

## The Effects of Integrating Digital Storytelling to Students' Motivation

Reza Anggriyashati Adara  
Universitas Islam "45" Bekasi  
[reza.adara@gmail.com](mailto:reza.adara@gmail.com)

Aridhotul Haqiyah  
Universitas Islam "45" Bekasi  
[aridhotulhaqiyah@yahoo.com](mailto:aridhotulhaqiyah@yahoo.com)

### Abstract

Incorporating technology seems to have positive effects on improving students' motivation on EFL (English as a Foreign Language) learning. One of strategies that can be used to improve students' motivation in EFL classrooms is incorporating digital storytelling or an amalgamation of audio, text, animation and voice. Therefore, the present study aims to analyze the effects of digital storytelling to motivation of a group of Indonesian EFL learners. The present study applied a quasi-experiment design. The participants of present study are 19 college students who are divided into experimental and control classes. In order to obtain the results, a set of questionnaires adapted toward digital storytelling motivation are distributed to the participants. Besides that, semi-structured interviews were conducted to two students to provide deeper insights toward the effects of digital storytelling on students' motivation. In addition, English tests were given before and after the treatment. The results show that the experimental class shows a slightly higher level of motivation than the control class. In addition, the respondents considered digital storytelling as beneficial for improving their English skills and creativity. Besides that, students in the experimental class performed better in English test than the ones in the control class after treatment. Thus, it can be said that digital storytelling seems to have positive effects on students.

**Keywords:** digital storytelling, EFL, motivation, motivational strategy

---

*Manuscript submitted: August 2, 2020*

*Manuscript revised: October 25, 2020*

*Accepted for publication: December 1, 2020*

---

### Introduction

Technology has been used to improve EFL (English as a Foreign Language) learners' motivation. One of learning strategies that teachers can employ is by integrating technology to EFL classrooms. Besides being a vital approach that may influence learning, teaching curricula, and materials (Wang & Li, 2000), learners' interests toward gadgets such as smartphones, tablets, and else (Yoon, 2013) can encourage teachers to integrate multimedia devices to the class (Byrnes & Wasik, 2009; Vincent, 2006). Teachers should consider changing or extending their traditional learning strategies to virtual ones where students are more familiar with it (Burmark, 2004; Burn & Reed, 1999; Chu, 1995; Cradler, McNabb, Freeman, & Burchett, 2002; Pierson, 2001;

Pritchard, 2004). Thus, incorporating technology seems important to improve students' motivation.

Besides having positive effects on students' motivation, digital storytelling can be considered as an effective outlet to integrate technology to EFL learning. It is because digital storytelling includes all skills of digital literacy (Dogan & Robin, 2007) or an ability to read and analyze media as well as evaluating and applying knowledge obtained from digital environment (Jones-Kavalier & Flannigan, 2008). In addition, digital storytelling can provide students with an opportunity to practice their digital literacy skills, making it effective to improve students' motivation and interest (Robin, 2006; Verdugo & Belmonte, 2007). This might lead to the improvement of students' motivation (Razmi, Pourali, & Nozad, 2014). Based on the above arguments, integrating technology and improving students' motivation can be done by employing digital storytelling to the classrooms.

In regards of the point mentioned in the previous paragraph, a study which specifically analyses the effects of digital storytelling toward students' motivation in EFL (English as a foreign language) learning seems important to be conducted. It is because such study might provide better insights on the effects of technology integration and EFL students' motivation. (Aktas & Yurt, 2017) analyzed the effects of digital storytelling on achievement, motivation of learners on a group of EFL learners in Turkey while (Krisnawati & Julianingsih, 2019) investigated the effects of digital storytelling on students' motivation and effectiveness in trigonometric learning on a group of mathematics learners in Indonesia. However, there is a lack of studies which specifically investigates the effects of digital storytelling on EFL students' motivation in Indonesia. Beath (2010) argues that students' motivation from diverse groups of learners need to be conducted due to the complex nature of motivation which depends on its respondents. Thus, investigating various groups of learners might provide more details to this elusive concept. Hence, the present study needs to be conducted because it will give deeper insights on the effects of digital storytelling on EFL students' motivation in Indonesia. Specifically, the present study is guided by following research questions:

RQ.1. What are the effects of digital storytelling' integration toward motivation of a group of FL learners in Indonesia?

RQ.2. How digital storytelling affects students' motivation to learn English?

## Literature Review

The present section aims to discuss theories and studies which serve as the foundation of the present study. In order to provide a better organization, the present section will be divided into two sub-sections; motivational strategy and digital storytelling.

### *Motivation*

Although it has an important position in language learning (Dörnyei, 2005; Gardner, 1985), motivation is a complex phenomenon which may be difficult to be defined by one single theory (Petrides, 2006). In this context, motivation refers to a set of efforts, intents, and attitudes to achieve goals in language learning (Loewen & Reindeers, 2011; Gardner, 2005; Dörnyei & Ottó, 1998). Motivation has a cause and effect relationship with students' attitudes (Bradford, 2007; Gardner & Lambert, 1972). Gardner (1985) in his socio-educational model theory remarked that "motivation has three main variables; attitudes toward learning condition, instrumental factors, and integrative factors" (Gardner, 2001, p 6). Several studies also show a relationship among those factors (Okuniewski, 2012; Beath, 2010; Nikitina & Furuoka, 2006). Thus, it seems important to improve those factors simultaneously to maintain students' interest in language learning.

Although Gardner's theory is considered as one of the most influential ones (Taie & Afshari, 2015; Gu, 2009; & MacIntyre, 2007), his theory is not one without criticisms (Belmechri & Hummel, 1998; Crookes & Schmidt, 1991; Oxford & Shearin, 1994). Gardner's theory seems unable to explain various learning contexts in different country (Dörnyei, 2005). A study of Dörnyei and Csizér (2002) toward 953 students of foreign languages (English, German, French, Italian, and Russian) showed that participants had no intentions to blend with native speakers of those languages, a focal point of Gardner's integrative motivation. Besides considered as an enigma (Dörnyei, 2003), integrative motivation cannot explain the conditions in which foreign language learners do not want to integrate with native speakers' communities (Oxford & Shearin, 1994; Crookes & Schmidt, 1991; & Au, 1988). It is why Gardner's theory seems failed to explain a learning situation in which a language has become a global one, something experienced by English language.

In regards of the above point, several theories have sprung up to explain students' motivation in FL learning. One of theories used to describe students' motivation in FL learning is Deci and Ryan's (1985) Self-Identification Theory or SDT. Besides explaining facets of students' conditions which influenced by both internal and external factors, this theory is valuable to investigate students' motivation because it supports a dynamic view of motivation (Beath, 2010). Furthermore, to explain students' motivation, Ryan and Deci (2000) divide it into intrinsic and extrinsic motivation. While intrinsic motivation can be defined as a state where a student learns FL because of their own interest or its interesting nature, extrinsic motivation refers to a state where students learn FL because of external factors such as praises, presents, or else. Both types of motivation are important because whereas intrinsic motivation can fulfil psychological needs (Deci & Ryan, 2000), Beath's (2010) study shows that students can be motivated intrinsically when they are faced with supportive learning environment and obtain suitable extrinsic motivation. Thus, teachers need to know ways to build students' extrinsic motivation by providing interesting tasks to attract students' interests (Ryan & Deci, 2000).

Related to the previous paragraph, teachers have important roles in maintaining students' motivation. One of ways teachers can do to maintain students' motivation is through applying motivational strategies. In this sense, motivational strategies refer to techniques applied by teachers to build students' positive attitudes toward FL learning (Dörnyei, 2003; Dörnyei 2001). Teachers have crucial roles in providing motivational strategies (Dörnyei, 2007; Fives & Manning, 2005 & Chambers, 1999). By providing a suitable motivational strategy to students, teacher can improve their motivation. Thus, a teacher needs to know motivational strategies such as tasks or activities that can be implemented to students. Several studies show a positive relationship between tasks given to students and students' motivation (Cheng & Dörnyei, 2007; Dörnyei & Csizer, 1998). Therefore, teachers should give tasks or activities that can nurture students' motivation and interests. It is because people will be more willing to spend time for things they consider as interesting (Cheng & Dörnyei, 2007). Thus, teachers need to know students' interests outside of the class because it can impact positively to learning and teaching process (Hardre', Sullivan, & Roberts. 2008; Mayer, 1998). Based on the above points, a teacher needs to motivate his students by providing them with motivational strategies that are suited with students' interests.

Considering its importance in maintaining students' interest, motivational strategies need to be a focus in the analysis of foreign language learning (Cheng & Dörnyei, 2007). In addition, despite recommendations made by teachers regarding techniques to motivate students, there is still a need to scientifically justify those claims (Gardner & Tremblay, 1994). It is why analysis toward motivational strategies has become a focus of experts in English language learning (Wong, 2014; Sugita & Osamu, 2010; & Chambers, 1999). In addition, identifying contributing factors to the provision of motivational strategies can provide a more effective teaching and

learning to students (Wong, 2014). Hence, conducting studies related to motivational strategies might be valuable to analyze its success in FL learning.

### ***Digital storytelling***

One of motivational strategies used to improve students' motivation is integrating digital storytelling to FL learning. If it is used properly, storytelling can have positive impacts on teaching (McDrury & Alterio, 2002; Clandinin & Connelly, 1998; & McEwan & Egan, 1995). Digital storytelling is one of storytelling forms that can be used in EFL learning and teaching. In this sense, digital storytelling can be defined as a practice to share stories through various mediums such as images, texts, voice, music, video and animation (Lambert, 2002). Digital storytelling has several benefits when it is implemented to language classroom. In addition to improving fluency, both written and oral, digital storytelling can be an interesting students' project (Vinogradova, Linville, & Bickel, 2011). Besides allowing students to recreate various stories and manage diverse sources to create contents, digital storytelling helps improving their collaboration and interpersonal communicative skills when students are tasked to create digital stories in pairs or groups (Moradi & Chen, 2019). Several studies show the merits of digital storytelling in improving students' linguistic skills in foreign language classrooms (Bell, 2008; Castaneda, 2013; Ono, Ishihara, & Yamashiro, 2012; & Dal, 2010). Wang and Zhan (2010) also found that students whom are familiar with digital storytelling can remember materials quicker and apply knowledge easily. In addition, digital storytelling seems effective to improve students' motivation by giving chances to students to practice their digital knowledge (Verdugo & Belmonte, 2007; & Robin, 2006). The integration of digital storytelling in language learning can help improving language learners' critical thinking, digital literacy, collaboration, their ability to make decisions, and their language skills (Ahmed, 2019; Kim & Lee, 2018). Based on the above points, integrating digital storytelling to FL classroom seems beneficial to students.

Furthermore, several studies suggest the benefits of integrating digital storytelling to FL classroom. Xie's (2016) study suggests positive relationship between integrating digital storytelling and students' motivation as well as efficiency. In addition, the results of Aktas and Yurt's (2017) study indicate a positive impact of digital storytelling toward the success of students' academic achievements, motivation, and retention. Specifically, a study of LoBello (2015) toward a group of students in New York, the USA shows a positive effect of digital storytelling toward level of students' motivation and writing skills. In addition, it is argued that digital storytelling is capable to improve students' motivation to write 'unconsciously' and encourage them without no tendencies to write (Xu, Park & Baek, 2011). Besides that, digital storytelling may have positive effects on students' speaking skills. Two studies show that less confident students who rarely talked in the classroom were more motivated to improve their English when creating digital storytelling (Ono, 2014; Ono *et al*, 2012). The above studies indicate positive effects of integrating digital storytelling to language classroom.

### **Methods**

The present study used a quasi-experiment design to obtain the results. The research instruments are questionnaires and semi-structured interviews. Two set of questionnaires adapted from Deci and Ryan's (2002) Self-Determination Theory (SDT) and Yoon (2013) about the effects of digital storytelling to students' motivation were distributed to the respondents. The questionnaires use a Likert scale with following responses, strongly disagree, disagree, agree, strongly agree. While the experimental class was given both sets of questionnaires, the control class was only given the adapted version of Deci and Ryan's (2002) questionnaires. The latter was given before and after the treatment to see the changes in learners' motivation. In addition, interviews were conducted to two students to explore the effects of digital storytelling to



students' motivation. The interviews were conducted in Indonesian and translated to English. In addition, English tests were conducted before and after the treatment to see the effects of digital storytelling toward students' English skills.

The respondents were initially twenty students of English literature and language department of one of private universities in Bekasi who were divided into experimental and control classes. However, one student from the control class dropped out in the middle of experiment. The treatment was given for seven weeks. The respondents of present study took Advanced Listening and Speaking class. For the experimental class, each lesson had different theme. For example, in week 1, the lesson was about cyber-bullying. Digital storytelling related to what is cyber-bullying and how to manage it was presented in the beginning of the lesson. Students would discuss what they watched and teachers would monitor how students produced language. In the end of lesson, students were paired or grouped to produce digital storytelling within theme they learned that week.

To analyze the results, the present study used two techniques. While quantitative data is analyzed by using SPSS, qualitative data will be coded to find similarities of responses. In order to ensure the validity and reliability of questionnaire, a pilot study was conducted by using Pearson product moment and Cronbach's Alpha ( $>0,65$ ) to measure the questionnaires adapted from Deci and Ryan (2002). In this regard,  $r=0.900$ ,  $p<0,05$  and  $n=2$ .

## Findings

This sub-section will discuss the results of present study. Firstly, questionnaires' results of experimental and control classes will be compared to see the differences in the level of students' motivation. Next, the effects of digital storytelling toward motivation of experimental class' students will be discussed. The interviews' results will be used to provide more discussion. In addition, the results of pre-test and post-test results will be discussed to see the effects of digital storytelling on students' achievements. Following table describes the results of questionnaires adapted from Deci and Ryan (2002).

**Table 1.** Before and after treatment

Variable	Before Treatment						After Treatment					
	Experimental class			Control class			Experimental class			Control class		
	Mean	Med	Std. Dev	Mean	Median	Std. Dev	Mean	Med	Std. Dev	Mean	Med	Std. Dev
Extrinsic Motivation	4.00	4.00	0.000	3.90	4.00	.316	4.00	4.00	0.000	4.00	4.00	0.000
Intrinsic Motivation	4.00	4.00	0.000	3.90	4.00	.316	4.00	4.00	0.000	4.00	4.00	0.000
Amotivation	1.20	1.00	.422	1.40	1.00	.699	2.00	2.00	0.000	1.40	1.00	.966

The above table shows relatively high level of extrinsic motivation from experimental class ( $M=4.00$ ) compared to control class ( $M=3.90$ ). Intrinsic motivation of experimental class is also higher before treatment ( $M=4.00$ ) than control class ( $M=3.90$ ). This suggests how experimental class is more extrinsically and intrinsically motivated than control class. In addition, amotivation is shown lower in experimental class ( $M=1.20$ ) than control class ( $M=1.40$ ). After treatment, extrinsic and intrinsic motivation of experimental class did not change ( $M=4.00$ ). On the other hand, control class shows an increase ( $M=4.00$ ). In addition, experimental class shows higher

level of amotivation ( $M=2.00$ ) while control class ( $M=1.40$ ) does not show any increase. Following table shows the results of Yoon's (2013) questionnaires toward the effects of digital storytelling.

**Table 2.** Students' attitudes change with digital storytelling

No	Items	Mean	Median	Std. Deviation
1.	Digital storytelling makes me curious about the story.	3.4000	3.0000	.51640
2.	Digital storytelling makes me more interested in learning process and activity.	3.3000	3.0000	.67495
3.	Digital storytelling makes me understand the story better.	3.2000	3.0000	.78881
4.	Digital storytelling makes me confident when I was assigned to read or speak.	2.9000	3.0000	.56765
5.	Digital storytelling provides me with the opportunity to think creatively and critically.	3.4000	4.0000	.84327
6.	Digital storytelling makes me know more from sharing ideas with classmates.	3.6000	4.0000	.69921
7.	Digital storytelling makes English learning fun and pleasant.	3.6000	4.0000	.69921
8.	Digital storytelling makes me more engaged in the lesson.	3.1000	3.0000	.73786
9.	Digital storytelling makes me happy with English activity.	3.6000	4.0000	.69921
10.	Digital storytelling makes the class atmosphere more enjoyable.	3.7000	4.0000	.48305
11.	Digital storytelling makes me like English study more.	3.4000	3.5000	.69921
12.	Digital storytelling makes me familiar with the story.	3.4000	3.5000	.69921

The above table shows that majority of learners agree that class atmosphere is better ( $M=3.70$ ) and they become more interested to share their ideas ( $M=3.60$ ). Next, learners think digital storytelling makes English lessons becoming more fun ( $M=3.60$ ) and they are happier to learn English ( $M=3.60$ ). Besides making learners more interested in English ( $M=3.40$ ), digital storytelling seems to make them critical and creative ( $M=3.40$ ). Then, majority of learners think digital storytelling makes them more interested in English language learning ( $M=3.40$ ) and familiar with the stories ( $M=3.40$ ). However, the above table shows that digital storytelling does not have any significant role in making learners more involved in learning ( $M=3.30$ ) or more

confident in using English ( $M=2.90$ ). Following table is the results of English tests before and after the treatment:

**Table 4.** The average results of English test before and after treatment

N	Experimental class		Control class	
	Before	After	Before	After
Mean	3.6500	4.2000	3.6750	3.9750
Median	3.6250	4.0000	3.7500	4.0000
Std. Deviation	1.29207	1.11056	.73645	2.03255

Table 4 shows the results of English tests conducted before and after the treatment. The results suggest that both classes experienced increases in test results. However, experimental class showed higher scores than control class. Although the increase is not too significant, the results suggest experimental class' improvement in English test. In addition, despite showing lower scores than control class before treatment, experimental class could perform better than control class after treatment.

### Discussions

The above section suggests positive effects of digital storytelling toward motivation, comprehension, and English skills of learners. Although the results of experimental class do not show significant increase in motivation level of learners, the high level of learners' motivation in the beginning of treatment can be one of the reasons of why digital storytelling do not cause significant increase in their motivation. However, digital storytelling seems to have an impact toward the participants' English skills. They are shown from the results of Table 3. Majority of learners in experimental class think digital storytelling has positive impacts toward class atmosphere and make English lessons becoming more fun. Below shows how a participant thought about digital storytelling and its impact toward her motivation to learn English:

“Digital storytelling motivates me to learn English because we need correct words to make an interesting story...[I need] new vocabulary and [digital storytelling] motivates me to learn English.” Student B

Student B thought digital storytelling motivated her to look for new dictions in order to make an interesting digital story, making her more motivated to learn English. Both points suggest a positive effect of digital storytelling toward participants' motivation.

In regards of the improvement in learners' motivation, there are several factors which may lead to it. Firstly, tasks which involve technology such as digital storytelling motivates learners (Ushioda, 2005; & Olsen, 1980). Learners are more interested to join the lesson when technology is involved. In the present study, the integration of digital storytelling might increase learners' motivation. Therefore, digital storytelling can be considered as one of successful motivational strategies for EFL learners. In addition, because of digital storytelling's nature which can be consumed widely, it seems to encourage learners to produce attractive contents. This indirectly motivates them to learn English so they can better contents. The above points suggest the positive impact of digital storytelling toward learners' motivation.

The results of present study correspond with the results of other studies. Majority of participants of Aktas and Yurt's (2017) study on the effects of digital storytelling toward

achievement, motivation and retention of learners think that digital storytelling makes English lessons becoming more fun, resulting in the increase in learners' motivation and interests. Similarly, a study of Hung, Hwang, and Huang (2012) on a group of elementary students in Southern Taiwan indicated the benefits of digital storytelling toward students' motivation, problem-solving competence, and learning achievement. Foelske (2014) also thinks that digital storytelling can increase learners' motivation and involvement in English learning. In their study toward the effects of digital storytelling toward the improvement of writing skills of third graders in Turkey, Yamaç and Ulusoy's (2016) results demonstrate the improvement in interaction and motivation to write. Similar results were shown in the studies (LoBello, 2015; Bumgarner, 2012; Hung et al, 2012; & Dakich, 2008). The above studies show the merits of digital storytelling toward the improvement of students' motivation.

The results of present study also indicated positive effects of digital storytelling toward learners' comprehension. Following are comments of participants related to the effects of digital storytelling toward English learning.

“As a visual learner, digital storytelling really motivates to learn because the materials are easy to be understood and structured with pictures or visual that might help me in remembering the materials.” Student A.

The above comment shows how digital storytelling affects his motivation because as a visual learner, he thought digital storytelling makes English lessons easier to be understood. Burmark (2004) study also shows how digital storytelling can improve learners' comprehension toward lesson materials. Burmark (2004) argues that integrating visual images with texts seems successful to enhance learners' comprehension. In this regard, digital storytelling is a good technology because it collects, creates, analyses and combines visual images with written texts. Thus, it can be said that there is a positive correlation between digital storytelling and learners' comprehension.

In addition to comprehension, Student A's comment also suggested that digital storytelling helps him to learn better because it caters his needs as a visual learner who needs to be visually motivated. In this regard, digital storytelling provides visually motivating materials to students, especially ones who learn better when they are faced with attractive looking materials. Digital storytelling improves visual literacy, as claimed by Robin (2008), which defines the latter as the ability to understand, create and communicate through visual images. Besides that, integrating images to texts as practiced in digital storytelling can improve and accelerate learners' understanding (Burmark, 2004). It can be said that digital storytelling seems beneficial to improve learners' literacy and make them comprehend the lesson better.

Besides the above points, the present study indicates positive impacts of digital storytelling to learners' creativity. Student A commented, “Digital storytelling helps me in vocabulary learning. In addition, it makes us becoming more creative and allows us to make our own stories.” The previous comment suggests positive impacts of digital storytelling toward learners' creativity. Lotherington and Ronda (2014) remark how digital storytelling provides opportunities to learners to involve in a non-hierarchical way, encouraging them to be more creative, critical and daring. By using digital storytelling, an unseasoned learner can be whatever they want to express their creativity and become experts through participation and experiments. A study of Lim and Noor (2019) on the effects of digital storytelling as a creative teaching method in promoting secondary school students' writing skills suggest how students performed better after four treatments of digital storytelling. The above points suggest positive impacts of digital storytelling toward learners' creativity.

Regarding learners' English skills, the present study shows how learners can improve their own through digital storytelling. A study of Nassim (2018) on the effectiveness of digital storytelling on improving students' language skills showed that digital storytelling can help enhancing the participants' performance in language classrooms. Similar point is also shown in



several studies (Yuksel, Robin, & McNeil, 2011; & Ballast, Stephens, & Radcliffe, 2008). Ohler (2008) claimed that digital storytelling can help English learning because it involves four skills (writing, reading, listening, speaking). In this sense, learners can learn and practice their English skills through digital storytelling. Therefore, if it is used effectively (suited to learners' interests and existing curriculum), digital storytelling can improve learners' English skills.

## Conclusion

The present study aims to investigate effects of integrating digital storytelling to learners' motivation to learn English as a foreign language. Several studies show how digital storytelling can be used as one of effective motivational strategies to improve learners' motivation. The present study is a quasi-experimental one because the participants were divided into two groups; experimental and control classes. In addition, the present study used questionnaires and interviews to obtain its data. In addition, English tests were conducted before and after treatment to see learners' improvements in English skills. The results of present study show positive effects of digital storytelling toward learners' motivation, understanding, creativity and skills. Although the results of first set of questionnaires of experimental class did not show significant impact, the results of second questionnaire and interviews indicate how digital storytelling impacted learners positively. In addition, test results of experimental class are relatively higher than control class. Therefore, the results indicate positive impacts of digital storytelling toward English classes.

Despite efforts to reduce its limitation, the present study is not without one. Firstly, the present study might yield more insightful results if it was provided with bigger number of participants and more time to observe them. Secondly, it might gain better results if it is equipped with more diverse research instruments such as class observation or learners' journals which might provide the present study with deeper insights on learners' take on digital storytelling. Despite its limitations, the present study can be a milestone of similar research toward motivational strategies and technology integration in EFL classrooms. Further studies can discuss learners' retentions after integrating digital storytelling and learners' attitudes toward technology. In addition, a future study might not only analyze learners' motivation but also demotivation toward digital storytelling. Besides that, it seems important to investigate teachers' perceptions of the effectiveness of digital storytelling in improving students' motivation. By investigating both teachers and students, there will be more detailed insights on how digital storytelling can influence motivation. In addition, it will provide information on why teachers are motivated or reluctant to use digital storytelling in language classrooms. Such information will be valuable for teachers, researchers and educational institutions.

Nevertheless, despite the positive effects of digital storytelling shown in the present study, it does not mean that digital storytelling can be given to all students unconditionally. There are several conditions need to be met by educational institutions, teachers and students. Firstly, the integration of digital storytelling needs to be supported by the presences of suitable technology devices such as computer, LCD projector, or else in language classrooms, something which might be not provided by every educational institution. Similar to the presence of technology devices, digital storytelling seems better to be equipped with internet. Although digital storytelling can be created using offline software, internet can provide better sources for students to elaborate their stories. A study of Rahimi and Yadollahi (2017) on the differences in literacy skills between students who used offline and online digital storytelling showed that online digital storytelling made students produced more creative digital stories and performed better than ones with offline software. In addition to technology, teachers need to be equipped with needed skills to effectively use or teach students with digital storytelling. Moradi and Chen (2019) argue that it is challenging to prepare teachers or practitioners with these technological skills. Thus, it can be said that digital storytelling can only be successful in motivating students when the classrooms

are equipped with technology devices, internet and skilled teachers. Besides the provision of technology devices, it is also important to train teachers with technological skills so that they can use digital storytelling in language classrooms optimally. Thus, a research which specifically analyses on how to improve teachers' technological skills may be valuable in solving this problem.

### Acknowledgments

The present research was fully supported by DPRM RISTEKDIKTI as a part of their Penelitian Dosen Pemula (Grants for Novice Lecturers). We are thankful for DIKTI's support. We are also grateful for great assistance from our colleagues in Universitas Islam 45 Bekasi. We also have to express our gratitude toward Indonesian Endowment Fund for Education who have funded our studies.

### References

- Ahmed, A. K. (2019) Socially orientated digital storytelling among Saudi EFL learners: An analysis of its impact and content. *Interact. Technol. Smart Educ.* 16(1), 130–142.
- Aktas, E., & Yurt, S. U. (2017). Effects of digital story on academic achievement, learning motivation, and retention among university students. *International Journal of Higher Education*, 6(1), 180-196.
- Au, S. Y. (1988). A critical appraisal of Gardner's socio-psychological theory of second language (L2) leaning. *Language Learning*, 38(1), 75-100.
- Ballast, K. H., Stephens, L. & Radcliffe, R. (2008). Proceedings of Society for Information Technology & Teacher Education International Conference, San Diego, CA: Teacher Education.
- Beath, O. (2010) "I Want to be More Perfect Than Others": a Case of ESL Motivation, Paper presented at the Faculty of Education and IERI HDR Conference, University of Wollongong, 12 November 2010.
- Bell, N. (2008). Visualizing and verbalizing for language comprehension and thinking. Retrieved from [http://www.psllcnj.com/visualizing\\_and\\_verbalizing.htm](http://www.psllcnj.com/visualizing_and_verbalizing.htm).
- Belmechri, F. & Hummel, K. (1998). Orientations and motivation in the acquisition of English as a second language among school students in Quebec City. *Language Learning*, 48(1), 219-244.
- Bradford, A. (2007). Motivational orientations in under-researched fl contexts: findings from Indonesia. *Relc Journal*. 38(1), 302-323.
- Bumgarner, B. L. (2012). *Digital storytelling in writing: A case study of student teacher attitudes toward teaching with technology* (Doctoral Dissertation). Retrieved from <https://eric.ed.gov/?id=ED550372>.
- Burmark, L. (2004). Visual presentations that prompt, flash and transform. *Media and Methods*, 40(6), 4-5. Retrieved from <http://dx.doi.org/10.1111/j.1754-8845.1999.tb00720.x>.
- Burn, A., & Reed, K. (1999). Digi-teens: Media literacies and digital technologies in the secondary classroom. *English Education*, 33(3), 5-20. Retrieved from <http://dx.doi.org/10.1080/00094056.2009.10523090>

- Byrnes, J., & Wasik, B. (2009). Picture this: Using photography as a learning tool in early childhood classrooms. *Childhood Education*, 85(4), 243-248. Retrieved from <http://dx.doi.org/10.1080/19388079509558191>
- Castaneda, M. A. (2013). I am proud that I did it and it's a piece of me: Digital storytelling in the foreign language classroom. *CALICO Journal*, 30(1), 44-62.
- Chambers, G. N. (1999). *Motivating language learners*. Clevedon: Multilingual Matters.
- Cheng, H & Dörnyei, Z (2007) The Use of Motivational Strategies in Language Instruction: The Case of EFL Teaching in Taiwan, *Innovation in Language Learning and Teaching*, 1(1), 153-174.
- Chu, M. L. (1995). Reader response to interactive computer books: Examining literary responses in a non-traditional reading setting. *Reading Research and Instruction*, 34(4), 352-366.
- Clandinin, D.J., & Connelly, F.M. (1992). *Handbook of research on curriculum*. New York, NY:: Macmillan.
- Cradler, J., McNabb, M., Freeman, M., & Burchett, R. (2002). How does technology influence student learning?. *Learning and Leading*, 29(8), 46-49.
- Crookes, G., & Schmidt, R. W. (1991). Motivation: Reopening the research agenda. *Language Learning*, 41(4), 469-512.
- Dakich, E. (2008). *Rethinking Education with ICT: New Directions for Effective Practices*. China: Sense Publishers.
- Dal, M. (2010). *Digital video production and task based language learning*. Ráðstefnurit Netlu – Menntakvika 2010. Menntavísindasvið Háskóla Íslands. Retrieved from <http://netla.khi.is/menntakvika2010/alm/021.pdf>.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.
- Dogan, B. & Robin, B. (2008). Implementation of Digital storytelling in the Classroom by Teachers Trained in a Digital storytelling Workshop. In K. McFerrin, R. Weber, R. Carlsen and D. Willis (Eds.), *Proceedings of SITE 2008--Society for Information Technology & Teacher Education International Conference*, 902-907. Las Vegas, Nevada, USA: Association for the Advancement of Computing in Education (AACE). Retrieved July 31, 2018 from <https://www.learntechlib.org/primary/p/27287/>.
- Dörnyei, Z., (2003). *Motivational Strategies in the Language Classroom*. 3rd. Edition. Cambridge: Cambridge University Press.
- Dörnyei, Z., & K. Csizer. (1998). Ten Commandments for Motivating Language Learners: Results of an Empirical Study. *Language Teaching Research* 2(3), 203-229.
- Dörnyei, Z. (1990). Conceptualizing motivation in foreign-language learning. *Language Teaching*, 31(3), 117-135.
- Dörnyei, Z. (2001) *Teaching and Researching Motivation*. Harlow: Longman.
- Dörnyei, Z. (2003b). Attitudes, Orientations, and Motivations in Language Learning: Advances in Theory, Research, and Applications. *Language Learning*, 53(1), 3-32.
- Dörnyei, Z. (2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*. Mahwah: Lawrence Erlbaum Associates.
- Dörnyei, Z. (2009). The L2 Motivational Self System. In Z. Dörnyei and E. Ushioda (eds.) *Motivation, Language Identity and the L2 Self*. Bristol: Multilingual Matters.

- Dörnyei, Z. (1998). Motivation in second and foreign language learning. *Language Teaching*, 31(1), 117-135.
- Fives, H., & Manning, D. K. (2005). 'Teachers' strategies for student engagement: Comparing research to demonstrated knowledge. *Washington, D.C.: The 2005 Annual 53 Meeting of the American Psychological Association*. Retrieved February 10, 2009, from [http://netdrive.montclair.edu/~fivesh/Research\\_files/Fives&Manning\\_2005\\_APA.pdf](http://netdrive.montclair.edu/~fivesh/Research_files/Fives&Manning_2005_APA.pdf).
- Foelske, M. . (2014). *Digital storytelling: the impact on student engagement, motivation and academic learning*. (Master Thesis), University of Northern Iowa, USA.
- Gardner, R. C., & Tremblay, P. F. (1994). On motivation, research agendas and theoretical frameworks. *Modern Language Journal*, 78(1), 359-368.
- Gardner, R. C. (1985). *Social psychology and second language learning: the role of attitudes and motivation*. London,UK: Edward Arnold.
- Gardner, R. C. (2001). Integrative motivation and second language acquisition. In Z. Dörnyei and R. Schmidt (eds), *Motivation and Second Language Acquisition*. Honolulu: University of Hawai'i Press.
- Gardner, R. C. (2005) Integrative motivation and second language acquisition. (Joint Plenary Talk), *Canadian Association of Applied Linguistics/ Canadian Linguistics Association*.
- Gardner, R. C. (2010). *Motivation and second language acquisition: The Socio Educational Model*. New York, NY: Peter Lang.
- Gardner, R. C. (2012). Integrative motivation and global language (English) acquisition in Poland. *Studies in Second Language Learning and Teaching*, 2(2), 215-226.
- Gardner, R. C. & Lambert, W. E. (1972). *Attitudes and motivation in second language learning*. Rowley, MA: Newbury House.
- Gu, M. (2009). *The discursive construction of second language learners' motivation: a multi- level perspective..* Bern: Peter Lang AG, International Academic Publishers.
- Hardre', P. L., Sullivan, D. W. & N. Roberts. (2008). Rural High School Teachers 'Best Motivating Practices. *The Rural Educator* 30(1), 19-31.
- Huang, C. (2007). *Why Do University Students want to learn English?.* Retrieved from <https://journal.uny.ac.id/index.php/lingua-pedagogia/article/view/18541>
- Hung, C. M., Hwang, G. J. & Huang, I. (2012). A project-based digital storytelling approach for improving students' learning motivation, problem-solving competence and learning achievement, *Educational Technology & Society*, 15(4), 368–379.
- Jones, K, B., & Flannigan, S. L. (2008). Connecting the digital dots: Literacy of the 21st century. *Teacher Librarian*, 35(3), 13-16.
- Julianingsih, D., & Krisnawati, E. (2020). Efektivitas Video Digital Storytelling terhadap Hasil Belajar Siswa Kelas X Materi Trigonometri. *Journal Of Medives: Journal Of Mathematics Education IKIP Veteran Semarang*, 4(1), 129-139. Retrieved from doi:10.31331/medivesveteran.v4i1.975
- Kim, H.& Lee, J.H. (2018) The value of digital storytelling as an L2 narrative. *Asia Pac. Educ. Res.*, 27, 1–9.
- Lambert, J. (2002). *Digital storytelling: Capturing lives, creating community*. Berkeley: Digital Diner Press.



- Lim, P. & Noor, N. (2019). Digital Storytelling as a Creative Teaching Method in Promoting Secondary School Students 'Writing Skills. *International Journal of Interactive Mobile Technologies*, 13, 1-12. Retrieved from 10.3991/ijim.v13i07.10798.
- LoBello, C. (2015). The Impact of Digital storytelling on Fourth Grade Students 'Motivation to Write. *Education and Human Development Master's Theses*, 573. Retrieved from <https://www.semanticscholar.org/paper/The-Impact-of-Digital-Storytelling-on-Fourth-Grade-LoBello/f030298c9f9fa0a3578e683b31d2237ec13258dd?p2df>
- Loewen, S. & Reinders, H. (2011). *Key concepts in second language acquisition*. Basingstoke: Palgrave Macmillan.
- Lotherington, H., & Ronda, N. (2014). 2B or Not 2B? From pencil to multimodal programming: New frontiers in communicative competencies. *Digital Literacies in Foreign and Second Language Education* 12(1),227-244. CALICO. Retrieved from [https://www.researchgate.net/publication/279840004\\_Digital\\_Literacy\\_in\\_Academic\\_Language\\_Learning\\_Contexts\\_Developing\\_Information-Seeking\\_Compentence](https://www.researchgate.net/publication/279840004_Digital_Literacy_in_Academic_Language_Learning_Contexts_Developing_Information-Seeking_Compentence)
- MacIntyre, P. D. (2007). Willingness to communicate in second language: Understanding the decision to speak as a volitional process. *The Modern Language Journal*, 91, 564-576.
- Mayer, R. E. (1998). Cognitive, Metacognitive, and Motivational Aspects of Problem Solving. *Instructional Science*, 26(2), 49-63.
- McDrury, J & Alterio, M. G (2002) *Learning through Storytelling: using reflection and experience in higher education contexts*. Palmerston North: Dunmore Press.
- McEwan, H & Egan, K (1995) *Narrative in Teaching, Learning and Research*. New York, NY: Palmerston North: Dunmore Press.
- Moradi, H., & Chen, H. (2019). Digital Storytelling in Language Education. *Behavioral sciences* 9(12), 147. Retrieved from <https://doi.org/10.3390/bs9120147>
- Nassim, S. (2018). Digital Storytelling: An Active Learning Tool for Improving Students ' Language Skills. *Pupil: International Journal of Teaching, Education and Learning*, 2(1), 14-29. Retrieved from 10.20319/pijtel.2018.21.1429.
- Nichols, R. (2014). *Motivating English Language Learners: An Indonesian Case Study*. Master of Education Program Theses. (Published Thesis). University of Texas, Arlington.
- Nikitina, L & Furuoka, F. (2006). *Integrative Motivation: How Perceptions of the Target Language Country Influence Students 'Motivational Pattern*. Online Submission, Paper presented at the Science and Art of Language in Teaching International Conference (Malaysia, Nov 20, 2006). Viewed 24 May 2015.
- Ohler, J. (2008). *Digital storytelling in the classroom: New media pathways to literacy, learning, and creativity*.. Thousand Oaks, CA: Corwin Press.
- Okuniewski, J. (2012). Polish secondary school students learning German: Motivation, orientations and attitudes. *Psychology of Language and Communication*, 16(1), 53-65.
- Ono, Y., Ishihara, M., & Yamashiro, M. (2012). Technology enhanced movie presentation with focus on foreign language anxiety and PBL skills. In G. Biswas et al. (Eds.), *Proceedings of the 20th International Conference on Computers in Education* (584- 588). Singapore: Asia-Pacific Society for Computers in Education.



- Ono, Y. (2014). Motivational Effects of Digital Storytelling on Japanese EFL Learners, *Proceedings of the Sixth CLS International Conference CLaSIC 2014*, 414-431.
- Oxford, R., & Shearin, J. (1994). Language learning motivation: Expanding the theoretical framework. *The Modern Language Journal*, 78, 12-28.
- Pae, T (2017) Effects of the differences between native and non-native English-speaking teachers on students 'attitudes and motivation toward learning English, *Asia Pacific Journal of Education*, 37(2), 163-178.
- Petrides, J. R. (2006). Attitudes and motivation and their impact on the performance of young English as a foreign language learners. *Journal of Language and Learning*, 5(1), 1- 20.
- Pierson, M. E. (2001). Technology integration practice as a function of pedagogical expertise. *Journal of Research in Computing in Education*, 33, 413-430.
- Pritchard, A. (2004). Introducing new students to ICT: Giving a purpose to it all. *Active Learning in Higher Education*, 5(3), 248-262. Retrieved from <http://dx.doi.org/10.1177/1469787404046846>
- Rahimi, M. & Yadollahi, S. (2017). Effects of offline vs. online digital storytelling on the development of EFL learners 'literacy skills. *Cogent Education*. 4(1), 1-13. Retrieved from 10.1080/2331186X.2017.1285531.
- Razmi, M., Pourali, S., & Nozad, S. (2014). Digital Storytelling in EFL Classroom (Oral Presentation of the Story): A Pathway to Improve Oral Production. *Procedia - Social And Behavioral Sciences*, 98 (Proceedings of the International Conference on Current Trends in ELT), 1541-1544. Retrieved from <https://www.sciencedirect.com/journal/procedia-social-and-behavioral-sciences/vol/98?page-size=100&page=2>
- Robin, B. R. (2006). The educational uses of digital storytelling. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2006*, 709-716. Chesapeake, VA: AACE.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
- Sugita, M., & Osamu, T. (2010). What can teachers do to motivate their students? A classroom research on motivational strategy use in the Japanese EFL context. *Innovation in Language Learning and Teaching*, 4(1), 21-35.
- Taie, M., & Afshari, A. (2015). A critical review on the socio-educational model of SLA. *Theory and Practice in Language Studies*, 5(3), 605-612.
- Ushioda, E. (2005). The role of students 'attitudes and motivation in second language learning in online language courses. *CALICO Journal*, 23(1), 49-78.
- Verdugo, D. R. & Belmonte, I. A. (2007). Using digital stories to improve listening comprehension with Spanish young learners of English. *Language Learning & Technology*, 11(1), 87-101.
- Vincent, J. (2006). Children writing: multimodality and assessment in the writing classroom. *Literacy*, 40(1), 51-57. <http://dx.doi.org/10.1111/j.1467-9345.2006.00426.x>
- Vinogradova, P., Linville, H. A., & Bickel, B. (2011). Listen to my story and you will know me: digital stories as student-centred collaborative projects. *TESOL Journal*, 2(2), 173-202.

- Wang, C.S & Li, C.C. (2000) *An assessment framework for information technology integrated instruction*. In *Proceedings of the International Conference on Computers in Education/International Conference on Computer Assisted Instruction*, Taipei, Taiwan, 21–24 November 2000.
- Wang, S. & Zhan, H. (2010). Enhancing teaching and learning with digital storytelling. *International Journal of Information and Communication Technology Education (IJICTE)*, 6(2), 76-87. <https://doi.org/10.4018/jicte.2010040107>.
- Wong, R. M. H. (2014) An investigation of strategies for student motivation in the Chinese EFL context, *Innovation in Language Learning and Teaching*, 8(2), 132-154.
- Xie, J. (2016) Digital Storytelling to Promote EFL Students 'Motivation and Efficiency in Content-Based Classroom. *Education Journal* , 5(6), 166-173
- Xu, Y., Park, H., & Baek, Y. (2011). A new approach toward digital storytelling: An activity focused on writing self-efficacy in a virtual learning environment. *Educational Technology & Society*, 14, 181–191.
- Yamaç, A. & Ulusoy, M. (2016). The effect of digital storytelling in improving the third graders ' writing skills. *International Electronic Journal of Elementary Education*. 9(1). 59-86.
- Yoon, T. (2013). Are you digitized? Ways to provide motivation for ELL's using digital storytelling. *International Journal of Research Studies in Educational Technology*, 2(1), 25-34. <https://doi.org/10.5861/ijrset.2012.204>.
- Yuksel, P., Robin, B. & McNeil, S. (2011). Educational Uses of Digital Storytelling all around the World. In M. Koehler & P. Mishra (Eds.), *Proceedings of SITE 2011--Society for Information Technology & Teacher Education International Conference* (1264-1271). Nashville, Tennessee, USA: Association for the Advancement of Computing in Education (AACE). Retrieved May 6, 2020 from <https://www.learntechlib.org/primary/p/36461/>.