Digital Online Learning by Using Digital Storytelling for Pre-Service Teacher Students

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Abstract
The purpose of this research discusses 1) to find out the preparation of pre-service teacher students in using digital storytelling in online learning, 2) to study the implementation of teaching English by using digital storytelling, and 3) to find out the pre-service teacher students’ perception in using digital storytelling. This research is using phenomenological research qualitative emic approach with 8 pre-service teacher students implemented the digital storytelling in the online classroom and their perception of digital storytelling to be used in online system. Three instruments applied in this research, they were observation, interview, and documentation. As it is found in this research that pre-service teacher students were easy in implementing digital storytelling, fun, efficient, and challenging during teaching English class, as the summary that the implementation of digital storytelling was successfully done by the pre-service students and the increasing of eagerness of students to get more stories was high which gave an alternative solution in online teaching process.

Keywords: digital online learning; digital storytelling; technology; English; pre-service teacher

Introduction
The main problem why this research done was the outbreak of Covid-19 on March 2020. The way of learning shifted into digital online learning. This situation led a great change of the way of learning, the effect, the teachers and students point of view. Many theories and research have discussed about digital online learning, as Rozalina (2020) states that online learning system consists of three stages, they are planning, implementation, and assessment of learning outcomes. Planning in online system is done to determine learning objectives. According to Suprihatiningrum (2013), lesson plan is the process of preparing learning materials, use of learning media, approaches, and methods, as well as assessment in a time allocation for achieving the stated goals. Lesson plan works to clarify understanding and thoughts related to educational goals, increase
confidence in values of teaching and procedures used, and help identify needs, interests and encourage students’ motivation.

Chaeruman (2020) states that the implementation of digital online system can be done by virtual face-to-face online learning (virtual-synchronous) is simultaneous learning that occurs at the same time in different spaces from one another or by collaborative learning without face-to-face (asynchronous collaborative) which can be facilitated by various activities such as chat forums, publications, discussion forums, online assignments, and quizzes or tests.

The positive and negative effects of today’s digital online system in digital technology can be great energy for students. When digital technology improvements are seen as beneficial tools for them, the tools of freedom, truth, and innovation are seen as done by the global community. All of these viewpoints are now widely shared on social media. It will be a great task for teachers to use digital media of technology (Allen & Seaman, 2014; Rajayi, Poorahmadi, & Poorahmadi, 2018).

Apart from this, these changes provide problems for teachers’ instructional in online classroom, who must keep up with new higher education paradigms, new approaches to research and new competencies, and new ways of teaching, also teaching and learning methods (Siemens & Matheos, 2010). This includes knowing who the students are, what they need to learn, how to educate them, and the abilities that educators must master in order to teach them in order to carry out their responsibilities efficiently (Palloff & Pratt, 2013). In this case, the pre-service teacher students will have a new moment in online system to get challenge in using technology.

Based on the above remarks that to fulfill one of the favorite media in digital online system is digital storytelling. This technique that is being developed during the pandemic because digital storytelling is a combination of various multimedia features such as graphics, text, recordings, sounds, songs, music and videos with the art of storytelling to present certain material or points with a certain duration of time and packaged in an attractive digital format (Permama P, N. D., et.el; 2020). In this case, it means that digital storytelling can be adapted to the needs of the intended audience. Therefore, digital storytelling can be said as an effective and efficient learning media because the story content in the form of images, sounds and other multimedia can be selected by the authors of the media. Reinders (2011) added that digital storytelling can be used in various student learning styles, increasing students' interest in learning, focusing on learning outcomes that must be achieved and motivating students to be active in offline and online classes. Digital storytelling is able to visualize the material and help students identify an object shape that requires adequate properties.

According to earlier study, digital storytelling improved students' problem-solving skills (Yang, Y.T. C., & Wu, W.C., 2012), motivation (Yoon, 2012), and 21st-century literacy skills (Yousef Ahmad ALJARAIDEH. (2020). According to Kevser Hava (2019), the calculation of paired t-test revealed significant improvements in students' self-confidence, and it was also discovered that digital storytelling contributed significantly to learning vocabulary, writing, and speaking skills, as the results showed that digital storytelling is an important and effective media that can be implemented in supporting students' both language and digital skills.

In his research, Krashen (2011) discovered that digital storytelling helped readers envisage text and provided a stage for visually expressing meaning. Furthermore, Lambert (2006) distinguishes seven basic components of compelling digital storytelling, whereas these components define the nature of viable advanced stories, the method of creating an advanced story entails utilizing a wide range of abilities, counting points, writing scripts, storyboarding, and collecting the final product using video editing software Mihailidis & Cohen (2013).
Students may have benefit from digital storytelling in a variety of ways. The following are some of the advantages of digital storytelling.

Establishing a constructivist learning climate

For teaching and learning, digital storytelling offers a constructivist method. It's a crucial tool for combining digital technology with creative teaching and learning activities (Dakich 2008). Digital storytelling improves student engagement and aids teachers in developing constructivist learning environments, which leads to peer collaboration to solve problems. Finally, digital storytelling offers integrated techniques to engage students in higher order thinking and deep learning (Dakich 2008).

Storytelling is a way in which students customize what they have and elaborate their own interpretation and information from the sources to which they listen and speak (Behmer 2005), whereas (Standley 2003) discovered that digital storytelling is constructing students' attainment and opinion to be shared and shown to others in a productive manner.

Improving foreign language abilities

Digital storytelling had a considerable favorable impact on the development of students' language skills in foreign language classes (Nguyen, K., Stanley, N., & Stanley, L. (2014)). Digital Storytelling in the Foreign Language Classroom, according to Hayo Reinders (2011), is an easy instrument to use for practicing production skills in English, including writing and speaking. It is also a fantastic approach to push students to utilize the language both within and outside the classroom, moreover, Bernard R. Robin (2016) investigated the ability of digital storytelling to enhance teaching and learning. He discovered that digital storytelling evolves in novel ways to integrate digital storytelling into teaching and learning activities as opportunities and possibilities rise.

Presenting culture

Nguyen (2011) discovered that storytelling allowed people to share stories about their lives in order to express their culture, ethnicity, attitude, custom, and prestige, whereas Yang (2011) discovered that digital storytelling aids students in transferring their knowledge, competences, and culture as part of their thinking process, as well as helping them gain confidence, making it a pedagogical tool for teaching and learning. For example, many fairy tales, such as those about the wicked kid Kancil, a race between snails and bunnies, the red-haired, and others, can provide an example for students as well as teach them about ethics.

Although previous research has revealed the use of digital storytelling in online systems, the results related to the way of using digital storytelling in online learning, particularly in the preparation of teaching, the implementation of teaching English using digital storytelling by pre-service students, and the pre-service teacher students' opinions on using digital storytelling are still not well documented in the literature. To fill in the gaps, this study aims to discover the phenomena that occurs in the online classroom when students use digital storytelling. In particular, the research shows the findings of evidences that arise in the teaching and learning process while employing digital storytelling in digital online learning, with pre-service teacher students as the researchers’ sample. Based on the above argument, the following research questions as follow:

1. How is the preparation of pre-service teacher students in using digital storytelling?
2. How is pre-service teacher students implementing digital storytelling in English online classroom?
3. How is the pre-service teacher students' opinion in using digital storytelling?
Literature review

Digital storytelling

Lee (2014) and Robin (2016) state that a digital storytelling is an effective tool for students to improve their language abilities. It is created by combining a number of digital media, such as sound, picture, and video components, with a duration of three to five minutes, and in some circumstances up to ten minutes (Stasiulis, 2019). Digital storytelling employs the use of media to present a personal story, as well as recorded documentaries and stories that educate and practice the specific notion or practice (Robin, 2016). Furthermore, instructors have a wide range of opportunities to engage and assist their students via digital storytelling tools (Dreon, Kerper, & Landis, 2015).

According to Lee (2014), a digital storytelling is one that is made by combining many digital media elements such as voice, image, and video. They are frequently made available for free through video services such as YouTube and other media video services that are increasingly accessible through an internet browser (Ohler, 2013), furthermore, Frazel (2011) says that digital storytelling is a method of combining several media to enrich and enhance the written or verbal word.

Fatih (2020) states that digital storytelling is defined as the creation of a short film using software to combine multimedia artefacts provided by technology for a story or event axis. The goal is twofold: to leverage the storyline of the story to make information much more effective and durable, and to use technology to encourage students to be active participants in the learning setting. "Writing an initial script, developing a storyboard, discussing and refining the script, sequencing the images through video editor, inserting the narrative track, adding special effects and transitions, and adding a soundtrack if time permits" are the seven phases of the digital storytelling process.

Online learning environments and teaching

Dealing with technology-enhanced classrooms and other related challenges, teachers and students may feel uncomfortable (Palloff & Pratt, 2013). Faculty members may be hesitant to teach online because they are unsure if they are qualified, how to maintain their own identities and attributes as teachers, what the students' demographic may be, how to meet discipline-related demands, what kind of training they would require, how to be successful online instructors, how to assess and evaluate learning outcomes, and how to deal with stress and feelings of frustration while making the transition (Alman & Tomer, 2012; Palloff & Pratt, 2013).

In the literature, competencies for online instruction have been classified at various levels and using a variety of methods. Salmon (2003) divides the attributes or abilities of e-teachers into five categories: (a) online process comprehension, (b) technical skills, (c) online communication skills, (d) topic expertise, and (e) personal characteristics. The ISTE (2001) technology facilitation standards compile competencies that assist technology facilitators in carrying out their responsibilities. (a) technology operations and concepts; (b) planning and designing learning environments and experiences; (c) teaching, and developing the curriculum; (d) assessment and evaluation; (e) productivity and professional practice; (f) social, ethical, legal, and human issues; (g) procedures, policies, planning, and budgeting for technology environments; and (h) social, ethical, legal, and human issues (h) Online Learning
According to Aziz (2015), there are three general forms of interaction in online learning, namely between students-students (students), students–teachers (student–teacher), and students–material/content (student–content). Then it developed again educators (teacher-teacher), educators-material/content (teacher-content), and materials (content-content).

**Research method**

**Design**

This research is phenomenological theory. The research method used is a qualitative phenomenological research method with an emic approach. Data obtained from observations, interviews, and document studies. Furthermore, the data obtained are reduced, presented, and a conclusion is drawn.

**The participants**

Purposive sampling was used to choose pre-service teachers students at the seventh semester students. The total students at seventh semester were 78 students, to maximize in collecting the data, the researcher just selected 8 students. Based on their prior experiences in microteaching class in developing lesson plan relied on the syllabus and curriculum at Junior High School level in using digital storytelling, moreover, they also got practice teaching (PPL) at the relevant semester. The students were chose based on their prior knowledge in planning the class in case in online system.

**Instruments and methods**

Three instruments were used in this research, interview, observation, and documentation were the research tools employed in this study. The researchers developed the interview guide. Ten questions were designed to learn about the characteristics of the teaching materials, how the pre-service teacher students used in the classroom and as enrichment, the different types of digital storytelling will be used in online classroom and which the best web-based enrichment resources, and any prerequisite knowledge such as having access to and being able to use electronic devices. The researchers and 8 pre-service teacher students prepared the materials in large part. We developed a few stories in Wondershare Filmora9 application program. The title of Malay digital storytelling was “Pawang Jaring Rusa” divided into five videos which separated into folklore unit 1 namely; teaching to children, folklore unit 2 namely; Curiosity, folklore unit 3 namely; Agreement, Folklore unit 4 namely; Deceived, and Folklore unit 5 namely; Cursed. These movies were observed by the researchers to find out the effectiveness and the flexibility of pre-service teacher students in using digital storytelling in the online classroom. Five folklore movies were chosen to be documentation. The movies were from Kabupaten Pelalawan as one Kabupaten in Propinsi Riau.

**Analysis and coding of data**

The researchers collected data were written down the transcript of interview result by using focus group interviews' and entered into the Nvivo 12 application. The tool was very helpful in creating, categorizing, and editing codes as well as in the deep analysis of data. Coding is the process of tagging the data's content, which entails giving the data's significant components such as words, sentences, and paragraphs (Kothari (2004)). The same code was used to group similar viewpoints. Coding was done using word groups, sentences, or single words. The titles of the codes were extremely similar to the student sentiments in the codes. Due to social distance issues and
the respondent's refusal to meet face to face, interviews are conducted via chat communication (WhatsUp).

**Results and discussion**

The preparation of pre-service teacher students in using digital storytelling

The preparation of pre-service teacher students in using digital storytelling started from their planning in constructing RPP or lesson plan in each meeting. The table below was the presentation of display data from the preparation of pre-service teacher students before teaching. The observation result displayed below.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Activities</th>
<th>Calculation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes/No</td>
<td>Preparation of Lesson plan (RPP)</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Introduction Skill (Set of Induction)</td>
<td>6</td>
<td>75%</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Preparation of Folklore Movies</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Online Process Comprehension</td>
<td>7</td>
<td>87.5%</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Technical Skills</td>
<td>5</td>
<td>62.5%</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Online Communication Skills</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Topic Expertise</td>
<td>7</td>
<td>87.5%</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Personal Characteristics</td>
<td>6</td>
<td>75%</td>
</tr>
</tbody>
</table>

The results data above at table 1 shown that each activities was not fully prepared by 8 pre-service teacher students. First, three activities were done excellently whom eight students fulfilled category in term of RPP preparation, teaching media, and online communication. This research findings were supported by some previous research done by Reddy KR (2019) shown that pre-service teachers can learn teaching techniques, examine their own teaching, and examine the teaching of others through the use of microteaching, which also gives them the chance to gain a better understanding of the processes of teaching and learning. This research findings also in line with M. Sahal & A. S. Ozdemir (2020) research finding that the majority of the pre-service teachers students discussed the benefit of using technology in education. Second, the lowest attainment was in technical skill with five pre-service teachers students were having well competency in it, however two pre-service teachers was in low ability. It means that the weakness point is in executing technical skill. Asri, Atiqah Nurul, et al (2014) found that in learning activities, especially when making presentations, students of the Informatics Management Study Program often having difficulties experience, like they are not able to explain what meant easily even though they were already using presentation media such as Microsoft Power Point or the Prezi application. In addition, students' English speaking skills are relatively lacking because their background in their field of expertise is more allows them to interact with computers rather than communicating with humans directly or face-to-face. Moreover, the development of communication devices such as smartphones that allow them to communicate with other people by utilizing chat facilities such as Whatsapp or BlackBerry Messenger rather than meeting face to face. The last was the pre-service teacher students got mediate competencies in some categories like set induction, online comprehension, topic expertise, and personal characteristics. The supported idea also shown by Unlu and Sarpkaya Aktas (2017) found that pre-service teachers students’ experiences have been shown to have an impact on their future educational endeavours. It means that the efficient use of technology in educational learning environments is greatly influenced by teachers and their professional development (Pamuk et al. 2013). Most research with teachers and future instructors
has focused on figuring out their attitudes, beliefs, or perceptions about technology (Usta and Korkmaz 2010; Aktas et al. 2014; Smith, Kim, and McIntyre 2016).

The implementation of teaching english by using digital storytelling in online classroom

Eight pre-service teacher students were implemented the digital storytelling during practice teaching. The topics of digital storytelling were discussed and taught by them to junior high school for eight classes. Documentation of folklore videos of Malay digital storytelling (Kabupaten Pelalawan) was “Pawang Jaring Rusa” divided into five videos, they were teaching to children, Curiosity, Agreement, Deceived, and Cursed. Eight pre-service teacher implemented these 5 videos during online meetings when they were having practice teaching in three junior high school in Pekanbaru.

The documentation were used to find out the implementation of using digital storytelling in English was shown in the following data:

<table>
<thead>
<tr>
<th>No</th>
<th>Pre-service teacher’s name</th>
<th>Teaching Materials</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TA1</td>
<td>Teaching to children, Curiosity, Agreement, Deceived, Cursed</td>
<td>yes</td>
</tr>
<tr>
<td>2</td>
<td>TA2</td>
<td>Teaching to children, Curiosity, Agreement, Deceived, Cursed</td>
<td>yes</td>
</tr>
<tr>
<td>3</td>
<td>TA3</td>
<td>Teaching to children, Curiosity, Agreement, Deceived, Cursed</td>
<td>yes</td>
</tr>
<tr>
<td>4</td>
<td>TA4</td>
<td>Teaching to children, Curiosity, Agreement, Deceived, Cursed</td>
<td>yes</td>
</tr>
<tr>
<td>5</td>
<td>TA5</td>
<td>Teaching to children, Curiosity, Agreement, Deceived, Cursed</td>
<td>yes</td>
</tr>
<tr>
<td>6</td>
<td>TA6</td>
<td>Teaching to children, Curiosity, Agreement, Deceived, Cursed</td>
<td>yes</td>
</tr>
<tr>
<td>7</td>
<td>TA7</td>
<td>Teaching to children, Curiosity, Agreement, Deceived, Cursed</td>
<td>yes</td>
</tr>
<tr>
<td>8</td>
<td>TA8</td>
<td>Teaching to children, Curiosity, Agreement, Deceived, Cursed</td>
<td>yes</td>
</tr>
</tbody>
</table>

Table 2 above displays that the pre-service teacher students are implementing all the digital storytelling topic in online classroom. The digital storytelling videos have been prepared before the class started. Every meetings, they provided the videos to the students in online classroom. It means that all pre-service teacher students have showed the videos one by one during online system. No additional sources to enrich the online class, only these five videos to be used. The researchers came to the conclusion that presenting the kids these videos will help preserve folklore, particularly among the interior tribes Suku Sakai. Although many tales have been gathered, just one folklore was created for the first endeavour. The story's title, "Pawang Jaring Rusa," was chosen because Suku Sakai's elders had previously relayed this old tale to the younger members of their community, who were unaware that it should be preserved. The topic of creating digital teaching resources for students has drawn the attention of several scholars (Siroj, 2015). Digital storytelling resources are thought to be advantageous to improve cultural awareness and to be utilized as private tutorial learning, which is relevant to the subject of the present study. According to Sung and Guo (2020), these online instructional resources help students become more motivated to learn. The
findings demonstrated that the generated materials' folklore videos without being limited to instructional materials based on technology usage in online classroom (Sulistyo, et al, 2020). In additional other study was from Wannapiroon (2016) found that digital storytelling refers to a genre that encompasses a range of media, including still images, videos, animations, sounds, games, content for websites, and content for mobile devices. Using digital technology to gather the media, all these contents can be used in storytelling. Students pursuing careers in teaching who need to learn how to build and access the nature of the teacher will find the story to be appropriate. It is said to be a good way when this technique is applied. As a result of the emphasis placed on producing media that motivates students in digital storytelling education.

The pre-service teacher students' opinion in using digital storytelling

During the unstructured interview to have pre-service teacher students’ point of view, some questions were raised to determine their favorite learning themes, which were contained in five movies that they used in online classroom. According to the findings of their interviews, pre-service teachers (TA5) said that using digital storytelling to conduct online learning systems, particularly for the English topic, has been very beneficial. One technique that is being developed during the pandemic is the digital storytelling technique. Digital storytelling is a combination of various multimedia features such as graphics, text, recordings, sounds, songs, music, and videos with the art of storytelling to present certain material or points with a certain duration of time and packaged in an attractive digital format (TA2). Interestingly in this case, it means that digital storytelling can be adjusted with the needs of the intended audience TA2 added her statement. Therefore, digital storytelling can be said as an effective and efficient learning media in online class because the story content in the form of images, sounds and other multimedia can be chosen by the media compiler (TA2).

Digital storytelling encompassed all English language skills, according to TA1, therefore pre-service teachers had a lot of interest in adopting it. As interactive videos that are simple to use in online systems, they were described as involving all aspects of digital storytelling. They were also presented in visual formats that involved all English skills and supported the development of students' vocabulary, reading, speaking, and writing skills.

According to TA3, digital storytelling were offering positive feedback that elaborated suku sakai folklore which contributed a significant positive influence on students' preservation of Riau Malay heritage, however TA8 said that these five movies were bored for students to watch. They got annoyance from the internet connection and the sound of the movies were too fast. They just guessed the content. These folklore movies were not too familiar with them as like as “kancil dan buaya”. In addition, TA4 also said, the narrators in these movies was from native speakers. It seemed that the Junior high school had difficulties in English since they got less exposition in foreign language. This finding was supported by Verspoor, M., & Nguyen, T. P. H. (2015) that the use of films or movies in foreign language or second language schools, with virtually sole emphasis on the linguistic benefits and the efficiency of these tools in enhancing fundamental abilities, particularly listening comprehension. Only a few studies have been published, though, that demonstrate how real video can improve communication readiness and language competency. Here, the finding provides proof of how watching videos or watching movies can have an authentic impact on learning a foreign or second language.

While TA7 said that the vocabularies used in these five movies were too high for these students to comprehend during online class. These situation made them confused to interpret the meaning what the actors communicated however in term of sound and images attracted students
to focus on the stories, however by watching these videos, the students got more exposure of new vocabularies which made their acquisition in vocabulary built more, added by TA7. This finding was supported by Saoburi and Saurahbi (2015), watching movies can help students develop more on your vocabulary and listening comprehension. The use of closed captioning, which places speech and other sound information at the bottom of each movie frame, can help viewers read and comprehend more quickly.

The result of the interview above were in line with (Yang, Y.-T. C., & Wu, W.-C. I., 2012; Atasoy, Uzun, & Aygun's, 2015) study, pre-service teachers believed that using technology in the classroom will improve students' thinking skills, make lessons more pleasant, and make continuous learning. In addition, pre-service teachers believed that technology was fascinating and accessible, according to Ciftci and Tatar (2014). Technology facilitates time-saving visualization, concretization, and links (Ocal and Simsek 2017). Smith, Kim, and McIntyre (2016) came to similar conclusions in regards to the views pre-service teachers have on using technology. Similar to the current study, it was observed that the pre-service teacher students gave opinions linked to technical issues while taking into account the drawbacks of technology use in educational environment.

Other relevant findings were from (N Abd Rahim, 2014; Frazel, 2011), the usage of digital storytelling has helped students become more proficient word-for-word. According to research findings, the use of digital storytelling was successful in drawing students' attention to the lesson. This was demonstrated by an increase in the number of students who participated in class activities including group projects and question-and-answer sessions. Students were also given access to more engaging discussion topics.

Conclusion

The research has implemented five videos of digital storytelling of Suku Sakai which had been used in English subject by online system. This research of digital storytelling has given a variation of learning material in English subject. Based on the findings that the needs of digital online system brought a new content of folklore and sound uncommon already attracted the pre-service teacher students to do experiment in using digital storytelling in online classroom. Their attention in digital folklore movies to be used showed that Malay heritage is retained and new unique stories become substitute concern. A range of software issues, including time management, sound selection, and image insertion, were discovered during implementing in online classroom of the digital storytelling product. The system analyst has resolved these technical issues. Eight pre-service students tested five films of digital storytelling, and they discovered that it actually helped them use their first project in their online class in the case of a deficiency. They have already made the decision to use this research's output as one media to assist their lesson plans in the near future.

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