

## **EFFECTS OF DIGITAL STORYTELLING-AIDED INSTRUCTION ON STUDENTS' NARRATIVE WRITING AND SPEAKING SKILLS**

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### **Abstract**

Although Digital Storytelling (DST) has been widely and recently applied and studied in ELT classrooms, little research has documented its efficacy towards narrative writing and speaking skills. For this reason, this quasi-experimental research aimed to investigate its effects when used as a medium of learning on students' narrative writing and speaking skills at an Indonesian privately owned Islamic school. A total of 42 participants were divided into two groups: experimental and control groups. The data collected through pre-and post-writing and oral tests were analyzed using the independent t-test formula in SPSS 20. The statistical evidence showed that the students in the experimental groups significantly outperformed their counterparts in the control group in terms of narrative writing skills given  $t(19) = -12.02$ ,  $p = 0.000$ . However, another statistical evidence indicated that the narrative speaking skills of both groups were not significantly different given  $t(19) = -2.02$  and  $p\text{-value} = 0.057$ . This study further discusses its limitations and implications for the effective deployment of DST in EFL classrooms.

**Keywords:** *DST, EFL, Narrative writing and speaking skills.*

## **INTRODUCTION**

Even though English has been a compulsory subject across all levels of Indonesian education, not to mention its inclusion in the state's national examination for ages, it is likely true that the English instruction has far from satisfaction given the fact that Indonesian students are still having low proficiency level of the

target language. One of the causes of this setback is the absence of use of English beyond the classrooms in that the status of English is a foreign language (Astuti, 2013). Moreover, the presence of the national exam has promoted form-focus instruction in the secondary schooling context. As a result, it often takes everyday instructional practices, such as Grammar drilling followed by multiple-choice questions. This conventional instructional method develops the students' grammatical knowledge, yet they fail to capitalize on that knowledge when articulating their ideas for communicative purposes (Richards, 2006).

Similar traditional pedagogical practices were rampant in an Indonesian privately owned Islamic school, where this study was undertaken. As a result, the students in the Islamic school found it difficult to equip themselves with using the grammar for communication. The initial findings revealed that it was hard for them to understand grammar and use it when writing and speaking. As one of the lessons, writing a narrative paragraph telling experience, the students were too much drilled with past tense. This traditional instruction disengaged and demotivated them to learn and circumvented them from using grammar for communicative purposes, particularly the ability to narrate a story in English when writing and speaking.

Consequently, a novel instructional approach is needed to enable the students to use past tense in writing and speaking. The instructional approach that currently gains its prominence in ELT classrooms and could integrate language skills is Digital Storytelling (DST), a digital media encompassing images, video, audio, and personal narrative that combine traditional storytelling and technologies (Garrety, 2009). DST helps the students develop the mental image of the story when used as a medium of instruction (Anggraeni, 2017). It is feasible by the multimodalities or semiotic resources, such as pictures, sounds, motions, letters, and colors that the DST affords. In addition, a myriad of studies found that the use of DST could escalate students' speaking skills (Kim et al., 2014); visual memory and writing skill (Sarica et al., 2016); listening comprehension (Verdugo et al., 2007); reading comprehension and

motivation (Anggraeni, 2017). Nonetheless, little research has documented its efficacy when used as a medium of instruction (henceforth DST-aided instruction) on both narrative writing and speaking skills. More specifically, to the author's best knowledge, no studies have investigated the effect of DST-aided instruction on the students' narrative writing and speaking skills in the context of Islamic school.

Based on the rationales above, this quasi-experimental research aimed to investigate its effects when used as a medium of learning on students' narrative writing and speaking skills at an Indonesian private-owned Islamic school. The following two research questions guide the whole part of the study.

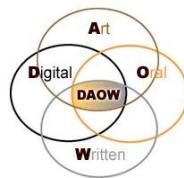
1. To what extent did the use of DST-aided instruction affect the students' narrative writing skills?
2. To what extent did the use of DST-aided instruction affect the students' narrative speaking skills?

## LITERATURE REVIEW

### *Theoretical Framework*

DST is a short personal story video containing pictures, voice recorded, music, or sounds, which is made very creatively for telling experience mediated by digital technologies (Dunford & Jenkis, 2017). Moreover, Razmi, et al (2014) state that DST is a revolution of the ancient way in delivering meaning of telling a story using technology.

Ohler (2013), an educational technology expert, shares a philosophy of DST which follows the "DAOW" of literacy. All four elements are combined to form a cohesive teaching and learning tool.



### *D is for Digital*

Ohler (2013) contends that students must use digital technology to amplify their creativity while learning critical evaluation of that technology. Students learn how digital media lends itself to give a voice by expression while powerfully conveying a message through their creations. The final product can change, morph, and inspire others.

### *A is for Art*

Art is a form of expression that weaves itself into learning when blended with technology and writing. Understanding the appropriate use of art within presentations helps to send out a powerful message to the audience.

### *O is for oral storytelling*

Good teaching is good storytelling. Storytelling is inseparable from speaking, where stories are being told orally to the listener.

### *W is for writing*

The organization and planning of digital stories first occur in written format before applying to the digital aspect through technology. Writing can help the storyteller manage the presentation of the material presented to the audience.

The DAOW's literacy illustrates the nature of modern storytelling known as DST, where the four elements are inseparable from making the storytelling. Digital and Art elements are the two parts that help the storytelling become more exciting and

impressive for the audience. Those two are the improvement of storytelling history in education and other sectors. That is why DST can be called modern storytelling. Moreover, the written and Oral elements are the core of storytelling. A good story is based on how it is organized in written forms and how it will be delivered using oral performance.

This study drew on the abovementioned DST framework to help the students improve their writing and speaking skills. The reasons for using this framework in our study were its widely adopted framework and effectiveness for guiding DST instruction. It provides clear guidelines in terms of teaching writing and oral skills.

### ***Previous Studies of Using DST***

#### ***DST and Writing Skills***

Sarica and Usluel (2016) studied the effect of DST on students' visual memory and writing skills for second-grade primary school students in 13 weeks with a randomized pre-and post-test control group design to collect the data. They found that the  $H_0$  hypothesis was not rejected at the .05 significance level. DST did not create a significant difference in the students' Visual Memory Capacity or VMC ( $1.42 < 1.68$ , that is  $tH < t57, .05$ ). Furthermore, no significant difference was found to the advantage of the experimental group in terms of VMC compared to the experimental and control groups. At the same time, DST created a significant difference in the students' Writing Skills ( $3.07 > 1.68$ ,  $tH > t57, 0.05$ ). In sum, the score on the visual memory was not significantly different, although the score of the students in the experimental group was higher than the control group. Nonetheless, the study proves that the use of DST can promote students' writing and visual memory.

Another research by Hassan, Zakareya, and Yahia (2015) unveiled that the students taught in a program-based English DST gained significantly higher scores in writing. However, it was not significantly different in terms of reflective thinking than the

students in the control group, with no statistically significant difference between the mean score of the control and experimental groups on the reflective thinking post-test ( $t=1.920$ ,  $p>0.05$ ). However, this study also provides empirical evidence of the efficacy of DST on the students writing skills given the statistically significant difference between the mean score of the control and experimental groups on the writing performance post-test ( $t=7.738$ ,  $p<0.05$ ). Similarly, Yamaç and Ulusoy(2016) found that that DST enhanced students' ideas, organization, word choice, sentence fluency, and conventions in terms of writing quality. Azis and Husnawadi (2020) investigated DST-based tasks to promote the students' writing performance and perceptions. It was unveiled that the learning method's implementation could significantly promote

### *DST in Teaching Speaking*

Tahriri, et al (2014) examined the effect of DST on EFL learners' speaking skills and motivation. The students in the experimental group gained a more significant increase on both variables than did their counterparts in the control group. Similarly, Kim (2014), drawing on both qualitative and quantitative data, found that DST was positive for enhancing the students' oral proficiency. It was also better with the feedback given by the instructor. The study encapsulates that students' self-assessment, study, work, and instructor's feedback using digital storytelling for the orchestration of DST positively contributed to the oral proficiency improvement of students. Another study by Marzuki et al. (2016) found that the learners' speaking ability improved from 17 or 72.27% passed in Cycle 1 to 22 or 100% passed the success criteria in Cycle 2. It also showed that their classroom activities improved from 8 or 36.36% who were very active (VA) and 14 or 63.64% who were active (A) to 18 or 81.82% who were very active (VA), and 4 or 18.18% were active (A). In sum, the implementation of the Interactive Storytelling Strategy increased the EFL learners' speaking ability and their classroom activities.

*DST in EFL Context*

Verdugo and Belmonte (2007) examined digital stories' effect on students' listening comprehension with a six-year-old Spanish Learner. They found that the pre-test result shows a better control group score than the experimental group. After treated using digital stories technology, the experimental group outperformed the control group, showing that the experimental group has better results after the treatment using technology, where the mean difference on the final test of the control group was 5.16 (SD:1.62). In contrast, the experimental group obtains 6.25 (SD:0.852). Thus, there was a significant difference between the two groups then the experimental group outperformed the control group.

Additionally, Anggraeni and Afifah (2017) research discovered that after being taught by using developed materials through digital storytelling, the reading score of short stories increased, which 64 % of students were in an outstanding category and 36 % of the students were in a suitable category in the post-test result. It was different from the pre-test result that 7 % of students were in an outstanding category, and 14 % were in the excellent category. The students revealed this improvement after applying digital storytelling for teaching the reading of short stories.

Abdel-Hack and Helwa (2014) argue that digital stories and weblogs were suitable tools for EFL majors at Benha Faculty of Education, Egypt, to increase their English knowledge. Moreover, they were a means for increasing students' motivation to improve and practice their EFL writing and critical thinking skills. There is a statistically significant difference between the means scores of the pre and post-assessment of the study sample in overall EFL narrative writing skill in favor of post-assessment", where "t-value" is (24.599), which is significant at the (0.01) level of significance. Moreover, EFL critical thinking skill in favor of post-assessment", where "t-value" is (62.180) which is significant at the (0.01) level of significance. Thus, both digital stories and Webvlogs were effective in helping EFL learners in learning English.

Drawing on the above studies, it is crystal clear that the use of DST could enhance students' language skills, mainly speaking and writing, including their motivation. Nonetheless, none of the abovementioned studies investigated the effect of DST when used as a medium of instruction rather than engaged the students in the orchestration of it that results in the production of the DST, particularly in the context of Islamic boarding schools. For this reason, this study aimed to fill this void and examined the effect of using DST as a medium of instruction on the students' English speaking and writing skills.

## **RESEARCH METHOD**

### *Research Design*

Quasi-Experimental designs with non-equivalent control and experimental group were used in this research. A causal relation between a dependent and independent variable with two groups is suitable for this research design.

### *Data Collection and Analysis*

This study drew on the quasi-experimental study design that involved control and experimental groups. The reason for using the research design was because of the nature of the classrooms that did not allow random sampling procedure. Pre- and post-tests of Writing and Speaking were applied to garner the students' productive skills before and after the treatment. The data were then analyzed using an independent t-test using SPSS21 to determine whether the use of DST as a medium of instruction had significant effects on the students' writing and speaking skills.

### *Participants*

The participants of this research were two classes of tenth-grade students of MA Al Ijtihad Dangerin Lombok Indonesia. They were mixed ability students whose language skills varied from basic to elementary levels. The students did not participate in any English courses except in their school.

### *Learning Design*

This study lasted for three months. The researcher also played a role as the teacher in the classroom activity. As an illustration of the treatment in the first unit, the class began with some warming-up activities by giving the experimental class some interesting DST videos. After that, the teacher showed another video that explained Simple Past Tense in the first meeting. At the next meeting, the students were introduced to the recount text and the combination of those materials; at the third meeting, the teacher then explained what the video meant clearly to help the students better understand. The teacher let the students ask some questions about what they had learned and responded to them. In the next meeting, the teacher showed a DST video about a past vacation on the island of Lombok, which required the students to jot down some less common words for them and shadow the speaking of the storyteller together aloud. In the last meeting of the unit, the teacher asked the students to make a story (recount) then give them some feedback. These learning procedures were also applied to the other two remaining units in this study.

## **FINDINGS AND DISCUSSION**

The statistical evidence generated by the SPSS showed that there had been an increase in the students' writing and speaking skills in both the control and experimental groups (see table 1).

**Table 1. Descriptive Statistics**

	N	Min.	Max.	Mean	SD
Writing pre-test control	22	25	63	44.22	8.66
Writing post-test control	22	44	69	55.18	6.94

Speaking pre-test control	22	28	52	40.36	6.52
Speaking post-test control	22	32	56	43.09	6.41
Writing pre-test experiment	20	25	56	39.25	7.06
Writing post-test experiment	20	50	75	62.05	6.21
Speaking pre-test experiment	20	28	48	39.40	5.07
Speaking post-test experiment	20	32	48	41.00	5.49

Another statistical evidence attested by the paired sample t-test showed that the students in the experimental group gained significantly higher scores in writing compared to their counterparts in the control group, as shown in table 2.

**Table 2. Paired Samples Test**

		Paired Differences	T	df	Sig. (2- tailed)
	95% Confidence Interval of the Difference				
Pair 1	writing pre-test control - writing post- test control	-8.69	-10.07	21	0.000

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Pair 2	speaking control	pre-test -	0.58	-2.64	21	0.015
		speaking				
		post-test control				
Pair 3	writing experiment	pre-test -	18.83	-12.03	19	0.000
		writing				
		post-test experiment				
Pair 4	speaking experiment	pre-test -	0.05	-2.03	19	0.057
		speaking				
		post-test experiment				

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It was found that that there was a significantly higher score in the writing pre-test of experimental class ( $M=39.25$ ,  $SD=7.06$ ) and writing post-test (after having the treatments) of experimental ( $M=62.05$ ,  $SD=6.21$ ) conditions;  $t(19) -12.02$ ,  $p= 0.000$ . It indicates that there was a significant effect of using DST-aided instruction on students' writing skills. However, it was different from the speaking test, where the pre-test ( $M=39.40$ ,  $SD=5.70$ ) and ( $M=41$ ,  $SD=5.48$ ) condition  $t(19)-2.02$  and  $p\text{-value}= 0.057$  was higher than 0.05, which means that there was no significant difference between the two groups.

DST in this research was used as a medium in classroom activity, the researcher used DST to present the material to students. The use of DST in the classroom helped the teacher to serve the lesson effective and efficiently as compared to control class; without using DST, the class spent more than an hour and a half to present, for example, the material about past tense, while in experimental class only an hour is enough for serving the material even less than it. The use of DST showed students how simple past tense is used and the way to make storytelling. Along with the lesson, students were allowed to ask a question from the digital storytelling video that they have watched. They should make an example of simple storytelling before the lesson ended.

There is a significant score in writing pre-test of experimental class ( $M=39.25$ ,  $SD=7.05$ ) and writing post-test (after having the treatments) of experimental ( $M=62.05$ ,  $SD=6.21$ ) conditions;  $t (19) = -12.02$ ,  $p= 0.000$ , as the p-value was less than 0.05, means that there was a significant effect of using DST on students' writing skill, which means that there is a significant effect of using DST on students' ability to use simple past test in writing skill.

This finding concurs with other previous studies (e.g., Sarica & Usluel; Hassan et al.; Yamac & Ulusoy). It was uncovered that the use of DST in learning activity positively affected students' writing skill development and literacy in the writing process. Thus, using DST as a medium of teaching writing is a better way to enhance students' writing skills.

Drawing on the result of paired sample t-test in experimental class, which was obtained that the pre-test score ( $M=39.4$ ,  $SD=5.07$ ) and post-test score ( $M=41$ ,  $SD=5.48$ ) condition (19)-2.02 and  $p\text{-value}= 0.057$  is higher than 0.05, which means that that there was no significant effect of using DST on students' ability to use simple past test on students' speaking skill.

As the result of students' speaking skills is different, the researcher reflected on some similar studies investigating the effect of DST on students' speaking skills with a significant difference in the result of their study. Solmez concluded that the result shows the DST type of instruction had a statistically significant effect on EFL learners 'oracy skills. The experimental group of his research had two meetings in a week. One meeting consists of four sessions, and each session was spent an hour. The different cases happened in the current study that only had one meeting in a week consisting of two sessions, and each session is spent 45 minutes. Solmez conducting more extended treatment than the current study should be one indicator that makes DST not significantly affect speaking skill in the current study.

Another similar research by Kim found that DST develops students' oral proficiency by applying self-assessment, motivation,

and feedback in creating their storytelling. Unlike the current study, which did not significantly differ in spoken discourse, Kim's research has a specific application for students to create digital storytelling and give motivation and feedback to the story to create better storytelling for the next time orally. Additionally, Razmi et al. also have the same finding that shows the elements of DST (images, texts, videos, sounds, music, and voices) in the making storytelling can help students improve their skills, including speaking skills engagement lesson. A different case happened to the current study that only asks students to make their storytelling based-paper and retell it orally in a short time classroom activity. It lacks students' practice and engagement during the treatments. In sum, that evidence indicates the lack of the current study in implementing DST. In consequence, it did not have any significant effect on students' spoken discourse.

The two different results indicated that the mean score of writing post-test in experimental class (62.05) is higher than the mean score of writing pre-test (39.25). The difference between these two mean scores is statistically significant. While in the speaking post-test of the experimental class, the mean score was 41, and in the pre-test, the mean score was 39.4, it clearly showed that the result of these two mean scores in the speaking test is not significantly different.

## IMPLICATIONS AND CONCLUSION

After analyzing and discussing the data, the result of students writing skills in the experimental class outperformed the control class after having the treatment by using DST. While the result of students' speaking skills at the experimental class was different, the pre-test and post-test of the experimental class did not show a significant difference as the pre-test mean score was 39.4, and the post-test mean score was 41.

Drawing on the findings of the current study, it generates two implications, practical and theoretical implications. Practically,

students should be aware of the importance of English and technology in this modern era and for their future. They should use technology to help them in learning English, especially like DST, they can make their DST and practice both their writing and speaking skills and combine it with other elements like video, sounds, image, effect, text animation, etc., so they will be more creative and educated. In addition, most of the MA Al Ijtihad Danger students think that English is a detailed lesson and hard to understand and to use in real life. The role of the teacher to rebuild students' mindset about English. A teacher needs to serve appropriate material that makes students interested in learning English and make them think that English is easy and fun to learn by using technology and practice, e.g., DST is one of the technologies that can help the teacher serve the interactive material for students. It also will help the teacher to make students more active and interested in the lesson.

Theoretically speaking, the present study has some pedagogical weaknesses. First, as this study was undertaken for a short period, future research should conduct longer treatments, so students should be more active and have a longer time to practice the language. Second, students lack engagement. The subsequent research hopefully will guide students to make their storytelling based-project. It helps them to be more interested in engaging themselves in the lesson. Third, another Qualitative study may be conducted to explore how students learn to write and speak in English using DST. For example, a case study on how and why DST can promote students' language skills development. Future research can also look into other variables, such as the effect of DST on students' critical thinking, motivation, self-confidence, and engagement.

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