Evaluating the Effectiveness of Poster & Picture Card Media in Teaching the Water Cycle to Elementary Students

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ABSTRACT

This study explores the validity, practicality, and effectiveness of Postcard learning media in the classroom. Employing a Research and Development approach, the study utilized the ADDIE model, encompassing Analysis, Design, Development, Implementation, and Evaluation stages. The research was conducted with 17 fifth-grade students at SDN 1 Watudandang. The study involved quantitative analysis to assess the Postcard learning method's implementation, employing a variety of data collection techniques. These included validity questionnaires from media and material experts, teacher and student response questionnaires, and pretest-posttest scores. Validity testing revealed that the Postcard learning media were rated as "very valid" by experts, with scores of 91% from material experts and 84% from media experts. Practicality assessment, based on teacher and student response questionnaires, yielded scores of 91% and 88% respectively, placing it in the "very practical" category. The effectiveness of the media was demonstrated through significant differences in student learning outcomes, as evidenced by pretest and posttest scores. The Paired Samples T Test indicated a t-count greater than the t-table, with a significance value of 0.000. Furthermore, the N-Gain score of 0.75 fell into the "high" category, suggesting that the media were "effective enough".
In conclusion, the Postcard learning media proved to be both valid and practical, and sufficiently effective for educational use in teaching fifth graders, notably in enhancing their understanding of the subject matter.

1. Introduction

Education is the need of every nation that wants progress and development. Good education can support the progress of human resources so as to facilitate development in all fields (Nurfadhillah, 2021). This shows that education is the most important part of life to create human beings with optimal potential (Widayaanti, 2018). Education is a process that aims to influence students so they can adapt well to their environment (Yusandika, 2018). By organizing a relevant educational activity, a student-centered educational approach is needed (Widari, 2023). Effectiveness and efficiency in the learning process can encourage students to learn, one of which is an indicator of the quality of education (Rahayu, 2022). In this case progress through quality education is a means or strategy to achieve the expected educational goals (Frima, 2022). Thus, education can be interpreted as a vessel in the learning process.

Teachers are very important influence in the learning process. The main responsibility of the teacher besides teaching is to increase students' motivation or desire to learn (Marta, 2020). The teacher can also act as an educational curriculum developer which of course can adjust and keep up with the times. This requires a paradigm shift in the learning process from teacher centered to student centered. Success in understanding a student learning process is determined by the teacher's teaching in class (Laksana, 2014). But not only teachers, students also have an important influence in the learning process. The activeness of students is highly demanded when participating in the learning process. The learning process occurs when students can connect what is known with what is found through learning experiences that have been obtained before (Hadi, 2019, p.76). Thus, teachers and students have their respective roles in the learning process. The teacher has a role as a facilitator and guide in learning activities, while students have a role as knowledge constructors, independent learners, and problem solvers (Rahmawati,

2021). Based on the results of observations made at SDN 1 Watudandang, problems were found related to Integrated Thematic learning in science content, namely the material about "The Water Cycle". The facts found in the field are that the teacher carries out the learning process using the lecture method (teacher center) and the media used only comes from textbooks. Next, on when participating in learning or listening to lectures from the teacher, students are only limited to understanding while making the necessary notes. So that the teacher becomes the central role in achieving learning outcomes. In addition, the teacher only provides one-way information because what you want to achieve is how the teacher can teach well so that there is only a transfer of knowledge to students (Karima, 2018). So that students only have the experience of listening to material exposure and are less able to appreciate the knowledge that has been obtained, are afraid to argue, and don't dare to try which then ultimately tends to become passive and poor creativity learning activities (Karima, 2018).

Based on the results of observations made at SDN 1 Watudandang, problems were found related to Integrated Thematic learning in science content, namely the material about "The Water Cycle". The facts found in the field are that the teacher carries out the learning process using the lecture method (teacher center) and the media used only comes from textbooks. Next, on Learning Natural Sciences is considered challenging for students to learn (Syahputra et al., 2022; Jee & Anggoro, 2012). However, based on the problems above, it is certainly an obstacle that teachers only rely on textbooks so that the learning materials provided are not optimal. This makes students less interested in learning Natural Sciences. A boring learning process with the use of teaching materials and learning media that is not optimal will reduce the enthusiasm and motivation of students in participating in class learning (Darsih, 2022). This is reinforced by the findings of the evaluation of the Program for International Student Assessment (PISA), students in Indonesia are at the level of knowing and understanding (low level) in 2009, 2012 and 2015, which scores lower than the average participating countries. tested (OECD, 2016). Then, the results of the latest PISA evaluation in 2018, as reported by the Ministry of Education and Culture, showed that there was a decrease compared to 2015. The results of this PISA explain that students in Indonesia in the science field are still relatively low under the international scale (Solpa, 2022). Judging from the results of the PISA, science learning really needs to be learned both in class and in everyday life (Nugraha, 2022).

Based on the results of observations made at SDN 1 Watudandang, problems were found related to Integrated Thematic learning in science content, namely the material about "The Water Cycle". The facts found in the field are that the teacher carries out the learning process using the lecture method (teacher center) and the media used only comes from textbooks. Next, on based on the problems described above, it is necessary to try to solve these problems by creating learning that is in accordance with the characteristics of students. The characteristics of elementary school students who are generally 7-12 years old are starting to have a high curiosity by investigating, trying, and experimenting about something that they find interesting, and students are also able to think systematically about concrete objects and events. Learning that is adapted to the characteristics of elementary school students can be carried out, one of which is through science learning (Rasyid et al., 2019). Science is knowledge that is used systematically to investigate the universe and has a characteristic, namely one of science that contains values, attitudes and processes (Sulthon, 2016).

Based on the description above, the solution offered to overcome these problems is to develop a learning media. Learning media is a tool that functions and can also be used to convey learning messages (Budiman, 2019). 5 The purpose of learning media is as a tool to facilitate the learning process in class, increase the efficiency of the learning process, and help students concentrate in the learning process (Astuti, 2017). One of the learning media solutions that can support overcoming the problems that have been described is by developing postcard learning media (posters and cards), where this learning media is a combination of posters and picture cards.

Poster learning media is media consisting of very simple symbols or word symbols, posters are also a visual combination of strong designs, with colors and messages with the intention of capturing students' attention (Rizawayani, 2017). In this case, to maximize the role of posters in water cycle learning, it is combined with picture card media. In its use, picture card media can help student participation in the learning process (Arisandi, 2022). In addition, the learning process using picture cards can make it easier to connect the material being studied and understood so that students are able to develop ideas or concepts that are not easily forgotten (Hafni, 2021).

This is supported by Nandini (2022), in his research which stated that the learning media Poster is feasible to apply by obtaining the results of the validity test conducted showing the results of the poster media according to the trial subjects successively at 98.21%, 91.62%, 90.00%, 96.29%, and 95.05% and overall has a very good category. Based on the research presentation mentioned above, in this study the authors will discuss "Development of Postcard Learning Media (Posters and Picture Cards) on Water Cycle Material for Class V SDN Students 1 Watudandang Prambon Sub-District" with the aim of measuring the validity, practicality, and effectiveness of Postcard learning media to facilitate understanding of the Water Cycle material for fifth grade elementary school students.

2. Literature Review

Media is one of the components of the learning system (Nurrita, 2018). As a component, the media must have an integral part and must be in accordance with the overall learning process. The end of the selection of a learning media is the use of the media in learning activities so that students can interact with the selected media. In addition, learning media can also be interpreted as a means of conveying information that is made or used in accordance with learning theory, and can be used for learning purposes in messages, channeling, feelings, attention, stimulating thoughts, and willingness of students so that it can encourage a deliberate learning process, has clear goals, and is controlled (Annisa, 2021). So, learning media can be concluded as a tool for teachers and students in the learning process.

The selection of learning media should be adjusted to the characteristics of elementary school students. Elementary school-age children are late childhood period which extends from the age of 6 years to the age of 11 years or 12 years (Domitila, 2021). Elementary school-age children have different characteristics from those of younger children, they like to play, move, work in groups, and feel or do things directly (Istiqomah, 2019). One of the learning media that is suitable for use in elementary school children is Postcard learning media (posters and picture cards).

Media is a medium with works of art or graphic designs composed of pictures, letters, and information in the form of printed media (Febrianti, 2021). Poster learning media is said to be of high quality if the media is easily understood by students when they see it, and forms messages in it (Lestari, 2023). In addition, poster learning media can provide new skills that are useful for growing students' imagination as an approach to learning (Sumantri, 2015). Poster learning media can be combined with picture cards with a game-based usage mechanism. The picture card game is a good game and can be used in the learning process in class (Meiliani,

2017). In addition, picture card learning media is a type of visual-based print media development by Prasetya (2016). So, it can be concluded that the development of learning media was developed with the aim of facilitating teachers and students in the learning process. The teacher is easier to convey the material, while students are also easier to understand the material because students will be divided into several groups, then students are invited to play using the media by answering the questions on the picture cards. Thus, students will have more interest in learning and student learning outcomes can increase.

3. Method

This study uses a quantitative method. This research also uses (R&d) (Research & Development) with the ADDIE research model which goes through five stages including, 1) Analysis, 2) Design, 3) Development, 4) Implementation, 5) Evaluation. The main subjects in this study were 17 fifth grade students at SDN 1 Watudandang consisting of 15 female students and 2 male students. This research was conducted on June 12 – 24 2023. The research method used in this study was a quantitative method with validity testing to obtain valid data.

3.1 Type of Research

This study used Research and Development (R&D) with data collection techniques used in the questionaries and the value pretest and post-test. This study employed the Research and Development method because this developed a learning media. According to Sugiyono (2017: 297) Research and Development research is a ground to learn information about a need, then a development process is made to produce a product and to be praised for its effectiveness. In accordance with these problems, this study used the ADDIE research model. ADDIES's Research and Development steps (Sugiyono, 2017) can clearly be seen in the following figure 1:
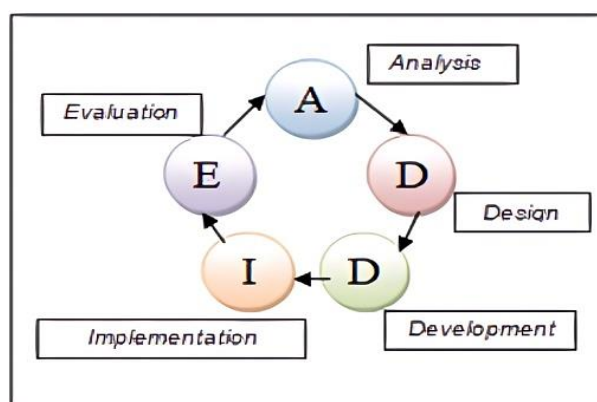

Figure 1. ADDIE Model of Development

Based on the picture above regarding the 5 stages of the ADDIE development model, in detail, it can be explained as follows.

a. Analytical

The analytical stage is the gathering of information that can be used as material for making products, in which case the products produced are the optimal Postcard learning media (Posters and Picture Cards). This information collection included observation, teacher, and students' response questionnaires. This point of analysis analyzes activities about the need for the development of Postcard learning media in fifth-grade science content material "Water Cycle" which include teacher, and students' response questionnaires. The analysis of teacher and student needs is intended to identify products that suit fifth-grade students elementary school.

b. Design

After the analytical stage was carried out, the next step was for the researcher to carry out the design of the learning media that would be developed according to the analysis done at the previous stage. The learning media to be made in the form of Postcards (Posters and Picture Cards) were designed using the CorelDRAW and Canva applications which were tailored to the content of the material. In this case, the material used was fifth-grade science content about the Water Cycle. The researchers created Postcard learning media designs which will then be printed. At this stage of development, the product will be validated by material experts and media experts for the validity of the learning media developed.

c. Development

The development of learning media marks the transition from design to product creation. This stage culminates in a prototype ready for testing. The development process encompasses:

1) Form: The Postcard learning media is designed as a two-dimensional product, both for the poster and the picture card. This involves careful consideration of image size, color, text, and content relevance.

2) Material: This media utilizes cartoon art and art paper materials, crafted to be as engaging as possible for science content, specifically for 'The Water Cycle' topic.

3) Use: The Postcard learning media is created to be not only interesting but also playable, aligning with the characteristics of elementary school students. During this development phase, the product undergoes validation by material and media experts to ensure the quality and effectiveness of the learning media being developed.

d. Implementation

At this stage, the learning media testing phase after getting validation from material experts and media experts was conducted at the previous stage. At this stage, trials were conducted with students to determine the practicality and effectiveness of the learning media developed. Moreover, the Postcard learning media to be developed was implemented in the studying class of fifth-grade students of SDN 1 Watudandang as a test subject. This is done after the learning media has been validated by material experts and media experts and is said to be valid so that it can be used for learning.

e. Evaluation

At the evaluation stage, the researchers were revising the products developed based on input and suggestions from material experts and media experts, teacher responses and student responses questionaries, and the result of the students' pre-test and post-test scores.

3.2 Data Analysis

The data analysis technique used in this research is quantitative data analysis in order to obtain valid data.

a. Learning media validation test analysis

Data analysis of the validation results of media experts and material experts was conducted to find the average assessment of the validator. Giving scores to find out the results of validation using categories (4) very suitable, (3) suitable, (2) less suitable, and (4) not suitable.

The formula used is as follows:

$$\text{Product validation test score} = \frac{TS}{TSM} \times 100\% = \dots\%$$

Description:
TS = total score
TSM = maximum score

To strengthen the data from the assessment results, the qualification of validity criteria, as in the table:

Table 1. Criteria for product validity and revision

Score	Criteria	Qualification	Description
4	$76 \leq X \leq 100$	Very good	No need for revision/very valid
3	$51 \leq X \leq 75$	Good	No need for revision/valid
2	$26 \leq X \leq 50$	Not good	Revision/ Invalid
1	$0 \leq X \leq 25$	Not very good	Revision/ very invalid

b. Analysis of learning media practicality test

Data analysis of practical results by teacher responses and student responses to learning media was carried out to find the average assessment of the validator. Giving scores to determine the results of validation using categories (4) very suitable, (3) suitable, (2) less suitable, and (4) not suitable. The formula used is as follows:

Product practicality test score = $\frac{TS}{TSM} \times 100\% = \dots.\%$

Description:
TS = Total Score
TSM = Maximum Score
To Strengthen the Assessment Results, The Practicality Criteria Qualification, as in the table:

Table 2. Criteria for practicality and product revision

Score	Criteria	Qualification	Description
4	$76 \leq X \leq 100$	Very good	No need for revision/ very practical
3	$51 \leq X \leq 75$	Good	No need for revision/ practical
2	$26 \leq X \leq 50$	Not good	Revision/ practical
1	$0 \leq X \leq 25$	Not very good	Revision/ practical

c. Analysis of learning media effectiveness test

The data that the researchers were using to assess the effectiveness of Postcard learning media is based on the results of pre-test and post-test scores that have been obtained, then the normality test, T-test (Paired Sample Test), and N-Gain Score test. In determining the effectiveness of Postcard learning media, there is a measurement scale that can be used for N-Gain Score guidelines with the purpose of knowing the increased value of pre-test and post-test scores. The calculation of the N-gain Score used the formula (Nurhairunnisah, 2018) as follows.

$$\text{N-gain} = \frac{\text{s post - s pre}}{\text{s max - s pre}}$$

Description:
N-Gain = normality of gain
S post = average posttest score
S pre = average pretest score
S max = maximum score

The category of the effectiveness level of learning media with the N-Gain Score test can be interpreted by some of the criteria in the table as follows.

Table 3. Effectiveness Category of N-Gain

Percentage of *N-Gain* Value(%)	Criteria
< 40	Ineffective
40 – 55	Less Effective
56 – 75	Effective Enough
>76	Effective

Table 4. Distribution of N-Gain Score

N-Gain Value	Category
g > 0,7	High
$0,3 \leq g \leq 0,7$	Medium
g < 0,3	Low

4. Result

The result of the development in this study was Postcard learning media in fifth-grade students elementary school science content. In this case, the material used is fifth-grade science material about the Water Cycle. Development research was conducted using the ADDIE model which includes each of the following stages.

4.1 Analytical

At the analytical stage, the researchers conducted observations and administered a teacher needs analysis questionnaire to the fifth-grade homeroom teacher, along with a student needs analysis questionnaire completed by all fifth-grade students at SDN 1 Watudandang. The analysis revealed that both teachers and students had not previously utilized varied learning media for the science topic of the Water Cycle. Consequently, the development of the Postcard learning media is anticipated to attract and motivate students, thereby aiding in their understanding of science materials, particularly on the Water Cycle.

4.2 Design

At the design stage, the researchers created learning media product designs in the form of posters through the CorelDRAW application and picture cards through the Canva application. Product design was made by

compiling an outline of the material to be included in the media and designing images on the media. The main components included in the poster were the stages of the water cycle, while the main components on the picture cards were the types of water cycles.

4.3 Development

At the development stages, the researchers finalized Postcards of media products in the form of posters and picture cards. Before learning media, products were tested on students, the products were validated by material experts and media experts. The results of the validation that has been carried out by experts were analyzed using the learning media validation formula which finally obtained the percentage of learning media. The result of the validation test can be seen in the following table.

Table 5. Material Expert Questionnaire

No.	Aspects	Material Expert Score
1.	Learning	21
2.	Material	19
Total Score		40
Maximum Score		44
Result Value (%)		91
Predicate Description		Very Valid

Based on the table above, the results of the validity test's learning media by material experts were obtained based on a questionnaire with the criteria or aspects that have been described in the table above, the value score obtained from 91% with a very good predicate material expert. Based on this data, it can be concluded that the assessment of learning media by material experts is categorized as very valid. In addition to the material expert test, a learning media expert test was also conducted. Based on the results of the learning media expert test, the data can be presented in the following table.

Table 6. Media Expert Questionnaire

No.	Aspects	Media Expert Score
1.	Presentation	11
2.	View	16
3.	Compatibility	10
Total Score		37
Maximum Score		44
Result Value (%)		84
Predicate Description		Very Valid

Based on the table above, the results of the product validity test by media experts were obtained based on a questionnaire with the criteria or aspects described in the table above. The value obtained from an 84 % is with a very good predicate media expert. So, it can be concluded that the product assessments by media experts were categorized as very valid.

4.4 Implementation

After the researchers validate with material experts and learning media experts at the previous stage, then proceed to this implementation stage. In this case, Postcard learning media products were applied to science learning at SDN 1 Watudandang on Water Cycle material. Material delivery was delivered in the classroom, where posters were used to explain the stages of the water cycle, while the picture cards contained the types of water cycles used with game-based.

4.5 Evaluation

At this stage, the researchers evaluated the effectiveness and the practicality of Postcard learning media. Data related to practicality was obtained from teacher response and student response questionnaires. The results of practicality done by the teacher and students were analyzed using the learning media practicality formula which finally obtained a percentage of the results of the learning media practicality test. The results can be seen in the following table.

Table 7. Practicality Test Results by Teachers

No.	Aspects	Practicality Score
1.	Effective	8
2.	Interactive	10
3.	Efficient	7
4.	Creative	8
Total Score		33
Maximum Score		36
Result Value (%)		91
Predicate Description		Very Practical

Based on the table above, the results of the product practicality test by the teacher were obtained based on a questionnaire with the aspects and criteria described in the table above. The score obtained was 91% with a very good predicate. So, it can be concluded that the assessment of the practicality of the product by the teacher was categorized as very practical.

The results of the practicality data obtained from students were presented in the table as follows.

Table 8. Practicality Test Results by Students

No.	Aspects	Practicality Score
1.	Usability	10
2.	Ease	17
3.	Satisfaction	8
Total Score		35
Maximum Score		40
Result Value (%)		88
Predicate Description		Very Practical

Based on the table above, the results of the product practicality test by students were obtained based on a questionnaire with the aspects or criteria described in the table above, the score obtained is 88% with a very good predicate. So, it can be concluded that the assessment of product practicality by students was categorized as very practical.

After the product practicality test, the researchers conducted a product effectiveness test. To assess the effectiveness of the Postcard learning media developed, testing was carried out normality test, T-test, and N-Gain Score test.

a. Normality Test

The normality test is carried out to measure whether the data is normally distributed or not. The results of the normality test that has been carried out can be seen in the following table.

Table 9. Normality Test Table

	Shapiro-Wilk		
	Statistic	df	Sig.
Pretest	.939	17	.311
Posttest	.929	17	.210

Based on the table above, the results of the Shapiro-Wilk method showed that the significance of the pre-test got a value of 0.311 and the significance of the post-test got a value of 0.210. So, it can be concluded that the significance value of the pre-test and post-test was > 0.05, which means normal distribution of pre-test and post-test data for students.

b. T Test (Paired Sample Test)

After the normality test was carried out, then the T-test (Paired Sample Test) was carried out to test the research hypothesis of this Postcard learning media development. The results of the T-test (Paired Sample Test) can be seen in the following table.

Table 10. Paired Sample Test Table

		t	df	Sig. (2-tailed)
Pair 1	Pretest - Posttest	-10.190	16	.000

The results of the T-test (Paired Sample Test) got a df value of 16, thus a t-table of 2.120 is obtained. Then, the results of the T-test (Paired Sample Test), it is known that the t-count was 10.190 and the significance value was 0.000, it can be seen that the t-count>, t-table, and the significance value was <0.05. Thus, it can be concluded that the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted, which means that there are differences in learning outcomes in students before and after using Postcard learning media.

c. N-Gain Score Test

After conducting the T-test (Paired Sample Test), the researchers conducted the N-Gain Score test. The results obtained from the N-Gain test can be seen in the following table.

Table 11. N-Gain Test Table

Descriptive Statistics				
	N	Min	Max	Mean	Std. Deviation
NGain	17	.38	1.00	.7517	.17674
Valid N (listwise)	17				

The results of the N-Gain Score test obtained a value of 0.7517, which means that the Postcard learning media developed was included in the "high" category with "quite effective" criteria. Thus, it can be concluded that Postcard learning media is in the category of effective enough for learning activities on fifth-grade students on Water Cycle material at SDN 1 Watudandang.

5. Discussion

This research is important to do to see the significance before the use of learning media and after using the developed learning media. To identify the learning media to be developed, the researcher used data collection techniques in the form of observation, the teacher needs analysis questionnaires, and the student needs analysis questionnaires with several tests.

Based on the research and development of established Postcard learning media, it is necessary to analyze to know the validity, practicality, and effectiveness of the media. In measuring the validity of Postcard learning media obtained from the results of the material expert validation questionnaire a percentage of 91% with a very valid category and a media expert validation questionnaire a percentage of 84% with a very valid category. This accords with previous studies conducted by Fauziah (2022), which stated that poster learning media has validating level from validation of material expert lecturers with a percentage of 83% very valid and the results of validation of media expert lecturers with a percentage of 88% with very valid criteria. Another study was also conducted by Adawiyah (2021), which stated that the card media had a level of validity from the results of the validation sheet that had been tested with a percentage of 90.7% very valid and the media validation sheet with a percentage of 83.3% very valid. Hariani (2021), also stated that the picture card media obtained validation from 4 material experts with an average of 91.77% in the very category and the average value from media experts was 94.67% in the very valid category. Not only that, other studies (Darlis et al., 2021) also stated that

poster learning media based on the results of validity which include material expert validation getting a percentage of the feasibility of 73% with the category very feasible, and media expert validation getting an average percentage of the feasibility of 98.18% with the category very feasible.

After measuring the validity of Postcard learning media, then is measuring the level of practicality of Postcard learning media. To measure of the practicality of the media, it was obtained from a teacher response questionnaire with a percentage of 91% in a very practical category, and student response questionnaire which received a percentage of 88% in a very practical category. This accords with a previous study conducted by Trianto (2022), which stated that poster learning media has a level of practicality with a percentage of 88% with the category "practical" for limited scale tests and 91% with "very practical" criteria for broad scale tests. Another study from Hariani (2021), also stated that the picture card learning media had practicality with a percentage of 97.65% in the category "very practical". In addition, the picture card learning media has effectiveness based on Arsyaf (2022), which stated that the card learning media can be seen from the average student response score of 4.38 with very practical criteria.

Based on the results of the previous study, both the practicality of poster learning media and the practicality of picture card learning media were declared practical to very practical. In this case, it can be concluded that the use of learning media is practical to use. The update in this study with the previous study is that this study combines poster and picture card learning media. The results in this study obtained from the teacher and student response questionnaire are getting a score in the "very practical" category.

After analyzing the results of the validity and practicality of Postcard learning media, an analysis was also being made to measure effectiveness through the normality test, T-test (Paired Sample Test), and N-Gain Score. The normality test obtained a pre-test significance of 0.311 and a post-test significance of 0.210, which means that the student's pre-test and post-test were normally distributed. Furthermore, the T-test (Paired Sample Test) showed that t-count>, t-table, and a significance value of 0.000, meaning that there is a significant difference between the learning outcomes on the pre-test and post-test of students. Also, the N-Gain result is 0.75 in the "high" category with "quite effective" criteria. This accords with a previous study conducted by Darlis et al., 2021; Harsono et al., 2018; Wulandari et al., 2021 which stated that poster learning media is effective. This can be seen from the results of hypothesis testing using the two independent sample T-test tests, namely sig. (2-tailed) which gets a value of 0.001, so that ha is accepted, which means that the sample comes from a normally distributed population and there is a significant difference, and is effective to use. In addition, Paramitha (2018) stated that the effectiveness of using poster learning media can be seen through the completeness of classical student learning outcomes which reached 92%. Based on the results of previous studies, both the effectiveness of poster learning media and picture cards have been carried out by these researchers. All of them were said to be effective in learning. The update in this study with the previous study combines poster and picture card learning media with the results described above.

In addition to the effectiveness of poster learning media, picture card learning media has effectiveness based on (Mardati, 2015) which stated that card learning media was effective in terms of student learning outcomes with an average difference from 81.41 to 85.12 with an increase in student learning outcomes indicated by a significance value of 0.001 and significance value level of 0.005. Based on the results of the previous study, both the effectiveness of poster learning media and the effectiveness of picture card learning media. All of them are declared effective. In this case, it can be concluded that the use of learning media is practical to use. The update in this study with the previous study combines poster and picture card learning media. The results this study obtained from the normality test paired T-Test tests and N-Gain Score. based on the research stated valid.

6. Conclusions

Based on the results of the research above, it can be concluded that the Postcard learning media on the Science content of the Water Cycle material for fifth grade students at SDN 1 Watudandang can be concluded that the Postcard learning media is feasible and quite effective for use in learning. This is based on the assessment of material expert validation with a percentage of 91% "very valid", media expert validation with a percentage of 84% "very valid", teacher response questionnaires with a percentage of 91% "very practical", and student response questionnaires with a percentage of 88% " very practical". Postcard learning media is declared effective enough to be used in learning because it has shown an increase in student learning outcomes after using the learning media. Based on the normality test, it is known that the pretest significance value is 0.311 and 0.210 posttest, so the data is normally distributed because the significance value is > 0.05. The results of the T test (Paired Sample Test) obtained the value of t-count = 10.190 > t-table = 2.120, so that Ho was rejected and Ha was accepted, which means there are differences in student learning outcomes before and after using Postcard learning media. The N-Gain Score test results obtained a gain value of 0.75, so it is included in the "quite effective" category. So it can be concluded that the Postcard learning media can be implemented in class V material related to the water cycle.

7. Acknowledgement

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