

EXAMINING UNDERGRADUATE EFL STUDENTS' WRITING SKILLS AND CHARACTER DEVELOPMENT THROUGH DIGITAL STORYTELLING

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Abstract: Recent studies highlight that digital storytelling can develop EFL students' linguistic and cultural repertoire. The students' involvement in a series of activities in composing the digital stories has also been shown to instil certain character values, such as autonomy and creativity. However, the ways digital storytelling can facilitate literacy and character development among university students not majoring in English Language Teaching (ELT) are not sufficiently known. This study examines the writing skills and character development of 36 undergraduate EFL students majoring in Korean Language Education in Indonesia. A qualitative research approach was employed. The students' revised story scripts were analysed using textual analysis to identify their writing skills development in three aspects: format and content, organisation and coherence, and sentence construction and vocabulary. Meanwhile, their character development was examined from the interview transcripts and reflection sheets through thematic analysis. The results showed that students demonstrated writing skills development in composing effective, grammatically correct sentences and incorporating more details into the story. Only a few students were concerned with organisation and coherence, which might be due to the predetermined structure of the story given by the teacher. Further, the process of scriptwriting and creating the digital story offers valuable opportunities to foster 12 of the 18-character values mandated by the Indonesian government, with a strong emphasis on autonomy and creativity. The findings extend the affordance of digital storytelling in developing writing literacy and character values from the experience of EFL and non-ELT students in a higher education context.

Keywords: *character development, digital storytelling, undergraduate students, writing skills*

INTRODUCTION

Writing has been regarded as a complex cognitive phenomenon using language to make meaning and convey ideas, including in the context of English language learning. This language production activity involves various types of knowledge, such as content, the language system, process, communicative purposes, and contextual understanding (Hyland, 2019). Developing good writing skills is essential for learners, as it can enhance their thinking skills and support the improvement of other language skills (Purnamasari et al., 2021), as well as contribute to overall language learning and development (Williams, 2012).

As one of the productive skills that students need to learn, writing enables them to generate ideas and, with sufficient effort, produce words and sentences. According to Asiah et al. (2020), students can express their feelings, knowledge, and ideas through writing. Moreover, learners who are proficient in writing benefit not only in terms of academic achievement but also in their preparation for the professional world (Aliyu, 2020; Bora, 2023).

Moreover, language education and character education are strongly intertwined (Sulyati, 2020). Strategies, techniques, media, and instructional resources used in language and literature instruction must be optimised to integrate educational values and virtues that shape students' characters. For instance, character development can be facilitated by engaging students in cultural exploration through language education (Cahya & Syafrizal, 2022). In the Indonesian education system, the importance of character education through language education is closely linked to the implementation of national values, as formulated by the Ministry of Education and Culture in 2010. Furthermore, the 2013 Curriculum emphasises not only knowledge and competencies but also attitudes. It outlines 18 core values for the students' character development, namely: (1) Religious, (2) Honesty, (3) Tolerance, (4) Discipline, (5) Hard Work, (6) Creativity, (7) Independent, (8) Democratic, (9) Curiosity, (10) Nationalism, (11) Love the Motherland, (12) Appreciating Achievement, (13) Friendly or Communicative, (14) Peace of Love, (15) Love to Read, (16) Environmental Care, (17) Social Care, (18) Responsibilities. These national character values are embedded as core competencies within the curriculum (Sulyati, 2020). In other words, character education is either integrated into or becomes the focus of every subject across all educational levels.

The rapid development of information technology has positively influenced teaching and learning methods. Among the current language teaching methods, digital storytelling is recognised as an innovative method that emphasises telling stories or personal narratives through the use of digital technologies to construct meaning (Maksum et al., 2022; Yang et al., 2020). Moreover, digital storytelling serves as an interactive picture story medium that combines story text, audiovisual elements, and animated films, making learning more engaging and contextual (Anisimova, 2020). Practically, digital storytelling involves ideation/brainstorming of the story, story writing, making an initial video-based digital story, and developing and editing the video through the complex selection and use of technology. Students' involvement in digital storytelling is believed to be useful for developing academic performance and four macro skills of language: reading, writing, listening, and speaking (Yang et al., 2020), certain writing skills and visual memory (Sarica & Usluel, 2015), learning motivation (Hava, 2020), and interpersonal relationships (Azis & Husnawadi, 2020).

Several studies have explored the contribution of digital storytelling to students' writing skills and character development. Çetin (2021) claims that digital storytelling enhances learners' skills in areas such as research, writing, content production, technology use, presentation, and interpersonal communication. This is further justified by Yang et al. (2020), who found that the implementation of digital storytelling contributes to improvements in students' English speaking and creative thinking. Additionally, the variety of activities involved in digital storytelling encourages the development of critical thinking. Under the teacher's guidance, students were found to be verbally creative in both English writing and speaking. Kim and Li (2021) also highlighted the benefits of employing digital storytelling as a medium to enhance learners' technological competence, as well as their thinking and creativity skills. In connection with character education, digital storytelling has

influenced students' and teachers' attitudes toward cooperation, problem-solving, and information-gathering abilities (Çetin, 2021; Mohammed, 2022). The implementation of value-based digital storytelling in the Indonesian higher education context has also shown a positive contribution to student character development (Saripudin et al., 2021). The primary character values cultivated include religiosity, courtesy, care, responsibility, and self-confidence. When the students create their own digital storytelling projects, either individually or in groups, it directly enhances their digital literacy and character development, as they become more familiar with student diversity, build self-confidence, and strengthen their social and psychological skills.

Based on the abovementioned, this study aims to qualitatively examine students' writing skills and character development facilitated by digital storytelling since there are limited empirical studies integrating both writing and character development through digital storytelling, particularly in the Indonesian higher education context. This particular gap is crucial to be addressed, considering that digital storytelling has the potentials in engaging students with interactive, creative, and collaborative learning activities. Creating digital stories has been regarded as pivotal in fostering students' national characters (Saripudin et al., 2021). Also, character education should be integrated in all education levels as it is associated with affective development, but such character development has not been intensively incorporated in the core learning activity in the higher education context (Komalasari & Saripudin, 2019). Previous relevant research (e.g., Azis & Husnawadi, 2020) primarily concerned the experimental outcomes and ELT students' perceptions of collaborative DST tasks for EFL writing instruction. Previous reviews of educational digital storytelling also highlight the importance of EDS as a tool for escalating students' learning attitudes, emotional engagement, and self-awareness (Wu & Chen, 2020). However, the extent to which DST can facilitate character education under the national curriculum framework has not been explored much in a foreign language writing classroom. Thus, this research is expected to extend the positive evidence of how digital storytelling can facilitate students' writing skills and character development among undergraduate EFL students. To accomplish the research aim, the following research questions guide the present study.

1. How does digital storytelling develop students' writing skills, as reflected in their storyboards?
2. How does digital storytelling build the good character of the students?

METHODS

Research Design

The present study adopted a qualitative classroom-based research design, focused on analysing the enhancement of students' writing literacy, as reflected in their storyboards, and unpacking students' good character manifested during the process of completing the digital storytelling task. The classroom-based research approach was selected, considering the nature of understanding a phenomenon in a local learning environment. The findings are aimed at contributing to the development of scholarship in the broader context regarding the affordability of DST in enhancing students' writing literacy and shaping good character in EFL classrooms.

Participants

The participants involved in this research are 36 Indonesian undergraduate non-ELT students at a public university in Bandung, who have given their consent to cooperate for research purposes. They took a compulsory English language course for all first-year students, which aimed to develop students' English language skills for digital presentation purposes. At the beginning of the course, the teacher discussed the learning contract with the students, including the specifications of the digital storytelling task as the final exam. All students finally agreed that the DST task was done individually and consented to complete all stages and provide relevant data for research purposes. At the end of the course, the students submitted their original storyboard, the revised storyboard after obtaining feedback from peers, and a written reflection of their strategies in completing the task.

Instruments

Two main instruments were employed to collect the data: a writing rubric and a reflection sheet. The writing rubric was intended to measure students' skills in writing a digital storyboard, manifested in their original script and the revised version after receiving feedback from peers. The rubric was adopted from Hyland's (2019) analytic scoring rubric, consisting of three main writing aspects: format and content (task fulfilment, completeness of ideas, genre conventions, and sense of audience), organisation and coherence (message delivery and logical progression), and sentence construction and vocabulary (use of sentences and transitions, grammatical rules, and register). For each aspect, there are four levels of marking: excellent to very good, good to average, fair to poor, and inadequate. In this sense, the rubric was used to identify to what extent each writing aspect was addressed in the revised version of students' storyboards. Meanwhile, the reflection sheet was intended to record the manifestation of students' good character building through the DST task. The sheet was researcher-made, containing a prompt asking the students to reflect on their strategies to complete the DST task. The teacher did not determine any writing specifications and limited the use of working languages to avoid information bias and language barriers in conveying their ideas.

Data Collection Techniques

Prior to the digital storytelling task, the teacher delivered several language inputs regarding basic English grammar lessons applicable for constructing sentences, followed by several exercises in identifying certain grammatical structures in model texts. The topics in the model texts were about introducing oneself, suited to the theme of digital storytelling; that is, self-introduction. In the middle of the course, the students were given several model digital storytelling videos from YouTube with subtitles to make them familiar with ideas typically occurring in the storyboard. A short introduction to digital storytelling and the principles of writing the storyboard was also provided by the teacher. Then, students were required to compose the story draft, which was peer-checked afterwards. They revised their storyboard based on the peer feedback given before, using Microsoft Word with track changes to ease the textual analysis process. After completing the task, the students wrote a reflection on strategies to maximise the story writing and the video of digital storytelling.

Furthermore, as many as 23 students willing to participate in the interview session were invited to provide in-depth responses to several questions, based on their experiences. The

questions were focused on digging into students' impressions of completing the DST task, benefits obtained from the process, challenges and coping strategies, and their strategies to integrate technology into the process. All interviews were conducted online using Zoom meetings with an average of 30 minutes per interviewee, and they were video-recorded for further analysis. Similar to the reflection writing, all respondents were allowed to use the Indonesian language so that comprehensive responses to each question could be obtained. All recordings were manually transcribed to ease the analysis process.

Data Analysis

Once all data sets (i.e., students' storyboards, reflection sheets, and interview transcripts) were obtained, the researchers began the analysis process by annotating modifications/adjustments made in the revised version of the storyboards. Each revised point was labelled based on the three writing aspects from the assessment rubric (i.e., format and content, organisation and coherence, and sentence construction and vocabulary). Then, the number of occurrences for each label was calculated to generate the trends of students' writing skills development. The researchers carefully read and analysed the validity of each revision. Of 513 revisions, as many as 30 revisions were not analysed since they were still incorrect, mostly related to grammatical aspects. To exemplify the manifestation of students' writing skills development, several textual excerpts were taken from each writing aspect.

Meanwhile, a qualitative thematic analysis was adopted to identify what character values were ignited by completing the digital storytelling task among the students. Each interview transcript was coded verbatim, based on the keywords from the students' utterances. The codes were further classified into several categories, reflecting the character values. In this sense, the researchers referred to the 18-character values mandated by the Ministry of Education and Culture of Indonesia in 2018. Then, the analysis findings from the interview were strengthened by the findings from students' reflection sheets. A similar procedure to the analysis of interview transcripts was applied, focusing on how the DST task can facilitate students' character building. However, the analysis findings were not intended to generate trends, but rather to narrate the process of completing the digital storytelling task from two representative students in a reflective fashion.

FINDINGS AND DISCUSSION

The Development of Students' Writing Skills, as Reflected in Their Storyboards

In this study, we examined the students' writing skills development by analysing the correct revisions made by them after receiving feedback from their peers. The content analysis yielded 483 correct revisions in the 36 revised storyboards, as depicted in Table 1 below.

Table 1. A Summary of the Number of Revisions After Peer Feedback

Writing aspect	Number of correct revisions	Sample of revision
Sentence construction and vocabulary	308 (64%)	extracurricular when I was a senior high school student. I have participated twice as an N1 adjudicator in English Debate Competition. I have also participated as a committee in an English Debate Competition. Next, I joined a scout when I was a senior high school student. I

Writing aspect	Number of correct revisions	Sample of revision
Format and content	167 (34%)	I have graduate from Tunas Harapan Kindegarten at 2006, <u>when I was in A class I ever crashed with my friend. We were play one of the games in the school garden. At that time, neither me or her didn't see forward. So, we crashed and my lips bled, while my friend she wasn't injured at all.</u>
Organisation and coherence	8 (2%)	When I was in junior high school. <u>I got the first rank in 7th classgrade, I was so elated on that day. I received about Rp. 300.000 for the incentive of my achievement. and I got the third rank in 8th and 9th class In the 8th and 9th grades, sadly I only got the 3rd rank. But I didn't give up.</u>
Total	483 (100%)	

Sentence construction and vocabulary were the most concerning writing aspects among the students, followed by format and content development. Meanwhile, organisation and coherence appeared least frequently in their revised storyboards. This indicates that peer feedback during the development of the initial storyboard influences the students to be more aware of correcting errors in grammatical rules and lexical choices and providing details to the content toward story development. The reason for the lowest number of correct revisions on organisation and coherence might be due to the template of the storyboard given to the students, within which several guiding points were already provided (i.e., opening, introduction to self, and educational background). Hence, this does not reflect little development of students' writing skills in that aspect.

Format and Content

The revised storyboards reflected how the students exhibited writing skills development in adding detailed information when telling their experiences or describing personal qualities. Additionally, some of the students showcased their development in putting their emotions into the content through reflections or evaluation of one's decisions in a particular situation. Apart from the story-related content, the students became more thorough in adhering to the format or task specifications, particularly related to the insertion of multimodal elements, such as adjusting the duration of each point, adding relevant visual materials or songs to enhance the meaning contained in the verbal resources.

Original text		Revised text
I continued my education at UPI, majoring in Korean language education. I am very happy because UPI is my dream university. After graduating from UPI I will continue my Masters in Korea. Amiin (Rahul, Male Student)	⇒	I continued my education at UPI, majoring in Korean language education. I am very happy because UPI is my dream university. <i>I have a story about how I struggled in high school, to be honest I didn't expect to get into a top university in West Java, even though I didn't like studying and wasn't serious like my friends in class. I miss that moment so much, I often regret why I never enjoyed the moment. Sometimes I want to come home from training, but mom said "no! you can't go home, because this is your best way for you". even though that moment is very precious to me.</i> After graduating from UPI I will continue my Masters in Korea. Amiin

Note: The addition is marked by italicised blue colour text.

In his first draft of the story, Rahul provided information about his educational background, including his current status as a student at the Korean Language Education Study Program, followed by his future goal of pursuing a Master's degree in South Korea. After receiving feedback from his peer evaluator, he realised that additional information regarding his struggle to get into college was needed, making the revised part of the story more detailed and reflective. The textual evidence resonates with previous studies (Castillo-Cuesta et al., 2021; Yamac & Ulusoy, 2016) that digital storytelling can enhance students' writing skills, particularly in strengthening their ideas in the story writing process.

Organisation and Coherence

Most students did not showcase a considerable number of revisions in this writing aspect. Very few students were concerned about ensuring the logical flow of the story and the use of transitional markers to tie the story as a whole. They made revisions to the use of appropriate transitional signals after they added details of the story, as depicted in the excerpt below.

Original text		Revised text
They always cheer me up and teach me how to work hard and play hard. Also teach me how to rest hard from all of my activity and enjoy my youth. (Sherly, Female Student)	⇒	They always cheer me up and teach me how to work hard and play hard. Also teach me how to rest hard from all of my activity and enjoy my youth. <i>In the future</i> I want to be a translator for Korean idols who came in Indonesia. <i>At first</i> I wanted to become a doctor, <i>but I realised that</i> I was more interested in the language major. <i>So this is my life story, thanks for watching till the end! Have a nice day!</i>

In Sherly's original story, the story ended with the activities and interests, highlighting the supportive people surrounding her to maintain balance between work and leisure. Then, she noticed the absence of information about her future goal(s) and a closing statement to indicate the ending part of the storytelling. Once she developed the ending part of the story, she inserted appropriate transitions so that the additional part became more organised and logical. The students' development in organising information toward a coherent story echoes Tanrikulu (2020), reporting Turkish university students' positive perceptions of digital storytelling to ignite them in providing effective writing. In the present study, Sherly's

written excerpt reflected the students’ development in providing an effective way to convey their thoughts.

Sentence Construction and Vocabulary

Regarding the third aspect, the students showcased their writing skills development in constructing grammatically correct sentences. This includes the use of correct verb forms based on the tense, appropriate prepositions of place and time, and appropriate forms of singular and plural nouns. In addition to that, the students’ noticing of orthographical errors, such as misspelt words, as well as punctuation. The following excerpt exemplifies one of the improvements made.

Original text		Revised text
Now I am studying at Indonesia University of Education. And I am majoring Korean language education. I have an unforgettable memories that I want to tell you. (Rani, Female Student)	⇒	Now I am studying at Indonesia University of Education. And <i>my major is</i> Korean language education. <i>I have unforgettable</i> memories that I want to tell you.

In this sense, Rani began her struggling story in entering college in her target study program; that was Korean language education. Once she got an insight from her peer, she noticed that there were grammatical mistakes in the second and third sentences. Then, she made corrections to the first clause from *I am majoring* to *my major is* and added an additional r letter to the word *unforgettable*. Another piece of textual evidence is associated with the students’ vocabulary noticing from Jabal’s revised story script. He preferred to change the word *act* into *performance* in the sentence *I have also experienced as the performer and the director of my club’s act at the X Culture Festival 2018 in my school*. His sense of noticing would not have been reflected if there was no input from peers during the story writing process, given the nature of digital storytelling itself. Similarly, previous research (Al Ghaithi et al., 2023; Belda-Medina & Goddard, 2024; Nami & Asadnia, 2024; Tatlı et al., 2022) found that students’ experiences in completing digital storytelling tasks can afford vocabulary learning toward increased vocabulary mastery.

Students’ Character Development Facilitated by Digital Storytelling

The analysis findings of interview transcripts, supported by students’ reflection sheets, are used to reveal the potential of digital storytelling in building good character values among the students, in addition to their writing literacy. Generally, the thematic analysis yielded 12-character values, facilitated by digital storytelling: religiosity, honesty, tolerance, discipline, perseverance, creativity, autonomy, curiosity, appreciation of achievements, communicativeness, love of reading, and responsibility. Table 2 below provides the description of each character value’s manifestation, based on the existing data.

Table 2. Manifestation of Character Values in the Students' Process of Digital Storytelling

Character values	Description of its manifestation
Religiosity	Feeling grateful for completing each stage of the task or in reflecting on previous life chapter/moments
Honesty	Expressing emotional honesty, personal limitations, and appreciation of others' works
Tolerance	Being open for insights from others or behaving with the challenging conditions in completing the video
Discipline	Showing systematicity and perseverance in completing the digital story
Perseverance	Demonstrating struggle in composing the script or ensuring the quality of the content in the video
Creativity	Demonstrating ability to integrate multimodal resources into the story with technology
Autonomy	Demonstrating self-exploration and independent process of gaining knowledge to produce quality digital story
Curiosity	Showing interest in learning new things during story writing or video editing
Appreciation	Expressing self-worth in accomplishing the task or exploring the story
Communicativeness	Expressing indirect awareness of being communicative through involvement in peer feedback and teacher-led discussion
Love of reading	Showing interest in reading learning materials relevant to English sentence making
Responsibility	Demonstrating sense of obligation to accomplish the task

Sifa's Process of Making Digital Storytelling

Sifa began her digital storytelling assignment feeling confused, lacking a clear understanding of what to write and how to construct the story. However, her curiosity drove her to try the VN application (a video editor tool) independently, demonstrating *curiosity and autonomy*.

"I've edited videos before, but I've only done basic video editing, but the editing wasn't very in-depth. I immediately tried making it, and also explored it like this, this, that. So, it's like downloading the application and trying it out. Previously, I used the Inshoot application, but the Inshoot application seemed incomplete, that's why I used VN, it's more complete."

She learned directly from the process, without relying on formal tutorials. Such decisions showcase a strong curiosity, as she is willing to try various editing applications and explore different features. Furthermore, she demonstrates autonomy in her decision to switch from Inshoot to VN for more comprehensive results. This change reflects a developing character: independent in learning while also open to exploring new things.

When writing the script and recording the sound, she demonstrated *perseverance* by repeating steps repeatedly to achieve the best results. This process taught her the importance of *discipline* in time management and completing tasks on time. She also realised that video editing is not just about technique, but also requires *creativity* to convey a compelling story. Hence, she attempted to learn editing skills by watching YouTube videos. Reflecting on this experience gave her greater confidence and *appreciation for the effort* behind digital work, while also developing language skills, technology skills, and personal responsibility.

Lola's Process of Making Digital Storytelling

Lola was initially nervous when she received the digital storytelling assignment. Despite having little editing experience, she *honestly* admitted that she was working on the video against a tight deadline. Challenges arose when creating a complex and time-consuming stop-motion video.

"Then, I learned how to edit, especially with stop-motion video concepts, then inserting songs and adjusting them to the audio I had recorded for my script."

She demonstrates an honest acknowledgement of the learning process, from simply trying to truly grasp the concepts of stop-motion and audio adjustment. It also reflects a keen curiosity, as she continues to explore new techniques to enrich her work. However, she still tried to complete it responsibly. In the process, Lola learned to appreciate the efforts of professional editors and began to *be more tolerant* of her own limitations, including when she had to redo voice recordings. She also grew to appreciate her school achievements, which she incorporated into her story. Through *good communication* with lecturers and friends, Lola realised the importance of the process, not just the result. Now, she is more aware of the importance of time management and continues to develop her skills openly and honestly.

Tiya's Process of Making Digital Storytelling

Tiya embraced the digital storytelling assignment with joy, especially because it did not involve a traditional exam. She began the process by choosing to create an animated video—not because it was easy, but because she wanted to challenge herself and *explore something new*.

"In the past, video editing was abstract, just adding effects like that, but now I have a lot of new knowledge, so I learned from there, there is the VN application, now there are many applications like that, lots of exploration, if in the past I would just edit without knowing the features like now."

This statement emphasises character development through learning and exploration. While video editing used to be a simple process without understanding the features, there's now a growing awareness of the many applications, such as VN, that open up new opportunities. This shift demonstrates the transformation from passive users to individuals actively exploring technology to produce better work.

Throughout the process, she meticulously crafted the script, beginning in Indonesian and then translating it into English using more formal vocabulary, guided by the assessment rubric. Her *love of reading* helped her select precise and appropriate diction. She also

consulted with her lecturers and welcomed their feedback openly, demonstrating *academic responsibility*. The editing stage became a platform for her *creativity* to flourish. With guidance from friends who were skilled in cinematography, she learned new techniques and was even willing to invest money in high-quality animations to enhance the visual appeal. At every step, she remained grounded in *gratitude and sincerity*. “*Alhamdulillah*”, she said upon completing the video, expressing both her *religiosity and hope* for a rewarding outcome. For Tiya, the assignment was more than just a final product—it was a meaningful learning journey shaped by dedication and personal growth.

The three stories above indicate that digital storytelling has potential for building and developing students’ character values through their active and deliberate involvement in accomplishing every stage. Despite the feeling of nervousness at the beginning of doing the task, except for Tiya, they managed to make every process successful and meaningful. The findings lend support to the findings of previous research (Saripudin et al., 2021) revealing character development of Social Studies students through digital storytelling. The character values comprise religiosity, honesty, discipline, responsibility, courtesy, self-confidence, and care. Among all character values identified in the present study, we posit that creativity and autonomy are two values the students demonstrate most. The story writing and video editing process engages the students in deep learning, maximising their potential to make the story meaningful and aesthetic as well, as reported in Yang et al.’s (2022) study. Technology integration into the making of the story provides opportunities for students to learn by themselves, embarking on the spirit of autonomous learning and digital literacy (Çetin, 2021). This is reinforced by a Systemic Functional Linguistics (SFL)-informed analysis of digital stories in Kim and Li’s (2021) study that the students independently engage in the use of multimodal resources (i.e., texts, images, sound, animations) to present and remix messages in their stories. The use of technology, particularly social media like WhatsApp and YouTube, in language classrooms can instil character values of independence and creativity (Triarisanti et al., 2022). Sifa mentioned, “*because usually there are lots of application tutorials on YouTube, so it’s like looking for it by myself*”, reflecting self-initiative to navigate new technologies.

CONCLUSION

The present study has portrayed the potential of digital storytelling in developing students’ writing skills and character values, as reflected in their storyboards, interviews, and reflection sheets. By focusing on qualitative evidence, not experimental measurement, we show that digital storytelling allows students to make adjustments to their storyboards after receiving feedback from peers. The revisions mostly reflect students’ development in writing effective and grammatically correct sentences and adding details to the story. Further, the process of writing the script and making the digital story provides opportunities to build essential character values, most importantly autonomy and creativity. The findings of the present study extend the affordance of digital storytelling in developing writing literacy and character values from the experience of EFL and non-ELT students in a higher education context. Future research is recommended to investigate the ways Artificial Intelligence (AI) technologies can maximise the process of story writing and video making. Considering the natural language processing feature embedded in such technologies, students’ usage preferences, emotions, and ethics can be observed and measured to formulate practical principles of AI-assisted digital storytelling. Also, future research can focus more on experimental evidence on the effect of making digital stories on the students’

character growth. The results can draw on valuable and more convincing conclusions regarding the causal factors of digital storytelling tasks on the improvement of students' character traits, especially in the foreign language classroom context.

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APPENDICES

Appendix 1. A Revised Digital Storytelling Script

Cut (Slide)	Storyline (Alur)	Text/Subtitle	Picture	Music	Duration
1.	Opening	- FINAL PROJECT - DIGITAL STORYTELLING	- Campus logo - Additional video	Instrumental music	10 seconds
2.	Introduction/Personal identity	[Redacted] university student at Korean Language Education in the Indonesia University of Education. [Redacted] I was born [Redacted] and son of [Redacted] two the second brothers. Nasi Goreng is one of my favorite food while my favorite beverage is Bubble Drink. My hobbies are playing video games, gardening, watching movies, and eating food.	- Background - Animation - Picture of me and my brother. - Additional video - Illustration Picture	Instrumental music	1 minute
3.	Educational Background	[Redacted] School in Cimahi.	- Background - Animation - Picture of the trophy - Additional video	Instrumental music	1 minute 30 35 seconds
		When I was in elementary school, I got a weekly award for the cleanest student in my school. The day was so memorable because it was my honorable to obtain it. I was about a second-minute popular in my school. It was so lovely. When I was in junior high school, I got the first rank in 7th classgrade, I was so elated on that day. I received about Rp. 300.000 for the incentive of my achievement, and I got the third rank in 8th and 9th class. In the 8th and 9th grades, sadly I only got the 3rd rank. But I didn't give up. In junior high school graduation, I was announced as the second winner of the 2017 grade. I was very excited to let my mother know that I'm succeeded. I also won a Story Telling Competition as the 1st Runner Up. When I was in senior high school, I choose-chose Science Program because there was no Language Program. I got the 8th rank in the first grade. I got 12th rank for the second grade and 11th rank for the last grade. My educational journey was not as good as in junior high school, but alhamdulillah I was selected to be one of hundreds students in my grade that eligible to register in SNMPTN. And alhamdulillah, thank god, I passed the selection and I was accepted to continue my study at the Indonesia University of Education in Korean Language Education. Alhamdulillah. Hence, I wasn't in the biggest 3 ranks in my class. But I won a Story Telling Competition as the Winner of the Competition. I love storytelling so much.	Illustration Picture		

4.	Work Experience	I've ever worked as a worker and a founder-manager of my online game shop Line Play, where I decided to collaborate my hobby as a gamer with business. I've ever been a part of the a committee in Independence Day Commemoration 17 Agustus from 2017 until 2019. I have also experienced as the performer and the director of my club's act-performance of at the Azkaradinta Culture Festival 2018 in my school. I won a Story Telling Competition as the 1st Runner Up in junior high school. I also won a Story Telling Competition as the winner of the competition in senior high school. I worked hard to get those achievements because the competition was so strict. Gladly I became the winner at that moment. It was the most fascinating day I've ever had.	• Background • Animation • Picture of Line Play • Picture of my club's performance. • Additional video	• Instrumental music • Background music of my story telling	1 minute 30 seconds
5.	Activities and Interests	I'm in love with languages. I love English, Indonesian, and Korean language. I could also speak a bit little about of the Germany Language. I also love games and businesses. Nowadays, I'm still working to improve my online game shop, <u>Line Play</u>. <u>These days, I'm playing a lot of online games with my friends.</u> I'm in love with Theater, <u>Language</u>, Linguistic, Culture, and Literature. <u>These days, I'm learning more about Korean language in YouTube. It is really fun for me!</u> I'm joining Lakon Theater which works at the art of theater. I also am also doing my extracurricular activities in joined the Bersinar Club of Himabara's Arts Division Program. I joined am practicing Literation and Singing in	• Background • Animation • Picture of each language • Picture of my performance in Theater • Additional video	• Instrumental music • <u>Background music of my poetry reading</u> • <u>Background music of my singing</u>	1 minute 15 seconds
		the club-Division. These days I love to sing so that I want am going to start a new way of my life in singing. I'm also trying to practice singing by watching videos in YouTube.			
6.	Future Goals	I want to go to Korea- and And that is my biggest goal. I will study more about the Korean Language in Culture, Literature, and Linguistics. I will work hard to get it because it is one of my dreams. I wish I will be a teacher or professor. I love to help someone to get them to understand about something. I will get to know how to be a good teacher by watching my teachers' technique. My other future goal is to build a company where my friends and I can teach a lot of people. I also want to be a translator. <u>To be a good translator, I will learn it step by step. I will ask my senior who has been experienced as an interpreter.</u> When that day comes, it will be the best day of my life. Soon.	• Background • Animation • Picture of Korea • Additional video	• Instrumental music • <u>Background music of my learning in translating</u>	1 minute 15 seconds
7.	Closing	Thank you for watching this video. I hope you enjoy this video. Subscribe to this channel and turn on the notification button. See you in my next video!	• Background, no picture • Animation • Additional video	Instrumental music	15 seconds

Appendix 2. Tiya's Reflection Sheet of Strategies Applied in Digital Storytelling

1. Merencanakan

Ditahap ini saya merencanakan untuk konsep pembuatan video, apakah saya on frame atau menggunakan animasi saja. Setelah saya pikir-pikir saya ingin mencoba dengan menggunakan animasi saja, karena sebelumnya saya belum pernah mengedit menggunakan animasi. Lalu, saya mulai memikirkan apa saja yang akan saya tuangkan dalam script UAS ini, dan langsung saya ketikan dulu bahasa Indonesia nya untuk nanti saya terjemahkan dalam bahasa Inggris. Lalu saya juga merencanakan kapan saya harus mulai menyiapkan segala kebutuhan video digital storytelling ini.

2. Menyusun

Ditahap ini saya mulai menyusun script yang sudah saya siapakan dengan menerjemahkan kedalam bahasa inggris, dengan melihat rubrik penilaian, saya melihat bahwa tata bahasa atau kosakata harus sesuai dengan yang diharapkan, jadi saya menerjemahkan dengan kosa kata yang sedikit lebih formal dan kompleks (tidak common). Disini juga saya sedikit ada yang di revisi ketika sudah melakukan sosialisasi dengan dosen pembimbing mata kuliah tersebut. Dari tanda baca dan kesalahan penulisan, sehingga ketika di revisi menjadi script yang sudah tersusun rapi dan benar.

3. Membuat

Setelah saya menyusun script saya langsung membuat video tersebut, dengan mengumpulkan sedikit demi sedikit bahan video untuk disesuaikan dengan isi script yang sudah saya buat. Dengan bantuan teman saya yang ahli dalam bidang mengedit video (sinematografi) saya diberi arahan untuk mencari bahan dan mengedit video animasi karena sebelumnya saya belum pernah mengedit video animasi. Lalu saya juga merekam script dengan suara saya (*voice over*).

4. Mengedit

Setelah saya mengumpulkan bahan-bahan video yang sesuai dengan script saya langsung mengedit menjadi satu sesuai dengan susunan cerita yang saya buat. Lagi-lagi saya dibantu dengan teman saya untuk menyesuaikan kesinkronan video dengan *voice over* yang saya buat. Mengedit animasi juga ternyata tidak semudah yang saya pikirkan, saya juga harus mengeluarkan sedikit uang untuk membeli animasi gerak, agar kualitas video tidak membosankan dan agar lebih menarik.

5. Finishing

Setelah mengedit saya memeriksa terus menerus video yang saya buat, untuk menghindari kesalahan atau ketertinggalan. Lalu saya menyelesaikan video saya dengan memberi background dan memasukan nya kedalam script yang nantinya harus saya kumpulkan berserta dengan video nya. Lalu saya kumpulkan melalui google drive dan saya *turn in* di Microsoft Teams. Alhamdulillah hati dan pikiran langsung tenang dan bahagia, berharap mendapat nilai yang memuaskan. Amiin. Terima kasih [REDACTED].

BIO STATEMENT

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