

# Development of animated materials and assessment of their validity and feasibility to optimize parental knowledge and attitude about optimal children feeding in Terengganu.



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## 01 Introduction

- Poor nutrition increases the risk of illness and is directly and indirectly responsible for children mortality under the age of five (WHO, 2009). The development of animated materials will help to deliver the knowledge and raise the awareness among parents regarding the importance of optimal children feeding to reduce the risk of malnutrition.
- Therefore, the purposes of this study were to develop animated materials regarding children's optimal feeding and to evaluate their validity and feasibility among parents in Terengganu.

## 02 Methodology

This study involved two stages in which the first stage refers to the development of animated materials and the second stage was the assessment of animated materials' validity and feasibility. Convenience sampling was applied in this study.

### Stage 1: Development of animated materials

- Two videos were developed; 1) benefits of giving complementary food to their children, and 2) ways to prepare infant formula correctly and safely.

### Stage 2: Validity and Feasibility testing

- Validity testing:** The components in the animated materials were reviewed by panel of experts such as nutritionists, dietitians, health educators, lactation counselor, nurses, pediatrician, psychologist and public health specialist using content validity index (CVI). A total of 15 experts involved in the content validity testing.
- Feasibility testing:** A cross sectional study was done among 45 parents in Kuala Nerus and Kuala Terengganu, who met the criteria such as: parents with children under two years old, parents who could read and understand, have electronic devices, comfortable to read/view materials on electronic devices and willing to be a participant. Participants were assessed based on acceptability (5 questions) and practicality (4 questions).

**Statistical analysis:** Descriptive statistics.

## 03 Results & Discussion

### 1) Validation of animated materials

Table 1: Content validity index (CVI) (n=15)

Items	Not relevant (rating 1)	Somewhat Relevant (rating 2)	Quite Relevant (rating 3)	Highly Relevant (rating 4)	Number of agreement	I-CVI	Interpretation
Contents are in agreement with the current knowledge	-	1	5	9	14	0.82	Relevant
Recommendations are necessary and correctly approached	-	-	7	8	15	0.88	Relevant
Objectives are evident	-	-	6	9	15	0.88	Relevant
Recommendation about desired behaviour is satisfactory	-	1	6	8	14	0.82	Relevant
There is no unnecessary information	-	-	7	8	15	0.88	Relevant
Important points are reviewed	-	1	6	8	14	0.82	Relevant
					S-CVI/Ave Total agreement	0.85	Acceptable
					S-CVI/UA	0.50	Low

- I-CVI: scores ranged between 0.82 and 0.88.
- S-CVI/UA: 0.50
- S-CVI/Ave: 0.85

- Based on the findings, all items in I-CVI were found relevant.
- The findings for (S-CVI/Ave) were 0.85, which was regarded acceptable, while the results for (S-CVI/UA) were 0.5, which was considered low. Despite the fact that S-CVI/UA is low, the value for S-CVI/Ave is acceptable high, implying that the animated materials are sufficiently valid.

### 2) Feasibility of animated materials

Table 2: Sociodemographic data (n=45)

Variables	Categories	Frequencies (%)
Age	20-29 years old	24 (53.3%)
Occupation	Housewife	23 (51.1%)
Level of education	University	36 (80%)

Table 3: Acceptability and practicality of animated materials(n=45)

Items	Scale	Percentage (%)
<b>Acceptability</b>		
Contents/ information regarding optimal feeding in animated materials are suitable to be used in health programs	Scale 4	53.3%, n=24
Contents/ information regarding optimal feeding in animated materials are suitable for parents	Scale 4	46.7%, n=21
Contents/ information are easy to understand	Scale 5	44.4%, n=20
Animated materials include all the information that I need regarding optimal feeding for children	Scale 4	62.2%, n=28
Animated materials are clear and understanding	Scale 5	44.4%, n=20
<b>Practicality</b>		
I think the information and skills that I gained from animated videos regarding optimal nutrition are suitable for application in daily activities	Scale 4	46.7%, n=21
I think I will often use/refer back to animated videos on optimal nutrition for children	Scale 3 & 4	31.1%, n=14
I clearly understood what is optimal nutrition for children after watching the animated videos	Scale 4	40.0%, n=18
The use of animated videos regarding optimal nutrition for children helped me in providing optimal nutrition to my children aged 24 months and below	Scale 4	33.3%, n=15

- Based on the findings, the content in the animated videos were suitable to be used in health programs (84.4%).
- This is in accordance with a previous research in which they developed an eight-minute animated video about breastfeeding. The majority of participants (96.3%) said they enjoyed seeing the video, and also said it was helpful in addition to other breastfeeding materials (Hartney et al., 2021).

## 04 Conclusion

- Two animated materials regarding optimal children feeding were successfully developed.
- All items in I-CVI were found to be relevant, thus supported that the animated materials are valid.
- For feasibility tests, the animated materials are mostly acceptable with majority of participants gave 4 or 5 rating (80.0-86.6%), and have a level of practicality with majority of participants rated 4 or 5 (46.7-66.7%).
- Thus, these animated materials are valid and feasible to be used.

## 05 References

- Hartney, N., Dooley, D., & Nagle, C. (2021). Using animation to teach breastfeeding physiology: a proof of concept study. *International Breastfeeding Journal*, 16(1), 1–9. <https://doi.org/10.1186/S13006-021-00368-2/FIGURES/2>
- WHO. (2009). The importance of infant and young child feeding and recommended practices. World Health Organization. <https://www.ncbi.nlm.nih.gov/books/NBK148967/>