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Using PowerPoint as a Learning Media for Elementary School Students about Personal and Environmental Health

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ABSTRACT

This study aims to analyze and measure the effectiveness of using PowerPoint as a learning medium in increasing elementary school students' knowledge of personal and environmental health and increasing students' knowledge of personal and environmental health. The research subjects were 16 minor medical students at SD Negeri 1 Padang Panjang Barat Padang Panjang, West Sumatra, Indonesia. This study uses a learning method by explaining personal and environmental health materials using powerpoint media in which there are also interesting pictures. The students were also given a pre-test before learning started to measure how much students' knowledge of the material was and a post-test after learning was done to find out how much improvement occurred to students. The results showed that when the pretest was carried out there were still many students who did not know about their own health and the environment. After being given learning using powerpoint media accompanied by interesting pictures, there was an increase in students' knowledge about personal health and the environment. The use of powerpoint is also very effective in helping students think and analyze something.

1. Introduction

Personal health is a person's effort to keep his body in shape and avoid and free from all kinds of diseases. Personal health is something that really needs to be considered in carrying out daily activities, in order to create a life that is prosperous, comfortable and free from disease. Environmental Health is a person's efforts to maintain the surrounding environment to avoid and free from dirt and disease. Knowledge of personal health and environmental health really needs to be taught from an early age, which can start from the family environment, kindergarten and even elementary school. Health lectures can increase the knowledge of elementary school students about personal health and environmental health (Wulanyani, 2014). Along with the times at this time, digital media can be used to help the process of learning activities in schools. The form of learning media is in the form of learning videos, and powerpoints.

In previous research, information was obtained that the use of PowerPoint as a learning medium is very feasible to be applied to elementary school students (Anyan et al., 2020). With the use of PowerPoint as a learning medium using Google Classroom, it can increase students' understanding and activeness during the learning process (Parnabhakti & Puspaningtyas, 2020). Powerpoint is also very effectively used for distance learning (Purwanti et al., 2020). The use of powerpoint can also affect students' interest and learning outcomes (Elpira & Ghufron, 2015).

Therefore, the aims of this study are (i) to analyze the effectiveness of using power point as a learning medium; (ii) measuring the effectiveness of using power point as a learning media in increasing elementary school students' knowledge about personal and environmental health; and (iii) increasing the knowledge of elementary school students about personal and environmental health.

The novelty of this research is (i) explaining the material on personal health and environmental health to elementary school students using powerpoint learning media; (ii) learning is supported by interesting media; and (iii) encourage students to explore material on personal health and environmental health.

2. Methods

This research was conducted using learning methods that were carried out *offline* or face to face, using powerpoint media accompanied by interesting pictures. The students are given a *pretest* before learning which serves to measure how much knowledge students have of the material to be taught and a *post-test* after learning which serves to measure the improvement experienced by students after learning is carried out which consists of 15 questions. This lesson was attended by 16 students of SD Negeri 1 Padang Panjang Barat Padang Panjang, West Sumatra, Indonesia. The implementation of this research is on January 10 – January 31, 2022. In the learning process students are required to be active in order to be able to express opinions and answer questions.

3. Results and dicussion

Table 1. Is the percentage of the results of the *pre-test* and *post-test* of each question from the 16 students who were sampled in this study. The pre-test is carried out before the learning activities begin, and the post-test is given to students after the learning activities are carried out. Based on the table, it shows that the average student understanding of personal and environmental health in the *pre-test* is 92.5%. After students were given an explanation of personal and environmental health materials using powerpoint media and accompanied by interesting pictures, students' understanding increased to 99.5%. It can be seen that the learning media in the form of powerpoints which include pictures of related material can make it easier for students to see, understand and add knowledge quickly.

Based on other studies that also use powerpoint as a medium of learning, students' knowledge and learning outcomes increase and create new interest in students (Elpira & Ghufron, 2015).

Table 1. Results of pre-test and post-test.

No.	Questions	Pre-Test	Post-Test
1	Do you know the meaning of cleanliness?	87.5%	100%
2	Do you know what healthy means?	68.75%	100%
3	Do you know the meaning of personal health?	68.75%	93.75%
4	Do you know what healthy means?	93.75%	100%
5	Do you know the characteristics of a healthy child?	93.75%	100%
6	Do you know how to maintain personal hygiene?	100%	100%
7	Do you know how to take care of yourself?	100%	100%
8	Do you know the consequences of not maintaining personal hygiene?	100%	93.75%
9	Do you know the meaning of environmental cleanliness?	75%	100%
10	Do we need to keep the environment clean?	100%	100%
11	Disposing of garbage in its place, is it an effort to keep the environment clean?	100%	100%
12	Healthy environment, comfortable school, what are the benefits of keeping the environment clean?	100%	100%
13	Do you know how to keep the environment clean?	100%	100%
14	Do you know the diseases that arise as a result of not keeping the environment clean?	62.5%	93.75%
15	Do you know the consequences of not keeping the environment clean?	87.5%	100%

Figure 1. Is a graph of the results of the *pre-test* that has been done by students. The blue graph shows that students already know about the material asked in the question, while the orange graph shows that there are some students who do not know the material asked in the question.

The results of the discussion on the graph of the *pre-test* results show several points:

- i. Question 1 shows that there are 2 students who do not know about the questions given.
- ii. Questions 2-3 show that there are 5 students who do not know about the questions given.
- iii. Questions 4-5, indicate that there is 1 student who does not know about the questions given.
- iv. Questions 6-8, show that all students already know about the questions given.
- v. Question 9 shows that there are 4 students who do not know about the questions given.
- vi. Questions 10-13, show that all students already know about the questions given.
- vii. Question 14 shows that there are 5 students who do not know about the questions given.
- viii. Question 15 shows that there are 2 students who do not know about the questions given.

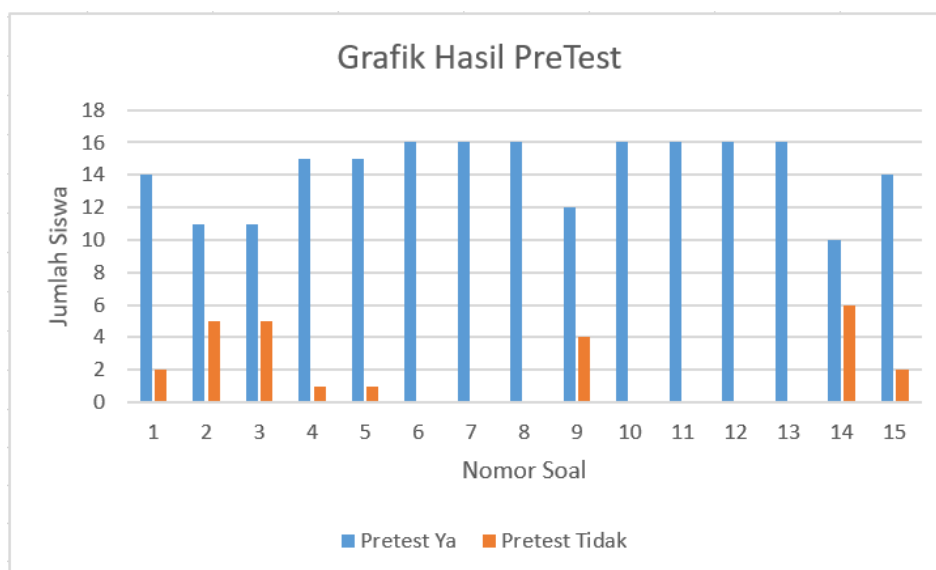


Figure 1. Graph of Pre-Test Results

Figure 2. Is a graph of the *post-test* that have been carried out by students. It can be seen, the blue graph shows that all students already know and understand the material being taught, while for the orange graph, there are still some students who still do not understand.

The results of the discussion on the graph of the *post-test* results show several points:

- i. Questions 1-2, indicate an increase in students' knowledge after being given learning using powerpoint media.
- ii. Question 3 shows that there is an increase in students' knowledge after being given learning using powerpoint media. It's just that there is still 1 student who still does not understand the material presented.
- iii. Questions 4-7, indicate an increase in students' knowledge after being given learning using powerpoint media.
- iv. Question 8, shows that compared to the results of the pre-test there is a decrease as it can be seen that there is still 1 student who does not understand the material being taught.
- v. Questions 9-13, showed an increase in students' knowledge after being given learning using powerpoint media.
- vi. Question 14, shows an increase in student knowledge after being given learning using powerpoint media which is marked by a decrease in the number of students who do not understand the material being taught.
- vii. Question 15 shows an increase in students' knowledge after being given learning using powerpoint media.

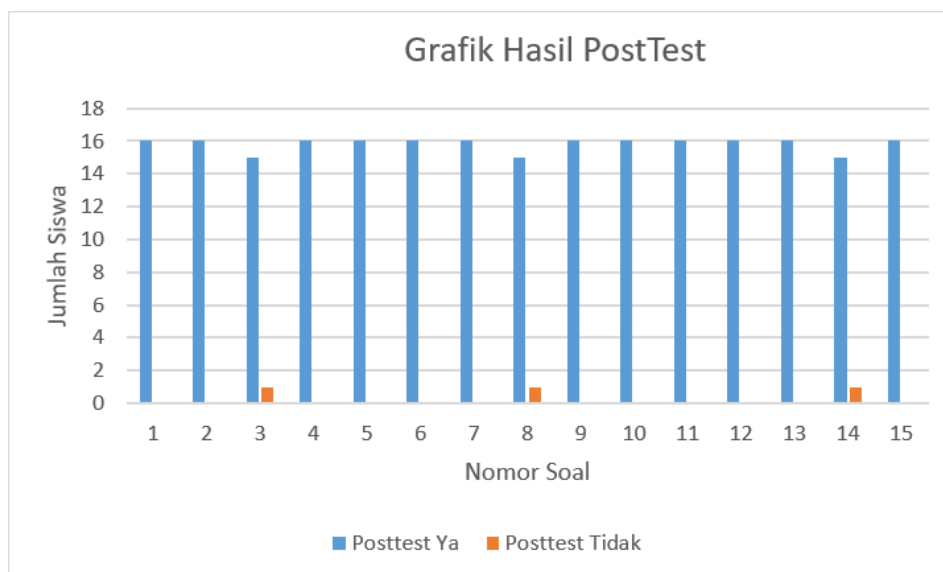


Figure 2. Graph of Post-Test Results

4. Conclusions

Personal health and environmental health are things that really need to be considered. This is closely related to daily activities. Health education can be started early and can also be started from the family environment. Health education can also be obtained at the elementary school level, with one of the activities being school health efforts (UKS). In the school health business (UKS) there is a program where students are given socialization or counseling related to health. Then, another program from the school health business (UKS) is to form a cadre of small doctors who can assist teachers in monitoring and socializing health to all school residents.

The results showed that students' understanding of personal and environmental health during the *pre-test* was 92.5%. Then, after being given an explanation of the material on personal and environmental health using powerpoint, students were given the same questions again. The *post-test* showed 99.5% of students' understanding of the material. It can be concluded that there was an increase in student understanding by 7% with the help of learning media in the form of powerpoints and interesting pictures. So the use of powerpoint as a learning medium is very effective and can increase student curiosity in learning activities. The continuation of this activity is the formation of an additional cadre of minor doctor students.

It is recommended for further researchers to test the effectiveness of the cadre of small doctor students as an effort to organize personal health and environmental health in the school environment.

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6. Authors Note

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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