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Videoscribe as an innovative media for dental health education

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ABSTRACT

Background: Along with the development of technology, technology-based educational learning media is also developing, one of the applications that can be used in the development of learning educational videos is the sparkol videoscribe application. Elementary school-age children need appropriate and adequate educational learning media to increase knowledge, especially regarding health, especially dental and oral health, the formation of fun learning situations is also one of the ways to achieve ideal and meaningful learning. The presence of media, especially audio-visual media in learning activities will help foster students' initial interest which is expected to be able to stimulate further curiosity about the material being taught. Purpose: to analyze the effectiveness of videoscribe as a media for dental health education on dental health knowledge in fifth graders of Madrasah Ibtidaiyah Sirojul Banat. Methods: The type of research used in this study was a quasy experiment with a pretest and posttest design with one group design. This research was conducted at Madrasah Ibtidaiyah Sirojul Banat. The sampling technique used total sampling, which amounted to 57 students. Independent variable: videoscribe media and dependent variable: dental health knowledge. Data analysis was tested using paired sample t test. Results: The results of this study show that the average value of dental health knowledge before being educated using videoscribe media is 7.91 and after being given education using videoscribe media is 9.84, with the results of paired sample t-test p<0.001 Conclusion: videoscribe effective as a dental health education media in increasing dental health knowledge.

INTRODUCTION

Dental and oral health is important in the life of every individual, including children, because teeth and gums that are damaged and not treated will cause pain, impaired mastication, and can interfere with other body health c Dental and mouth problems in children can also affect the growth and development of children. The health condition of the milk teeth will also determine the growth of the child's permanent teeth. In addition, children are an age group that is susceptible to disease. Children who have problems with oral and dental health can be disturbed by their quality of life, even though children are a nation's asset for development in the future (Kasihani et al., 2021; Purnama et al., 2020).

The school age group is a strategic aggregate in overcoming dental and oral health problems The age group 6-12 years is a very critical age group for the occurrence of permanent dental caries because this age group has special characteristics, namely the transition period from milk teeth to permanent teeth (Pudentiana et al., 2021). At this age children generally like sweet foods, eat sweet foods and other foods that cause dental caries (Nurilawaty et al., 2021). This condition will get worse when children do not have awareness in maintaining dental and oral health. This is closely related to the low knowledge of children about dental and oral health and low efforts to prevent dental caries (Nurhidayat, 2012).

One of the vulnerable groups to dental and oral health problems is elementary school children. The prevalence of dental caries in Indonesia is still quite high, seen in 2018 the prevalence of dental caries in the 5-9 year age category reached 54.0% and the 10-14 year age group was 41.4% (Riskesdas, 2018).

Some countries show high caries in primary school children. Nepal, the prevalence of caries in children aged 12 years is 41%, while Jordan, the prevalence of caries in children aged 6 years is 76.4% and 45.5% in children aged 12 years (Hikmawati, 2017).. In Indonesia, based on the results of the 2018 Basic Health Research survey, it showed that 57.6% of Indonesian people experienced dental and oral health problems (Riskesdas, 2018).

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Several studies have shown a significant relationship between knowledge and oral health. Knowledge is one of the factors that influence a person's personal hygiene (Ariska, 2014). Based on these data it can also be seen that half of school-age children suffer from dental caries. The high level of this problem is very closely related to the lack of knowledge, attitudes and behavior of children in dental care, so efforts and good educational methods are needed to handle it.

According to Fankari (2012), also emphasized that one of the causes of dental and oral problems in society is the behavioral factor or attitude of ignoring dental and oral hygiene. This is based on a lack of knowledge about the importance of maintaining teeth and mouth. Having knowledge about dental and oral health will indirectly maintain dental and oral health so that in the end it can prevent dental caries. This means that knowledge about dental and oral health also has an impact on the incidence of dental caries.

Efforts to overcome dental and oral health problems can largely be prevented by providing dental and oral health education, which is an educational process that arises on the basis of dental and oral health needs that aims to produce good dental and oral health and improve living standards. In the educational process including dental and oral health education, individuals gain experience or knowledge through various educational media. The educational process by involving more senses will be more easily accepted and remembered by the educational targets (Kantohe et al., 2016). The provision of health education will be more effective and the results will be optimal when using the right health education methods and media and involving more senses.

Forming a pleasant learning situation is also one of the ways to achieve ideal and meaningful learning. The presence of media, especially audio-visual media in learning activities will help foster students' initial interest which is expected to be able to stimulate further curiosity about the material being taught (Silmi 2018). This is in line with Formwalt's opinion (Sayono, 2015) that learning media is a necessary aspect of supporting success which can foster a sense of curiosity in learning.

Times change, of course the perspective and way of learning of students is automatically different from before. If in the past you still used the lecture method using makeshift media such as blackboards or props in the form of posters, now it will be very boring for students who are used to using gadgets full of interesting applications with dynamic content. Thus, educators should be able to integrate learning media with information and communication technology (Munawwarah, 2019). Therefore the learning process in schools must be able to be carried out in an innovative way and attract the interest of students who are the subject of the learning process, as well as being able to develop awareness in learning.

One of the learning media that can support and overcome these problems is Sparkol Videoscribe. Sparkol videoscribe is a user-provided web-based application for creating animated presentations. Sparkol Videoscribe is a software application whose results are in the form of videos which can be combined with concept maps, pictures, sound, and music which can attract and enhance students to observe lessons (Munawwarah, 2019).

Based on the explanation above, it raises innovative ideas or ideas in the use of technology as a learning resource that is packaged in a learning media that contains material about knowledge about dental health.

METHOD

The research design used in this study was a quasi-experimental design with a pretest and posttest with one group design. This research was conducted on fifth grade students at Madrasah Ibtidaiyah Sirojul Banat, Jagakarsa District, South Jakarta. The sampling technique used the total sampling method, so the total sampling in this study was 57 students.

The instruments used in data collection were videoscribe media made by researchers and questionnaires administered to measure knowledge about dental health. The data collection process began on the first day by providing an informed consent sheet and the researcher explained how to fill out a questionnaire containing 10 questions, then in the second stage, respondents were given material to watch a videograph about how to maintain dental health which was watched together in class and then in the third stage The intervention for providing dental health education materials was carried out by distributing the video by using the whatsapp class group that had been made previously on day 2 to day 4, so that respondents could carry out independent learning for 5 days which was useful for increasing respondents' ability to remember material that had been taught. taught because it becomes more interesting and easy to remember, then in the last stage, namely on the last research day, respondents were given a post-test questionnaire to measure respondents' knowledge after being given education using videoscribe. Analysis of the data used in this study using SPSS with paired sample t test.

RESULT

Table 1. Frequency Distribution of Respondents by Age

Age	Frequency	Percent (%)
10 Years	2	3.5
11 Years	37	64.9
12 Years	15	26.3
13 Years	2	3.5
14 Years	1	1.8
Total	57	100

Table 1 shows that the majority of respondents aged 11 were 37 female students (64.9%), respondents aged 12 were 15 female students (26.3%), respondents aged 10 were 2 female students (3.5%), respondents aged 13 years amounted to 2 female students (3.5%), and at least 14 years old respondent was 1 respondent (1.8%).

Table 2. Frequency distribution of dental health knowledge before education with media videoscribe

Knowledge	Frequency	Percent (%)
Good	33	57.9
Sufficient	22	38.6
Less	2	3.5
Total	57	100

Table 2 shows that before education with videoscribe media, the majority of 33 respondents (57.9%) had good knowledge about dental health, 22 respondents (38.6%) had sufficient knowledge, and at least 2 respondents (3, 5%) have knowledge in the less category.

Table 3. Frequency distribution of dental health knowledge after education with media videoscribe

Knowledge	Frequency	Percent (%)
Good	57	100
Sufficient	0	0
Less	0	0
Total	57	100

Table 3 shows that after education with videoscribe media, 57 respondents (100%) had good knowledge about dental health and there were no respondents in the sufficient category, and in the less category.

Table 4. Different test of dental and oral health knowledge before and after education with media videoscribe

Knowledge	Mean	Difference	p-value
Pre-test	7.91	1.93	0.001
Pos-test	9.84		

Table 4 shows that the results of the paired sample test analysis obtained a p-value of 0.001, meaning that education education with media videoscribe is effective in increasing dental and oral health knowledge.

DISCUSSION

The development of technology has led to the development of technology-based educational learning media, one of the applications that can be used in the development of learning videos is the sparkol videoscribe application. Elementary school-age children need appropriate and adequate educational learning media to increase knowledge about health, especially dental and oral health (Ilmianti et al., 2020).

The high level of dental health problems is closely related to the lack of knowledge about the importance of maintaining oral health, with the existence of knowledge about dental and oral health will indirectly maintain dental and oral health. so there needs to be efforts and good educational methods in handling it, by having knowledge about dental and oral health indirectly a person will maintain dental and oral health so that in the end it can prevent dental caries, which means knowledge about dental and oral health also has an impact on incidence of caries (Sinaga et al., 2014).

The results showed that before education with videoscribe media, the majority of 33 respondents (57.9%) had good knowledge about dental health. The results of this study are in line with the results of research conducted by Gayatri & Ariwinanti, 2014 where it is known that of the 76 people who were sampled in this study, the majority of 63 people (82.9%) had high dental health knowledge.

According to Abdat, 2018 This is possible. Currently, children prefer to use cellphones or other facilities to make it easier to access the information they want. In particular, information about dental and oral health is not only obtained through formal education, but can be obtained through various available media, for example electronic media, print media and even social media which are currently very accessible. Information about dental and oral health is widely conveyed, for example in advertisements for toothpaste in circulation, as well as public service advertisements about maintaining dental and oral health. This is a source of information about dental and oral health that can be easily accepted by the public. The information received can unconsciously increase one's knowledge of dental and oral health.

The results of research that has been done on respondents when doing this pretest have a good category in terms of knowledge, but the provision of dental health education is still needed to increase the knowledge of respondents. The researcher conducted an intervention in the form of learning education on how to maintain dental health. This also shows that the use of dental and oral health videoscribe educational media can increase knowledge to find out how to maintain dental health in elementary school children, especially in grade V children, because the videoscribe can increase children's attention when carrying out learning education, and the videoscribe has an attractive appearance and the material has been summarized according to the material to be conveyed, and this videoscribe is easily accessible and can be played repeatedly so that children more easily understand material, especially dental health.

This can be seen in accordance with table 3, which explains that after dental health education using videoscribe media, it shows that after being given education with videoscribe media, all the total respondents showed that after education with videoscribe media, all of the total class V students at Madrasah Ibtidaiyah Sirojul Banat had knowledge about health. teeth in the good category, namely 57 students (100%), and there were no students in the sufficient category, and in the less category. It is proven that the results of this study also show that the mean difference before and after dental health education with videoscribe media can provide an increase in knowledge about dental and oral health, this can be seen from the increase in the mean before education is 7.91 and after health education is given teeth and mouth there is an increase in the average knowledge of respondents to 9.84 with a good category, this can be seen by the results of a significant increase, namely the average results before education and after being given education, so there is a difference in results, namely an average increase increased to 1.93 and the statistical test results showed a value of $p = 0.001$.

In the previous research conducted by Saragih, 2019, it was known that the level of knowledge of students after being given counseling using card animation media, namely 27 students in the good category (90%), 3 students in the moderate category (10%) and no students with bad category (0%). It can be seen that after giving counseling, it has increased, and there is also an increase in the average value after giving counseling using cartoon animation videos to be more increased than the value before giving counseling, so that in this study it shows that before giving counseling, the average knowledge namely 6.23 while after counseling there was an increase in the average knowledge to 10.70. Which means there is a difference in the results, namely an increase in the average to an increase of 4.47, so that it can be said that this cartoon animation video media can increase understanding of the level of knowledge about brushing teeth.

Based on the results of research that has been done after the intervention of providing videoscribe, the majority of respondents who took part in this study experienced an increase, this is because after the intervention using videoscribe media can improve children's ability to maintain healthy teeth and mouth according to the indicators of the objectives that the researchers compiled. This video media will make children concentrate on participating in activities because both senses are used at the same time, namely sight and hearing. The child will understand the message conveyed through moving animation that looks concrete in the video so as to encourage the birth of the child's emotional response which in the end the child becomes enthusiastic or motivated to want to take part in further activities (Purnama et al., 2019) it is possible that many senses play a role, the more five senses The material used will make it easier to absorb/understand the material, someone who has an understanding of a concept will make it easier for someone to practice it.

CONCLUSION

Based on the results of the research that has been done, it can be concluded that there is the videoscribe effective as a dental health education media in increasing dental health knowledge.

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