of time practicing speaking."* Meanwhile, Meli stated, *"I thought it was helpful because I didn't expect that digital storytelling could be like this."* Conversely, Nami's experience reflected a mix of emotions, feeling both embarrassed and relieved when discussing personal topics, yet still expressing interest in future engagement. Hana, however, described her feelings towards digital storytelling as merely "okay," using it primarily as a tool for overcoming linguistic challenges rather than deriving enjoyment. Despite this, some participants, like Meli, remained interested in future endeavors, contingent on compelling topics and available time. The varied emotional responses indicated that participants approached digital storytelling differently, yet all recognized its potential for enhancing speaking skills. This suggests that



while individual experiences may differ, digital storytelling remains a valuable tool for speaking practice among language learners.

### **Becoming self-directed learners**

Participants engaged in comprehensive self-evaluations to identify and address deficiencies in their language proficiency, leading to a deeper understanding of their learning needs. They recognized the importance of continuous improvement and sought out new learning resources. Nami reflected on her process, saying, *"I play it by re-watching my video and also like thinking about it, like remembering and looking again at what is missing from my video."* Vivi exemplified this by meticulously recording her voice to refine pronunciation, illustrating an individualized approach to assessment and enhancement. Similarly, Meli's commitment to self-improvement and note-taking underscored a personalized evaluation strategy. Moreover, Hana emphasized the significance of planning to streamline the complex tasks involved in storytelling, showcasing a proactive approach to organization. In recognizing their shortcomings, particularly in pronunciation and vocabulary, participants like Meli and Reva not only acknowledged areas for growth but also outlined strategies for future development. Meli found digital storytelling to be a valuable resource for honing speaking skills, while Reva expanded her learning repertoire by discovering new sources like YouTube videos. These multifaceted evaluations not only equipped participants with insights into their learning needs but also fostered a continuous journey of self-improvement in language proficiency, highlighting the dynamic nature of their learning process. In the words of Meli, *"Digital storytelling is actually... a relevant learning source for me."*

### **Achieving positive results through developing digital storytelling**

The participants in the digital storytelling activities have recognized the profound impact on their speaking abilities, as evidenced by their testimonials. Through the process, they have experienced improvements in various facets of speaking, as succinctly summarized by Vivi and Nami's remarks on vocabulary, pronunciation, fluency, and public speaking skills. Furthermore, Hana's reflection underscores the enhancement in vocabulary acquisition, elucidating how the activity facilitated language comprehension and expression. Additionally, Reva and Meli elucidate how aspects like intonation, grammar, and fluency were refined through participation, emphasizing the holistic nature of skill development. Consequently, these insights illustrate a comprehensive advancement in speaking prowess, encompassing vocabulary enrichment, refined pronunciation, enhanced fluency, clearer grammar usage, and improved intonation. The participants' awareness of the correlation between digital storytelling and speaking practice underscores their grasp of how such activities foster skill refinement, illuminating the intrinsic connection between digital storytelling and speaking proficiency. As Meli aptly summarizes, *"First vocabulary, then pronunciation, fluency, and also grammar, that's the most helped in digital storytelling activities."*

### **Speaking for others through digital storytelling**

The participants in this study exhibited diverse intentions in crafting their digital stories, recognizing the potential impact on both themselves and their audience. Vivi's selection of a relatable topic underscores her desire to connect with viewers and offer educational insights, as she articulates, *"To show who I am and how I feel for the purpose of educating others."* Similarly, Meli and Hana aim to resonate with their audience by sharing experiences they believe many can relate to, thus fostering a sense of connection and gratitude. Hana further extends the utility of digital storytelling beyond

personal expression, envisioning its application in formal and informal education settings to cultivate new skills and inspire others. Nami adds to this perspective by highlighting the educational value of digital storytelling, emphasizing its potential to evoke emotional responses and stimulate engagement, whether in formal classroom settings or as entertainment on platforms like YouTube. These narratives collectively underscore the participants' comprehension of digital storytelling's transformative potential, not only for self-expression but also for fostering empathy and connection within broader communities. Ultimately, these insights illuminate how digital storytelling serves as a conduit for meaningful communication and interpersonal connection, enriching both storytellers and their audience alike. As Nami succinctly puts it, *"The stories from Digital Storytelling can elicit emotional responses in students and encourage them to pursue topics that they're passionate about."*

### **Creating digital storytelling**

The participants detailed their process of creating digital storytelling, highlighting the meticulous planning and technical execution involved in bringing their narratives to life. Prior to production, they meticulously chose topics aligning with personal experiences, as evidenced by Vivi and Hana's deliberations on selecting themes resonant with their journeys. This initial phase also involved scriptwriting and storyboarding, as noted by Vivi's and Hana's accounts, elucidating the critical role of structured planning in shaping their narratives. Subsequently, the production phase unfolded with participants leveraging various applications tailored to their preferences and familiarity, such as VN, CapCut, and KineMaster, to refine their stories through editing and media integration. Their meticulous approach, exemplified by Hana's iterative process of seeking inspiration during editing, underscores the dynamic nature of storytelling as a creative endeavor. Moreover, Meli's comprehensive utilization of multiple applications like Filmora, Camtasia, PowerPoint, and Kinemaster Premium illustrates the diverse toolkit participants employed to imbue their narratives with detail and emotion. These findings illuminate the technical acumen and creative ingenuity inherent in crafting digital storytelling, highlighting participants' adaptability in utilizing digital tools to articulate their narratives effectively. Overall, participants' project reports underscore the nuanced interplay between planning, technical execution, and creative expression in the digital storytelling process, emphasizing the multifaceted nature of this medium as a vehicle for personal and collective storytelling. As Meli articulates, *"To add more details and emotions in the story I used effects and transitions from Filmora, Camtasia, PowerPoint, and Kinemaster Premium,"* highlighting the strategic integration of various applications to enrich the storytelling experience.

## **DISCUSSION**

### **The experiences EFL pre-service teachers encounter in speaking through a digital storytelling project**

#### ***Activities undertaken by the pre-service teachers to practice their speaking skills using digital storytelling***

EFL pre-service teachers in this study engaged in digital storytelling, tailoring their approach to practice speaking, including pronunciation and vocabulary enhancement (Fu et al., 2021; James et al., 2019). Unlike prior research emphasizing specific apps, these teachers showcased adaptability using diverse



applications, fostering collaborative speaking practice (Fu et al., 2021; James et al., 2019). Methods included voice recording, script writing, individual practice, and leveraging tools like Google, Google Translate, and YouTube. These activities predominantly improved pronunciation, enriched vocabulary, refined intonation, and promoted improvisation, echoing findings from prior research (Sam & Hashim, 2022; Hava, 2021).

The recording stage emerged as pivotal, facilitating continuous speaking practice through repetition, supplemented by selected applications (Sam & Hashim, 2022; Hava, 2021). Participants diversified activities to encompass writing, listening, and reading, showcasing a holistic language learning approach. Notably, independent evaluations differentiated individual digital storytelling from group activities, as participants tailored experiences to their strengths without external influences (Bobkina & Romero, 2020).

Contrary to common peer assessment practices, participants self-assessed their speaking skills, identifying areas for improvement independently (Bobkina & Romero, 2020). This underscored a personalized and reflective aspect in their language development journey. In conclusion, the interplay of diverse activities, individualized approaches, and self-assessment contributes to a nuanced understanding of how EFL pre-service teachers enhance their speaking skills through digital storytelling (Fu et al., 2021; James et al., 2019; Sam & Hashim, 2022; Hava, 2021; Bobkina & Romero, 2020).

#### *Acquiring knowledge about digital storytelling for speaking practice*

The participants understand that digital storytelling is useful as a medium for them to practice their speaking skill while 1 of them stated that digital storytelling is for learning. Even though these two things are different, it still shows that the participants understand how this digital storytelling activity can help them practice speaking. This is in line with the research results of James et al. (2019) where digital storytelling can encourage participants to practice their speaking.

#### *Challenges and how to overcoming them*

In the creation of digital storytelling, pre-service teachers encountered challenges, notably in pronunciation, word composition, given themes, intonation, duration, diction, time constraints, repetitive activity, device use, and copyright issues when sharing videos on YouTube. Each participant addressed these challenges individually, with some persistently learning, one organizing step meticulously, and another seeking assistance, such as borrowing devices. This aligns with Mirza's (2020) findings, highlighting challenges in digital storytelling production, including copyright issues and topic selection. Despite these hurdles, pre-service teachers demonstrated resilience and the ability to overcome challenges, reflecting the Human Dimension of significant learning, where self-awareness and effective problem-solving prevail.

#### *The feelings in speaking through digital storytelling*

Pre-service teachers, engaging in digital storytelling for speaking practice, underwent diverse emotional experiences, reflecting the 'caring' aspect of significant learning. Two participants expressed happiness, attributing it to enhanced confidence in speaking English and a sense of assistance in skill refinement. Conversely, some participants reported feeling neutral, confused, disappointed, or ambiguous during the digital storytelling process. Prior research, while mainly exploring digital storytelling outcomes, also delved into participants' emotional states during the process. Students, for example, found the

experience enjoyable (Fu et al., 2021). Confidence was reported by those who only had to speak in front of a camera during the recording process (James et al., 2019), while others found it challenging due to the perceived visibility of errors in the video (Bobkina & Romero, 2020). In summary, the emotional spectrum experienced by pre-service teachers during digital storytelling is influenced by individual difficulties and circumstances.

**The significant learning outcomes experienced by EFL pre-service teachers through their participation in digital storytelling creation for speaking practice**

*Enhancement in Speaking Skills (Foundational Knowledge)*

Pre-service teachers, through interviews and project reports, reported improved pronunciation and increased vocabulary. The improvements extended to storytelling, fluency, intonation, grammar, and public speaking. This aligns with James et al.'s (2019) findings on the effectiveness of digital storytelling in enhancing speaking skills. The study also resonates with previous research on vocabulary, fluency, pronunciation, and intonation (Hava, 2019; Sam & Hashim, 2022; Yang et al., 2020; Fu et al., 2021). In foundational knowledge, pre-service teachers demonstrated an understanding of the connection between digital storytelling and speaking practice, aligning with Simsek's (2020) research on understanding how to craft a compelling story.

*Emergence of speaking practice habits (application)*

Pre-service teachers engaged in various activities like script writing, recording, repetition, and using applications (VN, CapCut, KineMaster, Audacity, Filmora, Camtasia). This aligns with prior studies emphasizing the use of applications in editing and creating digital storytelling (Fu et al., 2021; James et al., 2019). Notably, the study revealed increased improvisation, talking to oneself, and adapting speech based on the audience, showcasing diverse speaking practices.

*Understanding the connection between the activities and speaking practice (integration)*

The creation of digital storytelling involved writing, listening, and speaking. Script writing emerged as a crucial activity, aiding participants in organizing narratives. This integration of activities enhanced speaking skills, contrasting with Simsek's (2020) findings on the failure to grasp connections between course materials and learning.

*Understanding self and others (human dimension)*

Challenges in pronunciation and vocabulary during storytelling led to self-awareness and improved learning habits. Beyond personal growth, pre-service teachers recognized the value of their digital storytelling for others, aligning with Simsek's (2020) findings on personal and interpersonal impacts.

*Developing interest in creating digital storytelling again (caring)*

All pre-service teachers expressed interest in creating digital storytelling again for speaking practice, contingent on time availability and topic relevance. This aligns with Fink's (2003) concept of significant learning, where engagement in learning activities persists despite challenges.

*Acquiring continuity in learning (learning how to learn)*

Recognizing the need for continuous improvement, pre-service teachers identified areas for further learning, showcasing self-directedness. This aligns with Fink's (2003) idea of learning how to learn and reflects Simsek's (2020) findings on participants becoming independent learners. In conclusion, significant learning outcomes include improved speaking skills, diverse speaking practices, understanding the integration of activities, self-awareness, interest in continuous learning, and the ability to create impactful digital storytelling. These outcomes align with Fink's taxonomy and signify the holistic growth of pre-service teachers through digital storytelling.

### CONCLUSION

The study underscores the significance of individualized creation in digital storytelling for speaking practice, highlighting the autonomy it provides to participants. Crafting stories independently enables learners to customize their practice, fostering creativity and confidence without external constraints. Various activities involved, such as recording, scripting, self-dialogue, and utilizing supporting applications, contribute to a comprehensive enhancement of speaking skills, covering vocabulary, pronunciation, fluency, intonation, grammar, and public speaking. Additionally, the process encompasses multiple language skills, including writing, reading, listening, and speaking, fostering a multimodal approach and providing a holistic platform for skill development. While the individualized nature presents challenges, such as theme selection and time management, it also encourages active self-evaluation, promoting independence and self-directed learning.

Reflecting on the study, participants express ongoing interest in using digital storytelling for teaching and further speaking practice. The study recommends expanding the use of digital storytelling beyond speaking practice to include other language skills for EFL learners. Pre-service teachers are urged to explore its application in classroom learning, leveraging its flexibility and visual elements, while in-service teachers can enhance children's speaking skills through its incorporation. The study, however, acknowledges limitations, such as the absence of formal assessments and the narrow participant group scope. Future research is suggested to include quantitative assessments and a more diverse sample to comprehensively evaluate the effectiveness and generalizability of digital storytelling in enhancing speaking proficiency among language learners.

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APPENDIX

**Table.1 Interview Questions**

Semi-structured interview is made based on L. Dee Fink’s Significant Learning Theory in 2003.

No.	RQ1. What experiences do EFL pre-service teachers get in speaking through digital storytelling project?		RQ2. What significant learning outcomes do EFL pre-service teachers experience when they create digital storytelling for speaking practice, based on Fink's Taxonomy of Significant Learning?	
	Construct	Questions	Construct	Question
1.	Foundational Knowledge	What do you understand about digital storytelling for speaking practice?	Foundational Knowledge	What specific speaking skills have you gained upon your participation in digital story creation?
2.	Application	How do you use digital storytelling to practice speaking?	Application	What speaking strategies have you applied from the digital story creation project in real-life speaking situations?
3.	Integration	What activities do you do in making digital storytelling related to other language competencies such as listening, writing, or reading that affect your speaking skills?	Integration	How are activities in digital storytelling creation related to other language skills such as listening, writing, or reading related to speaking practice?
4.	Human Dimension	How do you overcome challenges in making digital storytelling?	Human Dimension	What do you learn from that challenge?
5.	Caring	What do you feel when you create digital storytelling to practice your speaking?	Caring	Are you interested in making digital storytelling again to practice speaking?
6.	Learning How to Learn	How do you evaluate your progress in making digital storytelling to practice speaking?	Learning How to Learn	What do you realize when you created this digital storytelling that you should learn more about in terms of speaking practice?