

DEVELOPMENT OF INTERACTIVE VIDEOS WITH TRANSPORTATION STORIES FOR PAUD

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Abstract: *This study aims to develop a valid and practical interactive video media product for children's stories with the theme of transportation. This research development method was combined with the ADDIE model and Tessmer's formative evaluation. The first data collection technique used observation to assess the child's behavior and then used a walkthrough to see the value of the validity of a product. The object of this research was the Interactive Video of Children's Stories with the theme of transportation which went through a one to one trial stage (3 children) and small group (9 children), with the conclusion that the Interactive Video of children's stories on the transportation theme was categorized as valid and practical. Validity was reflected in the results of the validator's assessment, where the interactive video of students had been revised according to the validator's suggestions and comments. Practically it was illustrated from the results of the trial, where all students can use interactive video stories with the theme of transportation that students can use well. Based on the results of the interactive video analysis, the story of the transportation-developed theme has the appropriateness of learning for children and the suitability of the needs and development of children aged 5-6 years. In addition, it is in accordance with the observation assessment indicators, namely enthusiasm in using media. From this research, there is a novelty in using interactive video media with the theme of transportation which was made into an interesting story. It contributes to the world of early childhood education in the form of additional types of interactive learning media.*

Keywords: *Interactive Video Development, Transport Stories, Early Childhood*

A. Introduction

The COVID-19 pandemic that hit Indonesia and other countries forced the government to issue policies related to the temporary closure of educational institutions including Early Childhood Education (PAUD) (SE Mendikbud, 2020). In the learning process in PAUD, which was initially carried out at school, it turned into learning at home (BDR). So the need for learning media that is in accordance with current conditions, with the existence of learning media which is one of the things that plays an important role in supporting the achievement of learning objectives. The use of media in learning can present learning materials that are more concrete and easily understood by children and are more interesting (Nurfuati & Amelia, 2020). With the help of appropriate and interesting learning media such as interactive video media will help online learning, because this video media is easy to use without having to face to face with the teacher. Students with their gadgets can easily use and learn them (Salsabila et al., 2020). For the attractiveness of learning variations, learning media is also very important, especially in the implementation of early childhood learning (Guslinda & Kurnia, 2018).

Considering that one of the learning media by utilizing technology is interactive video learning media, through this media, children will be shown animations, pictures, and audio visuals. This will greatly help children in focusing on learning, teachers are also more confident in conveying information (Syafi'i et al., 2020). The implementation of teaching and learning activities requires the use of appropriate methods so that the process is more memorable and enjoyable for children. Although there are many learning methods that can be used, the storytelling method is one of the best alternatives, especially to improve children's language skills. The storytelling method provides a lot of experience for children's language skills in addition to adding new vocabulary but also trains listening skills, speaking skills, and even trains children to write new/

unique words that are read or heard from storytelling (Nurul et al., 2021). The theme of renewal in the 2013 Curriculum is to create Indonesian people who are able to think creatively, productively, innovatively, proactively, affectively, through the development of attitudes, skills, and knowledge in an integrative way (Mastur, 2017).

The development of interactive video stories with the theme of transportation taking into account the developmental characteristics of children aged 5-6 years can be used repeatedly. Repeated stimulation has also been proven to optimize the golden age (Limarga, 2017; Sari, 2017). Interactive video media attracts interest in learning and curiosity so that it can optimize the sensitive period (Purwaningsih, 2018). Based on the results of the author's observations while carrying out partial observations of children aged 5-6 years in the community, it is obtained as many as 12 children. From the initial observations made by researchers, it was found that the language and cognitive abilities of children in the Prabumulih city community were still weak or had not developed according to the stages they should have. For this reason, it is necessary to develop materials on limited transportation because the pandemic situation does not allow children to use transportation directly or does not allow children to have experience with existing transportation, both land, sea and air. The online education system is certainly not easy. Teachers often experience obstacles in the theme of means of transportation. This theme invites children to recognize various means of transportation and their functions. So we need interesting video media to make it easier for teachers and students to understand the material (Laksono et al., 2020).

Based on previous research from Citra Mastika Harahap by the title "The Effect of Using Storytelling Methods Through Interactive Videos on the Language Skills of Children in Group B at Al-Fajar Kindergarten, Tampan Pekanbaru District", it is obtained to be significant after using the storytelling method through interactive video in learning. The effect of using the storytelling method through interactive videos on children's language skills in Al-Fajar Kindergarten, Tampan Pekanbaru District is 76.96%, which is in the high category. Through

interactive videos, children’s stories can channel children’s language expressions, increase knowledge and can be used as learning media so that the learning process feels fun and supports learning messages. For further researchers, it is recommended that this research develop interactive video learning media for children such as storylines that use a theme development model so that the stories created can be related to children’s interactive videos that match the theme.

B. Method

The type of this study method is research and development. The model used is the ADDIE development model and the modified Tessmer evaluation (Putri, 2019).

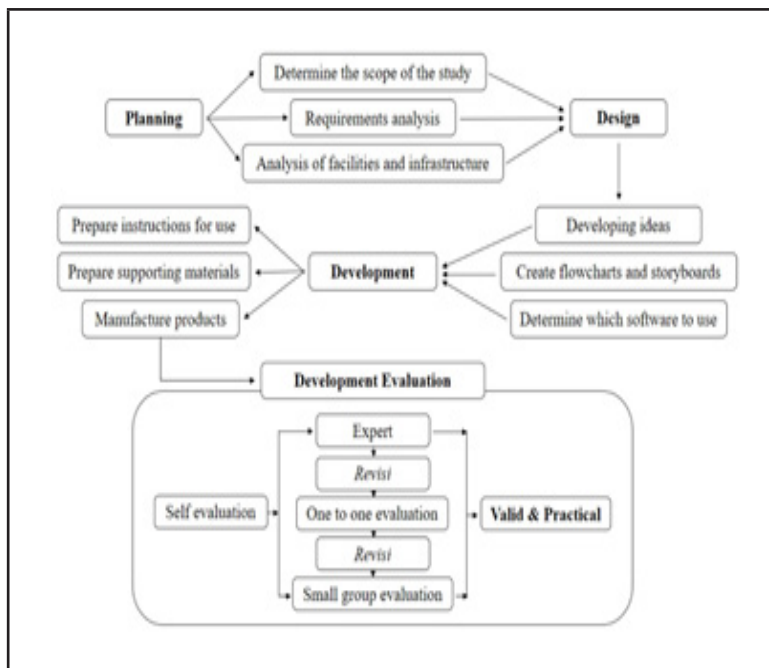


Figure 1. Research flow

The subjects in this study were children aged (5-6) years in Prabumulih Kindergarten. The object of this research is the interactive video of children’s stories with the theme of transportation which went through a one-to -one trial stage (3

children), small group (9 children). The data used is primary data in the form of values from material and media validators to see the validity of a media product. The scores obtained from the One-To One Evaluation stage, and Small group evaluation are used to see the valid and practical requirements of a product. Then secondary data in the form of interviews with qualitative data are obtained from interviews with three teachers from three kindergartens. Data collection methods, observation techniques and checklist sheets, material experts and product experts, observe the resulting product are done by checking the checklist sheet in the score column that corresponds to the assessment results. Furthermore, observations and scoring with the help of a checklist are used to obtain data in one-to-one evaluation activities. Small group evaluations are used to see the valid and practical requirements of a product.

C. Result and Discussion

This development research aims to develop a children's story with the theme of transportation in the form of an interactive video entitled "A Fun Vacation Trip" for children aged (5-6) years in Prabumulih Kindergarten. In this case, the researcher developed a children's story in the form of an interactive video by taking the theme in the first semester, namely the transportation theme. This research was conducted from September 22, 2021 to September 28, 2021, with the research subjects being children aged (5-6) years in Prabumulih Kindergarten and the object of research in the form of children's stories with the theme of transportation in the form of interactive videos. This study uses a combination of the ADDIE development model and the Tessmer formative evaluation model (Sholihah & Kustiawan, 2019). The ADDIE development model consists of five stages, namely the analysis stage, the design stage, the development stage, the implementation stage, and the evaluation stage. The selection of the ADDIE development model in this study is because the ADDIE development model is a product-oriented model, especially for the design and development of texts, audio-visual materials and computer-based learning materials (Wisada et al.,

2019). Furthermore, for the evaluation stage, the Tessmer evaluation model is used which consists of four stages, namely the self-evaluation stage, expert review, one-to-one evaluation and small group evaluation (Atika, 2018).

The teaching materials developed are in the form of interactive video stories with the following transportation themes:







Number	Learning Activities	Description
1		In this scene, the teacher introduces himself and greets the students.
2		In this part of the scene, the teacher does apperception by telling the content of the lesson, namely explaining KD, KI and learning objectives
3		In this scene, an animated character tells about a "fun vacation" with the theme of transportation
4		One of the story scenes and singing the theme of transportation
5		In this game scene, to review and test children's memory of the previously presented material
6		In this scene, the teacher gives motivation and closes the lesson

Figure 2. Developed Learning Activities

In this study, the evaluation was not carried out until the field test stage because the researchers only wanted to develop valid and practical products without seeing the potential effects of children’s stories on transportation themes in the form of interactive videos. The evaluation was carried out to the small group evaluation stage with the aim of seeing the practicality of children’s stories on transportation themes in the form of interactive videos on children’s speaking skills with friends or speaking in front of the class. At the analysis stage, an analysis of the needs and development of children is carried out (Rosidah & Sumarni, 2017). Analysis of children’s needs requires an audio-visual media, namely interactive videos so that children don’t get bored (Maymunah & Watini, 2021), while teachers need children’s stories about transportation themes in the form of interactive videos and guides on how to open interactive videos via laptops so that teachers can practice them directly in storytelling activities that highlight their speaking skills. In this case, the researcher will develop a children’s story with the theme of transportation in the form of an interactive video because it is not yet available in Prabumulih Kindergarten. The results of content validation and image design can be seen in Tables 1 and 2 below.

Table 1. Table of Content Validator Assessment Results

No.	Indicator	Number on Statement	Number of Statement	Value Recapitulation
1	The relevance of the video material to Permendikbud no. 146 Of 2014	1,2,3	4	7
2	Video Material Quality	4,7	4	6
3	The Suitability of the video with the characteristics of children aged (5-6) years	6,7,8	4	11
Total (Σ)				24
Average Value (%)				86
Category				very valid

Based on the results of the assessment of the Content/Material validator in table 1, it was found that from the 3 indicators, they are developed into 8 questions, the researcher got the sum of the recapitulation values of 24 and the average was 86%. So the average value obtained is 86% which is categorized as very valid.

Table 2. Table of Media Validator Assessment Results

No.	Indicator	Number On Statement	Number Of Statement	Value Recapitulation
1	Visual Media	1,2,3	4	12
2	Audio Media	4,5	4	7
3	Typographical Aspects	6,7	4	6
4	Language Aspect	8	4	4
5	Media Programming Aspects	9,10,11	4	11
Total (Σ)				40
Average Value (%)				91
Category				Very Valid

Based on the results of Table 2, the results of the assessment of the image design validator show that of the four indicators that were developed into 11 statements, the researcher got the sum of the recapitulation values of 40 and the average was 91%. The average value of 91% is categorized as very valid because it is included in the range of 82 - 100 (very valid). The following are the results of the recapitulation of the validator's assessment results, which can be seen in Table 3 below.

Table 3. Recapitulation of Validator Assessment Results

Number	Validity	Value Recapitulation
1	Content	86
2	Image Design	91
Total (Σ)		177
Average Value (%)		89
Category		Very Valid

Based on the data in Table 3, it is found that the average expert review for assessing the content / material aspects of children's stories with transportation themes in the form of interactive videos is 86% with a very valid category. While the assessment of the design aspect of the image is 91% with a very valid category. So that the average validation results of content / material and image design experts is 89% with a very valid category. Based on suggestions from the validator, there are several revisions of prototype 1.

Furthermore, the teaching materials for flat building materials in the form of books have been validated and then tested at the one to one evaluation stage . The one to one evaluation stage aims to see the practicality of prototype 1 which has been validated by experts. This stage involves three children with low, medium, high knowledge levels and they simultaneously use children's stories with the theme of transportation in the form of interactive videos. At this stage, the teacher explains the teaching material, then it is tested on the children. After the children uses prototype 1, the researcher observes the children during learning which aims to see their assessment of prototype 1. The data from the observations on prototype 1 can be seen in Table 4 below.

Table 4. Analysis of Child Observation Data at the One-To-One Evaluation Stage

Number	Name	Score	Presentage Value	Category
1	FRD	30	94%	Very Practical
2	SA	31	97%	Very Practical
3	FA	32	100%	Very Practical
Total (Σ)		93	291%	Very Practical
Average Value (%)			97%	Very Practical

Based on the data from the observations in Table 4, the percentage for the average observation result of children's stories on transportation themes is in the form of interactive videos with a total percentage of three students of 292% then the average value obtained is 97.3% (very practical category) so it can be concluded that children's stories with the theme of

transportation in the form of interactive videos have practical criteria for children. Based on expert validation and children's observations, prototype 1 was revised into prototype 2 which would then be tested at the small group evaluation stage, seen in Table 5 below.

Table 5. Analysis of Child Observation Data at the Small Group Stage

Number	Name	Score	Percentage Value	Category
1	ASA	31	97%	Very Practical
2	ASD	30	94%	Very Practical
3	MAAS	32	100%	Very Practical
4	MFH	29	91%	Very Practical
5	MRAZ	31	97%	Very Practical
6	SNP	31	97%	Very Practical
7	OW	31	97%	Very Practical
8	AJG	30	94%	Very Practical
9	SZ	28	88%	Very Practical
Total (Σ)		273	855%	Very Practical
Average Value (%)			95%	Very Practical

Based on data from Table 11, it is obtained that the average percentage value of observations from 9 children on children's stories about transportation themes in the form of interactive videos in the small group evaluation stage with the total percentage of nine students is 855% then the average value obtained is 95% (very practical category) so it can be concluded that the use of children's stories with the theme of transportation in the form of interactive videos has practical criteria for children. In line with previous researchers, (Purnama, 2016) got a score of 90.5 (very practical category) thus the development of interactive videos is feasible to use.

D. Conclusion

This research has produced a teaching material product. Based on the results of the analysis that has been obtained by the researcher, it shows that the interactive story video

with the transportation-developed theme is very suitable to be used as a learning medium to help introduce various types of transportation for children aged 5-6 years. This finding is categorized as valid and practical. Validity is illustrated from the results of the validator's assessment where all validators state that they are based on the content (according to the curriculum for the transportation theme), construct (according to the characteristics of the child's developmental level referring to the 2013 curriculum) and language (in accordance with the applicable language rules, namely enhanced spelling).

It is practically illustrated from the results of field trials where all students can use teaching materials well. Then in the development process, it was found that the interactive story video with the transportation-developed theme was effective in increasing student learning activities. As seen from the results of the analysis, it is in accordance with the assessment indicators for observing student activities. It is also found that the kids participate enthusiastically in using interactive story videos with the transportation theme.

The media that has a clear theme focus, has an attractive appearance and sound that is easily understood by children. It can help increase students' interest and understanding in learning through stories, the messages presented can be in the form of facts (events, important events, news) or fictitious. informative, educative and instructional. In this study, it makes a major contribution to the development of the integrated learning media. For further research, transportation themes can be developed in detail by showing each of transportation so that more diverse understanding is obtained for children aged 5-6 years.

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