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## **The Influence of Giant Snakes Ladders Game "UTANG SASA" on the Knowledge and Attitude of Fruit and Vegetables Consumption of Children at Sidorahayu State Elementary School 2, Wagir, Malang.**

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### **ABSTRACT**

**Introduction:** The giant ladder snake game is an educational and attractive game that can be used to influence the knowledge and attitudes of schoolchildren in the consumption of fruits and vegetables.

**Objective:** The aim of this study is to analyze the influence of the game giant ladder snake on children in SDN 2 Sidorahayu on knowledge and attitudes about eating fruits and vegetables.

**Method:** The study used a pre-experimental design of a group pre-test-posttest carried out in February 2024 on 33 SDN 2 Sidorahayu, Wagir students. This education was conducted for two weeks with interventions once a week. The data collected is characteristic data, knowledge, and attitudes measured using a questionnaire. Data analysis is univariate and bivariate. Bivariate analysis using paired t-test or Wilcoxon sign rank test with  $\alpha=0.05$

**Result:** The results of the study obtained a difference in knowledge after education with an average score of almost 85.76 compared to before education a small part 40.61. Whereas for the value of attitude, there is a difference in attitudes after giving education with the average score of mostly 65.76 before education mostly 57.82. The obtained probability value p-value  $0.000 < 0.05$  indicates that H1 accepted means there is an influence of the media game snake giant ladder on the knowledge and attitude of consumption fruit and vegetables at SDN 2 Sidorahayu, Wagir.

**Conclusion:** Consequently, it can be said that the game giant ladder snake has a media influence on students at SDN 2 Sidorahayu, Wagir, on their knowledge and attitudes towards the eating of fruits and vegetables.

**Keywords:** Giant Ladder Snake Game; Knowledge; Attitude; Consumption of Fruit and Vegetables

## INTRODUCTION

Children in the age range of 4-12 are more likely to consume unhealthy snacks with no nutritional content, which can increase the risk of obesity due to unbalanced nutrition. In Indonesia, it is said that most children (60%) dislike fruits and vegetables (1). The World Health Organization or WHO sets the standard of consuming fruits and vegetables per day at least 400-600 grams, while the Indonesian Ministry of Health recommends that children in this age range consume fruits and vegetables at least 300-400 grams per day.

WHO and the Food Agriculture Organization (FAO) said that the consumption of fruits and vegetables among school-age children in Asia and Indonesia is at the lowest position with a prevalence of 198 grams for men, and 183 grams for women. In addition, according to WHO, not eating enough fruits and vegetables can lead to gastrointestinal cancer (14%), risk of death from coronary heart disease (11%), and death from stroke (9%) (2).

The 2018 Riskesdas recorded that East Java falls into a position that does not meet the recommended consumption of vegetables and fruit. The level of vegetable and fruit consumption is only 173 grams, and the prevalence of the population aged 10 years and over based on the trend of the proportion of eating less fruit and vegetables (less than 5 servings per day in 1 week) by district / city, East Java Province almost entirely reached 95.4% (3).

Based on field observations and teachers' comments made by researchers, it was found that at SDN 2 Sidorahayu, the food, lunch and snacks that children bring and buy are almost entirely (80%) not vegetables and fruit, but other unhealthy snacks. Therefore, education about vegetable and fruit consumption, especially regarding the benefits of each vegetable and fruit, is needed for children at SDN 2 Sidorahayu.

In addition, based on the results of interviews with 9 children in class V SDN 2 Sidorahayu, it was found that most children (70%) still had a poor level of knowledge related to fruits and vegetables as evidenced by several items of questions and statements given by researchers related to fruits and vegetables that were still difficult to answer by children and were still mistaken regarding the understanding of fruits and vegetables. From the statements of the 9 children, only very few (20%) children like fruits and vegetables.

As we know, children at school age have begun to escape from parental supervision so that they become picky eaters and only eat what they like, and cause them to be unusual in consuming fruits and vegetables (4). Reflecting on this problem, it is necessary to educate school children about fruits and vegetables from an early age in order to influence children's knowledge and attitudes towards fruits and vegetables.

This health promotion education through the giant snakes and ladders game media, because through this game media children can more easily understand the material. Researchers argue that this game method can be an effective and attractive alternative in improving children's knowledge and attitudes, because it tends to generate interest, attitudes and activate emotional and cognitive aspects in learning, so that it can encourage the development of creativity, language and good decision making in children.

This researcher's opinion is strengthened and supported by some of the findings of previous research on the application of snakes and ladders games in learning. The results of Rahmawati & Tayong Siti's research (2022) entitled "The Snakes and Ladders Fruit and Vegetables Game Method on Knowledge and Attitudes Regarding Nutritional Substances in Elementary School Students in Indramayu" show that there is an influence of snakes and ladders media on children's knowledge and attitudes, as evidenced by an increase in knowledge almost entirely (91.3%) after being given the intervention with the results obtained before the intervention mostly (69%). Attitude data shows the acquisition of almost all (93%) after being given the intervention compared to before being given the intervention most (70%) (5).

In line with Swamilaksita's research, the  $p$  value = 0.000 < 0.005 shows that H1 is accepted, meaning that there is an effect of snake ladder media on knowledge and attitudes about food safety (6).

This is the background for researchers to be interested in conducting further research to determine the effect of the giant snakes and ladders game "UTANG SASA" on the level of knowledge and attitudes of SDN 2 Sidorahayu children towards fruit and vegetable consumption. Thus, it can be important information in an effort to increase the consumption of fruits and vegetables in school-age children.

## METHODS

This research was conducted at SDN 2 Sidorahayu, Wagir over a period of 2 weeks in February 2024. A total of 50 fifth grade students of SDN 2 Sidorahayu became the population in this study. The researcher then calculated the sample using the Taro Yamane formula and obtained 33 samples as respondents. The samples who became respondents were fifth grade students of SDN 2 Sidorahayu who had met the exclusion criteria.

This type of research is a pre experimental research design one group pretest-posttest design. The purpose of this study was to analyze the effect of giant snakes and ladders game on the knowledge and attitude of fruit and vegetable consumption in fifth grade children of SDN 2 Sidorahayu.

Primary data obtained directly from respondents is the source of data used in this study. The researcher asked for approval for research in the form of informed consent to the homeroom teacher of the fifth grade student who was the respondent because the fifth grade students were still unable to fill out the informed consent sheet so that it had to be represented by the homeroom teacher who had been given approval by the parents / guardians of the students to determine whether the student was willing to participate in the study. After that, students were given a multiple choice questionnaire in the form of a pretest. After the pretest was given, it was continued with the provision of education on fruit and vegetable consumption through the giant snakes and ladders game media. After the education was completed, followed by filling out the posttest questionnaire to see the development of students' knowledge and attitudes after being given education.

The variables in this study include the dependent variable, namely children's knowledge and attitude towards vegetable and fruit consumption and the provision of fruit and vegetable consumption education through the giant snakes and ladders game media as an independent variable.

The type of data analysis used is univariate and bivariate. Univariate analysis was used to explain the frequency distribution of each research variable and bivariate analysis was used to analyze the effect of giant snakes and ladders game on the knowledge and attitude of fifth grade children of SDN 2 Sidorahayu Wagir towards fruit and vegetable consumption using the Wilcoxon sign rank test with the help of SPSS with a p value = 0.000 <0.05.

## RESULTS

### Characteristics of Respondents Based on Age, Gender, Information and Source of Fruit and Vegetable Information

The results of the univariate analysis conducted on each variable to determine the characteristics of each data are presented in the following frequency distribution table.

**Table 1.** Respondent Characteristics

No.	Characteristics	F	%
1.	<b>Age</b>		
	10 years	7	21,2
	11 years	25	75,8
	14 years	1	3,0
	<b>Total</b>	<b>33</b>	<b>100</b>
2.	<b>Gender</b>		
	Male	18	54,5
	Female	15	45,5
	<b>Total</b>	<b>33</b>	<b>100</b>
3.	<b>Fruit and Vegetable Information</b>		
	Ever	21	63,6
	Never	12	36,4
	<b>Total</b>	<b>33</b>	<b>100</b>
4.	<b>Fruit and Vegetable Information Source</b>		
	Media	4	12,1
	Health Officer	7	21,2
	Siblings or Parents	2	6,1
	Friends	1	3,0
	Books	2	6,1
	Miscellaneous	5	15,2
	Never received information	12	36,4
	<b>Total</b>	<b>33</b>	<b>100</b>

Source: Primary Data, 2024

Based on table 1, the results of 33 students who were respondents in the study were aged 10 years very few (21.2%), 11 years mostly (75.8%) and 14 years very few (3.0%). The gender of the respondents was mostly male (54.5%), while the female gender was a small proportion (45.5%).

In addition, for the acquisition of information, most (63.6%) had received information on fruits and vegetables, and a small proportion (36.4%) had never received information on fruits and vegetables.

The source of information in obtaining fruit and vegetable information through mass media is very few (12.1%), health workers are very few (21.2%), relatives or parents are very few (6.1%), friends are very few (3.0%), books are very few (6.1%), others are very few (15.2%) and have never received information a small portion (36.4%).

### Children's Knowledge of Fruit and Vegetable Consumption Before and After Health Education Through Giant Snakes and Ladders Game Media

**Table 1.** Category Distribution of Children's Knowledge of Fruit and Vegetable Consumption Before and After Health Education Through Giant Snakes and Ladders Game Media

Variables	Snakes and Ladders Media				P. Value
	Pretest	f (%)	Posttest	f (%)	
<b>Knowledge</b>					
Good	2	6.1	31	93.9	0.000
Simply	12	36.4	2	6.1	
Less	19	57.6			
Mean	40.61		85.76		
<b>Total</b>	<b>33</b>	<b>100.0</b>	<b>33</b>	<b>100.0</b>	

Source: Primary Data, 2024

As shown in Table 2, the results of the Wilcoxon test analysis show a p-value of  $0.000 > 0.005$ , so it can be concluded that there is an effect of the giant snakes and ladders game on the knowledge of fruit and vegetable consumption of fifth grade children of SDN 2 Sidorahayu, Wagir.

### Children's Attitudes Toward Fruit and Vegetable Consumption Before and After Health Education Through Giant Snakes and Ladders Game Media

**Table 3.** Category Distribution of Children's Attitudes Toward Fruit and Vegetable Consumption Before and After Health Education Through Giant Snakes and Ladders Game Media

Variables	Snakes and Ladders Media				P. Value
	Pretest	f (%)	Posttest	f (%)	
<b>Attitude</b>					
Positive	14	42.4	20	60.6	0.000
Negative	19	57.5	13	39.4	
Mean	56.82		65.76		
<b>Total</b>	<b>33</b>		<b>100.0</b>		

Source: Primary Data, 2024

In table 3, the results of the Wilcoxon test analysis show a p-value of  $0.000 > 0.005$ , so it can be concluded that there is an effect of the giant snakes and ladders game on the attitude of fruit and vegetable consumption of fifth grade children of SDN 2 Sidorahayu, Wagir.

## DISCUSSION

### Children's Knowledge of Fruit and Vegetable Consumption Before and After Health Education Through Giant Snakes and Ladders Game Media.

After sensing an object, a person will produce "know" which is called knowledge. Knowledge includes whatever a person has experienced after seeing, witnessing, experiencing and so on. In addition, knowledge is also the result of "understanding" which means being able to mention, explain, conclude and so on. Once the child "knows" and "understands" then the child can "apply" the good knowledge in his/her daily life (7).



Figure 1. Edgar Dale's Cone of Experience

A person's knowledge is influenced by several things, namely environment, experience and age(8). Based on experience, children said that they had received education related to fruit and vegetable consumption from health workers and schools through demonstrations and questions and answers, but the knowledge they got did not last long. This is in line with Edgar Dale's cone of experience theory that says children can only remember about 20% of what they read or hear.

As evidenced by the data on the identity of respondents, most of the children of SDN 2 Sidorahayu (63.6%) have received knowledge related to fruits and vegetables, but some of these children still experience some mistakes and lack of understanding regarding the definition of fruits and vegetables, nutritional content, the impact or consequences of not consuming vegetables and fruits, the benefits and recommendations for consumption of vegetables and fruits. This is evidenced by the number of wrong answers that researchers got from the results of the pretest questionnaire and a small portion (36.4%) had never received knowledge about fruits and vegetables.

The age of most children at SDN 2 Sidorahayu (75.8%) was 11 years old. In the age range of 11 years, children have entered the concrete operational stage, because children prefer to feel and do learning directly because children will more easily understand a lesson if they do it themselves. So that in this age range it is very simple for children to understand new knowledge (Suyati, 1992: 14-16).

School-age children are a period of child development called middle childhood which means childhood with an age range of 6-12 years. At this age, they will begin to think using logic, memory and language skills increase and children will begin to take responsibility for their own behavior. The most prominent thing in middle childhood children is the emergence of curiosity in children related to everything according to the reality that surrounds them (9).

Therefore, middle childhood children are in an active phase and require a number of nutrients, including fat as a source of energy, protein and carbohydrates for growth, and vitamins and minerals needed to maintain a balance between body work and overall health. Lack of fruit and vegetable consumption results in children often experiencing mouth ulcers, bleeding gums and easily bruised due to vitamin C deficiency, easily feeling tired due to folic acid deficiency and easily gaining weight until they end up obese (10).

In an effort to support the need for fruits and vegetables in children, an effort is needed. Education through the giant snakes and ladders game is considered effective for children because it is able to train children's intelligence and knowledge in learning and allows children to find answers or solve simple problems through various questions and statements contained on the game board and question cards.

It is said that children can remember 50% of what they hear and see through Edgar Dale's cone of experience. Using the educational media of the giant snakes and ladders game, children are invited to engage and interact in discussions in the form of answering every question and statement available on the snakes and ladders

game board and question cards. So that through children's involvement in the game can activate their cognitive aspects to understand the explanation of learning material easily.

Through the snakes and ladders game education provided, children feel interested in the knowledge they get so that children will begin to weigh (evaluation) whether or not the influence of this knowledge is good for them. After the child begins to believe in the knowledge he gets, the child can adopt the good knowledge he has received into himself (11).

In line with the research conducted by the researchers, based on the **results of the study in table 2**, it shows that the level of knowledge before education through the giant snakes and ladders game media is in the poor category mostly (57.6%), the moderate category is 36.4%, and the good category is very few (6.1%). After education with giant snakes and ladders game media, it is known that there is an increase in good knowledge almost entirely to (93.9%) and the level of knowledge is quite very little (6.1%) and there is no percentage in the level of knowledge in the less category. It was found that there was a difference in knowledge after being given education through giant snakes and ladders media with an average result of almost entirely 85.76 compared to before being given education through giant snakes and ladders media a small portion of 40.61.

In line with the research of Hisanah et al (2023) in the journal "The Effect of Nutrition Education Through Snakes and Ladders Games and Booklets on Knowledge, Attitudes and Practices of Anemia Prevention in Adolescent Girls", it was found that the average knowledge in the snakes and ladders game group after education showed a value of 86.47 compared to before education showed a value of 46.59. This shows that there is a difference in the average knowledge of children before and after being given education through snakes and ladders game media to increase the knowledge of adolescent girls on the prevention of anemia at SMP Ma'had Islam Semarang (12).

Based on the results of the analysis contained in **table 2** using the Wilcoxon test analysis, the probability value ( $p$ )  $0.000 < 0.05$  shows that  $H_1$  is accepted, meaning that there is an effect of giant snakes and ladders game media on the knowledge of fruit and vegetable consumption of children of SDN 2 Sidorahayu.

In addition, in line with the research of Khaerina (2022), the  $p$  value is  $0.000 < 0.05$ , meaning that  $H_1$  is accepted, which proves that there is an effect of snakes and ladders game on the knowledge of female students of SMP Negeri 1 Kasihan Bantul about preventing premarital pregnancy (13).

Therefore, in line with the researcher's assumption, knowledge is very important to form attitudes because the knowledge that children receive well will affect the level of knowledge that children have before. With good knowledge, children can understand various things about fruits and vegetables and can increase children's positive attitude towards fruits and vegetables. In addition, researchers argue that the giant snakes and ladders game is considered suitable for use as an educational medium to learn new knowledge and can more easily provide a stimulus for children to understand a given material, one of which is in increasing the knowledge of SDN 2 Sidorahayu children in consuming fruits and vegetables.

### **Children's Attitudes Toward Fruit and Vegetable Consumption Before and After Health Education Through Giant Snakes and Ladders Game Media.**

Attitude is a stimulus or response in daily life. Attitude has various levels. A person is said to have an attitude if that person is able to "accept", "respond", "practice or act", "appreciate" and "be responsible" for the responses or stimuli he receives (8).

Middlebrook argues that personal experience is one of many variables that can influence a person's attitude (14). Based on personal experience, children said that they had received education related to fruit and vegetable consumption from health workers and schools through lectures, demonstrations and question and answer methods, but the knowledge they gained could not last long and could not be adapted into a positive attitude because the experience did not make an impression because it did not involve emotions and feelings that could be lived by the individual concerned.

In addition, it is also due to the communication or stimuli provided that cannot be clearly noticed, understood, understood and remembered by children. This is in line with Edgar Dale's cone of experience theory which says children can only remember about 20% of what they read or hear. Attitude change can be seen from the extent to which the content of the message or stimulus can be noticed, understood, and accepted so that it can provide a positive attitude (15).

Through the snakes and ladders game education provided, children can receive and pay attention (receiving) to the stimulus provided so that children will begin to respond (responding) to every question given through the game board and question cards as evidenced by the child's ability to provide answers.

An attitude cannot be realized directly through an action, therefore in changing attitudes into real actions in the form of practice or action (proactive), supporting factors or facilities are needed. In an effort to support changes

in attitudes and the need to consume fruits and vegetables in children, this study uses a giant snakes and ladders game as a supporting factor or facility in realizing attitudes into practice or action. Through pictures, objects and every statement in the giant snakes and ladders media can contribute 55% of children's acceptance in influencing their attitudes (Azhar, 2011).

In addition to facility factors, supporting factors from other parties are also needed. One of them is the support factor from the teacher. In this study, researchers invited the participation of teachers as enumerators so that teachers could provide stimulus repeatedly and children could get used to the stimulus given as a positive attitude.

After the child has been able to accept the action or practice, the child will be able to appreciate (valuing) by inviting others to discuss a problem he has. In line with the research conducted by the researcher, when the educational activities took place there were several statements that were not understood by the children, so the children invited the researcher to discuss several statements that were not understood.

At the highest level of attitude through various stimuli provided, children can already be responsible for everything that is believed with various risks, is the best level of attitude. This is evidenced in the level of attitude in **table 3** positive attitude after education through giant snakes and ladders game mostly (60.6%) and a small level of negative attitude (39.4%). Compared to before education through the giant snakes and ladders game media, most of the negative attitudes (57.5%) and at the positive attitude level were small (42.4%).

It was found that there was a difference in attitude after being given education through giant snakes and ladders media with an average result of mostly 65.76 and before being given education through giant snakes and ladders mostly 56.82.

In line with the research of Kurniawati et al (2017) on students of SDN Pringgowirawan 01 Sumberbaru, Jember Regency, there is a significant difference at the time of the pretest showing most of 53.4 positive attitudes and after being given education and continued with a posttest of 100 for a positive attitude (16).

In addition, based on **table 3** for the results of the Wilcoxon test analysis of the attitudes of children of SDN 2 Sidorahayu, the probability value ( $p$ ) of  $0.000 < 0.05$  shows that  $H_1$  is accepted, meaning that there is an effect of giant snakes and ladders game media on the attitude of fruit and vegetable consumption of children of SDN 2 Sidorahayu.

In line with Pratiwi's research (2023) obtained a  $p$  value of  $0.000 < 0.005$ , meaning that  $H_1$  is accepted, which means that the Balanced Nutrition snakes and ladders game has an influence on knowledge and attitudes in Lubuk Langkat Elementary School children (17).

According to Roger (2003), knowledge and interest will shape a person's attitude (18). Therefore, the change in attitude after education showed significant results because good knowledge will affect the occurrence of a positive attitude.

This can happen because children are enthusiastic when playing and discussing related to several questions and statements depicted in the giant snakes and ladders media. However, researchers must admit that there are some children who are not focused during the discussion. This is the cause of some children still having a negative attitude.

Therefore, to achieve the goal of changing attitudes, learning must be done consistently using the giant snakes and ladders game media. Thus, education will not only improve attitude scores but also change children's attitudes to be positive.

## CONCLUSIONS

In this study, the results showed that there was an increase in knowledge and attitudes in fifth grade students of SDN 2 Sidorahayu, Wagir towards vegetable and fruit consumption through the giant snakes and ladders game media. In addition, the results were also obtained in the form of the influence of giant snakes and ladders game media on knowledge and attitudes towards consuming vegetables and fruits in children of SDN 2 Sidorahayu, Wagir. Support and continuous organization from health workers and educators at SDN 2 Sidorahayu, Wagir is needed to always provide education related to the consumption of vegetables and fruit, so that children's knowledge and attitudes can change to be more significant.

## ADVICE

For schools, it is hoped that they can make the best use and distribute the giant snakes and ladders game media that have been received to assist learning activities in increasing students' knowledge and attitudes about consuming fruits and vegetables by conducting repeated education so that later it will not only increase students' insight but also have an effect on changing their behavior in consuming vegetables and fruits. In addition, it is hoped that this research can be a reference for further research and can increase the insight and knowledge of

researchers, so that in further research, research can be carried out with new methods and media in accordance with innovation as it develops to obtain more accurate results, and it is advisable to develop methods and media tailored to a larger sample size.

## LITERATURE

1. Setiono LRD. Design of Interactive Educational Media Introduction to Eating Fruits and Vegetables for Children 7-12 Years Old No Title. (Doctoral Diss Unika Soegijapranata). 2021.
2. Alicia Dwi Permata Putri, Iin Fatmawati, Indah Rozalina. Knowledge of vegetables and fruits among school children in Sawangan sub-district, Depok city. *J Bakti Masy Indones*. 2022;5(3):688-93.
3. BP and P Health, PH and M Health. Main Results of Riskesdas 2018 East Java Province.
4. Yuliargie DH. The Effect of Current Track Game Media on Increasing Knowledge and Attitudes About Fruit and Vegetable Consumption Among Students at SDN 01 Tawangrejo Madiun. (Doctoral Diss Stikes Bhakti Husada Mulia Madiun). 2020.
5. Rahmawati A, Tayong siti N. The "fruit and vegetables" ladder game method on knowledge and attitudes regarding nutritional substances among elementary school students in Indramayu. *Afiasi J Public Health*. 2022;7(1):254-8.
6. Swamilaksita PD, Sari IP, Ronitawati P. Snakes and Ladders Media Increases Knowledge and Attitudes about the Safety of School Children's Snacks. *J Pengabdian Masyarakat*. 2021;7(2).
7. Notoatmodjo S. Health Promotion and Health Behavior. PT Rineka Cipta; 2012. 193
8. Wawan & Dewi M. Theory and Measurement of Knowledge, Attitudes, and Human Behavior. Yogyakarta: Nuha Medika; 2011.
9. Piaget J. Origins of Intelligence in Children. New York :Norton; 1996.
10. Putri, N. Y., Darwis, D., Ismiati, I., Ningsih, L., & Simanjuntak BY. Relationship between knowledge and attitude with fruit and vegetable consumption behavior among children of SDN 08 Bengkulu City. (Doctoral Diss Poltekkes Kemenkes Bengkulu). 2021;
11. Notoatmodjo S. Health Promotion and Behavioral Science. Jakarta: PT Rineka Cipta; 2007. 20
12. Hisanah R, Nuryanto N, Rahadiyanti A, Wijayanti HS. Effect of Nutrition Education Through Snakes and Ladders Game and Booklet on Knowledge, Attitude, and Practice of Anemia Prevention in Adolescent Girls. *J Nutr Coll*. 2023;12(4):301-10.
13. Khaerina R. the Effect of Snakes and Ladders Game on Prevention of Premarital Pregnancy on Knowledge and Attitudes of Junior High School Students. *Jambura J Heal Sci Res*. 2022;4:60-9.
14. Azwar S. Human Attitudes Theory and Measurement. Yogyakarta: Learning Library; 2007.
15. Mardikanto T. Agricultural Development Extension. Surakarta: UNS Press; 1993. 211.
16. Kurniawati D, Rohaman DY, Juliningrum PP. The Effect of Snakes and Ladders Game on Knowledge and Attitudes in Facing Menarche in Elementary School Students of Pringgowirawan 01 Sumberbaru, Jember Regency. *J Pustaka Kesehat*. 2017;5(1):71-6.
17. Pratiwi D. The Effect of Balanced Nutrition Ladder Game on Knowledge and Attitudes in Children of SDN 050664 Lubuk in Langkat Regency. North Sumatra University. 2023.
18. Anindita Nayang Safitri. The Effect of Education with Snakes and Ladders Media on the Knowledge and Attitudes of Adolescents in Efforts to Prevent Premarital Sex at SMPN 1 Besuki, Tulungagung. Airlangga University. 2018.