The Effectiveness of PowToon Learning Media on the Writing Ability of Sundanese Script

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Abstract

Learning media play a crucial role in addressing the challenge of students' inability to write Sundanese scripts. The PowToon application offers various features that support the creation of learning media, making it a viable alternative in technological advancement. The purpose of this study is to assess the effectiveness of utilizing PowToon as a learning tool to improve the Sundanese script writing skills of class VII students at MTs Negeri 3 Kuningan. A quantitative approach with a one-group pretest-posttest design was employed in this research, which took place at MTs Negeri 3 Kuningan using class VII-2 as the sample group. The results indicate an improvement in the students' ability to compose Sundanese scripts, as supported by the findings of hypothesis testing. The average student score before using the PowToon application learning media was 47.85, while after using the PowToon application learning media the average score was 82.29. Apart from that, the results of the hypothesis test, Sig. (2-tailed), 0.000 <; 0.05. Therefore, Ha is accepted and Ho is rejected. So the effectiveness of the PowToon application learning media on the ability to write Sundanese script has proven effective for use in learning. This is characterized by a significant difference in students' learning outcomes for writing Sundanese script before and after using the PowToon application learning media.

Abstrak

Media pembelajaran dibutuhkan untuk mengatasi permasalahan kurangnya kemampuan menulis aksara Sunda bagi siswa. Media pembelajaran *PowToon* merupakan salah satu alternatif dalam perkembangan teknologi dikarenakan banyaknya fitur-fitur yang menunjang dalam pembuatan sebuah media pembelajaran. Penelitian ini memiliki tujuan untuk mengetahui penerapan sebuah media pembelajaran aplikasi PowToon terhadap kemampuan siswa dalam menulis aksara Sunda kelas VII MTs Negeri 3 Kuningan. Metode penelitian yang digunakan adalah metode kuasi eksperimen dengan pendekatan kuantitatif serta menggunakan desain one group pretest-posttest design. Penelitian ini dilaksanakan di MTs Negeri 3 Kuningan dengan menggunakan sampel kelas VII-2. Hasil penelitian ini yaitu terdapat peningkatan secara signifikan terhadap kemampuan siswa dalam menulis aksara Sunda. Dibuktikan dengan hasil dari uji hipotesis. Dimana nilai rata-rata sebelum diterapkan media pembelajaran aplikasi *PowToon* yaitu 47,85 sedangkan setelah diterapkan media pembelajaran aplikasi *PowToon* rata-rata nilai menjadi 82,29. Selain itu, hasil uji hipotesis, Sig. (2-*tailed*), 0,000 <; 0,05. Oleh karena itu, artinya terdapat perbedaan secara signifikan dalam penggunaan media pembelajaran aplikasi *PowToon*. Sehingga efektivitas media pembelajaran aplikasi *PowToon* terhadap kemampuan menulis aksara Sunda terbukti efektif untuk digunakan dalam pembelajaran. Hal tersebut ditandai dengan terdapat peningkatan nilai yang sangat baik terhadap hasil belajar menulis aksara Sunda siswa sebelum dan sesudah menggunakan media pembelajaran aplikasi *PowToon*.

INTRODUCTION

Technological developments in this era have influenced the development of the world of education, especially in the learning media used. Today's students rarely know what technology is or about the world of ICT (Information and Communication of Technology). Gen Z is the term used for today's teenagers who were born between 1998 and 2012. Gen Z is very closely related to current developments. One issue that cannot be separated from the learning process is the media applied to it. The difference in time makes everything change, as seen by today's students, who cannot be separated from gadgets. With this, progress can be made in all fields, especially education. However, there is a negative side to the excessive use of gadgets, as students become addicted to them. Learning media is a complete unity that cannot be avoided when teaching. Media is vital because it can help teachers provide material and facilitate the process of delivering the material to students (ropiah & Ripai 2020).

Regarding learning and teaching, the media can convey messages, especially in learning, as a medium to improve the learning process and achieve learning goals. Hasan, et al., (2021) Explains that various media can come from three main elements: sound, visual, and motion. Based on the three elements, the media is divided into eight groups: audio media, print, silent visual, motion visual, semi-motion audio, semi-motion, silent audiovisual, and motion audiovisual. One of the media that is in sync with the current situation is audiovisual audiovisual media, which will make learning more optimal by providing teaching materials to students. Along with the development of the times, technological advances, and news, the learning process often uses or relies on visualizations, which will also develop. Still, this development returns with an audio-visual presentation, which is usually claimed to use multimedia (Ripai & Ropiah, 2023).

Audiovisual media can improve our understanding of technological developments; on average, audiovisual media are made online. One of the audiovisual media can be through the PowToon application. Audiovisual media such as the PowToon application, when used as a learning medium, can keep students from being bored and tired of learning because it is difficult for students to understand when the teacher explains. The boredom and tiredness of students in education can be the root of the problem because students are not focused on the material being delivered. This PowToon application can be used by anyone, including teachers and students. Creating animated videos can be considered easy because the existing features are relatively complete, such as hand-written pen stroke animation, more lively cartoon animation and transitions, and timeline settings that are accessed on one screen and can be used to create a presentation. Also, many choices of more beautiful animations are already in the PowToon application, so using the PowToon application does not require re-animation. The results of creating media in the PowToon application can be animated videos, PDFs, PPTs, and other formats, making learning more flexible and interactive and attracting students' interest in paying attention to the material presented.

Based on the observations by researchers, several problems were found in Sundanese language learning, especially regarding the need for more students to understand Sundanese script writing skills. This is due to the situation of students, who still feel strange about the existence of the Sundanese script. Not all students use cell phones in learning, and there are relatively few Sundanese language lesson hours at MTs Negeri 3 Kuningan. Teachers' learning media cannot be written on the board or in a book in that short time. However, the innovations that the teacher should issue are to improve the quality of student learning. Students are more accustomed to seeing the output of the questions given by the teacher, judging from how long or short the questions are, from the number of words that are unfamiliar and rarely found in everyday life but are included in the questions, as well as the packaging of the questions given by the teacher to

students. Writing Sundanese scripts is prioritized to stimulate and motivate students so that they prioritize writing according to their abilities and are not too concerned with how the problem can be solved. Learning Sundanese script is more inclined towards compiling Sundanese texts into texts written in Sundanese script so that whatever questions they get, they only need to switch the script and remember what the Sundanese script looks like from the letters and consonants in the questions.

The presence of the PowToon application as a learning media has become one of the driving factors that make learning activities more effective. This PowToon application learning media is an alternative to media used by teachers because of the many advantages contained in this PowToon application. Found with the problems that arise, this study aims to determine the ability of students to write Sundanese script before using the PowToon application learning media, to assess the ability of students to write Sundanese script after using the PowToon application learning media and to determine the effectiveness of the PowToon application learning media in improving the ability to write Sundanese script of class VII students of MTs Negeri 3 Kuningan

LITERATURE REVIEW

Learning Media

The term media comes from Latin, namely medius, which means 'middle,' 'facilitator,' or connector (Damasanti & Nuroh, 2023). According to Putra et al. (2024), *media* can be defined as a messenger or delivery of messages from the sender to the recipient. Meanwhile, according to Gerlach and Ely (Alfin & Listiadi, 2021), in general, it can be understood that the meaning of media means people, learning materials, events, or incidents, which create a condition or shape students so that they can gain knowledge, acquire skills, and attitudes. The term media has a broad meaning, especially in learning media. Learning media is a tool that has several functions similar to being a provider of learning materials teaching aids that aim to achieve success in the learning process. and From the perspective of learning and teaching, the media can be a messenger to convey messages, especially in achieving learning goals.

Based on the understanding, learning media has five components. First, it is a message delivery in a learning process. Second, it can be a source of student learning. Third, it can be a sense to help provide a stimulus to motivate students to learn. Fourth, achieving events that will occur in complete and meaningful learning is a practical sense. Fifth, it can be used to obtain and improve skills. If these five components are united and used correctly, a result will arise for achieving learning by the required targets (Dewi et al., 2019).

Media is a solution for teachers to facilitate the implementation of learning and accelerate the improvement of students' understanding of the contents of the material presented. Media is a companion that is very much needed in learning because we need media to stimulate students to stay focused on the existing learning. As a teacher, it is good to be able to adjust the media used in learning to the conditions of the school and the environmental conditions where the teacher teaches. Adjustments to the media used must, of course, be made and can also be adjusted to the curriculum used.

PowToon

Nurdiansyah et al. (2018) explained that PowToon is one of the software that can be a learning medium because it has several advantages, such as having exciting animations. Among others are pen strokes and handwriting animations, cartoon characters, more varied transitions, and convenient timeline settings. PowToon is an IT-based web software that can be used as a learning medium. It has incredible things like producing presentations or animated videos that can be used easily. Meanwhile, according to Anggita (2020), through the PowToon media, it is

hoped that it is easier for educators to create teaching materials in creating teaching materials that look attractive and creative.

This PowToon application learning media has many features and animation effects that make presentations or learning videos attractive. In PowToon application-based videos, many animations can attract students' focus to continue to pay attention to the teaching process, so the presence of teachers when creating learning media is significant for student learning (Wulandari et al., 2020). PowToon learning media is an online platform with exciting features that can be used in presentations or learning videos.

The PowToon application is an application that can still be developed; looking at the contents of the application, the content provided is also not that much, so if it continues to be improved and better content is provided, the PowToon application will be an effective application when used in learning. Coupled with the flexibility the PowToon application provides in uploading the results of the media we create. So, the presence of the PowToon application as a learning medium certainly provides benefits to teachers as an alternative to using accessible learning media with good quality because, in the application, you can combine images, animations, videos, and audio that we can combine in a media that we create.

Write

According to the Satjadibrata Sundanese Dictionary (Utami, 2019), writing originates from 'write,' which uses the preposition N—(nasal) and means making letters and numbers, like writing on paper using a pencil. Writing activities are activities that come from the influence of productive skills, namely speaking skills and receptive skills. Writing can also be interpreted as a medium for pouring out thoughts and ideas that are owned by being depicted in the form of graphic symbols.

Harahap et al. (2023) explained that there are three stages or activities in writing: the stages before writing, writing, and after writing. The stage before writing, namely the stage of determining the topic, determining the purpose of writing, showing targets, collecting information, organizing ideas and information, and completing the style of language with the reader. The second is the writing stage, namely the stage of introducing or providing an overview and bringing the reader into the writing that is made. The content section conveys language about this writing or composition or writing. The stage after writing, refining or perfecting writing, is where editing and proofreading activities are carried out. Editing focuses on rereading, checking, and revising the truth of the content, appearance, and language style. Writing has a specific purpose, namely to provide news, feelings, behavior, and thoughts that are clear and effective for readers. Writing activities are expected to increase knowledge, develop ideas and creativity, have a brave nature, encourage hope, and encourage the collection of news (Mahendra, 2018).

Sundanese Scripts

Sundanese script is one of the characteristics of national progress and a tool to advance the nation (Utami, 2019). According to Ernawati et al. (2017), the Sundanese script is a script (letters) originating from the land of Sunda, which a writer of the Sundanese language used in ancient times. Sundanese script is the result of the autographic work of the Sundanese people through their historical journey from around the 5th century AD until now. *The standard Sundanese script* is a writing system resulting from adapting the Old Sundanese script used to write the contemporary Sundanese language. The standard Sundanese script is also called Sundanese (Sundari, 2016).

Based on the form of its writing system, the "standard" Sundanese script consists of 30 characters, which include 7 '*swara*' characters (independent vowels) and 23 '*ngalagena*' characters (consonants). The swara or ngalagena characters can occupy a word's initial, middle, and last positions. *Ngalagena* script has "logo-syllabic" properties, meaning that writing can represent one

word or utterance. In the beginning, there were only 18 *ngalagena* alphabets, namely: /ka, ga, nga, ca, ja, nya, ta, da, na, pa, ba, ma, ya, ra, la, wa, sa, ha /. With developments over time, there have been additions to the ngalagena script, which is adapted to the consonants in Indonesian, namely: / fa, qa, va, xa, za /, plus seven *swara* characters, namely: / a, é, i, o, u, e, eu /. Therefore, there are a total of 23 *ngalagena* characters. Apart from that, there are number symbols in basic numbers with values from zero to nine. Writing numbers in Sundanese is usually accompanied by a vertical line (|...|) (Setiawijaya et al., 2017).

METHODS

The research method the researcher uses is quantitative research that aims to achieve research objectives. According to Sugiyono (Sulistianah et al., 2022), quantitative research methods aim to test the given hypothesis based on statistical data collected and obtained from a specific population or sample using research instruments. The researcher used a quasi-experimental method through a pretest and posttest design. Quasi-experiments are experiments that occupy the smallest unit of the experimental group and are carried out by determining classes that are not random but have been determined in advance (Hastjarjo, 2019). The smallest unit of a psychological experiment is usually an individual or human, for example, students in educational institutions, patients in a hospital environment, clients in a psychology clinic, and workers in an industrial environment.

A research design is needed; the researcher used a one-group pretest-posttest research design (Sulistianah et al., 2022). In the one-group pretest-posttest design, the researcher chooses a class/group, and the class becomes the research sample. In this study, the research was conducted at MTs Negeri 3 Kuningan, located at Jl. Mayasih Cigugur No.880, Cigugur, Kuningan Regency. In this study, the subjects studied were the effectiveness of PowToon learning media on students' ability to write Sundanese script in class VII-2 MTs Negeri 3 Kuningan. The research instrument in this study was a pretest-posttest instrument in the form of essay questions. The test was divided into two parts: before the application of the PowToon application learning media and after the application of the PowToon application learning media on the ability to write Sundanese script. The following research design is the One Group Pretest Posttest design, which is the basis for the research design (Rahmawati & Ropiah, 2024).

Table 1. One Group Pretest Posttest Research Design

Pretest	Treatment	*Posttest*
O1	X	O2

Information:

O1: An initial test (pretest) was conducted before using the PowToon application learning media.

X : Treatment (learning was carried out using the PowToon application)

O2: The final test (posttest) was conducted after using the PowToon application learning media

Researchers use quantitative data analysis techniques, which include instrument validity tests, Sundanese script assessment indicators, data normality tests, and hypothesis tests. In this study, researchers use these techniques to show data that is the result of research that has been carried out. Researchers also use qualified techniques to collect data.

The data collection techniques used by researchers include three techniques. The first technique is using observation techniques. Researchers carry out observations by observing and analyzing field conditions or schools that will be the place of research. Observations are also carried out to collect data in research sample documents. The second technique is to carry out a

test. The test is carried out to measure students' abilities during the research. The test is a research instrument in the form of essay questions on Sundanese script material given to students. The third technique is documentation. Documentation is collecting data in the form of documents, archives, and other data that will be collected, processed, and stored for research needs.

This study used data analysis techniques, including instrument validity tests, normality tests, and hypothesis tests, to determine the research's results, influence, and success or failure. This study aims to determine the effectiveness of the PowToon application learning media in students' ability to write Sundanese scripts.

RESULTS AND DISCUSSION

Students Sundanese Script Writing Ability Before Implementing PowToon Learning Media at MTs Negeri 3 Kuningan Class VII

Before the learning, the researcher carried out the first action (pretest), which aimed to know the students' results in writing Sundanese script—the number of students who took the pretest in class VII.2 MTs Negeri 3 Kuningan was 28 students. The results of the pretest can be seen in Table 2.

Table 2. Student Pretest Results

No	Students Code	Scores	Result	
			Not Complete	Complete
1	S1	48	✓	
2	S2	35	✓	
3	S3	77		✓
4	S4	43	✓	
5	S5	21	✓	
6	S6	85		✓
7	S7	60	✓	
8	S8	29	✓	
9	S9	34	✓	
10	S10	52	✓	
11	S11	21	✓	
12	S12	55	✓	
13	S13	70		✓
14	S14	30	✓	
15	S15	44	✓	
16	S16	30	✓	
17	S17	36	✓	
18	S18	50	✓	
19	S19	30	✓	
20	S20	35	✓	
21	S21	66	✓	
22	S22	75		
23	S23	67	✓	
24	S24	72		✓
25	S25	40	✓	
26	S26	37	✓	
27	S27	50	✓	
	Total Students		23	4
	Percentage		85,18%	14,81%

Table 2 shows the completeness of learning outcomes based on students' ability to write Sundanese script before applying PowToon learning media, which is still very far from the Standard of minimum completeness of mastery learning value of 70. Only four students have

achieved the Standard of minimum completeness of mastery learning. Completeness has a percentage of 14.8%, and 23 students have yet to achieve the Standard of minimum completeness of mastery learning completeness with a rate of 85.18%. The average pretest score is 47.85. Based on the results of the initial test, it can be concluded that many students still need to be able to write Sundanese script skills.

Students Sundanese Script Writing Ability After Using PowToon Learning Media at MTs Negeri 3 Kuningan Class VII

In the final stage, a posttest was conducted to determine students' ability to write Sundanese scripts using the PowToon application learning media. The results of the students' posttest can be seen in Table 3.

Table 3. Student Posttest Results

| No | Students Code | Scores | Results | |
			Not Complete	Complete
1	S1	93		✓
2	S2	77		✓
3	S3	93		✓
4	S4	100		✓
5	S5	71		✓
6	S6	100		✓
7	S7	82		✓
8	S8	77		✓
9	S9	74		✓
10	S10	92		✓
11	S11	72		✓
12	S12	86		✓
13	S13	91		✓
14	S14	75		✓
15	S15	85		✓
16	S16	76		✓
17	S17	70		✓
18	S18	93		✓
19	S19	70		✓
20	S20	71		✓
21	S21	75		✓
22	S22	92		✓
23	S23	92		✓
24	S24	88		✓
25	S25	72		✓
26	S26	87		✓
27	S27	95		✓
	Total Students		-	27
	Percentage		-	100%

From the results obtained, students' ability to write Sundanese scripts after applying PowToon learning media increased. It can be seen from the posttest results of students who are by or more than the Standard of minimum completeness of mastery learning value of 70. The results of students' abilities after using the PowToon application learning media, according to the Standard of minimum completeness of mastery learning value, are 27 students (74%); all students have obtained values according to the Standard of minimum completeness of mastery learning. The smallest value of students' learning outcomes after using PowToon learning media is 70, the most significant value is 100, and the average value is 82.29. In addition, the pretest and posttest results can be seen in Table 4.

Table 4. Pretest and Posttest Results

		Pretest	Posttest
STATISTICS	Mean	47.8519	82.2963
	Median	44.0000	85.0000
	Variance	330.593	9.217
	Std. Deviation	18.18221	9.96075
	Minimum	21.00	70.00
	Maximum	85.00	100.00
	Range	64.00	30.00

Based on the results of Table 4, the mean value (average) of the initial test results (pretest) on the ability to write Sundanese script before the implementation of the PowToon application learning media is 47.85. Where the largest score is 85, and the smallest score is 21. The middle value (median) is 44, the standard deviation is 18,182, the variance is 365.499, and the range of values is 64. The mean value (average) of students' final test results (posttest) after implementing the PowToon application learning media on student learning outcomes in writing Sundanese script is 82.29. Where the scores of all students are by the Standard of minimum completeness of mastery learning is 70. The most significant score is 100, and the smallest score is 70. The middle value (median) is 85, the standard deviation is 9,960, the variance is 9,217, and the range of values is 30.

Validity Test

A validity test is conducted to find out whether the instrument to be used in the pretest and posttest is valid or not. In this study, this validation activity was carried out by two expert validators: Mrs. Heti Tri Wahyuni, M.Pd., Lecturer of Regional Language and Literature Education (PBSD) Muhammadiyah University of Kuningan as validator one, and Mrs. Wawat Darwati, S.Pd., Sundanese language teacher MTs Negeri 3 Kuningan as validator 2. The formula validation criteria for determining the instrument validation criteria are as follows: Validity (V) = X 100%. The results of the instrument validation carried out by the expert validator can be seen in Table 5.

Table 5. Result Validation Instrumens' expert

Question Item	Scores of Validator			Maximum Score	Percentage	Criteria
	V.1	**V.2**	**Results**			
Question 1	58	58	116	140	82,85%	Very Valid
Question 2	62	62	124	140	88,57%	Very Valid
Question 3	64	64	128	140	91,42%	Very Valid

Based on Table 5, the results of the instrument validation conducted by two expert validators covering three essay questions are very valid criteria because the percentages are at scores of 82.85%, 88.57%, and 91.42%. This can be adjusted to the expert criteria according to Ernawati.

Normality test

According to Fahmeyzan et al. (Ropiah et al., 2023), the normality test aims to ascertain if the data in two groups follows a normal distribution. The normality test is carried out to determine whether the data in the two groups has a normal distribution or vice versa. The normality test in this study uses a normality test based on the Kolmogorov-Smirnov test through the help of SPSS. The decisions that are the basis for the normality test carried out with the SPSS program are:

Sig. (significance) > 0.05, the resulting data is normally distributed

Sig. (significance) <0.05, the resulting data is not normally distributed

Table 6. Kolmogorov Smirnov Test

		Unstandardized Residual
N		27
Normal Parameters,b	Mean	.0000000
	Std. Deviation	7.14433553

Most Extreme Differences	Absolute		.131
	Positive		.131
	Negative		-.091
Test Statistic			.131
Asymp. Sig. (2-tailed)			.200[c,d]

Based on Table 6, the normality test results are known to have a significance value of .200. Thus, the data of both groups in this study are normally distributed. This is evidenced by the more excellent significance value of 0.05. This is to the decision-making criteria set for the normality test. If the significance value can be more than 0.05, then the data can be normally distributed.

Hypothesis Testing (Paired Sample T-Test)

Hypothesis testing in this study, to find out about students' abilities, researchers used a paired sample t-test to determine students' abilities before and after applying the PowToon application learning media on the results of writing Sundanese script.

- Significant value (2-tailed) < 0.05 = There is an influence given by the PowToon application learning media on students' ability to write Sundanese script.
- Significant value (2-tailed) > 0.05 = There is no influence given by the PowToon application learning media on students' ability to write Sundanese script.

The hypothesis testing using the paired sample t-test can be seen in Table 6.

Table 7. Hypothesis testing (Paired Sample T-Test)

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest-posttest scores	-35.444	13.31954	2.56335	-40.71348	-30.17541	-13.827	26	.000

Based on the values in Table 7, the value for Sig. (2-tailed) is 0.000 or (0.000 <0.05). Therefore, Ha is accepted, and Ho is rejected, meaning that the PowToon application learning media is very effective because it can significantly improve students' ability to write Sundanese script in class VII MTs Negeri 3 Kuningan.

CONCLUSION

The results of the study on the Effectiveness of the PowToon application learning media on students' ability to write Sundanese script in class VII MTs Negeri 3 Kuningan can show that the ability to write Sundanese script in students when before the PowToon application learning media was applied, many students had not been able to achieve the minimum score of 70. Before using the PowToon application learning media, only four students, with a percentage of 14.81% for students who could achieve a minimum score of 70, and 23 other students, with a rate of 85.18%, had yet to achieve a score of 70. The average score of the students' pretest results was 47.85. After the PowToon application learning media was applied, students' writing ability to write Sundanese script increased significantly. Therefore, it can be found based on the post-test results of students who have met the score of 70. The scores of all students can increase, and they are, according to the score criteria, with an average score of 82.29. In the hypothesis test, it is stated that the Sig. Value. (2-tailed) is 0.000, so Ha can be accepted and Ho cannot, meaning that the PowToon application learning media significantly influences students' Sundanese script writing skills before

and after implementing the PowToon application learning media. So, the Effectiveness of the PowToon application learning media on the Sundanese script writing skills of class VII students of MTs Negeri 3 Kuningan on the learning outcomes between before and after using the PowToon application learning media can increase in writing Sundanese script. Therefore, the PowToon application learning media has proven effective. Explain according to the conclusion of Chapter 5, which includes before, after, & Effectiveness.

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