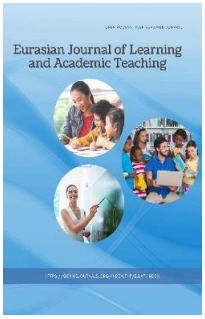

Implementation Of Education Through Multimedia Video Learning On The Understanding Of Helminth Infections

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ABSTRACT

The prevalence of worm infection in Indonesia reaches 28.12%, but this is does not reflect the actual condition because there are still many areas in Indonesia that have not been covered by the worm infection examination. The objective of this study was to determine the effect of education through audiovisual methods on helminth infections in students at SDN Cipayung 2, South Tangerang City. This research method is quantitative research using Pre Experimental Design with One Group Pre test and Post test approach. The number of samples was 93 students at SDN Cipayung 2, South Tangerang City and used a total sampling technique. The results showed that there was an increase in the average value of understanding about helminth infections before and after being given counseling using the audiovisual method. The increase in the average (mean) pretest value of 30.40 increased to 40.27 in the posttest value, the pretest (median) value of 30.00 increased to 40.00 in the posttest value, the pretest (minimum) value of 17 increased to 31 on the average posttest value and the (maximum) pretest value of 39 increased to 50 on the average posttest value. Based on the results of the Paired-Sample T Test, the results obtained P Value = 0.000,. And it can be concluded that implementation of education through multimedia video learning on the understanding of helminth infections is very effective. This research will explore the effect of education through multimedia video learning on the understanding of helminth infections.

Keywords: Education; Multimedia Video Learning; Helminth Infections

Introduction

Worm illness is still a mystery in Indonesia, and it is highly dangerous. Children in elementary school who are prone to this worm sickness are frequently addressed (Winita & Mulyati, 2012) (Dewi, et al, 2020). (Lubis, et al, 2018). Most people consider worms to be insignificant, despite the fact that this disease causes anemia, poor learning success, developmental Not Normalities, cognitive issues, decreased activity, and weight loss in children (Alifia, 2021).

Food or water contaminated with worm eggs, crowded communities, and poor environmental sanitation can all spread this worm sickness. In addition, worms or larvae might spread due to a lack of clean water, poor personal hygiene, and contaminated objects (Sigalingging, 2019).

Indonesia is included in a country that requires more intense handling of these

worms. (WHO) wrote that Indonesia ranks 3rd after India and Nigeria in the ranking of worms. Prevalence in Indonesia ranged from 2.5% to 65%. This number increases when the prevalence of helminthiasis is calculated when school-age children become 80% (Permenkes No. 15 of 2017). In Banten Province, the highest helminth infections were in Lebak District (62%) and Pandeglang (43.78%) (Ditjen PP & PL, 2013).

The prevalence of helminthiasis is high in tropical and subtropical climates. This is due to the presence of worm eggs and larvae that develop well in warm and wet soil. Indonesia is a country with a tropical climate and humidity. Then the economic and social level of the community is not comprehensive so that the lack of knowledge and public awareness to maintain personal and environmental hygiene is still not enough. This has resulted in easier transmission of worm eggs in Indonesia so that the community experiences helminthiasis (Kusmi, et al, 2015).

There are several factors that influence the occurrence of helminthiasis, namely environmental sanitation that is still not good enough, the level of knowledge is low and healthy behavior is still not good. Elementary school-age children who like to play on the ground but don't wear footwear and forget to wash their hands or feet when finished playing and before eating sometimes forget to wash their hands, and then they don't keep their nails clean. So that this triggers the occurrence of helminthiasis, considering the losses caused by the worm disease, an understanding is carried out about helminth infections in elementary school students. Knowledge is information or information that is known or realized by someone (Budiman, 2013) (Riyanto, 2013).

Based on the results of a preliminary study by researchers at SDN Cipayung 2, South Tangerang by conducting interviews on February 14, 2020 to the principal and teachers, it shows that in class V is divided into 3 classes. namely A, B, C with a total of 93 students. And the school had previously conducted counseling by the puskesmas about worms, and according to the local teacher too found 1 student who experienced a thin body condition so that the puskesmas called him to come immediately but this student was reluctant to come. For environmental sanitation, it is said to be quite good, but outside the school it is still like to see traces of street food waste and the scope of the school is full of people selling, various snacks, and vegetables, so it is possible that there is garbage outside the school environment.

Based on the results of the description above, the objective of this research is interested in writing a thesis research to determine the influence of education through the video learning multimedia method on the understanding of helminth infections in students at SDN Cipayung 2, South Tangerang City.

This research will explore the effect of education through multimedia video learning on the understanding of helminth infections.

Methods

The research design used for this research is quantitative research using Pre Experimental Design with approach One Group Pre test and Post test . Sampling using the method non-probability sampling namely a sampling technique that does not provide equal opportunities for each population and uses Total Sampling. The researchers took a sample of 93 people consisting of class V at SDN Cipayung 2, South Tangerang City.

The instrument used in this study was in the form of a questionnaire consisting of 10 items given before and after it was given intervention through video learning multimedia methods in the form of videos. The researcher do 2 days in data collection, the first day the respondent is given *pretest* to find out the students' initial scores on the understanding of helminth infections. On the second day, respondents were given an understanding intervention about helminth infections using video learning multimedia media, then respondents were given *posttest* to

find out the value of students after getting Interventions in understanding helminth infections.

After the research process is complete, data analysis is carried out to obtain results from the data collection process that has been carried out and researchers are still allowed to complete supporting data if they are still needed. . Bivariate analysis in research using test *Wilcoxon signed rank test* , that is to see Differences in the level of understanding of helminth infections of fifth grade students at SDN Cipayung 2 South Tangerang City.

All research subjects will be given an explanation of the purpose and method of research. This research will be carried out after obtaining voluntary consent (*Informed Consent*) of the respondents. Subjects to be studied have the right to refuse not to participate in the study.

Results And Discussion

Based on the results of research with the title influence education through audiovisual methods on the understanding of helminth infections in students of SDN Cipayung 2, South Tangerang City. Then the researchers obtained data by using the distribution of questionnaires to fifth grade students, totaling 93 respondents. The research was conducted to see the difference whether there is an increase before and after the intervention was given through the audiovisual method. The data is used as a benchmark in conducting the discussion and the final results are as follows

1. Univariate analysis
   Based on the results of the research that has been carried out, several results were obtained, namely the characteristics of the respondents and the results of research in each research group.

Table 1. Distribution of Respondents Age

Student age (years)	The number of students	Percentage
10	14	15.1
11	69	74.2
12	10	10.8
Total	93	100

Table 1 **.** The results of the study show that students who ber 11 years old is more than half as much (74 ,2%) respondents and a small number of respondents be 12 years old as much (10.8%).

Table 2. Distribution of respondents gender

Gender	The number of students	Percentage
Man	48	51.6
Woman	45	48.4
Total	93	100

Table 2. the results of this study indicate k an that more than half of the students are male as many as 48 respondents (51.6%)

Table 3. Value distribution of understanding about helminth infection

Category	Pretest	Posttest
mean	19.75	28.11
median	19.00	28.00
Minimum	9	17
Maximum	29	36

Table 3. it can be seen that there is an increase in the average value of understanding about helminth infections before and after being given counseling with the audiovisual method. Increase in the average value (mean) *pretest* by 19 ,75 increased to 28.11 on the value of *posttest* value (median) *pretest* by 19.00 increased to 28.00 at the value of *posttest,* value (minimum) *pretest* as big as r 9 increased to 17 on the average value *posttest* and value (mak s immune) *pretest* by 29 increased to 36 in the average value of *posttest.*, Bivariate analysis

2. Bivariate analysis
   Bivariate analysis which aims to determine the relationship between the dependent variable and the independent variable. Dependent T test (test *Paired-Sample T*) is used if the data is normally distributed, while the test *wilcoxon signed rank test* used if the data are not normally distributed. In this study, a normality test was conducted to determine whether the data in the study were normally distributed or not.

Table 4 . **Normality Test Results with Video learning multimedia method**

Understanding of helminth infections	*P value* on *Kolmogorov-smirnov*	Information
Pretest	0.021	Not Normal
Posttest	0.016	Not Normal

Table 4. if the value > 0.05 then it is declared normally distributed and k right that the test results *Kolmogorov-smirnov* results obtained *pretest* (*P value* = 0.021) whereas results *posttest* (*P value* = 0.016). Then it can be concluded that the data *pretest* and *posttest* Not Normal . So that the hypothesis made can be done by analyzing *wilcoxon signed rank test*.

Table 5. The value of understanding about helminth infections in students

Understanding of helminth infections	N	mean	*Sig. (2-tailed)*
Pretest	93	19.75	0.000
Posttest		28.11	

Table 5. test results *wilcoxon signed rank test* with the data processing method, in this test if it is smaller than 0.05 then there is a significant difference before and after the intervention. From table 5, the results obtained *P Value* = 0.000. And it can be concluded that there is a difference in the level of understanding of helminth infections in fifth grade students at SDN Cipayung 2 South Tangerang City. The difference in the score of understanding about helminth infections before and after the intervention was given through the audiovisual method.

This is because video media has the advantage of being able to stimulate the effects of motion so that it looks more interesting and easier to stimulate students' understanding cognitively, affectively, and psychomotorically. Along with the development of science, Media changes in learning are also increasingly changing or developing not only with games for children, one example of media that is often used in children's learning is the use of video. The video is considered capable of depicting live images and sound which is given its own charm (Kumboyono, 2011) (Windaviv, 2014).

Based on research results *pretest* and *posttest* given the intervention using the audiovisual method in the form of video playback for class V students. It was carried out using the Test *wilcoxon signed rank test* the data obtained before giving an understanding of helminth infections through the audiovisual method was 19.75 while after giving an understanding of helminth infections through the audiovisual method it was 28.11 and

obtained *P Value* = 0.000 which means that there are differences in students' understanding of helminth infections SDN Cipayung 2, South Tangerang City.

This research is in line with research conducted by Tambak, 2018 entitled "The Effect of Health Counseling Using Video Media About Worms on Knowledge and Attitudes of Students at SDN 122375 Pematangsiantar". worms and tested before *pretest* counseling and will be tested again afterwards with *post-test.* Using video media (*P value* = 0.000) indicates that there is a difference in the level of understanding before and after being given counseling. The purpose of this study was to determine the effect of health education using video media on helminthiasis on the knowledge and attitudes of students at SDN 122375 Pematangsiantar.

Based on the results of existing research or theories, researchers can conclude that the provision of interventions through the audiovisual method can affect the level of understanding of students in order to improve personal and environmental hygiene.

Conclution

There is an increase in the average value of understanding about helminth infections before and after being given counseling with the multimedia video learning method. The increase in the average (mean) pretest value of 30.40 increased to 40.27 in the posttest value, the pretest (median) value of 30.00 increased to 40.00 in the posttest value, the pretest (minimum) value of 17 increased to 31 on the average posttest value and the (maximum) pretest value of 39 increased to 50 on the average posttest value. Based on the results of the Paired-Sample T Test, the results obtained P Value = 0.000 which means smaller = <0.05 which means that the implementation of education through multimedia video learning on the understanding of helminth infections is very effective.

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