

# THE EFFECT OF EDUCATIONAL VIDEO METHOD USING HAND PUPPETS ON THE KNOWLEDGE LEVEL OF DENTAL AND ORAL HEALTH IN THE CHILDREN OF RUMAH PELANGI, INDONESIA



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ALLIANCE FOR ORAL HEALTH ACROSS BORDERS

## A. INTRODUCTION

Dental and oral diseases are the most common non-communicable diseases (NCDs) in the world (Dhage & Chougule, 2019). Based on a survey in 2018, more than half of Indonesian people suffer dental and oral diseases with the highest proportion is found in 67% children age 6-14 years old (Indonesian Ministry of Health, 2019).

Moreover, the Indonesian Ministry of Health (2019), also stated that Indonesian youngsters who do not go to school, and children who drop out from school have the highest prevalence of suffering dental diseases. Therefore, it shows that education plays an important role in the maintenance of children's oral health.

A lot of educational methods are using text and requiring children to read materials. On the other hand, most of dropout children have been struggling for reading. Thus, we have to use an alternative in order to educate those children.

Video education using hand puppets is an edutainment that utilizes auditory and visual ability of children through an entertaining learning process (Shruti et al., 2021). Recently, a research has shown that there is a significant improvement of children's oral health knowledge after educate using hand puppets (Ladera-Castaneda, 2022). Hence, in this research we would like to examine the effect of educational video using hand puppets on children's dental and oral health knowledge level. The hypothesis that will be tested is the difference between children's dental and oral health knowledge level before and after the education.

This research was conducted in Rumah Pelangi, a community for dropout children in Denpasar, Bali, Indonesia.

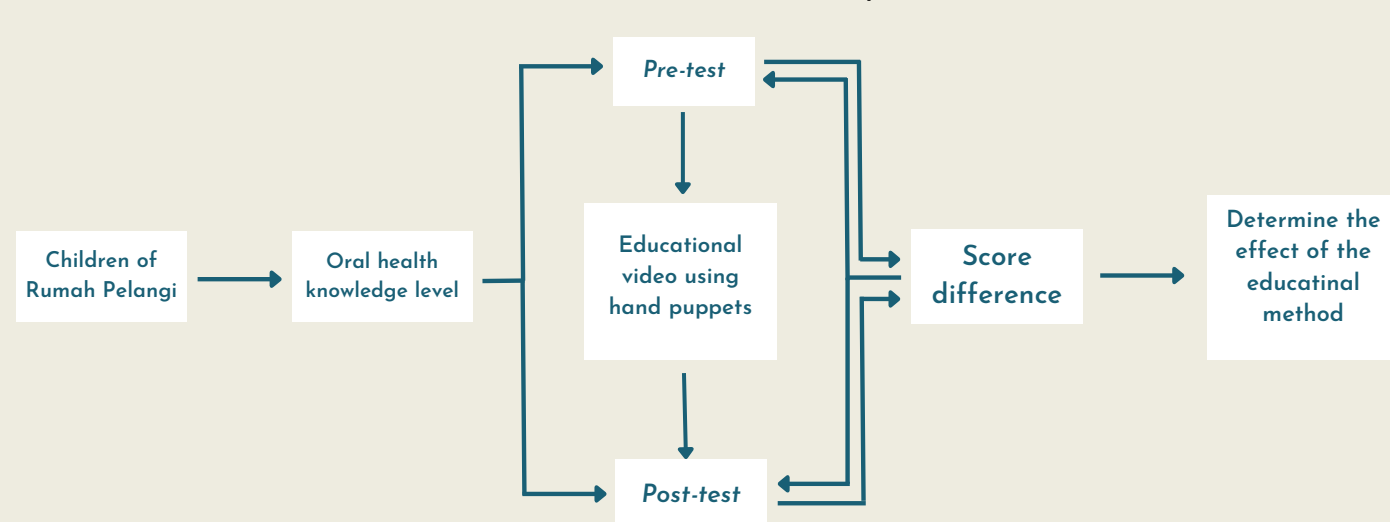
## B. OBJECTIVE

The major objective of this study was to investigate the effect of educational video method using hand puppets on the knowledge level of dental and oral health in the children of Rumah Pelangi, Indonesia.

## C. METHOD

- Data for this study were collected using questionnaire with quasi-experimental with one-group pre-test and post-test research design.
- Thirty seven children in Rumah Pelangi age 6-14 years old participated in this research.

Framework of the study



Scan for Details



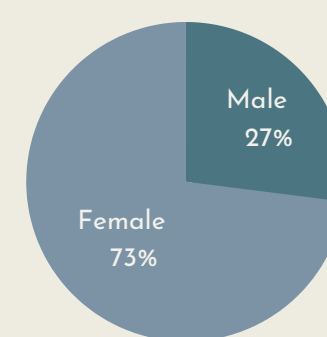
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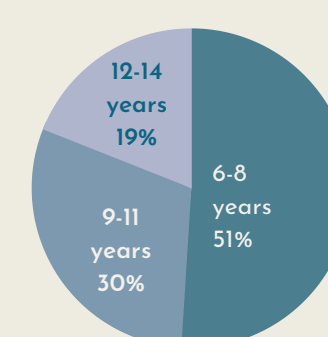
## D. RESULT

Most of participants are children in Rumah Pelangi, Indonesia age 6-8 years old and female. In this research we used childrens' scores of pre-test and post-test to assess their dental and oral health knowledge level.

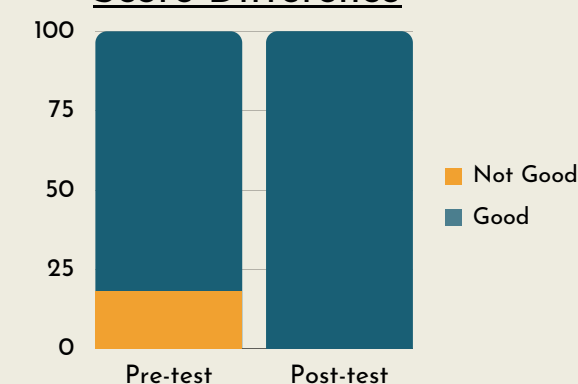
Gender Characteristic



Age Characteristic



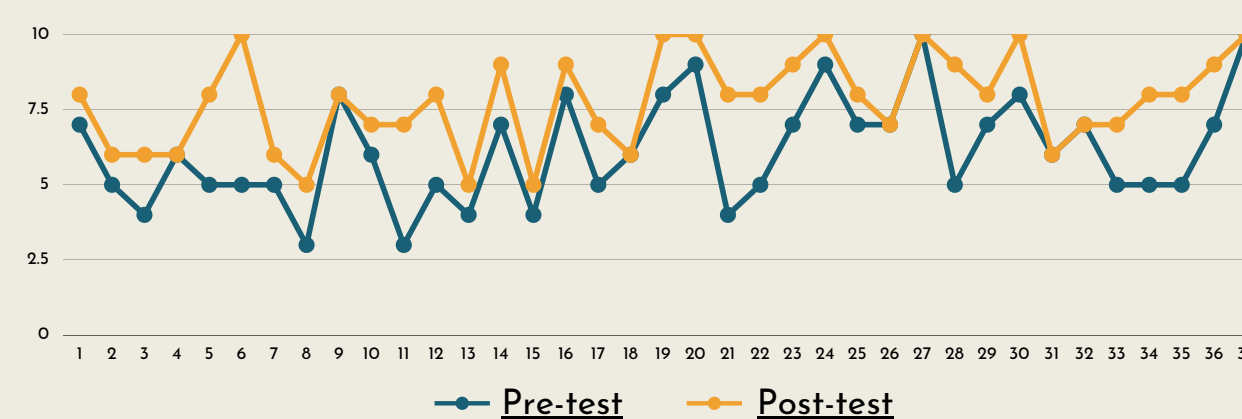
Score Difference



Children of Rumah Pelangi, Indonesia were thrilled to join the research and to watch the educational video. All of the children were willing to come 14 days after the education to take the post-test.

## E. ANALYSIS & DISCUSSION

The result of the pre-test and post-test of 37 children indicate there is 16.4% average increase of childrens' scores.



All data were analyzed using Mann-Whitney test. There is a significant difference in the children's knowledge level before and after receiving educational video using hand puppets, with p value 0.011

	Test	n	Mean Rank	p
Children's knowledge level	Pre-test	37	34.50	0.011
	Post-test	37	40.50	

Based on analysis above, educational video using hand puppets can be an effective method to educate dropout children, that indicates by increasing childrens' scores of post-test after receiving educational video. This educational method encourages children to imagine and utilize the visual and auditory senses in order to understand the learning materials.

## F. CONCLUSION

- There is an increase of dental and oral health knowledge level in the children from Rumah Pelangi, Indonesia after watching the educational video using hand puppets.
- The educational video using hand puppets can be an alternative method to increase dropout children's dental and oral health knowledge.
- Future researchers should focus on scrutinizing children's attitude and behavior after receiving the education.