



Developing Tat Twam Asi-based Digital Storytelling Media to Improve English Literacy of VIII Grade Students of Junior High School

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ABSTRAK

Literasi terus menjadi isu yang hangat diperbincangkan dalam konteks pendidikan, khususnya pada penerapan Merdeka Belajar. Penelitian ini bertujuan untuk mengembangkan media bercerita digital "Tat Twam Asi" untuk Siswa Kelas VIII SMP. Penelitian ini merupakan Penelitian dan Pengembangan (R&D) dengan menggunakan Model ADDIE yang terdiri dari analisis, desain, pengembangan, implementasi, dan evaluasi. Data dikumpulkan melalui observasi, wawancara, dan tes. Instrumen pengumpulan data adalah catatan lapangan, pedoman wawancara, lembar validasi, angket, dan tes literasi. Hasil menunjukkan bahwa media bercerita digital "Tat Twam Asi" dikembangkan dengan menggunakan model ADDIE. Rata-rata persentase kepraktisan produk dari respon guru sebesar 95,1%. Mengacu pada kriteria persentase kepraktisan produk diketahui bahwa tingkat kepraktisan media pembelajaran digital storytelling "Tat Twam Asi" berada pada kategori sangat praktis. Lebih lanjut penerapan media ini dapat dikatakan efektif karena terdapat peningkatan yang signifikan terhadap literasi siswa kelas VIII SMP.

ABSTRACT

Literacy has continuously become an issue in the education context especially in Merdeka Belajar. This research aims at developing a digital storytelling media "Tat Twam Asi" for VIII Grade Students of Junior High Schools. This research is Research and Development (R&D) using the ADDIE Model consisting analyze, design, develop, implement, and evaluate. The data were collected from observation, interview, and test. The instruments of data collection are field notes, an interview guide, a validation sheet, a questionnaire, and a literacy test. The finding shows that digital storytelling media "Tat Twam Asi" was conducted using ADDIE model. The average percentage of product practicality from teacher responses was 95.1%. Referring to the product practicality percentage criteria, it is known that the practicality level of digital storytelling learning media "Tat Twam Asi" is in the very practical category. Furthermore, the implementation of this media can be considered effective since there was a significant improvement in students' literacy of VIII Grade students of Junior High School.

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1. INTRODUCTION

Merdeka Belajar is a comprehensive learning concept initiated by the Minister of Education, Culture, Research and Technology, Nadiem Anwar Makarim, which aims to explore the potential of teachers and students in improving the quality of learning (Kemendikbudristek, 2023). The concept of *Merdeka Belajar* as a curriculum will be implemented nationally in 2024, where previously the Independent Curriculum was an option for educational units. The implementation of the Merdeka Curriculum nationally is based on the urgency of restoring learning with pressure on foundational skills, namely literacy, numeracy, and character which are weakened due to learning loss that occurred during the 2 years of the COVID-19 pandemic (Kristiantari, 2021; Susanty, 2020). One of the foundational skills that still needs to be improved is literacy, especially at junior high school. PISA data for 2022 shows that the reading ability score is 359 points, which is relatively low compared to the average score (Mevarech & Fan, 2018; Tonga et al., 2022). The 2023 Indonesian Education Report also shows that the literacy skills of students at the SMP/MTs level are in the medium category, namely 59.00% of students have literacy competencies above the minimum (Kemendikbudristek, 2023). Literacy is a combination of the ability to read and write and understand information and express ideas both concretely and abstractly (Adara, 2020; Haeussler, 2012). Literacy also refers to the ability to create and communicate meaning from and by using various

social contextual symbols, achieving desired goals through language skills (Fatyela et al., 2021; Khan, 2021). Mastery of literacy has an important role in cognition, social and intellectual life (Huettig & Pickering, 2019; Marmoah et al., 2023). Literacy skills contribute to national development by reflecting the qualities of each person, being functionally beneficial to the surrounding environment, and optimizing citizen involvement in the development of their nation (Asih & Ramdhani, 2019; Monica et al., 2019; Mulia, 2016).

Literacy plays an important role in English subjects. These literacy skills can be incorporated into various materials in learning activities in class and outside of class. Sukawati is one of the sub-districts in Gianyar Regency, Bali Province. There are 5 junior high schools in Sukawati District, namely SMP Negeri 1 Sukawati, SMP Negeri Hindu 2 Sukawati, SMP Negeri 3 Sukawati, SMP Negeri 4 Sukawati and SMP Negeri 5 Sukawati. Based on initial observations in the five junior high schools in Sukawati District, there were problems in students' literacy skills which can be seen from the students' low ability to understand reading texts in English and the students' low motivation in reading and writing (N. K. K. Dewi et al., 2021; Jubaerudin et al., 2021). Apart from that, students also experience obstacles in developing writing related to the assigned topic.

Based on initial test the average literacy score in the English subject for Class VIII junior high school students in Sukawati District is 77.2, which is categorized as moderate so it needs to be improved. Based on random interviews with several students from different schools, the problems they experienced were due to students' difficulty in understanding the content and structure of the text given. The root of the problem lies in students' lack of motivation in reading texts given by teachers who only use textbooks and worksheets (Lari, 2014; Romero et al., 2020). This makes students not concentrate and pay attention to the text provided so that students do not get the message contained in the reading material. The results of observations and interviews show that a medium is needed that can motivate, help, and facilitate students in mastering literacy in English subjects. Digital storytelling is a medium that attempts to combine various multimedia features such as graphics, text, recordings, sound, songs, and videos with the art of storytelling to present certain material or points for a certain time duration and packaged in an attractive digital format (Demirkan, 2019; Fortinasari Paulina et al., 2022). Research on the development of storytelling-based digital media in English language learning has grown rapidly in recent years. Digital storytelling has been known as an innovative method that can improve students' English literacy by presenting a more interesting, contextual, and meaningful learning experience (Hikmat, 2017; Monica et al., 2019). In general, previous studies have discussed the benefits of digital storytelling in language learning, including improving students' reading, writing, listening, and speaking skills (Anggeraini, 2018). A study conducted by study showed that digital storytelling can increase students' engagement in learning and improve their understanding of English texts (Daguay-James & Bulusan, 2020). In addition, another study emphasized the importance of using technology in language teaching, including digital storytelling, as a medium to develop students' communication competencies in a more authentic context (Marchetti & Cullen, 2015).

However, research that specifically integrates the concept of *Tat Twam Asi*, a Balinese cultural value that emphasizes empathy and social awareness, in digital storytelling to improve English literacy is still very limited. The concept of *Tat Twam Asi* in education has been studied in several studies that focus on character education and local wisdom-based learning (Giri & Girinata, 2021; Suastra et al., 2021). This study shows that the integration of cultural values in learning can help students build a deeper understanding of their cultural identity while improving language skills. This study has a unique position in the realm of learning media development, because it not only utilizes digital technology in storytelling but also adopts a local cultural perspective that can provide a more meaningful learning context for students. Thus, this study contributes to filling the research gap related to local wisdom-based digital storytelling in English teaching, especially for grade VIII students in Sukawati. Through this approach, this study is expected to provide innovation in English learning methods that are not only pedagogically effective but also relevant to the social and cultural context of students. Thus, the results of this study have the potential to be a reference for the development of other learning media based on local culture and digital technology in the future. One of the noble Balinese values that can be incorporated is the value "*Tat Twam Asi*" where this value is very relevant to the phenomenon of educational sins that exist in the school environment, namely sexual violence, bullying, and intolerance. Based on the analysis of these problems, it is necessary to develop a value-based digital storytelling media "*Tat Twam Asi*" to improve literacy skills in VIII Grade in English subjects in junior high schools in Sukawati District.

2. METHOD

The research carried out in this research is development research which aims to develop digital storytelling media. This research was designed in 1 year with a research and development (R&D) approach. The process of carrying out this research refers to the model chosen as a guide for conducting research. The model chosen in this research is the ADDIE development model developed by Dick and Carry which consists of 5 development stages, namely analysis, design, development, implementation and evaluation (Sugiyono, 2016). This

model was chosen because it presents more systematic research stages. Each research phase contains an evaluation so that the resulting product is more valid. The description of this research process is presented in the [Figure 1](#).

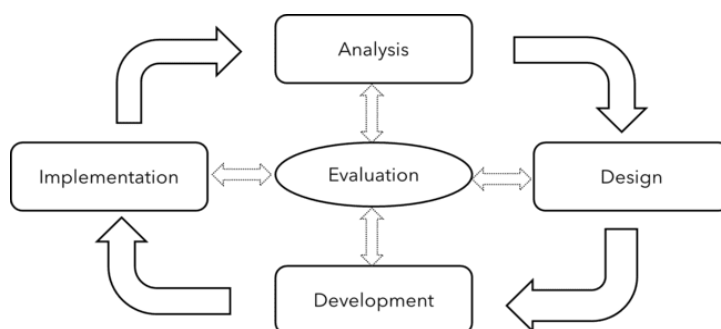


Figure 1. Research Process using the ADDIE Model

[Figure 1](#) is the implementation phase of the ADDIE Model research. Before carrying out the initial phase of development, the research was preceded by initial observations. This stage aims to determine the real condition of the subject to be researched so that it can provide an initial picture of the problems that occur. After the problem has been analyzed, the ADDIE model is implemented starting from the analysis, design, development, implementation, and evaluation stages. The population of this research is all Eighth-grade students of junior high school in Sukawati District. This research used the population as the sample consisting of 36 classes. The data were collected using observation, interview, and test. The observation and interview were conducted with the teachers and students to analyze the criteria for digital storytelling media. The instruments were field notes, rating scales, and literacy tests. The data were analyzed qualitatively and quantitatively; the qualitative data will be analyzed using [Miles and Huberman \(1994\)](#). The quantitative data were analyzed using descriptive statistical analysis using IBM SPSS 25.

3. RESULT AND DISCUSSION

Result

This research aims to develop digital storytelling media to improve literacy skills for Class VIII students in junior high schools in Sukawati District. This product was developed using the ADDIE development model which consists of analysis, design, development, implementation, and evaluation.

Analysis Stage

The analysis was the first stage in conducting this research. The analysis covers the preliminary observation and interview to gain the students' need for the media digital storytelling. The interview was carried out with the 10 English teachers in Junior High School in Sukawati District. The finding shows that the identification of student profiles, student interests, and preferences, access to media, obstacles in learning, and media specifications in English learning are the points considered in developing the product. Furthermore, Focus Group Discussion (FGD) revealed that in developing digital media storytelling "Tat Twam Asi" should focus on understanding of digital storytelling, feature needs in digital storytelling media, content type, and exercises and quizzes. The result of the need analysis can be presented in [Table 1](#).

Table 1. Result of Need Analysis

No.	Aspect	Description
1	The understanding of digital storytelling	<ul style="list-style-type: none"> ▪ The teacher stated that the storytelling method was very effective in developing students' speaking and writing skills, especially in practicing language skills contextually. ▪ They want digital learning media that is story-based because stories make it easier for students to understand the use of grammar and vocabulary in real contexts. ▪ Students feel more interested in learning English through stories because stories provide a plot that makes them interested in continuing to learn and completing assignments.

No.	Aspect	Description
2	Features in digital storytelling	<ul style="list-style-type: none"> ▪ The teacher suggests discussing difficult words and practicing questions after the story is finished. This is important to check students' understanding. ▪ Gamification features such as achievements or rewards can be added to keep students motivated. ▪ Media should also be user-friendly and easy to access on a variety of devices, especially smartphones, which students use more frequently.
3	The content	Story content should vary in theme and difficulty level. Stories can include themes that interest students such as adventure, mystery and science fiction, but they must also contain educational values and relevant language lessons.
4	Exercise and Quiz	After the story, there needs to be an interactive exercise to test students' understanding.

The findings of the need analysis can be categorized into the understanding of the concept of digital storytelling, features, contents, and exercises and quizzes. The result of the analysis can be the basis for developing digital storytelling media for VIII grade students in Sukawati district.

Design Stage

The results of the needs analysis through interviews, observations, and FGD were used as guidance for developing digital storytelling media "Tat Twam Asi". The design stage is realized in several activities, namely setting learning objectives and determining product specifications, designing storyboards, preparing materials, and designing data collection instruments. The learning objective was drawn from the learning objective of the D phase in *Kurikulum Merdeka*. The learning objective was on narrative text context; the media was used in teaching narrative text in VIII Grade. The design of digital storytelling media "Tat Twam Asi" is preceded by storyboard design. This is carried out to determine and design the outline of the media being developed. It is covered several parts, namely the opening, explanation of difficult words used, stories and practice questions to test understanding. Video navigation is show in [Figure 2](#).

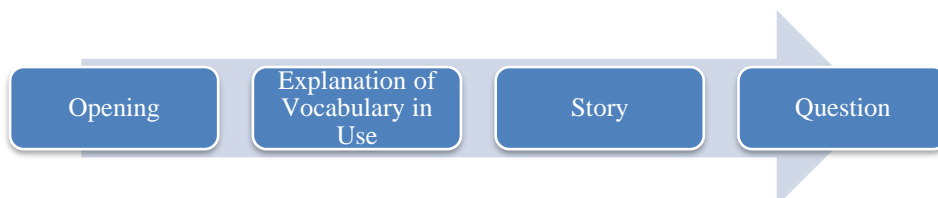


Figure 2. Video Navigation

This media digital storytelling is arranged into four main parts that support each other to help students' understanding. Starting with an opening that introduces the narrator and the context of the story, then includes an explanation of difficult words that will appear in the story to make understanding easier. The story presented contains the values "Tat Twam Asi", which focuses on harmony, tolerance, and mutual respect, with illustrations that help students understand the plot. Finally, questions are given to test and ensure students' understanding of the story that has been delivered.



Figure 3. Opening of the Media Digital Storytelling "Tat Twam Asi"

Development Stage

Media was developed by utilizing the features of the Canva application combined with the Photo Generator to create illustrations that fit the story. The results of product development can be presented in Figure 3. The opening of the video, as explained in the design stage, contains an introduction to the storyteller and the story that will be told. Storyteller is an essential concept of storytelling that differentiates it from videos in general. In the next section, there is an explanation section for difficult words in Figure 4.

VOCABULARY IN USE					
No.	English	Bahasa Indonesia	No.	English	Bahasa Indonesia
1	Surrounded	Dikelilingi	8	Magic stone	Batu bertuah
2	Valley	Lembah	9	Significant change	Perubahan besar
3	Prosperity	Kemakmuran	10	Emit	Memancarkan
4	Resident	Masyarakat	11	Dry up	Mengering
5	Disasters	Bencana	12	Scarce	Langka
6	Strike	Melanda	13	Famine	Kelaparan
7	Crops	Tanaman	14	Abundant	Melimpah

Figure 4. Vocabulary in Use of the Media Digital Storytelling “Tat Twam Asi”

Based on the results of interviews with English teachers, classroom observations, and FGDs, the results showed that students had difficulty understanding the content of the text because many words were difficult and not understood. The important role of vocabulary cannot be ruled out in understanding spoken or written texts (Zhang & Zhang, 2022). Therefore, before starting the story, the media displays a list of difficult words later in the story. Next is the content of the story which is presented in Figure 5.

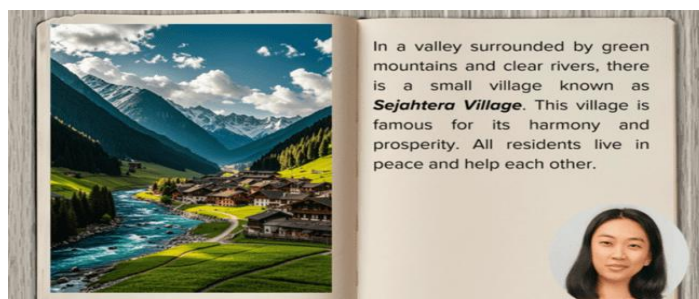


Figure 5. The Story in the Media Digital Storytelling “Tat Twam Asi”

The content of the story is presented as described in the plan, the storyteller is placed in the bottom right corner of the media to convey the content of the story. Image illustrations are presented on the left and text on the right. The design is designed to resemble a book so that it brings a storytelling atmosphere to the classroom. The text is presented simply and in an amount that matches the description of the story. The final part is practice questions which can be presented in Figure 6.

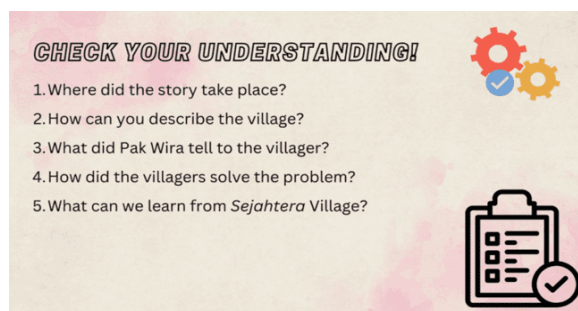


Figure 6. Questions in the Media Digital Storytelling “Tat Twam Asi”

This story exercise is designed as a form of reflection on the presentation of stories through the media that has been developed. Reflection is carried out through practice questions in the form of simple descriptions, consisting of five questions that are directly related to the content of the story. These questions aim to help students remember and understand more deeply the story being told, as well as test their ability to analyze important information from the story. By doing these exercises, students can not only strengthen their understanding but also practice critical thinking skills and the ability to reconstruct important elements of the narrative they have heard. The developed media digital storytelling “Tat Twam Asi” priorly assessed the quality of the media by two judges. The result shows that both material and media aspects were considered as high validity. The material aspect gained 93% or is considered “excellent” and the media aspect gained 94.5% or is considered “excellent”.

Implementation Stage

The implementation is the stage of implementing media digital storytelling “Tat Twam Asi” in the teaching and learning process in VIII Grade students of Junior High Schools in Sukawati District. The English teachers in the schools as the users of this media contributed to giving the practical assessment of the media. The result of the practical assessment of the media can be seen in [Table 2](#).

Table 2. Practical Responses from the Teachers

No.	Criteria	Teacher									
		1	2	3	4	5	6	7	8	9	10
1	Media provides students with an understanding of learning objectives.	4	4	4	3	4	4	4	3	4	3
2	The learning media follows the narrative text topic	4	4	4	4	4	4	4	4	4	4
3	Learning media is relevant to students' need	4	3	4	3	4	4	4	3	4	3
4	Material and illustration presented are easy to understand.	4	4	4	4	4	4	4	4	4	4
5	The materials are complete.	3	3	3	4	4	3	4	4	3	4
6	The materials are based on the learning objectives.	3	4	3	4	3	4	3	4	3	4
7	The materials help the students to understand the concept.	3	3	4	4	4	3	4	4	3	3
8	The materials are presented in correct order.	4	4	4	4	4	4	4	4	4	4
9	The images help students' understanding.	4	3	4	3	4	3	4	3	4	3
10	The questions are relevant to the material.	4	4	4	4	4	4	4	4	4	4
11	The language used is clear and audible.	4	4	4	4	4	3	4	4	4	4
12	The type and font size are readable.	4	4	4	4	4	4	4	4	4	4
13	The color and background are match.	3	4	3	4	4	3	4	3	4	3
14	The background music does not distract the material.	4	4	4	4	4	4	4	4	4	4
15	The voice delivering the material is clear and audible.	4	4	4	4	4	4	4	4	4	4
16	The media display is interesting to watch.	4	4	4	4	4	4	4	4	4	4
17	The pronunciation of words in delivering the material is clear.	4	4	4	4	4	4	4	4	4	4
18	The duration of the media is according to student needs.	4	3	4	4	4	3	4	3	4	3
19	The media is of high quality.	4	4	4	4	4	4	4	4	4	4
Total Score		72	71	73	73	75	70	75	71	73	70
Practicality of Media		94.	93.	96.	96.	98.	92.	98.	93.	96.	92.
		7	4	1	1	7	1	7	4	1	1

Based on [Table 2](#) show the calculation results, the average percentage of product practicality from teacher responses was 95.1%. Referring to the product practicality percentage criteria, it is known that the practicality level of digital storytelling learning media "Tat Twam Asi" is in the very practical category.

Evaluation Stage

In the evaluation stage, the developed media was distributed in teaching narrative text. Then, the literacy test was carried out. There are 36 classes in total as the population and sample of this research. The implementation of this media was on the narrative text topic. After the implementation of the product as a learning media, the literacy tests were delivered to the students. The result of the literacy test can be seen in the [Table 3](#).

Table 3. Result of Literacy Test

No.	School	Pre-Score	Post Score	Criteria
1	SMP Negeri 1 Sukawati	76.5	86.3	High
2	SMP Negeri Hindu 2 Sukawati	76.5	84.8	High
3	SMP Negeri 3 Sukawati	77.5	84.1	High
4	SMP Negeri 4 Sukawati	78.5	85.5	High
5	SMP Negeri 5 Sukawati	77	83.2	High

Base on [Table 3](#), there was a significant increase in student literacy skills in all groups based on average scores. The application of digital storytelling media based on "Tat Twam Asi" was categorized as "effective" in improving the literacy skills of class VII students in junior high schools throughout Sukawati District.

Discussion

This research is Research and Development (R&D) that aims to conduct digital storytelling media "Tat Twam Asi" that is valid and effective on students' literacy skills. It was developed using the ADDIE Model. The findings show there are five steps implemented namely analyze, design, develop, implement, and evaluate. The effectiveness of digital storytelling media "Tat Twam Asi" can be categorized as "high" or "effective". The result of the literacy test after the product was implemented in all classes of Junior High School in Sukawati District increased significantly. Literacy is a mandatory skill to be achieved and acquired, especially in the *Merdeka* Curriculum. The focus implementation of the *Merdeka* Curriculum is improving literacy and numeracy skills as an educational base ([Desrianti & Yuliana Nelisma, 2022](#); [Lie et al., 2020](#)). Junior high school is the middle level of education; literacy is considered a basic skill essential for daily life, learning, and participation in a complex society ([Nafisah & Budiarmo, 2023](#); [Risqi & Rini Setianingsih, 2021](#)). Thus, the effort to strengthen literacy skills should be carried out maximum.

Literacy skills are still considered challenging skills to be acquired. However, the average of students' literacy skills after the treatment can be considered as high namely 84.78, there are some students still struggling to understand simple sentences. The problem was due to the understanding of some vocabularies that they found unfamiliar. The story is delivered in digital storytelling media using the fairy story that contains some imaginative words such as magic stone, magic goat, etc. The vocabulary mastery is a critical foundation for understanding the text ([Hwang et al., 2019](#); [Ivanović et al., 2013](#)). The development of digital storytelling media was inserted local value of "Tat Twam Asi". "Tat Twam Asi" is a Balinese local value that is relevant to the Pancasila concept, namely humanity ([Budiadnya, 2018](#); [Suastra et al., 2021](#)). This concept emphasizes how humans should treat others by reflecting on ourselves. It guides individuals to live in harmony with others by respecting everyone ([Deveci & Ture, 2022](#); [Giri & Girinata, 2021](#)). This value is relevant to today's education issues known as "3 dosa Pendidikan", bullying, sexual harassment, and intolerance. The value of living in harmony is the basic content presented in digital storytelling media ([N. K. U. K. Dewi & Wedasuari, 2023](#); [Niemi & Multisilta, 2016](#)). The value is very relevant to the needs of students in Sukawati districts since bullying also massively occurs, especially verbal bullying.

This product is a digital media storytelling in the form of audio-visual media. It can motivate students to focus and see the literacy material. Visual learning media is used by educators to improve the quality of student learning and make learning interesting, leading to increased student motivation ([Arisantiani et al., 2017](#); [Katona et al., 2023](#)). It was a strong fundamental to improve the students' understanding of the spoken and written text provided by the material. The result of the descriptive analysis on the effectiveness of digital media storytelling "Tat Twam Asi" for VIII grade students of Junior High Schools in Sukawati District shows high effectiveness. The result is relevant to the research conducted by study the implementation of digital storytelling could improve literacy practice especially reading and speaking skills ([Mesa, 2020](#)). In addition, the digital storytelling model could enhance students' digital literacy skills. Furthermore, the utilization of digital storytelling can be effectively improved students' literacy skills ([Adara, 2020](#); [Aumgri & Apirating, 2023](#)). The development of this media as an educational tool has significant implications for enhancing students' literacy. It helps the students to engage in the

classroom and enjoyable during the learning process (Purnama et al., 2022; Schwartz et al., 2006). Digital storytelling allows learners to not only consume content but also create it, facilitating a deeper understanding of language structures, vocabulary, and narrative techniques. Furthermore, integrating digital media in literacy instruction aligns with contemporary educational trends, making the learning process more relevant and accessible to digitally native students. Further research could investigate the effect of digital storytelling on literacy, comparing it to traditional methods to understand its unique benefits in various literacy components such as comprehension, creativity, and critical thinking. This research has limitations on the effect of media on affective domains. The further research on the effect of media on preventing “3 dosa besar Pendidikan” and the student’s perception of the media. This will provide more comprehensive findings.

4. CONCLUSION

The digital storytelling media “Tat Twam Asi” was conducted using the ADDIE model. The average percentage of product practicality from teacher responses was 95.1%. Referring to the product practicality percentage criteria, it is known that the practicality level of digital storytelling learning media “Tat Twam Asi” is in the very practical category. Furthermore, the implementation of this media can be considered effective since there was a significant improvement in students’ literacy of VIII Grade students of Junior High School in Sukawati District.

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6. REFERENCES

- Adara, R. A. (2020). Improving Early Childhood Literacy by Training Parents to Utilize Digital Storytelling. *Proceedings of the International Conference on Early Childhood Education and Parenting 2019 (ECEP 2019)*, 454(Ecep 2019), 199–203. <https://doi.org/10.2991/assehr.k.200808.039>.
- Anggeraini, Y. (2018). Interactive teaching: Activities and the use of technology in EFL classroom. *LANGUAGE CIRCLE: Journal of Language and Literature*, 13(1), 1–6. <https://doi.org/https://doi.org/10.15294/lc.v13i1.11131>.
- Arisantiani, N. K., Putra, M., & Ganing, N. N. (2017). Pengaruh Model Pembelajaran Children’s Learning in Science Berbantuan Media Audio Visual terhadap Kompetensi Pengetahuan IPA. *Journal of Education Technology*, 1(2), 124–132. <https://doi.org/http://dx.doi.org/10.23887/jet.v1i2.11774>.
- Asih, N., & Ramdhani, S. (2019). Peningkatan Kemampuan Pemecahan Masalah Matematis dan Kemandirian Belajar Siswa Menggunakan Model Pembelajaran Means End Analysis. *Mosharafa: Jurnal Pendidikan Matematika*, 8(3), 435–446. <https://doi.org/10.31980/mosharafa.v8i3.534>.
- Aumgri, C., & Apirating, K. (2023). Model Component Analysis of Online Storytelling Media via Gamification to Enhance the Digital Literacy Skills of Students in Computer Education Thailand. *International Journal of Information and Education Technology*, 13(7), 1101–1108. <https://doi.org/10.18178/ijiet.2023.13.7.1910>.
- Budiadnya, I. P. (2018). Tri Hita Karana dan Tat Twam Asi. *Widya Aksara : Jurnal Agama Hindu*, 4(1). <http://www.ejournal.sthd-jateng.ac.id/index.php/WidyaAksara/article/view/38>.
- Daguay-James, H., & Bulusan, F. (2020). Metacognitive strategies on reading english texts of ESL freshmen: A sequential explanatory mixed design. *TESOL International Journal*, 15(1), 20–30. <https://eric.ed.gov/?id=EJ1257215>.
- Demirkan, Ö. (2019). Pre-service Teachers’ Views about Digital Teaching Materials. *Educational Policy Analysis and Strategic Research*, 14(1), 40–60. <https://doi.org/10.29329/epasr.2019.186.3>.
- Desrianti, & Yuliana Nelisma. (2022). Implementasi Kurikulum Merdeka Belajar Perpektif Manajemen Pendidikan Islam. *Al-Fahim : Jurnal Manajemen Pendidikan Islam*, 4(2), 158–172. <https://doi.org/10.54396/alfahim.v4i2.309>.
- Deveci, H., & Ture, H. (2022). the Butterfly Effect of the Distance Learning Ma Program on Character and Value Education At Anadolu University. *Turkish Online Journal of Distance Education*, 23(April), 76–96.

- <https://doi.org/10.17718/tojde.1096245>.
- Dewi, N. K. K., Suwastini, N. K. A., & Jayantini, I. G. A. S. R. (2021). The Characterization of Amanda Collier in Nicholas Sparks' *The Best of Me* (2011). *International Journal of Language and Literature*, 5(3), 123–136. <https://doi.org/10.23887/ijll.v5i3.34934>.
- Dewi, N. K. U. K., & Wedasuari, P. R. (2023). Refleksi Tat Twam Asi Dalam Tanggung Jawab Sosial Di Lembaga Perkreditan Desa (Lpd) Desa Adat Nyuhkuning. *Jurnal Ilmiah Global Education*, 4(3), 1669–1675. <https://doi.org/10.55681/jige.v4i3.1168>.
- Fatyela, V., Condy, J., Meda, L., & Phillips, H. (2021). Improving higher-order comprehension skills of Grade 3 learners in a second language at a quintile 2 school, in Cape Town, South Africa. *Reading and Writing (South Africa)*, 12(1), 1–10. <https://doi.org/10.4102/RW.V12I1.312>.
- Fortinasari Paulina, B., Anggraeni Candradewi, W., & Malasari, S. (2022). Digital Storytelling Sebagai Media Pembelajaran Yang Kreatif Dan Inovatif Di Era New Normal. *Jurnal Pengabdian Kepada Masyarakat*, 5(1), 24–32. <https://jurnal.polsri.ac.id/index.php/aptekmas/article/view/3680>.
- Giri, I. P. A. A., & Girinata, I. M. (2021). Tat Twam Asi: Transformasi Individualistis Kearah Solidaritas Sosial. *Purwadita Jurnal Agama Dan Budaya*, 5(1), 93–100. <http://jurnal.stahnmpukuturan.ac.id/index.php/Purwadita/article/view/1468>.
- Haeussler, R. (2012). Literacy, Rome, and provinces. *Wiley Online Library*.
- Hikmat, M. H. (2017). Developing students' critical literacy in reading class at an English education department in Indonesia. *The 1st International Conference on Language, Literature and Teaching*, 474–481. <http://hdl.handle.net/11617/9241>.
- Huettig, F., & Pickering, M. (2019). *Literacy Advantages Beyond Reading: Prediction of Spoken Language. Trends in Cognitive Sciences*. 23. <https://doi.org/https://doi.org/10.1016/j.tics.2019.03.008>.
- Hwang, J., Mancilla-Martinez, J., McClain, J., Oh, M., & Flores, I. (2019). Spanish-speaking English learners' English language and literacy skills: The predictive role of conceptually scored vocabulary. *Applied Psycholinguistics*, 41(1). <https://doi.org/https://doi.org/10.1017/S0142716419000365>.
- Ivanović, M., Putnik, Z., Komlenov, Ž., Welzer, T., Hölbl, M., & Schweighofer, T. (2013). Usability and privacy aspects of moodle: Students' and teachers' perspective. *Informatica (Slovenia)*, 37(3), 221–230. <https://www.informatica.si/index.php/informatica/article/download/451/455>.
- Jubaerudin, J. M., Supratman, & Santika, S. (2021). Pengembangan Media Interaktif Berbasis Android Berbantuan Articulate Storyline 3 Pada Pembelajaran Matematika di Masa Pandemi. *JARME (Journal of Authentic Research on Mathematics Education)*, 3(2), 178–189. <https://doi.org/10.37058/jarme.v3i2.3191>.
- Katona, B., Venkataragavan, J., Nina, E., Ulrika, B., & Björn, O. (2023). Use of Visual Learning Media to Increase Student Learning Motivation. *World Psychology*, 1(3). <https://doi.org/10.55849/wp.v1i3.381>
- Kemendikbudristek. (2023). *Rapor Pendidikan Indonesia tahun 2023*.
- Khan, N. A. (2021). Relationship between Literature and Life. *Scholars Journal of Arts, Humanities and Social Sciences*, 1(1), 1. [http://www.rjelal.com/7.4.19/29-32 Dr.Ram Prakash Pradhan.pdf](http://www.rjelal.com/7.4.19/29-32%20Dr.Ram%20Prakash%20Pradhan.pdf).
- Kristiantari, R. (2021). Readiness of Elementary School Teachers in Implementing Online Learning and "Merdeka Belajar" During Covid-19 Pandemic. *Jurnal Ilmiah Sekolah Dasar*, 5(4), 722–728. <https://doi.org/10.23887/jisd.v5i4.39868>.
- Lari, F. S. (2014). The Impact of Using PowerPoint Presentations on Students' Learning and Motivation in Secondary Schools. *Procedia - Social and Behavioral Sciences*, 98(2009), 1672–1677. <https://doi.org/10.1016/j.sbspro.2014.03.592>.
- Lie, D., Nainggolan, L., & Nainggolan, N. (2020). Improving Literacy And Numeracy Of Students In Elementary And Junior High School Through Merdeka Belajar Kampus Merdeka (MBKM). *International Journal Of Community Service*, 1(1). <https://doi.org/https://doi.org/10.51601/ijcs.v2i3.117>.
- Marchetti, L., & Cullen, P. (2015). A Multimodal Approach in the Classroom for Creative Learning and Teaching. *Psychological and Creative Approaches to Language Teaching*, 39–51. <https://doi.org/10.1016/j.bbalip.2011.04.004>.
- Marmoah, S., Poerwanti, J., Suharno, & Gestardi, R. (2023). The Quality Management of Education in Elementary Schools in Improving Teachers' Digital Literacy in the Era of Online Learning. *Pegem Journal of Education and Instruction*, 14(1), 32–40. <https://doi.org/10.47750/pegegog.14.01.04>.
- Mesa, P. A. G. (2020). Digital Storytelling: Boosting Literacy Practices in Students at A1-Level. *How*, 27(1), 83–104. <https://doi.org/10.19183/how.27.1.505>.
- Mevarech, Z. R., & Fan, L. (2018). Cognition, metacognition, and mathematics literacy. In *Innovations in Science Education and Technology*, vol 24 (pp. 261–278). Springer, Cham. https://doi.org/10.1007/978-3-319-66659-4_12
- Miles, M. B., & Huberman, A. M. (2014). *Qualitative Data Analysis: An Expanded Sourcebook* (3rd ed.). SAGE Publications.
- Monica, H., Kesumawati, N., & Septiati, E. (2019). Pengaruh Model Problem Based Learning Terhadap

- Kemampuan Pemecahan Masalah Matematis dan Keyakinan Matematis Siswa. *MaPan (Jurnal Matematika Dan Pembelajaran)*, 7(1), 155–166. <https://doi.org/10.24252/mapan.2019v7n1a12>.
- Mulia, V. L. C. (2016). The Contributions of Literacy Skills to National Development. *LEKSEMA*, 1(2). <https://ejournal.uinsaid.ac.id/index.php/leksema/article/view/101>.
- Nafisah, S., & Budiarmo, I. (2023). Training on the Implementation of Project Based Learning (PBL) Based on Literacy at the Elementary School Level. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 6(4). <https://doi.org/https://doi.org/10.35568/abdimas.v6i4.3822>.
- Niemi, H., & Multisilta, J. (2016). Digital storytelling promoting twenty-first century skills and student engagement. *Technology, Pedagogy and Education*, 25(4), 451–468. <https://doi.org/10.1080/1475939X.2015.1074610>.
- Purnama, S., Ulfah, M., Ramadani, L., Rahmatullah, B., & Ahmad, I. F. (2022). Digital Storytelling Trends in Early Childhood Education in Indonesia: A Systematic Literature Review. *JPUD - Jurnal Pendidikan Usia Dini*, 16(1), 17–31. <https://doi.org/10.21009/jpud.161.02>.
- Risqi, E. N., & Rini Setianingsih. (2021). Statistical literacy of secondary school students in solving contextual problems taking into account the initial statistical ability. *Mathematics Education Journal*, 4(1), 43–54. <https://doi.org/10.21067/pmej.v4i1.5285>.
- Romero, R., De Las Heras, M. a., Sáenz-Lopez, P., & Fernández-Ozcorta, E. J. (2020). One step closer to understanding motivation in scientific education: The incorporation of science textbooks as a predictor, together with motivational climate and basic psychological needs. *Jurnal Pendidikan IPA Indonesia*, 9(4), 590–599. <https://doi.org/10.15294/jpii.v9i4.24864>.
- Shwartz, Y., Ben-Zvi, R., & Hofstein, A. (2006). The use of scientific literacy taxonomy for assessing the development of chemical literacy among high-school students. *Chemistry Education Research and Practice*, 7(4), 203–225. <https://pubs.rsc.org/en/content/articlehtml/2006/rp/b6rp90011a>.
- Suastra, I. W., Rapi, N. K., Yasa, P., & Arjana, I. G. (2021). Elaborating Indigenous Science Content into Science Learning Process: A New Science Instructional Model to Develop Students' Local Wisdom-Based Characters and Higher Order Thinking Skills. *JPI (Jurnal Pendidikan Indonesia)*, 10(3), 516. <https://doi.org/10.23887/jpi-undiksha.v10i3.31176>.
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta.
- Susanty, S. (2020). Inovasi Pembelajaran Daring Dalam Merdeka Belajar. *Jurnal Ilmiah Hospitality*, 9(2), 157–166. <https://doi.org/10.47492/jih.v9i2.289>.
- Tonga, F. E., Eryiğit, S., Yalçın, F. A., & Erden, F. T. (2022). Professional development of teachers in PISA achiever countries. *Professional Development in Education*, 48(1), 88–104. <https://doi.org/10.1080/19415257.2019.1689521>.
- Zhang, S., & Zhang, X. (2022). The relationship between vocabulary knowledge and L2 reading/listening comprehension: A meta-analysis. *Language Teaching Research*, 26(10). <https://journals.sagepub.com/doi/abs/10.1177/1362168820913998>.