



Google sites as a media for promoting dental health in increasing knowledge in high school children

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ABSTRACT

Background: Efforts to overcome dental and oral health problems can mostly be prevented by providing dental and oral health education. Times change, of course the perspective and way of learning of students is automatically different from before. In the past, they still used the lecture method using makeshift media. One of the learning media that can support and overcome these problems is Google Sites. Objective: To analyze effectiveness of the level of knowledge about dental and oral health maintenance before and after being given counseling using Google sites media for class X students of Husada Pratama Health Vocational School, Serang City in 2023. Methods: The type of research used in this study was a quasy experiment with a pretest and posttest design with one group design. The technique used in this study is the total sampling technique, which uses the entire population as a sample. Independent variable: google sites and dependent variable: dental health knowledge. data collection instrument using a questionnaire. Results: The results of this study show that the average value of knowledge about maintaining dental and oral health in class X students of SMK Kesehatan Husada Pratama Serang City before being given counseling using Google Sites media is 11.8 and after being given counseling with Google Sites media is 13.5 with good category. Conclusion: there is an increase in knowledge about maintaining dental and oral health in students before being given counseling and after being given counseling using Google Sites media.

INTRODUCTION

Health is the most important factor in determining the quality of community resources. Dental and oral health is a part of general health which has an important role in mastication and aesthetics (Pintauli, 2010). The results of basic health research in 2018 found that 57.6% of Indonesian people experienced dental and oral health problems in the form of dental caries and periodontal disease. A significant increase in dental and oral problems occurred in adolescents with an age range of 12-18 years (Risksedas, 2018). This age range is a period of transition from child to adult or known as adolescent puberty. Puberty adolescents often complain about the condition of their teeth, even though they have brushed their teeth (Lesar et al., 2015).

One of the causes of dental and oral health problems in society is the behavioral factor or attitude of ignoring dental and oral hygiene (Purnama et al., 2020). This is based on a lack of knowledge about dental and oral health and its treatment. A person's awareness of the importance of dental health can be seen from the knowledge possessed when a person has a high level of knowledge, the concern for caring for his teeth and mouth is also high (Nurfalah et al., 2014).

The high number of adolescent complaints about dental and mouth problems is related to the level of knowledge of adolescents in maintaining oral health (Widiyastuti et al., 2022). Knowledge of dental and oral health is a person's ability to know everything about dental and oral health, knowledge is used as self-education to achieve optimal dental and oral health (Gayatri & Ariwinanti, 2016).

The description of the conditions above is supported by several studies which show a significant relationship between knowledge and dental 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 more than half of adolescents experience dental and oral health problems. The high level of this problem is very closely related to knowledge, attitudes and behavior in dental care which is still lacking, so efforts and good educational methods are needed in handling it (RE et al., 2022).

Efforts to overcome dental and oral health problems can be largely prevented by providing dental health education, which is an educational process that arises on the basis of dental and oral health needs

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that aims to produce good dental and oral health and improve living standards (Pudentiana Rr & Subandini, 2019). 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). Providing health education will also be more effective and the results will be optimal when using appropriate and interactive health education methods and media (Erdiyani et al., 2023).

Forming a pleasant learning situation is also one of the ways to achieve ideal and meaningful learning. The presence of media, especially website-based media in learning activities will help foster students' initial interest which is expected to increase the effective way of absorbing material for the material being taught (Purmadi & Surjono, 2016).

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. 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 (Tekege, 2017; Widaningsih, 2019).

One of the learning media that can support and overcome these problems is Google Sites. Google Sites is a website-based application, website-based interactive learning media was chosen because it is suitable to be used to encourage and provide convenience to students in absorbing learning material that is considered difficult to understand. In addition, the advantages of website-based learning media are that they are easier to use using a mobile phone or computer, making it easier for teachers to explain material clearly. A learning system like this is what is needed to be able to foster students' skills and interest in thinking when participating in learning and teaching activities (Putra, 2022).

Based on the explanation above, it raises innovative ideas or ideas in the use of technology as a source of learning which is packaged in a learning media that contains material about knowledge about maintaining dental and oral health for senior high school students.

METHOD

The type of research used in this study was a quasy experiment with a pretest and posttest design with one group design. The sample is the object under study which is considered to represent the entire research population (Notoatmodjo, 2010). This study used a sample with the total sampling method, so the total sampling in this study was 30 students. The research was conducted in May 2023 at the Husada Pratama Health Vocational School, Serang City. The method used in collecting primary data is data taken by researchers directly. The data collection procedure is:

1. Respondents signed a consent form willing to be research respondents.
2. Researchers distributed pre-test questionnaires in the form of sheets of paper to respondents on May 8, 2023, for 10-15 minutes before counseling was carried out.
3. Researchers conduct counseling about the maintenance of dental and oral health for 15-20 minutes with Google Sites media.
4. Researchers distributed post-test questionnaires in the form of sheets of paper to respondents on May 8, 2023, for 10-15 minutes after being given counseling.
5. The questionnaire that was filled out by the students was recapitulated using Microsoft Excel.

The instrument used in data collection was in the form of a questionnaire to measure the level of knowledge before and after the counseling was carried out using google sites media for students. The data used in this study are primary data. Data collection was carried out by giving questionnaires to respondents to measure students' knowledge of dental and oral health care. In this study, data analysis was carried out using descriptive analysis to describe the data that had been collected and presented in tabular form so that an overview of the variables studied was obtained.

RESULT

This research was conducted to get an overview of knowledge about dental and oral health maintenance before and after counseling with Google Sites media for high school students. Level of knowledge about maintaining dental and oral health before counseling with Google Sites media for high school students

Table 1. Distribution of Knowledge Levels about Dental and Oral Health Care Before Counseling with Google Sites Media.

Criteria	Before	
	F	%
Good	21	70
Moderate	9	30
Bad	0	0
Total	30	100

Table 1 shows that before counseling was carried out using Google Sites media, the level of knowledge about dental and oral health maintenance of respondents included in the good category as many as 21 people (70%), in the sufficient category as many as 9 people (30%), and in the less category 0 people (0%). The level of knowledge about maintaining dental and oral health after being given counseling with google sites media in high school class students.

Table 2. Distribution of Knowledge Levels about Dental and Oral Health Care After Counseling with Google Sites Media

Criteria	After	
	F	%
Good	30	100
Moderate	0	0
Bad	0	0
Total	30	100

Table 2 shows that after counseling with Google Sites media, the level of knowledge about maintaining dental and oral health of respondents included in the good category as many as 30 people (100%), in the sufficient category as many as 0 people (0%), and in the less category 0 people (0%).

Table 3. Different of Knowledge Levels about Dental and Oral Health Care After Counseling with Google Sites Media

Knowledge	Mean	Difference
Pre-test	11.8	1.7
Pos-test	13.5	

Table 3 shows that the value of knowledge about maintaining dental and oral health before being given counseling using Google Sites media is 11.8 and after being given counseling with Google Sites media is 13.5 with a good category.

**Figure 1.** Google site home page



Figure 2. Google site counseling materials

DISCUSSION

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 (Tekege, 2017; Widaningsih, 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 (Chusni et al., 2021). Google Sites is a website-based application, website-based interactive learning media was chosen because it is suitable to be used to encourage and provide convenience to students in absorbing learning material that is considered difficult to understand (Ramadannisa & Hartina, 2021).

The results of the study showed that prior to conducting counseling on maintaining oral health using Google Sites media, the majority of 21 students (70%) had knowledge regarding maintenance of dental and oral health in a good category. Results. and this study also shows that the average difference before and after counseling about dental and oral health maintenance with google sites media can provide an increase in knowledge about dental and oral health maintenance to be more increased, this can be seen from the average increase before education is carried out namely 78.33 and after being given dental and oral health education there was an increase in the average knowledge of respondents to 89.63 in the good category, this can be seen with the results of a significant increase, namely the average results before counseling and after being given counseling, so there is a difference in results, namely an increase in the average to an increase of 11.3.

The results of research that has been done on respondents when doing this pre-test have a good category in terms of knowledge, but providing counseling about maintaining dental and oral health is still needed to increase the knowledge of respondents. The researcher intervened in the form of counseling about dental and oral health maintenance. This also shows that the use of Google sites media can increase knowledge about dental and oral health maintenance for respondents, especially students, because these google sites can increase students' attention when conducting counseling, and these google sites have an attractive appearance and the material has been summarized in accordance with the material to be conveyed, these google sites are easily accessed via smartphones and laptops so that students more easily understand the material, especially regarding dental and oral health care.

This can be seen according to the table which explains that after giving counseling about maintaining dental and oral health using Google Sites media it shows that all class X students of Husada Pratama Health Vocational School have knowledge about dental and oral health in a good category, namely 30 students (100%) and there are no students with sufficient categories, and less categories. The results of this study are in line with the results of research conducted by (Hamdani, 2022) showing that the results of students' responses to Website-based learning media obtained an average percentage of 83%, this indicates that this Website-based learning media product is suitable for use in the learning process in human movement system material. This is because students find it easier to understand the material from the teacher and increase student interest in learning.

Based on the results of research that has been conducted after the provision of counseling interventions using Google Sites media, the majority of respondents who took part in this study experienced an increase, this is because Google Sites media can increase knowledge about maintaining dental and oral health according to the indicators of objectives that researchers have compiled.

This can be seen according to the table which explains that after giving counseling about maintaining dental and oral health using Google Sites media it shows that all high school students have knowledge about dental and oral health in a good category, namely 30 students (100%), and there are no students with adequate category, and less category. The results of the research on the description of knowledge about maintaining dental and oral health before counseling with Google sites media obtained results that were 70% in the good category. After counseling with Google sites media, the results obtained were 100% in the good category. Forming a pleasant learning situation is also one of the ways to achieve ideal and meaningful learning. The presence of media, especially website-based media in learning activities will help foster students' initial interest which is expected to increase the effective way of absorbing material for the material being taught (Purmadi & Surjono, 2016).

CONCLUSION

Based on the results of the research that has been done, it can be concluded that there is an increase in knowledge about maintaining dental and oral health in students before being given counseling and after being given counseling using Google Sites media

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CONFLICT OF INTEREST

The authors declare that they have no conflict of interest

ETHICAL CLEARANCE

All participants were signed the informed consent prior to the data collection

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